SCAG
INNOVATING FOR A BETTER TOMORROW

SOUTHERN CALIFORNIA
ASSOCIATION OF GOVERNMENTS
900 Wilshire Blvd., Ste. 1700
Los Angeles, CA 90017
T: (213) 236-1800
www.scag.ca.gov

HYBRID (IN-PERSON & REMOTE PARTICIPATION) *

TRANSPORTATION COMMITTEE

In-Person & Remote Participation*
Thursday, November 3, 2022
9:30 a.m. – 11:30 a.m.

****Public Participation: The SCAG offices are currently closed to members of the public. Please see next page for detailed instructions on how to participate in the meeting.***

To Attend and Participate on Your Computer:
https://scag.zoom.us/j/253270430

To Attend and Participate by Phone:
Call-in Number: 1-669-900-6833
Meeting ID: 253 270 430

PUBLIC ADVISORY

Given the declared state of emergency (pursuant to State of Emergency Proclamation dated March 4, 2020) and local public health directives imposing and recommending social distancing measures due to the threat of COVID-19, and pursuant to Government Code Section 54953(e)(1)(A), the meeting will be held telephonically and electronically.

If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Maggie Aguilar at (213) 630-1420 or via email at aguilarm@scag.ca.gov. Agendas & Minutes are also available at: www.scag.ca.gov/committees.

SCAG, in accordance with the Americans with Disabilities Act (ADA), will accommodate persons who require a modification of accommodation in order to participate in this meeting. SCAG is also committed to helping people with limited proficiency in the English language access the agency's essential public information and services. You can request such assistance by calling (213) 630-1420. We request at least 72 hours (three days) notice to provide reasonable accommodations and will make every effort to arrange for assistance as soon as possible.

Instructions for Public Comments

You may submit public comments in two (2) ways:

1. **<u>In Writing</u>: Submit written comments via email to: TCPublicComment@scag.ca.gov by 5pm on Wednesday, November 2, 2022.** You are **not** required to submit public comments in writing or in advance of the meeting; this option is offered as a convenience should you desire not to provide comments in real time as described below.

   All written comments received after 5pm on Wednesday, November 2, 2022 will be announced and included as part of the official record of the meeting.

2. **<u>In Real Time</u>:** If participating in real time via Zoom or phone, during the Public Comment Period (Matters Not on the Agenda) or at the time the item on the agenda for which you wish to speak is called, use the "raise hand" function on your computer or *9 by phone and wait for SCAG staff to announce your name/phone number. SCAG staff will unmute your line when it is your turn to speak. Limit oral comments to 3 minutes, or as otherwise directed by the presiding officer. For purpose of providing public comment for items listed on the Consent Calendar, please indicate that you wish to speak when the Consent Calendar is called; items listed on the Consent Calendar will be acted on with one motion and there will be no separate discussion of these items unless a member of the legislative body so requests, in which event, the item will be considered separately.

   If unable to connect by Zoom or phone and you wish to make a comment, you may submit written comments via email to: TCPublicComment@scag.ca.gov.

In accordance with SCAG's Regional Council Policy, Article VI, Section H and California Government Code Section 54957.9, if a SCAG meeting is "willfully interrupted" and the "orderly conduct of the meeting" becomes unfeasible, the presiding officer or the Chair of the legislative body may order the removal of the individuals who are disrupting the meeting.

Instructions for Participating in the Meeting

SCAG is providing multiple options to view or participate in the meeting:

To Participate and Provide Verbal Comments on Your Computer

1. Click the following link: https://scag.zoom.us/j/253270430
2. If Zoom is not already installed on your computer, click "Download & Run Zoom" on the launch page and press "Run" when prompted by your browser. If Zoom has previously been installed on your computer, please allow a few moments for the application to launch automatically.
3. Select "Join Audio via Computer."
4. The virtual conference room will open. If you receive a message reading, "Please wait for the host to start this meeting," simply remain in the room until the meeting begins.
5. During the Public Comment Period, use the "raise hand" function located in the participants' window and wait for SCAG staff to announce your name. SCAG staff will unmute your line when it is your turn to speak. Limit oral comments to 3 minutes, or as otherwise directed by the presiding officer.

To Listen and Provide Verbal Comments by Phone

1. Call **(669) 900-6833** to access the conference room. Given high call volumes recently experienced by Zoom, please continue dialing until you connect successfully.
2. Enter the **Meeting ID: 253 270 430**, followed by **#**.
3. Indicate that you are a participant by pressing **#** to continue.
4. You will hear audio of the meeting in progress. Remain on the line if the meeting has not yet started.
5. During the Public Comment Period, press *9 to add yourself to the queue and wait for SCAG staff to announce your name/phone number. SCAG staff will unmute your line when it is your turn to speak. Limit oral comments to 3 minutes, or as otherwise directed by the presiding officer.

TC - Transportation Committee
Members – November 2022

1. **Hon. Ray Marquez**
   TC Chair, Chino Hills, RC District 10

2. **Hon. Tim Sandoval**
   TC Vice Chair, Pomona, RC District 38

3. **Hon. Phil Bacerra**
   Santa Ana, RC District 16

4. **Hon. Kathryn Barger**
   Los Angeles County

5. **Hon. Elizabeth Becerra**
   Victorville, RC District 65

6. **Hon. Ben Benoit**
   Air District Representative

7. **Hon. Russell Betts**
   Desert Hot Springs, CVAG

8. **Hon. Art Brown**
   Buena Park, RC District 21

9. **Hon. Lorrie Brown**
   Ventura, RC District 47

10. **Hon. Joe Buscaino**
    Los Angeles, RC District 62

11. **Hon. Ross Chun**
    Aliso Viejo, OCCOG

12. **Hon. Denise Diaz**
    South Gate, RC District 25

13. **Sup. Andrew Do**
    Orange County CoC

14. **Hon. Darrell Dorris**
    Lancaster, NCTC

15. **Hon. JJohn Dutrey**
    Montclair, SBCTA

16. **Hon. James Gazeley**
    Lomita, RC District 39

17. **Hon. Jason Gibbs**
    Santa Clarita, NCTC

18. **Hon. Brian Goodell**
    OCTA Representative

19. **Sup. Curt Hagman**
    San Bernardino County

20. **Hon. Ray Hamada**
    Bellflower, RC District 24

21. **Hon. Jan C. Harnik**
    RCTC

22. **Hon. Laura Hernandez**
    Port Hueneme, RC District 45

23. **Hon. Lindsey Horvath**
    West Hollywood, WSCCOG

24. **Hon. Heather Hutt**
    Los Angeles, RC District 57

25. **Hon. Mike Judge**
    VCTC

26. **Hon. Trish Kelley**
    Mission Viejo, OCCOG

27. **Hon. Paul Krekorian**
    RC District 49/Public Transit Rep.

28. **Hon. Linda Krupa**
    Hemet, WRCOG

29. **Hon. Richard Loa**
    Palmdale, NCTC

30. **Hon. Clint Lorimore**
    Eastvale, RC District 4

31. **Hon. Steve Manos**
    Lake Elsinore, RC District 63

32. **Mr. Paul Marquez**
    Caltrans, District 7, Ex-Officio Non-Voting Member

33. **Hon. Larry McCallon**
    Highland, RC District 7

34. **Hon. Marsha McLean**
    Santa Clarita, RC District 67

35. **Hon. L.Dennis Michael**
    Rancho Cucamonga, RC District 9

36. **Hon. Fred Minagar**
    Laguna Niguel, RC District 12

37. **Hon. Carol Moore**
    Laguna Woods, OCCOG

38. **Hon. Ara Najarian**
    Glendale, SFVCOG

39. **Hon. Maria Nava-Froelich**
    ICTC

40. **Hon. Frank Navarro**
    Colton, RC District 6

41. **Hon. Blanca Pacheco**
    Downey, GCCOG

42. **Hon. Jonathan Primuth**
    South Pasadena, AVCJPA

43. **Hon. Ed Reece**
    Claremont, SGVCOG

44. **Hon. Crystal Ruiz**
    San Jacinto, WRCOG

45. **Hon. Ali Saleh**
    Bell, RC District 27

46. **Hon. Rey Santos**
    Beaumont, RC District 3

47. **Hon. Zak Schwank**
    Temecula, RC District 5

48. **Hon. Marty Simonoff**
    Brea, RC District 22

49. **Hon. Jeremy Smith**
    Canyon Lake, Pres. Appt. (Member at Large)

50. **Hon. Ward Smith**
    Placentia, OCCOG

51. **Hon. Jose Luis Solache**
    Lynwood, RC District 26

52. **Sup. Hilda Solis**
    Los Angeles County

53. **Sup. Karen Spiegel**
    Riverside County

54. **Hon. Cynthia Sternquist**
    Temple City, SGVCOG

55. **Hon. Jess Talamantes**
    Burbank, RC District 42

56. **Hon. Steve Tye**
    Diamond Bar, RC District 37

57. **Hon. Michael Vargas**
    Riverside County CoC

58. **Hon. Cheryl Viegas-Walker**
    El Centro, RC District 1

59. **Hon. Scott Voigts**
    Lake Forest, OCCOG

60. **Sup. Donald Wagner**
    Orange County

61. **Hon. Alan Wapner**
    SBCTA

62. **Hon. Alicia Weintraub**
    Calabasas, LVMCOG

TRANSPORTATION COMMITTEE AGENDA

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 – Regional Council Room
Los Angeles, CA 90017
Thursday, November 3, 2022
9:30 AM

The Transportation Committee may consider and act upon any of the items on the agenda regardless of whether they are listed as Information or Action items.

CALL TO ORDER AND PLEDGE OF ALLEGIANCE
(The Honorable Ray Marquez, Chair)

PUBLIC COMMENT PERIOD (Matters Not on the Agenda)
This is the time for persons to comment on any matter pertinent to SCAG's jurisdiction that is ***not*** listed on the agenda. Although the committee may briefly respond to statements or questions, under state law, matters presented under this item cannot be discussed or acted upon at this time. Public comment for items listed on the agenda will be taken separately as further described below.

General information for all public comments: Members of the public are encouraged, but not required, to submit written comments by sending an email to: TCPublicComment@scag.ca.gov by 5pm on Wednesday, November 2, 2022. Such comments will be transmitted to members of the legislative body and posted on SCAG's website prior to the meeting. Any writings or documents provided to a majority of the Transportation Committee regarding any item on this agenda (other than writings legally exempt from public disclosure) are available at the Office of the Clerk, located at 900 Wilshire Blvd., Suite 1700, Los Angeles, CA 90017 during normal business hours and/or by contacting the office by phone, (213) 630-1420, or email to aguilarm@scag.ca.gov. Written comments received after 5pm on Wednesday, November 2, 2022, will be announced and included as part of the official record of the meeting. Members of the public wishing to verbally address the Transportation Committee in real time during the meeting will be allowed up to a total of 3 minutes to speak on items on the agenda, with the presiding officer retaining discretion to adjust time limits as necessary to ensure efficient and orderly conduct of the meeting. The presiding officer has the discretion to equally reduce the time limit of all speakers based upon the number of comments received. If you desire to speak on an item listed on the agenda, please wait for the chair to call the item and then indicate your interest in offering public comment by either using the "raise hand" function on your computer or pressing *9 on your telephone. For purpose of providing public comment for items listed on the Consent Calendar (if there is a Consent Calendar), please indicate that you wish to speak when the Consent Calendar is called; items listed on the Consent Calendar will be acted upon with one motion and there will be no separate discussion of these items unless a member of the legislative body so requests, in which event, the item will be considered separately.

REVIEW AND PRIORITIZE AGENDA ITEMS

CONSENT CALENDAR

Approval Items

1. Minutes of the Meeting – October 6, 2022 PPG. 10

Receive and File

2. Transmittal to South Coast Air Quality Management District of Final 2022 Air Quality Management Plan Appendix IV-C Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures PPG. 20

3. Federal Performance Measures (PM 2/PM 3) Existing Conditions PPG. 109

4. Status Update on Clean Air Act Highway Sanction Clocks in SCAG Region PPG. 137

5. SCAG's Draft Digital Action Plan PPG. 142

6. Pedestrian Safety Month: Highlighting Go Human's 2021 Outcomes PPG. 244

7. Update on Connect SoCal 2024 Financial Plan Development: Operations and Maintenance Policy PPG. 257

8. Local Information Services Team (LIST) Status Update for Connect SoCal 2024 Local Data Exchange (LDX) Process PPG. 263

9. 2022 Racial Equity Baseline Conditions Report Release PPG. 279

ACTION ITEMS

10. Trade Corridor Enhancement Program SCAG Region Project Nominations 20 Mins. PPG. 383
(Scott Strelecki, Program Manager II)

RECOMMENDED ACTION:
Recommend that the Regional Council: 1) approve the SCAG region project nominations seeking Trade Corridor Enhancement Program (TCEP) funding; and 2) authorize SCAG staff to proceed with a TCEP grant application in coordination with Caltrans and TravelCenters of America, upon staff determining (in collaboration with Caltrans) that risk and liability to SCAG can be appropriately mitigated should the grant be awarded.

11. REAP 2021 County Transportation Commission Partnership Program - Guidelines and Call for Projects PPG. 394

(Kate Kigongo, Department Manager, Partnerships for Innovative Deployment) 10 Mins.

RECOMMENDED ACTION FOR TC:
Recommend that the Regional Council: 1) approve and adopt the REAP 2.0 County Transportation Commission Guidelines; 2) authorize SCAG staff to open the CTC Partnership Program Call for Projects, pending HCD approval of SCAG's final REAP 2.0 application; and 3) authorize the SCAG Executive Director or his designee to revise the Guidelines as needed for compliance with the state REAP 2.0 program and/or feedback from the REAP 2.0 program team.

INFORMATION ITEMS

12. State Transportation Funding Overview 60 Mins. PPG. 419

(Steven Keck, Chief Financial Officer, Caltrans; and Lauren Prehoda, Road Charge Program Manager Caltrans)

CHAIR'S REPORT
(The Honorable Ray Marquez, Chair)

METROLINK REPORT
(The Honorable Art Brown, SCAG Representative)

STAFF REPORT
(David Salgado, Regional Affairs Officer, SCAG Staff)

FUTURE AGENDA ITEMS

ANNOUNCEMENTS

ADJOURNMENT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 – Regional Council Room
Los Angeles, CA 90017
November 3, 2022

MINUTES OF THE REGULAR MEETING
TRANSPORTATION COMMITTEE (TC)
THURSDAY, OCTOBER 6, 2022

THE FOLLOWING MINUTES IS A SUMMARY OF ACTIONS TAKEN BY THE TRANSPORTATION COMMITTEE (TC). A VIDEO AND AUDIO RECORDING OF THE ACTUAL MEETING IS AVAILABLE AT: http://scag.iqm2.com/Citizens/

The Transportation Committee (TC) of the Southern California Association of Governments (SCAG) held its regular meeting virtually (telephonically and electronically), given the declared state of emergency (pursuant to State of Emergency Proclamation dated March 4, 2020) and local public health directives imposing and recommending social distancing measures due to the threat of COVID-19, and pursuant to Government Code Section 54953(e)(1)(A). A quorum was present.

Members Present:

Hon.	Phil Bacerra, Santa Ana	District 16
Hon.	Kathryn Barger	Los Angeles County
Hon.	Liz Becerra, Victorville	District 65
Hon.	Ben Benoit, Wildomar	South Coast AQMD
Hon.	Russel Betts, Desert Hot Springs	CVAG
Hon.	Art Brown, OCCOG	District 21
Hon.	Lorrie Brown	District 47
Hon.	Ross Chun, Aliso Viejo	OCCOG
Hon.	Andrew Do	Orange County
Hon.	Darrell Dorris	Lancaster, NCTC
Hon.	John Dutrey, Montclair	SBCTA
Hon.	James Gazeley, Lomita	District 39
Hon.	Jason Gibbs, Santa Clarita	NCTC
Hon.	Brian Goodell, Mission Viejo	OCTA
Hon.	Curt Hagman	San Bernardino County
Hon.	Ray Hamada, Bellflower	District 24
Hon.	Jan Harnik, Palm Desert	RCTC
Hon.	Lindsey Horvath	WSCCOG
Hon.	Mike T. Judge, Simi Valley	VCTC
Hon.	Trish Kelley, Mission Viejo	OCCOG
Hon.	Linda Krupa, Hemet	WRCOG

Hon.	Richard Loa, Palmdale	NCTC
Hon.	Clint Lorimore, Eastvale	District 4
Hon.	Ray Marquez, Chino Hills **(Chair)**	District 10
Hon.	Larry McCallon, SBCTA	District 7
Hon.	Marsha McLean, NLAC	District 67
Hon.	L. Dennis Michael	District 9
Hon.	Fred Minagar, Laguna Niguel	District 12
Hon.	Maria Nava-Froelich	ICTC
Hon.	Frank Navarro, Colton	District 6
Hon.	Ed Reece	SGVCOG
Hon.	Crystal Ruiz, San Jacinto	WRCOG
Hon.	Ali Saleh, Bell	District 27
Hon.	Tim Sandoval, Pomona **(Vice Chair)**	District 38
Hon.	Rey Santos, Beaumont	District 3
Hon.	Marty Simonoff, Brea	District 22
Hon.	Jeremy Smith, Canyon Lake	Canyon Lake
Hon.	Ward Smith, Placentia	OCCOG
Hon.	Jose Luis Solache, Lynwood	District 26
Hon.	Karen Spiegel	Riverside County
Hon.	Cynthia Sternquist, Temple City	SGVCOG
Hon.	Steve Tye	District 37
Hon.	Michael Vargas	Riverside County
Hon.	Cheryl Viegas-Walker, El Centro	District 1
Hon.	Scott Voigts, Lake Forest	OCCOG
Hon.	Don Wagner	Orange County
Hon.	Alan Wapner, Ontario	SBCTA/SBCOG
Hon.	Alicia Weintraub, Calabasas	LVMCOG
Mr.	Paul Marquez, Caltrans District 7	Ex-Officio Member

Members Not Present:

Hon.	Joe Buscaino, Los Angeles	District 62
Hon.	Denise Diaz, Southgate	District 25
Hon.	Laura Hernandez, Port Hueneme	District 45
Hon.	Heather Hutt, Los Angeles	District 57
Hon.	Paul Krekorian	District 49
Hon.	Steve Manos, Lake Elsinore	District 63
Hon.	Carol Moore, Laguna Woods	OCCOG
Hon.	Ara Najarian, Glendale	AVCJPA
Hon.	Blanca Pacheco	GCCOG
Hon.	Jon Primuth, S. Pasadena	AVCJPA

Hon.	Zak Schwank, Temecula	District 5
Hon.	Hilda Solis	Los Angeles County
Hon.	Jess Talamantes, Arroyo Verdugo Cities	District 42

CALL TO ORDER & PLEDGE OF ALLEGIANCE

Chair Ray Marquez, SBCTA/SBCCOG, District 10, called the meeting to order at 9:30 a.m. David Salgado, SCAG staff, led the Pledge of Allegiance. A quorum was present.

PUBLIC COMMENT

Chair Marquez opened the Public Comment Period and outlined instructions for public comments. He noted this was the time for persons to comment on any matter pertinent to SCAG's jurisdiction that were not listed on the agenda. He reminded the public to submit comments via email to TCPublicComment@scag.ca.gov. Ruben Duran, Committee Counsel, acknowledged there were no public comments received by email before or after the deadline.

Seeing no public comment speakers, Chair Marquez closed the Public Comment Period.

REVIEW AND PRIORITIZE AGENDA ITEMS

There were no requests to prioritize agenda items.

CONSENT CALENDAR

Chair Marquez opened the Public Comment Period.

Seeing no public comment speakers, Chair Marquez closed the Public Comment Period.

Approval Items

1. Minutes of the Meeting, September 1, 2022

Receive and File

2. Request to Release Connect SoCal 2024 PEIR Notice of Preparation

3. Resolution 22-647-6 Acceptance of Office of Traffic Safety Grant Funds to Support the Active Transportation Safety and Encouragement Campaign

4. Lithium-Ion Battery Reuse, Recycling and Safe Disposal - Findings from the CA Lithium-Ion Battery Recycling Advisory Group

5. Statewide Active Transportation Database Update

6. Trade Corridor Enhancement Program

7. SCAG Water Action Resolution

A MOTION was made (Becerra) to approve Consent Calendar Item 1; and Receive and File Items 2 through 7. The motion was SECONDED (Michael) and passed by the following roll call votes.

AYES: BACERRA, BARGER, BECERRA, BENOIT, BETTS, BROWN A., BROWN L. CHUN, DO, DUTREY, GAZELEY, GIBBS, HAGMAN, HAMADA, HARNIK, HORVATH, JUDGE, KELLEY, KRUPA, LOA, LORIMORE, MARQUEZ, MCCALLON, MCLEAN, MICHAEL, MINAGAR, NAVA-FROELICH, NAVARRO, REECE, RUIZ, SALEH, SANDOVAL, SANTOS, SIMONOFF, SMITH J., SMITH W., SOLACHE, SPIEGEL, TYE, VARGAS, VIEGAS-WALKER, VOIGTS, WAGNER, WAPNER, WEINTRAUB (45)

NOES: NONE (0)

ABSTAIN: NONE (0)

INFORMATION ITEMS

8. Achieving Zero Emissions for Commercial Fleets: An Overview by Nikola Corporation

Chair Marquez opened the Public Comment Period.

Seeing no public comment speakers, Chair Marquez closed the Public Comment Period.

Annie Nam, SCAG staff, provided introductory comments noting that this item is presented in response to the committee's request to explore zero emissions technology in freight transport. Omar Gonzalez, Public Affairs, Nikola, presented an overview of zero-emissions commercial fleets. He stated Nikola is a manufacturer and designer of both battery electric and hydrogen fuel cell electric Class 8 semi-trucks. The company was founded in 2015 and has greater than 1,000 employees with a view toward developing the infrastructure to advance hydrogen fuel cell technology. Bill Cherry, Dealer Administration, continued the presentation with an overview of their dealer and service network. Mr. Cherry reviewed their truck models including cab over design which is gaining interest for local delivery use. Further, it is anticipated the zero emission truck

design will be safer, with reduced noise and a lower center of gravity. He noted 300 trucks will be produced in 2022 and fuel cell trucks can travel 500 miles before refueling and future models will travel 900 miles. He reviewed the refueling process.

He noted one of the greatest challenges will be developing the infrastructure and stakeholders can assist by streamlining permitting. Ryan McGeachie**,** Global Head of Energy Infrastructure, reviewed the fueling stations noting 40 – 50 refueling stations are planned for the state in near term.

Hon. Cheryl Viegas-Walker, ICTC, District 1, asked about trucks which may cross state or international borders. Mr. Cherry responded that efforts are being developed around the Otay Mesa border crossing and cross border travels is being considered.

Hon. Liz Becerra, SBCTA/SBCOG, asked about battery life. Mr. Cherry, responded that batteries have a 7-year useful life. After its charging capacity is diminished it can be used as battery storage for several years after.

9. Update on Connect SoCal 2024 Financial Plan Development: Core Revenues

Chair Marquez opened the Public Comment Period.

Seeing no public comment speakers, Chair Marquez closed the Public Comment Period.

Warren Whiteaker, SCAG staff, provided an update on Connect SoCal 2024 Financial Plan Development. Mr. Whiteaker stated the financial plan must estimate funding over a 20-year life of Connect SoCal and recommend improvements to operate and maintain the transportation system. Revenue sources ought to be reasonably available and sources ought to be equal to costs. He further noted that transportation sales tax is the largest single source of revenue which can be affected by changes in consumer spending. Further, fuel tax revenue is expected to decline as vehicles achieve greater gas mileage. He reviewed the core revenue forecast which include local, state and federal sources. Key changes since the 2020 plan forecast were reviewed as well as the range of revenue available for Connect SoCal 2024. Mr. Whiteaker stated the committee will be updated throughout the plan development process and the next presentation will examine operations and maintenance costs.

10. Curb Space Management Study Final Report

Chair Marquez opened the Public Comment Period.

Seeing no public comment speakers, Chair Marquez closed the Public Comment Period.

Prithvi Deore, SCAG staff, introduced the Curb space Management Final Report. She noted the purpose of the study is to take a comprehensive, multimodal review of congested and complicated curb space locations. Peter Richards, IBI Group, continued the report and noted objectives include providing various curb space management strategies and recommendations for the regional cities examined. Also, to develop a work plan for multiple pilot project concepts and/or analysis plans for pilot projects currently underway. Specific goals include achieving reductions in vehicle miles travelled, GHG emissions, reduce congestion and improve quality of life. He next reviewed stakeholder engagement and outreach including a Regional Working Group. Curb site selection and criteria was reviewed.

Mr. Richards noted data finding indicate that parking occupancy rates are generally within the optimal range of 80% and there is a need for both short and long-term parking. Loading activity often occurs in no-parking zones and double-parking blocks bike lanes. In addition, vehicles will queue in traffic while waiting for a parked vehicle to leave. He reviewed next steps including providing cities with tools for success in curbside management and design and to seek funding support through SCAG's Sustainable Communities Program and Last Mile Freight Program grants.

11. Future Communities Pilot Program Update

Chair Marquez opened the Public Comment Period.

Seeing no public comment speakers, Chair Marquez closed the Public Comment Period.

Marisa Laderach, SCAG staff, provided an update on Future Communities Pilot Program. Ms. Laderach stated in 2017 SCAG outlined the Future Communities Framework which advances its role as a leader in smart cities efforts. She noted the program has a value of $4 million with $3 million in grant funding with a goal to bring forth new technologies and data analytics to reduce vehicle miles travelled and GHG. Ms. Laderach reviewed the rideshare, bikeshare and parking pilots including work with the City of Anaheim that integrates real-time parking guidance through current mobile applications to reduce vehicle circling. Another pilot works with the City of Los Angeles utilizing the BlueLA Electric Carshare to develop strategies.

She reviewed San Bernardino County's online warrant program's success in reducing vehicle miles travelled. A similar result was seen for Riverside's Integrated Electronic Plans Solution pilot. Other pilot efforts in Glendale and Monrovia were also detailed. She noted future updates will be provided to the committee as other Future Communities pilots continue.

12. REAP 2021 County Transportation Commission Partnership Program Guidelines

Chair Marquez opened the Public Comment Period.

Seeing no public comment speakers, Chair Marquez closed the Public Comment Period.

Kate Kigongo, SCAG staff, reported on REAP 2021 CTC Partnership Program Guidelines. Ms. Kigongo stated Regional Early Action Planning (REAP) is a $600 million state grant program and SCAG's regional share is $246 million. REAP objectives include promoting infill housing development, reduce vehicle miles travelled and affirmatively further fair housing. Two transportation programs have been developed. The first is a county transportation commission partnership program funded at $80 million on a competitive call for projects basis consistent with Key Connection strategies in Connect SoCal. The second is the Regional Pilot Initiatives (RPI) Program, a $15 million transformative regional program to finance innovative pilot projects region wide. She noted that call for projects will begin in 2023 and projects are to conclude in 2026.

CHAIR'S REPORT

Hon. Ray Marquez, SBCTA/SBCCOG, District 10, reported that as public safety concerns diminish preparations are being made to prepare for additional in-person meeting including welcoming members of the public. Mr. Marquez also welcomed new member, Heather Hutt, City of Los Angeles, District 57.

METROLINK REPORT

Hon. Art Brown, OCCOG, District 21 reported OCTA approved emergency repairs to the closed section of unstable track in San Clemente to enable train service to resume in November. After temporary slope anchoring is installed, permanent anchoring will be placed beginning in January 2023. Metrolink has suspended the Orange County Line and Inland Empire-Orange County Line service between Laguna Niguel/Mission Viejo Station and Oceanside beginning September 30 until further notice. Pacific Surfliner has cancelled some trains south of Irvine and is providing a bus bridge from Irvine to Oceanside.

Additionally, in celebration of its upcoming 30th anniversary, on October 26th, Metrolink will offer a 30% discount on its Monthly Passes. The 30% discount is open to all Metrolink riders for three months – October, November and December 2022 – and is automatically applied at purchase. Since September 1st, Metrolink passengers with a California Electronic Benefit Transfer (EBT) card have been eligible for a 50% discount on all Metrolink tickets and passes. Riders can use their EBT card at any Metrolink station ticket machine to validate and unlock the discount.

STAFF REPORT

David Salgado, SCAG staff, reported the 33rd Demographic Workshop was well attended, and all programmatic materials are available on SCAG's website. Also, the Southern California Economic Summit will be Thursday, December 1, 2022 at the Sheraton Grand Hotel and early registration is available.

FUTURE AGENDA ITEMS

There were no future agenda items requested.

ADJOURNMENT

There being no further business, Chair Marquez adjourned the Transportation Committee meeting at 11:16 a.m.

[MINUTES ARE UNOFFICIAL UNTIL APPROVED BY THE TRANSPORTATION COMMITTEE]
//

MEMBERS	CITY	Representing	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
Bacerra, Phil	Santa Ana	District 16	1	1		1	1					
Barger, Kathryn		Los Angeles County	1			1	1					
Becerra, Liz	Victorville	District 65	1	1		1	1					
Benoit, Ben		South Coast AQMD	1	1		1	1					
Betts, Russell	Desert Hot Springs	CVAG	1	1		1	1					
Brown, Art	Buena Park	District 21	1	1		1	1					
Brown, Lorrie	Ventura	District 47	1	1			1					
Buscaino, Joe	Los Angeles	District 62										
Chun, Ross	Aliso Viejo	OCTA		1		1	1					
Diaz, Denise	Southgate	District 25	1	1		1						
Do, Andrew		Orange County	1	1		1	1					
Dorris, Darrell	Lancaster	NCTC	1	1		1	1					
Dutrey, J. John	Montclair	SBCTA	1	1		1	1					
Gazeley, James	Lomita	District 39	1	1		1	1					
Gibbs, Jason	Santa Clarita	NCTC	1	1			1					
Goodell, Brian	Mission Viejo	OCTA	1	1		1	1					
Hagman, Curt		San Bernardino Cnty	1	1		1	1					
Hamada, Ray	Bellflower	Bellflower	1	1		1	1					
Harnik, Jan	Palm Desert	RCTC	1	1		1	1					
Hernandez, Laura	Prt Hueneme	District 45		1								
Horvath, Lindsey	West Hollywood	WSCCOG	1			1	1					
Hutt, Heather	Los Angeles	District 57										
Judge, Mike	Simi Valley	VCTC	1	1		1	1					
Kelley, Trish	Mission Viejo	OCCOG	1	1		1	1					
Krekorian, Paul	Public Transit Rep	District 49										
Krupa, Linda	Hemet	WRCOG	1	1		1	1					
Loa, Richard	Palmdale	NCTC		1		1	1					
Lorimore, Clint	Eastvale	District 4	1	1		1	1					
Manos, Steve	Lake Elsinore	District 63	1	1								
Marquez, Paul	Caltrans District 7	Ex-Officio	1			1	1					
Marquez, Ray	Chino Hills	District 10	1	1		1	1					
McCallon, Larry	SBCTA/SBCCOG	District 7	1	1		1	1					
McLean, Marsha	No. L.A. County	District 67	1	1		1	1					
Michael, L. Dennis	Rancho Cucamonga	District 9	1	1		1	1					
Minagar, Fred	Laguna Niguel	District 12	1	1		1	1					
Moore, Carol	Laguna Woods	OCCOG	1	1		1						
Najarian, Ara	Glendale	AVCJPA	1			1						
Nava-Froelich, Maria		ICTC	1	1		1	1					
Navarro, Frank	Colton	District 6	1	1		1	1					
Pacheco, Blanca	Downey	GCCOG										
Primuth, Jon	S. Pasadena	AVCJPA	1	1								
Reece, Ed	Claremont	SGVCOG	1	1		1	1					
Ruiz, Crystal	San Jacinto	WRCOG	1	1			1					
Saleh, Ali	City of Bell	GCCOG	1	1		1	1					
Sandoval, Tim	Pomona	District 38	1	1			1					
Santos, Rey	Beaumont	District 3	1	1		1	1					
Schwank, Zak	Temecula	District 5		1								
Simonoff, Marty	Brea	District 22	1	1		1	1					
Smith, Jeremy	Canyon Lake	Canyon Lake		1		1	1					

Smith, Ward	Placentia	OCCOG		1		1	1						
Solache, Jose Luis	Lynwood	District 26	1	1		1	1						
Solis, Hilda		Los Angeles County											
Spiegel, Karen		Riverside County		1		1	1						
Sternquist, Cynthia	Temple City	SGVCOG	1	1			1						
Talamantes, Jess	Burbank	AVCJPA	1	1		1							
Tye, Steve	Diamond Bar	District 37		1			1						
Vargas, Michael		Riverside County	1	1		1	1						
Viegas-Walker, Cheryl	El Centro	District 1	1			1	1						
Voigts, Scott	Lake Forest	Orange County		1		1	1						
Wagner, Don	Orange County	Orange County	1	1			1						
Wapner, Alan		SBCTA	1	1		1	1						
Weintraub, Alicia	Calabasas	LVMCOG	1			1	1						

AGENDA ITEM 2

REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 – Regional Council Room
Los Angeles, CA 90017
November 3, 2022

To: Community Economic & Human Development Committee (CEHD)
Energy & Environment Committee (EEC)
Transportation Committee (TC)
Regional Council (RC)

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

From: Rongsheng Luo, Program Manager II
(213) 236-1994, luo@scag.ca.gov

Subject: Transmittal to South Coast Air Quality Management District of Final 2022 Air Quality Management Plan Appendix IV-C Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures

RECOMMENDED ACTION FOR EEC:
Recommend that the Regional Council (RC) adopt Resolution No. 22-648-2 approving transmittal of the Final 2022 Air Quality Management Plan Appendix IV-C Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures to the South Coast Air Quality Management District, subject to final public comments.

RECOMMENDED ACTION FOR RC:
Adopt Resolution No. 22-648-2 approving transmittal of the Final 2022 Air Quality Management Plan Appendix IV-C Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures to the South Coast Air Quality Management District, subject to final public comments.

RECOMMENDED ACTION FOR CEHD AND TC:
Receive and File

STRATEGIC PLAN:
This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians.

EXECUTIVE SUMMARY:
Pursuant to the California Health and Safety Code, SCAG is responsible for preparing a portion of the Air Quality Management Plan (AQMP) for the South Coast Air Basin relating to the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and transportation control measures (TCMs), which is commonly known as "Appendix IV-C" of the AQMP. The 2022 AQMP Appendix IV-C contains the key policies and strategies of the adopted Connect SoCal (2020

RTP/SCS) as well as a review of reasonably available TCMs. At its meeting on February 3, 2022, the Regional Council (RC) approved transmittal of the Draft Appendix IV-C to the South Coast Air Quality Management District (AQMD) for inclusion in the Draft 2022 AQMP, as recommended by the EEC at its meeting on January 6, 2022. The Draft Appendix IV-C was subsequently released for public review and comment as part of the Draft 2022 AQMP from May 6 through July 22, 2022. No public comments were received on the Draft Appendix IV-C. Appendix IV-C was then released for a second round of public review as part of the Revised Draft 2022 AQMP on September 2, 2022. This second public review and comment period concluded on October 18, 2022. Any comments received will be responded to and/or incorporated into the draft Final Appendix IV-C, as appropriate, as part of the draft Final 2022 AQMP. The South Coast AQMD will release the draft Final 2022 AQMP in mid-November 2022 and conduct the final public hearing on December 2, 2022. Any additional public comments received on the Appendix IV-C will be responded to and/or incorporated into the Final Appendix IV-C, as appropriate.

Appendix IV-C must be transmitted to the South Coast AQMD prior to the South Coast AQMD Governing Board's adoption scheduled on December 2, 2022. Since there will be no EEC and RC meetings in December due to SCAG's 13th Annual Southern California Economic Summit, staff is seeking the EEC's recommendation that the RC approve this document and RC's approval of Appendix IV-C on the same day today. This will facilitate staff transmitting the proposed Final Appendix IV-C to the South Coast AQMD for inclusion in the Final 2022 AQMP, subject to final public comments on the Appendix IV-C.

BACKGROUND:

Pursuant to the Federal Clean Air Act (CAA), the 2022 AQMP is being prepared primarily to attain the federal 2015 8-hour ozone national ambient air quality standard in the South Coast Air Basin. As required by state law, the 2022 AQMP is jointly prepared by three responsible agencies to integrate their respective comprehensive control strategies and measures: the South Coast Air Quality Management District (South Coast AQMD), the lead agency, the California Air Resources Board (ARB), and SCAG.

The 2022 AQMP incorporates significant new scientific data, emissions inventories, ambient measurements, and air quality models. It pursues zero emissions technologies where feasible, includes "black box" measure to include the development and deployment of future technologies, and highlights a need for significant federal action to meet the federal ozone standard.

The 2022 AQMP includes an important component relevant to regional transportation planning and federal transportation conformity requirements, the motor vehicle emissions budgets, which set an upper limit for emissions from on-road transportation activities. Upon approval by the U.S. Environmental Protection Agency (EPA), the emission budgets established as part of the 2022 AQMP process and adopted in the final State Implementation Plan (SIP) will become the functioning

emission budgets for transportation conformity for the South Coast region for future regional transportation plans, federal transportation improvement programs, and amendments or updates to such plans/programs.

SCAG's role in the 2022 AQMP development process includes providing the socio-economic growth forecast and regional transportation demand model output data to the South Coast AQMD for use in estimating and forecasting emission inventories and airshed modeling; and vehicle activity data to the ARB for use in developing on-road emissions. SCAG has provided this data to the respective agencies. In addition to the technical data, SCAG is also responsible for writing a portion of the 2022 AQMP on the region's RTP/SCS and TCMs as they relate to air quality. The document, commonly referred to as "Appendix IV-C," primarily includes an overview of the adopted Connect SoCal (2020 RTP/SCS); a list of committed TCMs in the South Coast Air Basin that are federally enforceable and subject to timely implementation; and, pursuant to Clean Air Act requirements, an analysis of reasonably available TCMs. The Executive Summary of the Proposed Final Appendix IV-C is attached to this staff report.

At its meeting on January 6, 2022, the EEC approved staff recommendation that the RC approve the transmittal of the Draft Appendix IV-C to the South Coast AQMD for inclusion in the Draft 2022 AQMP. As approved by the RC on February 3, 2022, the Draft Appendix IV-C was transmitted to the South Coast AQMD for inclusion in the Draft 2022 AQMP. Subsequently, the Draft Appendix IV-C was released for public review as part of the Draft 2022 AQMP on May 6, 2022. Public review concluded on July 22, 2022. No public comments were received on the Draft Appendix IV-C. The South Coast AQMD released the Revised Draft 2022 AQMP, including Appendix IV-C, for a second public review and comment period on September 2, 2022. This second public review and comment period concluded on October 18, 2022. Any comments received will be responded to and/or incorporated into the draft Final Appendix IV-C as appropriate as part of the draft Final 2022 AQMP. The South Coast AQMD will release the draft Final 2022 AQMP in mid-November 2022 and conduct the final public hearing on December 2, 2022. Any additional public comments received up to and/or during the South Coast AQMD's final public hearing will be responded to and/or incorporated into the Final Appendix IV-C as appropriate.

The Final Appendix IV-C must be transmitted to the South Coast AQMD prior to the South Coast AQMD Governing Board's adoption on December 2, 2022. Since the second public review and comment period for the Revised Draft 2022 AQMP closed in mid-October after the last EEC meeting on October 6, 2022, and SCAG's 13th Annual Economic Summit replaces the regular December meetings of the EEC and the RC, the proposed Final Appendix IV-C is being presented to the EEC and the RC on the same day today, so that the EEC can consider recommending approval and so the RC may consider approval (and the EEC's recommendation), subject to any final public comments on the Appendix IV-C.

Upon adoption by the RC, the Final Appendix IV-C will be transmitted to the South Coast AQMD for inclusion into the Final 2022 AQMP. The South Coast AQMD Governing Board is scheduled to hold a public hearing on the adoption of the Final 2022 AQMP on December 2, 2022. Upon adoption by the South Coast AQMD Governing Board, the Final 2022 AQMP, including the Appendix IV-C, will be submitted to the ARB which will in turn submit it to the EPA for final review and approval.

Staff is coordinating with South Coast AQMD staff to present the Final 2022 AQMP to the RC at its regular meeting on January 5, 2023.

Note that additional air quality plans are also being developed by the other local air districts within the SCAG region in collaboration with ARB. Staff has been closely participating in and monitoring these air quality planning efforts and will report on any significant issues to EEC as appropriate.

FISCAL IMPACT:
Work associated with this item is included in the Fiscal Year 2022-2023 Overall Work Program (23-025.0164.01: Air Quality and Conformity).

ATTACHMENT(S):
1. Resolution No. 22-648-2 - SCAG Approving Transmittal of Final 2022 AQMP Appendix IV-C
2. Exhibit A Executive Summary of Proposed Final 2022 AQMP Appendix IV-C

SCAG
INNOVATING FOR A BETTER TOMORROW

SOUTHERN CALIFORNIA
ASSOCIATION OF GOVERNMENTS
900 Wilshire Blvd., Ste. 1700
Los Angeles, CA 90017
T: (213) 236-1800
www.scag.ca.gov

RESOLUTION NO. 22-648-2

A RESOLUTION OF THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS APPROVING TRANSMITTAL TO THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT OF THE FINAL 2022 AIR QUALITY MANAGEMENT PLAN APPENDIX IV-C REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY AND TRANSPORTATION CONTROL MEASURES

WHEREAS, Section 110(a) of the Federal Clean Air Act (42 U.S.C. Section 7410(a)) and federal regulations at 40 C.F.R. Section 52.220 et seq. require each state to adopt a plan known as the State Implementation Plan (SIP) for implementation, maintenance and enforcement of primary and secondary national ambient air quality standards in each air quality control region of the state; and

WHEREAS, the 2015 8-hour ozone national ambient air quality standards (NAAQS) of 70 parts per billion (ppb) became effective on December 28, 2015; and

WHEREAS, the South Coast Air Basin and the Coachella Valley are designated as nonattainment areas for the 2015 8-hour ozone NAAQS and are required to attain the 2015 8-hour ozone NAAQS in 2037 and 2033 respectively; and

WHEREAS, the 2015 8-hour ozone NAAQS is the most stringent federal ozone standard to date; and

WHEREAS, the 2022 Air Quality Management Plan (AQMP) is prepared primarily to address the 2015 8-hour ozone NAAQS and to satisfy the planning requirements of the federal Clean Air Act for the South Coast Air Basin and the Coachella Valley; and

WHEREAS, the 2022 AQMP is prepared jointly by the South Coast Air Quality Management District (AQMD) (the lead agency), the California Air Resources Board (CARB), and the Southern California Association of Governments (SCAG);

WHEREAS, SCAG is responsible, pursuant to Section 40460(b) of the California Health and Safety Code, for preparing and approving, those portions of the 2022 AQMP for the South Coast Air Basin, which relate to regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures and strategies; and

WHEREAS, SCAG is also required, pursuant to Section 40460(b) of the California Health and Safety Code, to analyze and provide emissions data related to its planning responsibilities; and

WHEREAS, pursuant to this authority, SCAG prepared the "Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures" as they relate to air quality, to be included as Appendix IV-C to the 2022 AQMP, and attached herein as Exhibit "A" (hereinafter referred to as "Appendix IV-C"). Specifically, Appendix IV-C provides an overview of Connect SoCal [(the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS)]; a list of committed Transportation Control Measures (TCMs); and pursuant to federal Clean Air Act requirements, a reasonably available control measures (RACM) analysis of transportation control measures (TCMs); and

WHEREAS, Appendix IV-C was developed in consultation with Federal, State and local transportation and air quality planning agencies and other stakeholders, including the four county transportation commissions in the South Coast Air Basin, namely, Los Angeles County Metropolitan Transportation Authority, the Riverside County Transportation Commission, the Orange County Transportation Authority and the San Bernardino County Transportation Authority; and

WHEREAS, in accordance with the approval of SCAG's Regional Council on February 3, 2022, a draft of Appendix IV-C was transmitted to the South Coast AQMD and released for public review and comment as part of the release of the Draft 2022 AQMP. The public comment period concluded on July 22, 2022, and no public comments on the draft of Appendix IV-C were received; and

WHEREAS, the South Coast AQMD released for public review a Revised Draft 2022 AQMP on September 2, 2022. While there are no changes to Appendix IV-C as part of the Revised Draft 2022 AQMP, Appendix IV-C was released for a second round of public review as part of the release of the Revised Draft 2022 AQMP on September 2, 2022; and

WHEREAS, the public review and comment period for the Revised Draft 2022 AQMP concluded on October 18, 2022. Any comments received will be responded to and/or will be incorporated into the draft Final Appendix IV-C as appropriate as part of the draft Final 2022 AQMP.

WHERES, the South Coast AQMD will release the draft Final 2022 AQMP in mid-November 2022 and conduct the final public hearing on December 2, 2022. Additional comments received up to and/or during the South Coast AQMD's final public hearing will be responded to and/or will be incorporated into the Final Appendix IV-C as appropriate as part of the Final 2022 AQMP.

NOW, THEREFORE, BE IT RESOLVED, by the Regional Council of the Southern California Association of Governments as follows:

1. Subject to final public comments on the 2022 AQMP Appendix IV-C, the Regional Council hereby approves and transmits to the South Coast AQMD of the 2022 AQMP Appendix IV-C, attached hereto as Exhibit A.

2. The Regional Council hereby directs that if final public comments on the Appendix IV-C are received up to and/or during the South Coast AQMD's final public hearing, staff is authorized to appropriately respond to and/or include as part of the Final Appendix IV-C to be transmitted to the South Coast AQMD.

PASSED, APPROVED AND ADOPTED by the Regional Council of the Southern California Association of Governments at its regular meeting this 3rd day of November, 2022.

_____
Jan C. Harnik
President, SCAG
Riverside County Transportation Commission

Attested by:

_____
Kome Ajise
Executive Director

Approved as to Form:

_____
Michael R.W. Houston
Chief Counsel

FINAL 2022 Air Quality Management Plan (AQMP) APPENDIX IV-C

Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures

November 2022

SCAG MISSION STATEMENT

Under the guidance of the Regional Council and in collaboration with our partners, our mission is to foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.

SCAG REGIONAL COUNCIL

OFFICERS

President
Hon. Jan C. Harnik, Riverside County Transportation Commission

First Vice President
Hon. Art Brown, Buena Park

Second Vice President
Hon. Curt Hagman, County of San Bernardino

Immediate Past President
Hon. Clint Lorimore, Eastvale

MEMBERS

Imperial County
Hon. Maria Nava-Froelich
Hon. Luis Plancarte
Hon. Cheryl Viegas-Walker

Los Angeles County
Hon. Cindy Allen
Hon. Adele Andrade-Stadler
Hon. Kathryn Barger
Hon. Bob Blumenfield
Hon. Mike Bonin
Hon. Gary Boyer
Hon. Drew Boyles
Hon. Joe Buscaino
Hon. Juan Carrillo
Hon. Gilbert Cedillo
Hon. Margaret Clark
Hon. Kevin de Leon
Hon. Steve De Ruse
Hon. Denise Diaz
Hon. Keith Eich
Hon. Margaret E. Finlay
Hon. Alex Fisch
Hon. Eric Garcetti
Hon. James Gazeley
Hon. Ray Hamada
Hon. Marqueece Harris-Dawson
Hon. Mark E. Henderson
Hon. Heather Hutt
Hon. Paul Koretz
Hon. Paul Krekorian
Hon. John Lee
Hon. Marsha McLean
Hon. Mitch O'Farrell
Hon. Curren D. Price, Jr.
Hon. Nithya Raman
Hon. Rex Richardson
Hon. Monica Rodriguez
Hon. Ali Saleh
Hon. Tim Sandoval
Hon. David J. Shapiro
Hon. José Luis Solache
Hon. Hilda Solis
Hon. Jess Talamantes
Hon. Steve Tye
Hon. Frank Aurelio Yokoyama

Orange County
Hon. Phil Bacerra
Hon. Arthur C. Brown
Hon. Wendy Bucknum
Hon. Letitia Clark
Hon. Diane B. Dixon
Hon. Brian Goodell
Hon. Peggy Huang
Hon. Joe Kalmick
Hon. Tammy Kim
Hon. Fred Minagar
Hon. Kim B. Nguyen
Hon. Trevor O'Neil
Hon. Mike Posey
Hon. Marty Simonoff
Hon. Donald P. Wagner

Riverside County
Hon. Megan Beaman Jacinto
Hon. Ben Benoit
Hon. Jan C. Harnik
Hon. Kathleen Kelly
Hon. Patricia Lock Dawson
Hon. Clint Lorimore
Hon. Steve Manos
Hon. Marisela Nava
Hon. Rey SJ Santos
Hon. Zak Schwank
Hon. Karen Spiegel

San Bernardino County
Hon. Elizabeth Becerra
Hon. Curt Hagman
Hon. Ray Marquez
Hon. Larry McCallon
Hon. L. Dennis Michael
Hon. Frank J. Navarro
Hon. Randall Putz
Hon. Deborah Robertson
Hon. Alan D. Wapner

Ventura County
Hon. Claudia Bill-de la Pena
Hon. Lorrie Brown
Hon. Laura Hernandez
Hon. Mike T. Judge

Tribal Government Representative
Hon. Andrew Masiel, Sr.

Business Representative
Ms. Lucy Dunn

Executive Summary

This Appendix IV-C (Appendix or Appendix IV-C throughout) describes the Southern California Association of Government's (SCAG) Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures (TCMs) to address the 2015 8-hour ozone standards in the South Coast Air Basin as part of South Coast Air Quality Management District's (South Coast AQMD) Final 2022 Air Quality Management Plan (AQMP). This Appendix IV-C is based on SCAG's Final 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS, also known as Connect SoCal) and 2021 Federal Transportation Improvement Program (FTIP), as amended. The RTP/SCS and FTIP were developed in consultation with federal, state and local transportation and air quality planning agencies and other stakeholders. The four County Transportation Commissions (CTCs) in the South Coast Air Basin, namely Los Angeles County Metropolitan Transportation Authority, Riverside County Transportation Commission, Orange County Transportation Authority and the San Bernardino County Transportation Authority, were actively involved in the development of the regional transportation measures of this Appendix.

This Appendix consists of the following three Sections.

Section I. Introduction

As required by federal and state laws, SCAG is responsible for ensuring that the regional transportation plan, program, and projects are supportive of the goals and objectives of applicable AQMPs and State Implementation Plans (AQMPs/SIPs). SCAG is also required to develop demographic projections and regional transportation strategy and control measures for the South Coast AQMD's AQMP/SIP.

As the Metropolitan Planning Organization (MPO) for the six county region comprising SCAG's jurisdiction, SCAG is obligated to develop an RTP/SCS every four years. The RTP/SCS is a long-range regional transportation plan that provides for the development and integrated management and operation of transportation systems and facilities that will function as an intermodal transportation network for the SCAG region. The RTP/SCS also outlines certain land use growth strategies that provide for more integrated land use and transportation planning, and enhance transportation investments. The RTP/SCS is required by federal laws to demonstrate transportation conformity and also to achieve regional greenhouse gas (GHG) reduction targets set by the California Air Resources Board (CARB) pursuant to SB 375. Pursuant to the California Health and Safety Code, the RTP/SCS constitutes the Regional Transportation Plan/Sustainable Communities and Transportation Control Measures of the South Coast AQMD's AQMPs.

In addition, SCAG develops the biennial FTIP. The FTIP is a list of multimodal capital improvement projects to be implemented over a six year period. The FTIP implements the programs and projects in the RTP/SCS.

Section II. Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures (TCMs)

The SCAG region faces many critical challenges including demographics, transportation system preservation, transportation funding, goods movement, housing, air quality, climate change, and public

health. Under the guidance of the goals and objectives adopted by SCAG's Regional Council, SCAG's governing board, the Connect SoCal was developed to provide a blueprint to integrate land use and transportation strategies to help achieve a coordinated and balanced regional transportation system. Connect SoCal represents the culmination of more than three years of work involving dozens of public agencies, 197 local jurisdictions in the SCAG region, hundreds of local, county, regional and state officials, the business community, environmental groups, as well as various nonprofit organizations. Connect SoCal was adopted by SCAG's governing board, the Regional Council, on May 7, 2020 for transportation conformity purposes only and on September 3, 2020 for all purposes.

To realize a sustainable and connected region, Connect SoCal includes a Core Vision that centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs and transit closer together and increasing investment in transit and complete streets; five Key Connections that augment the Core Vision to address trends and emerging challenges while closing the gap between what can be accomplished through intensification of core planning strategies alone and what must be done to meet increasingly aggressive greenhouse gas reduction goals; as well as action-oriented transportation strategies and Sustainable Communities Strategy.

Core Vision

- Sustainable Development
- System Preservation and Resilience
- Demand & System Management
- Transit Backbone
- Complete Streets
- Goods Movement

Key Connections

- Smart Cities and Job Centers
- Housing Supportive Infrastructure
- Go Zones
- Accelerated Electrification
- Shared Mobility and Mobility as a Service

Transportation Strategies

- Preserve and Optimize Our Current System
  - Congestion Management
  - Congestion Pricing
  - Transportation Demand Management (TDM)
  - Transportation System Management (TSM)
- Completing Our Transportation System
  - Transit
  - Passenger Rail
  - Active Transportation

- Transportation Safety
- Highway and Arterial Network
- Regional Express Lane Network
- Goods Movement
- Aviation
- Technological Innovations and Emerging Technology

Sustainable Communities Strategy

- Focus Growth Near Destinations & Mobility Options
- Promote Diverse Housing Choices
- Leverage Technology Innovations
- Support Implementation of Sustainability Policies
- Promote a Green Region

Transportation Control Measures (TCMs)

Connect SoCal includes, as a subset of transportation strategies, SIP-committed transportation programs and projects that reduce vehicle use or change traffic flow or congestion conditions for the purposes of reducing emissions from transportation sources and improving air quality, better known as Transportation Control Measures or "TCMs." In the South Coast Air Basin, TCMs include the following three main categories of transportation improvement projects and programs that have funding programmed for right-of-way and/or construction in the first two years of the 2021 FTIP:

1. Transit and non-motorized modes;
2. High Occupancy Vehicle (HOV) Lanes and their pricing alternatives; and
3. Information-based strategies (e.g., traffic signal synchronization).

Attachment A of Appendix IV-C is a list of transportation control measure projects that are from SCAG's 2021 FTIP and specifically identified and committed to in the Final 2022 AQMP/SIP. Per the federal Clean Air Act (CAA), these committed TCMs are required to receive funding priority and be implemented in a timely manner. In the event that a committed TCM cannot be delivered or will be significantly delayed, there must be a substitution for the TCM. It is important to note that as the SCAG's FTIP is updated every two years, new committed TCMs are automatically added to the applicable SIP from the previous FTIP.

Plan Emissions Reduction Benefits

If the future vehicle fleet mix and emission factors are held constant as those in the Connect SoCal base year 2016, Connect SoCal is estimated to yield a reduction in NOx emissions by about 1.5 tons per day (tpd) in 2025, 4.1 tpd in 2035, and 6.8 tpd in 2045 compared with their respective Baselines without Connect SoCal. However, if accounting for mandated future improvement in vehicle fleet mix and emission factors, the estimated NOx emission reduction from Connect SoCal is reduced by 60 to 73 percent, because the vehicles as a whole are becoming much cleaner and reduction of every vehicle mile traveled from Connect SoCal yields less reduction in NOx emissions.

Plan Investment

The total expenditure for the various strategies in Connect SoCal is forecasted to be $638.9 billion for the entire six-county SCAG region. Connect SoCal has identified the same amount of total revenues from both existing and several new funding sources that are reasonably expected to be available.

Cost-Benefit Analysis

Implementation of Connect SoCal will secure a safe, efficient, sustainable and prosperous future for the SCAG region. To demonstrate how effective Connect SoCal would be toward achieving our regional goals, SCAG conducted a Connect SoCal vs. Connect SoCal Baseline cost-benefit analysis utilizing the Cal-B/C Model to calculate regional network benefits – essentially comparing how the region would perform with and without implementation of the Connect SoCal.

Compared with the alternative without the Plan, Connect SoCal would result in significant benefits to our region, not only with respect to mobility and accessibility, but also in the areas of air quality, economic growth and job creation, sustainability and environmental justice. Altogether, the transportation investments in Connect SoCal will provide a return of two dollars for every dollar invested compared with the Baseline alternative.

Section III. TCM Reasonably Available Control Measure Analysis

As required by the CAA, a Reasonably Available Control Measure (RACM) analysis must be included as part of the overall control strategy in the ozone SIP to ensure that all potential control measures are evaluated for implementation and that justification is provided for those measures that are not implemented. This Appendix IV-C contains the TCM RACM component for the South Coast ozone control strategy. In accordance with the U.S. Environmental Protection Agency (EPA) procedures, this analysis considers TCMs in Connect SoCal, measures identified by the CAA, and relevant measures adopted in other ozone nonattainment areas of the country.

Based on this comprehensive review, it is determined that the TCMs being implemented in the South Coast Air Basin are inclusive of all TCM RACM.

Section I. Introduction

Federal and State Requirements

The transportation conformity requirements of the federal CAA establish a need to integrate air quality planning and regional transportation planning. This integration presents the challenge of balancing the real need for improved mobility and accessibility with the equally important goal of cleaner air. As the federally-designated MPO for the six-county Southern California region, SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and state air quality plans to attain the National Ambient Air Quality Standards (NAAQS). In other words, transportation plans, programs, and projects are required to not create new violations, worsen the existing violations, or delay timely attainment of relevant NAAQS.

In addition, SCAG is a co-producer, with the South Coast AQMD and CARB, of the AQMP for the South Coast Air Basin. SCAG has the responsibility of providing the demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies, as well as analyzing and providing travel activity data related to its planning responsibilities (California Health and Safety Code §40460).

Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

The SCAG Region is the largest metropolitan planning area in the United States, encompassing 38,000 square miles. The region is divided into 15 subregions and is one of the largest concentrations of population, employment, income, business, industry and finance in the world. The six-county SCAG Region is home to about 19 million people, nearly half of the population of the State of California.

Federal and State regulations require SCAG, as the MPO and Regional Transportation Planning Agency, to develop an RTP/SCS every four years in order for our region's transportation projects to qualify for federal and state funding and approval. The RTP/SCS is updated to reflect changes in trends, progress made on projects, and to adjust the growth forecast for population and employment changes. The long-range RTP/SCS integrates land use and transportation strategies that will achieve CARB greenhouse gas emissions reduction targets and provides a vision for transportation investments throughout the region. Using growth forecasts and economic trends that project out over a period of more than 20 years, the RTP/SCS considers the role of transportation in the broader context of land use, economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies and Sustainable Communities Strategy to address our mobility needs, air quality and climate change challenges.

The RTP/SCS is developed through a collaborative process, guided by SCAG's governing board, the Regional Council, and its Policy Committees and Sub-committees, the Transportation Working Group, numerous technical advisory committees/working groups/task force, CTCs, subregions, local governments, state and federal agencies, environmental and business communities, tribal governments, non-profit groups, as well as the general public.

Adopted by SCAG's Regional Council and approved by federal agencies, 2020 RTP/SCS or Connect SoCal is the currently conformity RTP/SCS for the SCAG region which includes the entire South Coast Air Basin.

Federal Transportation Improvement Program (FTIP)

SCAG is also responsible for developing a biennial short-term (six year planning horizon) FTIP. SCAG develops the FTIP in partnership with the CTCs of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura, and California Department of Transportation (Caltrans) Districts 7, 8, 11, and 12. The FTIP is a multimodal list of capital improvement projects to be implemented over a six-year period. The FTIP identifies specific funding sources and fund amounts for each project. It is prioritized to implement the region's overall strategy for providing mobility and improving both the efficiency and safety of the transportation system, while supporting efforts to attain federal and state air quality standards for the region by reducing transportation related air pollution. The FTIP must include all federally funded transportation projects in the region, as well as all regionally significant transportation projects for which approval from federal funding agencies is required, regardless of funding source. The FTIP is developed to incrementally implement the programs and projects in the RTP/SCS. TCMs that are committed to in the applicable SIP are derived from the first two years of the prevailing FTIP.

Adopted by SCAG's Regional Council and approved for federal agencies, 2021 FTIP is the currently conformity FTIP for the SCAG region which includes the entire South Coast Air Basin.

Section II. Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures (TCMs)

Introduction

Connect SoCal is a long-range regional plan that provides a blueprint to integrate land use and transportation strategies to help achieve greater mobility and sustainable growth. Transportation projects in the SCAG region must be included in Connect SoCal in order to receive federal funding and approval. Connect SoCal is comprised of an Introduction, six Chapters and 20 Technical Reports listed below:

- Chapter 0: Making Connections
- Chapter 1: About the Plan
- Chapter 2: SoCal Today
- Chapter 3: A Path to Greater Access, Mobility & Sustainability
- Chapter 4: Paying Our Way Forward
- Chapter 5: Measuring Our Progress
- Chapter 6 Looking Ahead

- Active Transportation Technical Report
- Aviation and Airport Ground Access Technical Report
- Congestion Management Technical Report
- Demographics and Growth Forecast Technical Report
- Economic and Job Creation Analysis Technical Report
- Emerging Technology Technical Report
- Environmental Justice Technical Report
- Goods Movement Technical Report
- Highways and Arterials Technical Report
- Natural and Farm Lands Technical Report
- Passenger Rail Technical Report
- Performance Measures Technical Report
- Project List Technical Report
- Public Health Technical Report
- Public Participation and Consultation Technical Report
- Sustainable Communities Strategy (SCS) Technical Report
- Transit Technical Report
- Transportation Conformity Analysis Technical Report
- Transportation Finance Technical Report
- Transportation Safety and Security Technical Report

Connect SoCal represents the culmination of more than three years of work involving dozens of public agencies, 197 local jurisdictions in the SCAG region, hundreds of local, county, regional and state officials, the business community, environmental groups, as well as various nonprofit organizations, and was founded on a broad-based public outreach effort. The implementation of a comprehensive and coordinated public participation effort undertaken by SCAG is documented in the Public Participation and Consultation Technical Report[1] .

Connect SoCal was adopted by the SCAG Regional Council on May 7, 2020 for transportation conformity purposes only and on September 3, 2020 for all purposes. Connect SoCal constitutes the transportation control strategy portion of the Final 2022 South Coast AQMP. A full list of the Connect SoCal projects can be found in the Project List Technical Report[2].

Key Challenges in the Region

Our region is facing many formidable challenges related to affordable housing, natural and farm land conservation, transportation safety and security, public health, transportation system preservation and resilience, transportation access and mobility, funding the transportation system, and planning for disruption. For example, the region experiences significant travel delays (the time an average motorist spends stuck in traffic is 100 hours per year) and approximately 15% of the region's bridges are in poor condition. The SCAG region lost 21 percent of its farmland between 1984 (the year the farmland tracking began) and 2016 . There are approximately 1,500 traffic fatalities annually. The annual cost of treating chronic disease (such as heart disease, strokes, chronic lower respiratory disease & diabetes) is $16.7 billion. Climate change adversely impacts traditionally underserved communities and 77% of residents in a flood hazard zones are minority.

Another regional challenge that is of key relevance to the 2022 AQMP is the region's inability to meet federal air quality standards. Although air quality has improved significantly over the past decades, the SCAG region still experiences the worst air quality in the country. Almost the entire SCAG region fails to meet the health-based federal air quality standards for one or more transportation-related air pollutants. In addition to public health impacts from unhealthy air quality, the challenge of meeting health based federal air quality standards has serious implications for the RTP/SCS, the FTIP and transportation projects in the SCAG region.

A particularly pressing challenge is for the South Coast Region to meet the 2023 statutory deadline of attaining the 1997 ozone standard. Pursuant to the federal CAA, a Contingency Measure Plan was recently developed jointly by the South Coast AQMD and the CARB and subsequently submitted to the U.S.

[1] https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_public-participation-consultation.pdf?1606001825

[2] https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_project-list_1.pdf?1606001744

Environmental Protection Agency (EPA). The Contingency Measure Plan[3] highlights the critical need for federal regulatory actions and/or funding to address emission sources under federal jurisdiction including aircraft, ships, trains and out-of-state trucks in order to meet the air quality standard. This is in addition to regulatory actions, programs and incentive funding South Coast AQMD and CARB have developed to achieve emission reductions.

If the U.S. EPA disapproves the Contingency Measure Plan, a federal sanctions clock will be triggered which will lead to federal highway sanctions if the underlying deficiency cannot be resolved within 24 months. Highway sanctions restrict federal funding to transportation projects that expand highway capacity, nonexempt project development activities and any other projects that do not explicitly meet exemption criteria. If imposed, highway sanctions have the potential to impact billions of dollars of federal funding and tens of billions of dollars of important transportation projects in the SCAG region.

Transportation, especially the goods movement sectors, contributes to the overwhelming majority of air pollutant emissions causing ozone pollution. A comprehensive and coordinated regional solution including aggressive regulations, advancements in clean technologies, innovative solutions, and integrated land use and transportation planning from all levels of government and all stakeholders will be required to achieve the needed emission reductions from the goods movement sectors.

Finally, the emission of air pollutants come from a wide range of sources and may be transported downwind. Therefore, a mitigation strategy should be in place to assist impacted communities, even if the emissions are not being locally produced.

Regional Goals and Guiding Principles

The development of projects, programs, and strategies are guided by the following goals and guiding principles that help carry out Connect SoCal's vision for improved economy, mobility, environment and healthy/complete communities. The plan explicitly lays out goals related to housing, transportation technologies, equity and resilience in order to adequately reflect the increasing importance of these topics in the region, and where possible the goals have been developed to link to potential performance measures and targets. The plan's guiding policies take these goals and focus them, creating a specific direction for plan investments.

Connect SoCal Goals

1. Encourage regional economic prosperity and global competitiveness
2. Improve mobility, accessibility, reliability, and travel safety for people and goods
3. Enhance the preservation, security, and resilience of the regional transportation system
4. Increase person and goods movement and travel choices within the transportation system

[3] South Coast AQMD, 2019, Contingency Measure Plan: Planning for Attainment of the 1997 80 ppb 8-Hour Ozone Standard in the South Coast Air Basin for the 1997 8-Hour Ozone NAAQS in the South Coast Air Basin, http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/1997-ozone-contingency-measure-plan/1997-8-hour-ozone-draft-contingency-measure-plan---120619.pdf?sfvrsn=10

5. Reduce greenhouse gas emissions and improve air quality
6. Support healthy and equitable communities
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options
10. Promote conservation of natural and agricultural lands and restoration of habitats

Connect SoCal Guiding Principles

1. Base transportation investments on adopted regional performance indicators and MAP-21/FAST Act[4] regional targets
2. Place high priority for transportation funding in the region on projects and programs that improve mobility, accessibility, reliability and safety, and that preserve the existing transportation system
3. Assure that land use and growth strategies recognize local input, promote sustainable transportation options, and support equitable and adaptable communities
4. Encourage RTP/SCS investments and strategies that collectively result in reduced non-recurrent congestion and demand for single occupancy vehicle use, by leveraging new transportation technologies and expanding travel choices
5. Encourage transportation investments that will result in improved air quality and public health, and reduced greenhouse gas emissions
6. Monitor progress on all aspects of the Plan, including the timely implementation of projects, programs, and strategies
7. Regionally, transportation investments should reflect best-known science regarding climate change vulnerability, in order to design for long term resilience

Plan Strategies and Transportation Control Measures

To realize a more sustainable and connected region, Connect SoCal includes a Core Vision that centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs and transit closer together and increasing investment in transit and complete streets; five Key Connections that augment the Core Vision to address trends and emerging challenges while closing the gap between what can be accomplished through intensification of core planning strategies alone and what must be done to meet increasingly aggressive greenhouse gas reduction goals; as well as action-oriented transportation strategies and Sustainable Communities Strategy.

[4] MAP-21 (The Moving Ahead for Progress in the 21st Century Act) was a two-year federal transportation authorization bill signed into law in 2012. Replacing MAP-21 in 2015, FAST Act (The Fixing America's Surface Transportation Act) authorizes $305 billion over fiscal years 2016 through 2020 for highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs.

Core Vision

Rooted in the 2008 and 2012 RTP/SCS plans, Connect SoCal's "Core Vision" centers on maintaining and better managing the transportation network we have for moving people and goods, while expanding mobility choices by locating housing, jobs and transit closer together and increasing investment in transit and complete streets. The Core Vision includes:

- **Sustainable Development**: Through our continuing efforts to better align transportation investments and land use decisions, we strive to improve mobility and reduce greenhouse gases by bringing housing, jobs and transit closer together.
- **System Preservation and Resilience**: "Fix it First" has been a guiding principle for prioritizing transportation funding in the RTP for the last decade. The cost of rebuilding roadways is eight times more than preventative maintenance. Preservation of the transportation system can extend the pavement life in a cost effective manner and can also improve safety
- **Demand & System Management**: Better managing the existing transportation system through demand management strategies and Intelligent Transportation Systems (ITS) yields significant mobility benefits in a cost-effective manner.
- **Transit Backbone**: Expanding the transit network and fostering development in transit-oriented communities is central to the region's plan for meeting mobility and sustainability goals while continuing to grow the regional economy.
- **Complete Streets**: Creating "complete streets" that are safe and inviting to all roadway users is critical to increasing mobility choices, reducing traffic fatalities and serious injuries and meeting greenhouse gas reduction targets.
- **Goods Movement**: The efficient movement of goods is critical to a strong economy and improves quality of life in the SCAG region by providing jobs and access to markets through trade. However, increased volumes of goods moving across the transportation system contribute to greater congestion, safety concerns and harmful emissions. It is critical to integrate land use decisions and technological advancements to minimize environmental and health impacts while fostering continued growth in trade and commerce.

Key Connections

Key Connections augment the Core Vision of the plan to address trends and emerging challenges while "closing the gap" between what can be accomplished through intensification of core planning strategies alone, and what must be done to meet increasingly aggressive greenhouse gas reduction goals. These Key Connections lie at the intersection of land use, transportation and innovation, aiming to coalesce policy discussions and advance promising strategies for leveraging new technologies and partnerships to accelerate progress on regional planning goals. The Key Connections include:

- **Smart Cities and Job Centers**: Smart Cities connect people, vehicles and infrastructure, allowing them to communicate in "real-time" through regional telecommunications networks. The Smart Cities and Job Centers strategy aims to catalyze investments across sectors to make "virtual access" a cost-effective and reliable option for all types of trips, expanding the air quality, congestion and VMT reduction benefits the region already realizes through teleworking. While Smart Cities strategies can be deployed universally, virtual access is particularly beneficial in rural communities where

destinations are far apart. Connect SoCal specifically envisions intensified deployment in sub-regional job centers to encourage more growth of both jobs and housing in areas with already high employment density. The Smart Cities and Job Centers strategy enables this by using integrated information and communication technologies to improve the efficiency and performance of the transportation system. It incorporates transit demand management (TDM) measures that encourage carpooling and transit, and parking strategies that reduce the cost to build new employment facilities within job centers. Also, this strategy builds upon promising trends in "co-working[5]" to promote alternatives for long-distance commuters who prefer not to telecommute. Strengthening these locally significant employment centers allows the region to capitalize on the economic and mobility benefits of compact development, where housing and jobs are closer together.

- **Housing Supportive Infrastructure**: The extraordinary cost of producing housing is a significant barrier to growth throughout Southern California, but also specifically, to achieving the level of infill and transit-oriented development anticipated in Connect SoCal. The Regional Housing Supportive Infrastructure strategy will help make it quicker for local jurisdictions to produce critically-needed housing. The costs of building parking, and sewer/water infrastructure through Development Fees can range from 10% to nearly 25% of construction costs. By implementing tax-increment finance districts, jurisdictions can plan and implement housing supportive infrastructure. With the increase in use of ridesourcing, right-sizing parking strategies, enabled by technology, can reduce the overall cost of housing construction in Connect SoCal's Priority Growth Areas.
- **Go Zones**: Go Zones are geographic areas where a suite of mobility service options are provided together with incentives to reduce dependency on personal automobiles. This expanded mobility ecosystem can include increased transit, bike share, enhanced active transportation infrastructure and incentives—such as a fee on solo driving during peak traffic periods. Incentives would encourage the use of shared modes or shift less time sensitive trips to off-peak times. Revenues collected from the fee would be used to fund local transportation improvements and support sustainability goals by contributing to reductions in GHG emissions. Go Zones can be designed with policies and discounts that address equity concerns and promote mobility options for commuters of various income levels.
- **Accelerated Electrification**: The Accelerated Electrification strategy offers a holistic and coordinated approach to de-carbonizing or electrifying passenger vehicles, transit and goods movement vehicles. Through greater coordination and deeper collaboration, this strategy aims to go beyond benefits achieved through state mandates alone. In the light-duty sector, Connect SoCal plans for greater incentives to increase sales of electric vehicles and strategies to increase the availability of charging infrastructure. Electric vehicles (EVs) currently make up only seven percent of new car sales, but the growth is healthy: in 2013 EVs made up just 2.4 percent of all new car sales statewide. For transit, in 2018 the California Air Resources Board voted to mandate purchases of electric buses. We can facilitate that process by working with transit agencies to ensure adequate charging stations and electricity rates. In the goods movement sector, the goal is to achieve a zero-emissions system as soon as possible while fostering early adoption of near-zero-emissions technologies in the near-term.

[5] Co-working refers to the shared use of an office space by employees of several different firms as an alternative to a home office or traditional fixed workplace location.

- **Shared Mobility and Mobility as a Service**: The future of transportation, like so many aspects of living in our region, will be shaped by technology and the ability to customize our choices. The rise of shared mobility and mobility as a service will allow residents to choose how to travel, depending on the time, distance or goal of their trip. "Shared mobility" refers to a broad range of transportation options, such as rental e-scooters and e-bikes, ridesourcing services like Uber and Lyft that some transit operators are partnering to provide first/last mile services or replace low performing bus routes, and on-demand app-based transit connections provided by vans and shuttles. "Mobility as a service," or MaaS, allows travelers to research and compare different transportation options from one screen and plan their trip accordingly. MaaS will also allow the traveler to book and pay for different segments of a multimodal trip with one click. This will make it increasingly critical that dense urban areas manage their curb space smartly, in order to ensure safe access for low-speed modes, ridesourcing providers, parking and local deliveries.

Transportation Strategies

The transportation strategies described in Connect SoCal are divided into two broad categories: Preserving and optimizing the region's current and future system and capital improvements by mode for completing the region's transportation system. In all, Connect SoCal includes $638.9 billion in transportation system investments through 2045.

Preserve and Optimize Our Current System

A top priority for Connect SoCal is to maintain and preserve the transportation infrastructure through a "Fix it First" principle. Funding provided by Senate Bill 1 (SB 1) offers an opportunity to strategically reinvest in the transportation network to realize an improvement in the conditions of the existing system. Connect SoCal allocates approximately $68 billion over the plan period to ensure a well maintained and resilient system for generations to come. Connect SoCal also seeks to optimize the existing transportation system to meet increased demand levels through the use of innovative strategies that leverage the existing transportation infrastructure. Key preservation and optimization strategies are:

Congestion Management Process. The Congestion Management Process (CMP) aims to provide effective management of the regional transportation system through monitoring and maintenance, demand reduction, analysis of local land use decisions, operational management strategies and strategic capacity enhancements. The CMP requires that roadway projects that significantly increase the capacity for single-occupancy Vehicles (SOVs) be addressed through a CMP. The CMP should provide an appropriate analysis of reasonable, multimodal travel demand reduction and operational management strategies for the corridor. If alternative strategies are neither practical nor feasible, appropriate management strategies must be considered for roadway capacity improvement projects that would increase SOV capacity.

Congestion Pricing. SCAG's planning efforts have focused on integrating pricing strategies to optimize operation, improve travel time reliability and offer travelers greater choices. Connect SoCal has identified three promising congestion pricing strategies: 1) Develop a network of express lanes to accommodate growing inter-county travel; 2) Establish a mileage-based user fees to generate a funding source for aging infrastructure and construction of other travel options; and 3) Develop Cordon/Area Pricing which involves charging a variable or fixed fee to drive into or within a highly congested area.

Transportation Demand Management. Transportation Demand Management (TDM) is a set of strategies that aims to reduce the demand for roadway travel, particularly from single-occupancy Vehicles (SOVs). Connect SoCal allocates $7.3 billion through 2045 to implement TDM strategies throughout the region, including ridesharing and providing first/last mile services to and from transit, supporting telecommuting and alternative work schedules, as well as use of other modes such as transit, rail, bicycling, and walking, or other micro-mobility modes.

Transportation Systems Management. Transportation Systems Management (TSM) employs a series of techniques designed to maximize the capacity and efficiency of the existing transportation system. Examples of TSM strategies include Corridor System Management Plans (CSMPs) and system management initiatives (e.g., variable speed limits, signal synchronization, ramp metering, etc.), High Occupancy Toll (HOT) lanes, collision avoidance systems, universal transit fare cards and improved data collection.

Complete Our Transportation System

Strategies for improving and expanding the many modes of transportation that make up the regional network must be integrated closely with our strategies for how we use land. The success of transit, passenger rail, walking, bicycling and other forms of active transportation, our highways and arterials, the efficient movement of goods and our regional airport system all depend on a close relationship with how our region uses land and how we grow. This is particularly true when it comes to improving and building a transit system that can best serve people in communities throughout our region.

Transit. Since 1991, the region has spent more than $77 billion on transit (in 2016 dollars). This trend is expected to continue, as the combined costs for transit capital projects and operations and maintenance (O&M) total nearly half of the investments in Connect SoCal. Connect SoCal includes significant investment across all transit modes, with $66.8 billion toward transit capital projects, $53.3 billion toward passenger rail, $173.9 billion for transit O&M, and $22.6 billion for passenger rail O&M from 2020 through 2045.

Passenger Rail. Connect SoCal vision for passenger rail in the SCAG region consists of four main elements: grow ridership, provide more frequent and new services, improve connectivity, and secure funding for Metrolink (commuter rail), Amtrak (intercity rail), and California High-Speed Rail and Southern California to Las Vegas (interregional rail).

Transportation Safety. Connect SoCal prioritizes the safety and mobility of the region's residents, including drivers and passengers, transit riders, pedestrians, and bicyclists. SCAG's Safety strategies are largely grounded in the State's Strategic Highway Safety Plan that helps member agencies interested in pursuing safety initiatives and strategies at the local level. SCAG outlines detailed strategies and actions that local jurisdictions and county transportation commissions can undertake to enhance safety in our region in the transportation safety and security report.

Active Transportation. Connect SoCal is expected to increase the number of people making active transportation trips by more than two million, increasing the mode share from 7.8 percent in 2016 to 10.4 percent in 2045. In order to achieve these outcomes, planned future investments are nearly doubled from $12.9 billion in the 2016 RTP/SCS to $22.5 billion in Connect SoCal. The active transportation investments

in Connect SoCal are allocated across a range of active transportation strategies that address planning, policy making and implementation for both short and regional trips. Additionally, they are designed to improve environmental justice outcomes and enhance the safety and comfort of people walking and bicycling.

Highway and Arterial Network. Connect SoCal includes capital improvements that will address the choke points and gaps in the system, to ensure the system is operating optimally and provides adequate and equitable access to opportunities. Connect SoCal emphasizes working with partner implementing agencies to prioritize projects that preserve and optimize the existing highway and arterial network. Projects include interchange improvements, auxiliary lanes, general purpose lanes, carpool lanes, toll lanes and Express/HOT lanes.

Regional Express Lane Network. The regional express lane network integrates congestion pricing to optimize existing capacity on freeways and offer users greater travel time reliability and choices. The regional express lane network included in Connect SoCal builds on the successful implementation of the I-10 and I-110 Express Lanes in Los Angeles County and the recent extension of the SR-91 Express Lanes between Orange and Riverside Counties. Additional efforts underway include planned express lanes on the I-105 in Los Angeles County, the I-15 in Riverside County, the I-15 and the I-10 in San Bernardino County and the I-405 in Orange County and Los Angeles County.

Goods Movement. SCAG has developed key strategies to realize a regional vison that maintains regional economic competitiveness, promotes job creation and retention, increased freight mobility and safety, and mitigating environmental impacts. The key strategies include:

- Infrastructure investments to improve freight mobility
- Last mile freight
- Workforce development
- Truck bottleneck relief strategies
- Goods movement warehouse distribution
- Goods movement environmental strategies

Specific details of these goods movement strategies can be found in the Goods Movement Technical Report[6].

Aviation. Connect SoCal focuses on air passenger and cargo activity from the perspective of how the traffic coming and going from the airports affects the region's roads, highways, and transit systems, and how to improve ground transportation access to the airport. Strategies include working with airports and transportation agencies on airport ground access projects, effective analysis and planning, and facilitating ongoing communication and collaboration between airports, transportation agencies and government.

[6] https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_goods-movement.pdf?1606001690.

Technological Innovations and Emerging Technologies. Emerging technologies in transportation and mobility are primarily developed and advanced by the private sector but can be accelerated and promoted by government regulation and incentives, and it is important that public agencies monitor the development of such innovations. Emerging technology in transportation and mobility are themes threaded throughout Connect SoCal. SCAG has completed wide-ranging analysis of recent and emerging technologies principally associated with light-duty vehicles that could potentially impact travel behavior and location choices in the region over the next 25 years.

SCAG recognizes that many new technologies provide consumer solutions and have made inroads in public acceptance due to advancements in smartphones, mobile banking, navigational apps and social networking. Improvements in regional mobility will therefore be derived from how technology is used rather than from any individual technological development. Moreover, strategies to use the benefits of emerging technologies to advance Connect SoCal goals should be viewed through the lens of improving health, safety, equity and mobility outcomes.

Sustainable Communities Strategy

As part of the state's mandate to reduce per-capita GHG emissions from automobiles and light trucks, Connect SoCal presents strategies and tools that are consistent with local jurisdictions' land use policies and incorporate best practices for achieving the state-mandated reductions in GHG emissions at the regional level through reduced per-capita vehicle miles traveled (VMT). The following strategies are intended to be supportive of implementing the regional Sustainable Communities Strategy (SCS). Several are directly tied to supporting related GHG reductions while others support the broader goals of Connect SoCal:

Focus New Growth Near Destinations and Mobility Options

- Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations
- Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets
- Plan for growth near transit investments and support implementation of first/last mile strategies
- Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses
- Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods
- Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations)
- Identify ways to "right size" parking requirements and promote alternative parking strategies (e.g. shared parking or smart parking)

Promote Diverse Housing Choices

- Preserve and rehabilitate affordable housing and prevent displacement
- Identify opportunities for new workforce and affordable housing development

- Create incentives and reduce regulatory barriers for building context-sensitive accessory dwelling units to increase housing supply
- Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions

Leverage Technology Innovations

- Promote low emission technologies such as neighborhood electric vehicles, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space
- Improve access to services through technology such as telework and telemedicine as well as commuter incentives such as a "mobility wallet", an app-based system for storing transit and other multi-modal payments
- Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation

Support Implementation of Sustainability Policies

- Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions
- Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations
- Support cities in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects
- Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies
- Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region
- Continue to support long range planning efforts by local jurisdictions
- Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy

Promote a Green Region

- Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards
- Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration
- Integrate local food production into the regional landscape
- Promote more resource efficient development focused on conservation, recycling and reclamation
- Preserve, enhance and restore regional wildlife connectivity
- Reduce consumption of resource areas, including agricultural land
- Identify ways to improve access to public park space

Transportation Control Measures (TCMs)

Connect SoCal includes, as a subset of transportation strategies, SIP-committed transportation programs and projects that reduce vehicle use or change traffic flow or congestion conditions for the purposes of reducing emissions from transportation sources and improving air quality, better known as Transportation Control Measures or "TCMs." TCMs are either one of the types listed in CAA section 108, or any other measures for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Pursuant to U.S. EPA's Transportation Conformity Regulations, vehicle technology-based, fuel-based, and maintenance-based measures which control the emissions from vehicles under fixed traffic conditions are not TCMs. In the South Coast Air Basin, TCMs include the following three main categories of transportation improvement projects and programs that have funding programmed for right-of-way and/or construction in the first two years of the 2021 FTIP:

1. Transit and non-motorized modes;
2. High Occupancy Vehicle (HOV) Lanes their pricing alternatives; and
3. Information-based Transportation Strategies.

Connect SoCal includes TCM type projects throughout the entire planning horizon (i.e., 2045) and are all part of the regional transportation strategy for the 2022 South Coast AQMP. Those TCM type projects which have funding programmed for right of way or construction in the first two years of the prevailing FTIP are considered "committed" for air quality planning purposes in the applicable SIP. Per US EPA's Transportation Conformity Regulations, these committed TCMs are required to receive funding priority and be implemented in a timely manner. In the event that a committed TCM cannot be delivered or will be significantly delayed, the TCM must be substituted for. It is important to note that as the SCAG's FTIP is updated every two years, new committed TCMs are automatically added to the applicable SIP from the previous FTIP. As a result of the TCM "rollover process," thousands of committed TCM projects have been implemented over the last two decades. The "rollover" of TCMs updates the AQMPs/SIPs to include new projects in addition to ongoing projects from previous FTIPs. As the FTIP gets adopted every two years, new TCMs emerge and completed TCMs get removed.

Plan Emissions Reduction Benefits

Based on the travel activity projections generated from SCAG's Regional Travel Demand Model, an estimate of emissions associated with on-road mobile sources can be generated using CARB's Emission Factor Model (EMFAC). Through this process, future emissions from on-road mobile sources can be compared for the regional transportation system assuming implementation of the Connect SoCal versus the baseline (without Connect SoCal implementation). It is generally understood that potential future improvements in air quality deriving from Connect SoCal will likely be much smaller, since motor vehicle emissions have and will continue to be substantially reduced through technology (i.e., emission standards for new engines and in-use standards for existing fleets).

Under two different assumptions on future vehicle technology, Tables 1-1 and 1-2 compare VOC (ROG) and NOx emissions between implementation of Connect SoCal and the Connect SoCal Baseline[7] for the following years: 2025, 2035, and 2045. Specifically, the emission reduction benefits shown in Table 1-1 are based on the assumption that the EMFAC2017 vehicle fleet mix and emission factors in the future years remain the same as in 2016 (the Connect SoCal base year); while the emission reduction benefits shown in Table 1-2 factor in the future improvements in the fleet mix and emission factors as reflected in the EMFAC2017. Note that the Connect SoCal emission reductions in Tables 1-1 and 1-2 are not double-counted toward the emission reductions presented in the main report of the 2022 AQMP because Connect SoCal is considered in the AQMP air quality modeling baseline.

As shown in Table VI-C 1-1, if the future vehicle fleet mix and emission factors are held constant as those in the Connect SoCal base year 2016, Connect SoCal is estimated to yield a reduction in NOx emissions by about 1.5 tons per day (tpd) in 2025, 4.1 tpd in 2035, and 6.8 tpd in 2045 compared with their respective Baselines without Connect SoCal. However, if accounting for mandated future improvement in vehicle fleet mix and emission factors, the estimated NOx reduction from Connect SoCal is reduced by more than half, as shown in Table VI-C 1-2, because the vehicles as a whole are becoming much cleaner and reduction of every vehicle mile traveled from Connect SoCal yields less NOx reduction.

TABLE VI-C-1-1. Regional Transportation Emissions (annual average) (tons per day) Assuming Constant 2016 Vehicle Fleet Mix and Emission Factors

	VOC (ROG)			NOx		
	2025	**2035**	**2045**	**2025**	**2035**	**2045**
Connect SoCal	97.2	99.9	103.4	227.2	248.9	280.5
Connect SoCal Baseline	99.0	104.2	110.0	228.8	253.0	287.3
Connect SoCal Reduction	1.8	4.4	6.5	1.5	4.1	6.8

Note: Calculated with EMFAC2017 Emission Model

[7] Connect SoCal Baseline is defined as the future transportation system that will result from current programs without Connect SoCal's land use and transportation strategies. For Connect SoCal, the Baseline is based upon the adopted 2019 FTIP.

TABLE VI-C1-2. Regional Transportation Emissions (annual average) (tons per day) Based on Vehicle Fleet Mixes and Emission Factors as Reflected in EMFAC2017

	VOC (ROG)			NOx		
	2025	2035	2045	2025	2035	2045
Connect SoCal	51.1	36.5	31.8	80.7	66.6	71.5
Connect SoCal Baseline	52.0	38.1	33.8	81.4	67.7	73.4
Connect SoCal Reduction	0.9	1.6	2.0	0.6	1.1	2.0

Note: Calculated with EMFAC2017 Emission Model

TCM Emissions Reduction Benefits

To estimate the emission benefits of TCMs, the socio-economic data variables of Connect SoCal were held constant while the transportation network was modified to account for the TCMs in Connect SoCal (both TCM-type projects and committed TCMs). In other words, the TCM emissions reduction benefits are the difference between Connect SoCal with TCMs and Connect SoCal without TCMs. It should be noted that this analysis is done for illustrative purposes, as the regional transportation strategy is appropriately viewed on a systems-level basis, and not by its components since each of the individual transportation improvements and strategies affect each other and the system. Further, it should be noted that the TCM emission reductions in Tables VI-C 2-1 and VI-C 2-2 are not double-counted toward the emission reductions presented in the main report of the Final 2022 AQMP because the TCMs are part of Connect SoCal which is considered in the AQMP air quality modeling baseline.

Under the same two different assumptions on future vehicle technology, Tables VI-C 2-1 and VI-C 2-2 show the results of the TCM modeling analysis for years 2021 and 2035 (between the 2008 8-hour ozone attainment year of 2031 and the 2015 8-hour ozone attainment year of 2037). Specifically, the emission reduction benefits shown in Table VI-C 2-1 are based on the assumption that the EMFAC2017 vehicle fleet mix and emission factors in the future years remain the same as in 2016 (the Connect SoCal base year); while the emission reduction benefits shown in Table VI-C 2-2 factor in the future improvement in the fleet mix and emission factors as reflected in the EMFAC2017.

As shown in Tables VI-C 2-1 and VI-C 2-2 and compared to previous AQMPs/SIPs, potential future improvements in air quality deriving from TCMs are consistently diminishing for two reasons. On one hand, motor vehicle emissions have and will continue to be substantially reduced through technology. On the other hand, most of the TCM projects in the South Coast Air Basin have been adopted into the SIP and have already been implemented. Thus, the emission reductions associated with these projects are now included in the Connect SoCal baseline emissions and no longer show up in the TCM benefit values.

TABLE 2-1. TCM Emissions (annual average) (tons per day)
Assuming Constant 2016 Vehicle Fleet Mix and Emission Factors

	VOC (ROG)		NOx	
	2021	2035	2021	2035
Connect SoCal	96.6	99.9	215.8	268.0
Connect SoCal without TCM	97.1	101.1	216.2	269.3
TCM Reduction	0.5	1.2	0.4	1.3

Note: Calculated with EMFAC2017 Emission Model

TABLE 2-2. TCM Emissions (annual average) (tons per day)
Based on Vehicle Fleet Mixes and Emission Factors as Reflected in EMFAC2017

	VOC (ROG)		NOx	
	2021	2035	2021	2035
Connect SoCal	63.9	36.5	119.7	66.6
Connect SoCal without TCM	64.2	36.9	120.0	66.9
TCM Reduction	0.3	0.4	0.3	0.3

Note: Calculated with EMFAC2017 Emission Model

Plan Investment

To accomplish the ambitious goals of Connect SoCal through 2045, SCAG forecasts expenditures of $638.9 billion. Forecasted revenues comprise both existing and several new funding sources that are reasonably expected to be available for Connect SoCal through its horizon year of 2045, which together total $638.9 billion. Reasonably available revenues include adjustments to federal gas tax rates, and replacement of gas taxes with more direct mileage-based user fees (or equivalent fuel tax adjustment). These and other categories of funding sources were identified as reasonably available on the basis of their potential for revenue generation, historical precedence and the likelihood of their implementation within the time frame of Connect SoCal. In accordance with federal guidelines, the Connect SoCal includes strategies for ensuring the availability of these sources.

Cost-Benefit Analysis

Implementation of Connect SoCal will secure a safe, efficient, sustainable and prosperous future for the SCAG region. To demonstrate how effective Connect SoCal would be toward achieving our regional goals, SCAG conducted a Connect SoCal vs. Connect SoCal Baseline cost-benefit analysis – essentially comparing how the region would perform with and without implementation of the Connect SoCal.

The cost-benefit analysis utilizes the Cal-B/C Model to calculate regional network benefits. It calculates and aggregates scenario benefits after travel impacts are evaluated using a regional travel demand model. SCAG's regional travel demand model data for Connect SoCal was summarized in one mile per hour (1-mph) speed bins to facilitate analysis. The benefit/cost ratio compares the incremental benefits with the incremental costs of multimodal transportation investments. The benefits are divided into the following four categories:

- Travel time savings resulting from reduced travel delay
- Air quality improvements
- Safety improvements
- Reductions in vehicle operating costs

For these categories, the economic values and parameters found in Cal-B/C Model are utilized in conjunction with SCAG's regional travel demand model outputs to estimate the benefits of Connect SoCal compared with the Baseline alternative. Most of these benefits are a function of changes in VMT and Vehicle Hours Traveled (VHT). Not all impacts are linear, as reductions in congestion may potentially either increase or decrease vehicle operating costs and emissions. Delay savings are reflected directly in the VHT statistics.

To estimate the benefit/cost ratio, the benefits in each category are converted into dollars and added together. These are then divided by the total incremental costs of the Connect SoCal transportation system investments to generate a ratio.

The results of the benefit/cost analysis indicate that the investments contained in Connect SoCal provide a return of $2.06 for every dollar invested. For this analysis, all benefits and costs are expressed in 2016 dollars. Benefits are estimated over the 25-year Connect SoCal planning period from 2020 to 2045. The user benefits are estimated using the Cal-B/C benefit/cost framework and incorporate SCAG Regional Travel Demand Model outputs. The costs include the incremental capital expenditures over the entire Connect SoCal planning period. Further information on the economic values represented in the Cal-B/C Model can be found at the following:

https://dot.ca.gov/programs/transportation-planning/economics-data-management/transportation-economics

Compared with the alternative without the Plan, Connect SoCal would result in significant benefits to our region, not only with respect to mobility and accessibility, but also in the areas of air quality, economic growth and job creation, sustainability and environmental justice. Some of the benefits of Connect SoCal implementation include:

- Increase the combined percentage of work trips made by carpooling, active transportation, and public transit by 3 percent, with a commensurate reduction in the number of commuters traveling by single-occupancy vehicle.
- Reduce VMT per capita by 5 percent and vehicle hours traveled per capita by 9 percent (for automobiles and light/medium-duty trucks) as a result of regional transit service.
- Increase transit use for work trips by 2 percent, as a result of improved transit service and more transit-oriented, mixed-use development.
- Reduce travel delay per capita by 26 percent.
- Create more than 264,500 new jobs annually due to enhanced economic competitiveness and improved overall regional economic performance. This more competitive economic environment would be the result of an improved regional transportation system and reduced levels of congestion
- Reduce greenfield development by 29 percent. Conservation of open space and agricultural lands are achieved by focusing new residential and commercial development in higher density areas already equipped with the requisite urban infrastructure.
- Increase the share of new regional household growth occurring in High Quality Transit Areas (HQTAs) by 6 percent, and increase the share of new job growth in HQTAs by about 15 percent. With more people living and working in locations near convenient and efficient transit options, congestion levels will be reduced accordingly.

Connect SoCal prioritizes the attainment of all applicable federal and state performance requirements. The plan meets all federal and state performance requirements. The plan meets all federal provisions for transportation conformity as defined under the federal CAA and therefore demonstrates transportation conformity. Connect SoCal achieves per capita GHG emission reductions relative to 2005 levels of eight percent in 2020, and 19 percent in 2035, thereby meeting the GHG reduction targets established by the California Air Resources Board (ARB) for the SCAG region.

For more details of the cost-benefit analysis of Connect SoCal, please refer to 1) Chapter 5: Measuring Our Progress, 2) Economic and Job Creation Analysis Technical Report, and 3) Performance Measures Technical Report (https://scag.ca.gov/read-plan-adopted-final-plan).

Section III. Reasonably Available Control Measure Analysis

Introduction

Clean Air Act Section 172(c)(1) requires SIPs to provide for the implementation of all reasonably available control measures (RACM) as expeditiously as practicable. Guidance on interpreting RACM requirements in the context of the 1990 Amendments was set forth in the General Preamble (57 FR 13498, 13560) in 1992. In the General Preamble, U.S. EPA interpreted section 172(c)(1) as imposing a duty on States to consider all available control measures and to adopt and implement measures that are reasonably available for implementation in a specific nonattainment area. It also retained an earlier interpretation of RACM that it would not be reasonable to require the implementation of measures that do not advance the date for attainment.

With regard to TCMs, U.S. EPA's guidance indicates that it is inappropriate to presume that all Section 108(f)(1)(A) measures of the CAA are available in all nonattainment areas. Instead, States should consider Section 108(f)(1)(A) measures as potential options that are not exhaustive, but indicative of the types of measures that should be considered. In addition, any measure identified as reasonably available during the public comment period should also be considered for implementation. In addition, States could reject measures as not reasonably available for reasons related to local conditions. States are required to justify why available measures were not considered RACM and not adopted in the SIP. As codified for the 2008 8-hour ozone NAAQS at 40 CFR 51.1312(c), U.S. EPA is retaining the existing general RACM requirements for purposes of the 2015 8-hour ozone NAAQS.[8]

To meet the RACM requirements articulated in the U.S. EPA guidance described above, this RACM analysis was performed following a four-step process. The first step is a description of the process by which SCAG and related transportation agencies in the South Coast Air Basin identify, review, and make enforceable commitments to implement TCMs. The second step is the assembly and review of a list of control measures recently implemented in other Serious, Severe, and Extreme ozone nonattainment areas. This effort involved a review of measures implemented in California nonattainment areas as well as those located in other states, and the organization of those measures in the 16 categories specified in CAA §108(f)(1)(A). The third step is the determination of RACM by contrasting the list of candidate measures with measures implemented to date in the South Coast Air Basin, as well as any new TCMs in the current AQMP. Finally, the fourth step is the provision of reasoned justification for any of the available measures that have yet been implemented. These justifications must address criteria described in the above-cited guidance.

[8] https://www.govinfo.gov/content/pkg/FR-2018-12-06/pdf/2018-25424.pdf

Step 1. SCAG RACM/TCM Rollover Development Process

While the SCAG Region has an extensive, systematic TCM development program continually updated through the FTIP process, Serious and worse nonattainment areas are obligated during SIP preparation to evaluate TCMs and determine whether they qualify as RACM.

The RACM process relies predominantly on a continuous process of updating and adding TCMs in the South Coast Air Basin. The current TCM "Rollover Process" was established for the South Coast Air Basin to replace a process that developed TCMs each time a SIP was produced with a continuous, ongoing TCM process. This process continues to govern the selection and implementation of TCMs today. TCMs are continuously identified and reviewed throughout the transportation planning process. SCAG's ongoing public outreach effort, including an involved interagency input process via SCAG's Transportation Conformity Working Group (TCWG), helps ensure that the process to identify and review TCMs is robust, inclusive, and comprehensive. Development of TCMs arises from multiple processes and multiple sources including CTCs, subregional agencies, task forces, committees, and the public. As part of the RTP and FTIP development process, the transportation project funding and scheduling procedures ensure that TCMs are developed, sponsored, and clearly identified throughout the process and implemented on schedule.

Step 2. Assembly and Review of Candidate TCM RACM

U.S. EPA and related court decisions have maintained that TCMs considered RACM must be measures that (a) advance the attainment date, typically by at least one year and (b) are technologically and economically feasible. Measures must pass both the advance attainment and technological/economic feasibility tests to be deemed RACM.

U.S. EPA guidance documents identify the types of measures to be considered. CAA §108(f)(1)(A) provides a list of the following sixteen categories of TCMs that are potential options and should be considered indicative types of TCMs:

i. *Programs for improved use of public transit;*
ii. *Restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles;*
iii. *Employer-based transportation management plans, including incentives;*
iv. *Trip-reduction ordinances;*
v. *Traffic flow improvement programs that achieve emission reductions;*
vi. *Fringe and transportation corridor parking facilities, serving multiple occupancy vehicle programs or transit service;*
vii. *Programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration, particularly during periods of peak use;*
viii. *Programs for the provision of all forms of high-occupancy, shared-ride services, such as the pooled use of vans;*
ix. *Programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place;*
x. *Programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas;*

xi. *Programs to control extended idling of vehicles;*
xii. *Programs to reduce motor vehicle emissions, consistent with Title II of the Clean Air Act, which are caused by extreme cold start conditions;*
xiii. *Employer-sponsored programs to permit flexible work schedules;*
xiv. *Programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity;*
xv. *Programs for new construction and major reconstruction of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation, when economically feasible and in the public interest; and*
xvi. *Programs to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks.*

U.S. EPA guidance states that these sixteen categories are an illustrative, but not exhaustive list. The General Preamble also states that U.S. EPA does not presume that "control measures are reasonably available in any or all areas," therefore, TCMs need to be evaluated on an area-by-area basis to determine which are reasonably available. In addition to the measures listed above, the General Preamble cites other sources to include TCMs that were (a) suggested during public comments (e.g. at workshops, public hearings, in written comments, etc.); (b) adopted in other nonattainment areas of the country; and (c) specifically identified by the U.S. EPA (i.e., U.S. EPA TCM database, support documents for rulemaking, etc.).[9] It is important to note that, pursuant to U.S. EPA's Transportation Conformity Regulations, vehicle technology-based, fuel-based, and maintenance-based measures which control the emissions from vehicles under fixed traffic conditions are not TCMs.

To develop a list of candidate RACMs, SCAG performed a comprehensive review of available TCMs in California, as well as in other states. SCAG reexamined the candidate RACM identified during the comprehensive RACM analysis performed for the 2016 AQMP and updated TCMs based on new ozone SIPs developed since the last RACM analysis. The SIPs reviewed by SCAG include all applicable SIPs from Serious, Severe, and Extreme nonattainment areas under the 2008 8-hour ozone standards[10] that were not available for review in the previous 2016 AQMP. Tables VI-C-4 lists these additional ozone nonattainment area SIPs that SCAG reviewed for candidate measures as part of this analysis.

Additionally, TCMs were discussed and reviewed at numerous TCWG meetings as part of the 2019 FTIP, 2021 FTIP, Connect SoCal, and 2022 AQMP. Further, SCAG has an extensive and robust public participation process for the development of the RTP and the FTIP through ongoing public meetings, and technical, advisory, and policy committees. These groups generally meet on a monthly or quarterly basis and provide explicit opportunities for the public to participate and contribute.

[9] Seitz, John S. (December 2, 1999). Memo from John Seitz: Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas. Available at: http://www.epa.gov/ttn/oarpg/t1/memoranda/revracm.pdf.
[10] U.S. EPA's ozone standard nonattainment area designations are available at https://www.epa.gov/green-book

TABLE VI-C-4. 8-Hour Ozone Standard Nonattainment Areas Reviewed for RACM		
Region	**Designation**	**Applicable SIP**
Chicago-Naperville, Illinoi-Indiana-Wisconsin	Serious	Draft Redesignation Request and Maintenance Plan for the Illinois Portion of the Chicago Ozone Nonattainment Area for the 2008 Ozone Standard
Coachella Valley, California	Severe 15	Final 2016 Air Quality Management Plan
Dallas-Fort Worth, Texas	Serious	Dallas-Fort Worth Serious Classification Attainment Demonstration State Implementation Plan Revision for the 2008 Eight-Hour Ozone National Ambient Air Quality Standard
Denver-Boulder-Greeley-Ft, Colorado	Serious	Serious State Implementation Plan for the Denver Metro and North Front Range Ozone Nonattainment Area, December 18, 2020
Eastern Kern, California	Severe 15	2017 Ozone Attainment Plan For 2008 Federal 75 ppb 8-Hour Ozone Standard
Houston-Galveston-Brazoria, Texas	Serious	Houston-Galveston-Brazoria Serious Classification Attainment Demonstration State Implementation Plan Revision for the 2008 Eight-Hour Ozone National Ambient Air Quality Standard
New York-Northern New Jersey- Long Island, Connecticut	Serious	Revision to Connecticut's State Implementation Plan Ozone Attainment Demonstration for Areas Classified Serious Nonattainment for the 2008 Ozone Standards, October 2021 8-Hour Ozone Attainment Demonstration for the Connecticut Portion of the New York-Northern New Jersey-Long Island (NY-NJ-CT) Nonattainment Area Technical Support Document
New York-Northern New Jersey- Long Island, New York	Serious	New York State Implementation Plan for the 2008 Ozone National Ambient Air Quality Standards – New York-N. New Jersey-Long Island, NY-NU-CT Serious Nonattainment Areas, 2021
San Diego, California	Severe 15	2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County
San Joaquin Valley, California	Extreme	2016 Ozone Plan for 2008 8-Hour Ozone Standard
Sacramento, California	Severe 15	Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan, 2017
Ventura, California	Serious	Final 2016 Ventura County Air Quality Management Plan
Western Mojave	Severe 15	MDAQMD Federal 75 ppb Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)
Western Nevada County, California	Serious	Ozone Attainment Plan, Western Nevada County, State Implementation Plan for the 2008 Primary Federal 8-Hour Ozone Standard of .075 ppm, 2018

In summary, SCAG performed the RACM analysis based on information reviewed from the following sources:

- CAA Section 108(f)(1)(A)
- 2016 South Coast AQMP TCM RACM Analysis
- Other Serious and worse ozone nonattainment areas in California
- Other Serious and worse ozone nonattainment areas outside California
- SCAG RTP and FTIP Updates since adoption of 2016 RTP/SCS
- Interagency Consultation (TCWG)
- Transportation Committee, Energy and Environment Committee, and Active Transportation Working Group meeting materials and input

SCAG reviewed the candidate measures to determine which could be considered RACMs. As discussed above, the RACM TCM requirement consists of two core criteria that must be satisfied: (a) TCMs must advance attainment of the air quality standards; and (b) TCMs must be both technologically and economically feasible. U.S. EPA has not provided specific definitions on these core criteria, but has preferred to allow flexibility in each region's determination.

In practice, agencies have based their determination of the first criteria on whether a measure, or group of measures, would help an area achieve attainment one year earlier than in the absence of the measure, or group of measures. In other words, TCM implementation must significantly reduce emissions to facilitate attainment of the NAAQS one year earlier than without the TCMs. Considering the magnitude of the emissions reductions necessary to demonstrate attainment in the South Coast Air Basin, the implementation of every possible TCM is not expected to meet this criterion. Technological feasibility has been determined in terms of local factors, such as environmental impacts, availability of control measures, and ability to achieve the emission reductions. Project cost-effectiveness has been considered a determining factor for economic feasibility.

Step 3. Determining RACM Measures

For this step of the RACM analysis, SCAG compared the list of measures implemented within the South Coast Air Basin with those implemented in other areas. SCAG then organized measures, including candidate measures and those measures currently implemented in the region, into the sixteen categories specified in CA §108(f)(1)(A). There is no formal requirement on how to organize TCMs. However, SCAG utilized this organization scheme as a way to highlight those measures that fall within the sixteen CAA categories, which are formally recognized as "TCMs" and subject to CAA and federal conformity requirements. In addition, a category titled "Other Measures" includes TCMs that do not fall in any of the sixteen CAA §108(f)(1)(A) categories. SCAG found a small number of candidate measures that were not currently implemented in the region and not included in the 2016 AQMP TCM RACM analysis. New measures added to those reviewed as part of the 2016 RACM analysis are highlighted in bold font in Attachment B.

Step 4. Reasoned Justification

The fourth and last step is to provide a reasoned justification for any of the available measures that have yet been implemented or will not be implemented. In 1999, U.S. EPA issued a memorandum of guidance[11] which states that in order to determine whether a state has adopted all RACMs necessary for attainment and as expeditiously as practicable, the state must explain why the selected implementation schedule is the earliest schedule based on the circumstances of the area. This indicates that states can reject measures as not reasonably available for reasons related to local conditions. In such cases, states are obligated to provide justification as to why potentially reasonable measures have not been adopted. Valid reasons for rejecting a measure include: (a) it would not advance the attainment date, (b) it is economically infeasible, or (c) it is technologically infeasible.

The complete listing of all candidate measures evaluated for RACM determination is included in Attachment B. A "Measure Number" is assigned for each strategy for ease of discussion (not rank in priority). The "Description" column provides a brief description of the relevant measure in discussion. "Has It Been Implemented?" confirms whether the measure is currently implemented in the SCAG region. The final "Reasoned Justification for Not Implementing" column provides a reasoned justification for those measures that were not considered RACM. SCAG appropriately considered a number of factors that included technological and economic feasibility, enforceability, geographic applicability, and ability to provide emission reductions. Of the TCMs that were deemed candidate measures, none were found to meet the criteria for RACM implementation of advancing attainment and technological/economic feasibility.

Conclusion

CAA Section 172(c)(1) requires SIPs to provide for the implementation of all TCM RACM as "expeditiously as practicable." U.S. EPA and related court decisions have maintained that TCMs considered RACM must be measures that 1) advance the attainment date, typically by at least one year and 2) are technologically and economically feasible. Measures must pass both the advance attainment and technical/economic feasibility tests to be deemed RACM.

Based on a comprehensive review of TCMs in other Serious or worse ozone nonattainment areas or otherwise identified, it is determined that the TCMs being implemented in the South Coast Air Basin are inclusive of all TCM RACM. None of the candidate measures reviewed herein that have not been implemented meet the criteria for RACM implementation.

SCAG and the local transportation agencies have established a comprehensive, formal process for identifying, evaluating, and selecting TCMs. The regular RTP, FTIP, and AQMP/SIP public update processes ensure that TCM identification and implementation is a routine consideration that helps SCAG and the South Coast AQMD in the effort to demonstrate attainment of applicable NAAQS.

[11] Seitz, John S. (December 2, 1999). *Memo from John Seitz: Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas.* Available at: http://www.epa.gov/ttn/oarpg/t1/memoranda/revracm.pdf

Attachment A: Committed Transportation Control Measures (TCMs)[12]

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
BALDWIN PARK	LATP17S029	Construct 2.3 miles of Class I shared-use path ("trail"). Develop conceptual designs for 6.8 mile Class I trail along Walnut Creek and 15.3 miles of on-street Class II and Class III bikeways.	6/6/2022
BEVERLY HILLS	LAF9537	Beverly Hills Bike Share Program: Regionally-compatible, public bicycles for local/regional non vehicle mobility, first/last miles connection to bus and Purple Line rail transit, reduce air pollutants, promote healthy lifestyles	12/31/2022
BURBANK	LAF5701	Burbank Traveler Information and Wayfinding System -Installation of real-time bus arrival system on BurbankBus buses. The project will also completing wayfinding signage on major Bike corridors to help identify destination and travel distance for bicyclists.	4/30/2022
BURBANK	LAF9315	Traffic responsive system involving advanced traffic controllers, communications, video surveillance, and bicycle and system detection for 33 intersections in the City of Burbank	12/21/2021
BURBANK	LAF1502	San Fernando Bikeway. Implement a Class I Bikeway along San Fernando Blvd, Victory Place and Burbank Western Channel to complete the Burbank leg of a 12 mile bikeway.	12/31/2021
CALTRANS	LA0B951	Route 71: ROUTE 10 TO 0.14 MILE SOUTH SAN BERNARDINO COUNTY LINE - EXPRESSWAY TO FREEWAY CONVERSION - ADD 1 HOV LANE AND 1 MIXED FLOW LANE . (2001 CFP 8349, TCRP #50) (EA# 210600, PPNO 2741=EA 21060, PPNO 2741 + EA 21061, PPNO 2741N, EA 21062, PPNO 1741S) (TCRP #50) (Use Toll Credits as Local Match).	11/21/2028
CALTRANS	LA0D73	Route 005: LA MIRADA, NORWALK & SANTA FE SPRINGS-ORANGE CO LINE TO RTE 605 JUNCTION. WIDEN FOR HOV & MIXED FLOW LNS, RECONSTRUCT VALLEY VIEW (EA 2159A0 = 21591, 21592+31320=2159U, 21593, 21594, 21595 PPNO 2808 = 4153, 2808, 4154, 4155, 4156, 4841). TCRP#42.2&42.1 (USE TOLL CREDITS AS LOCAL MATCH)	10/31/2022
CALTRANS	LAF9301	Route 210: Implementation of I-210 Connected Corridors transportation management system that integrates freeway ramp meters, arterial signal systems, transit systems and traveler information [EA 32910].	12/30/2021
CALTRANS	LA000358	Route 005: --- FROM ROUTE 134 TO ROUTE 170 HOV LANES (8 TO 10 LANES) (CFP 346)(2001 CFP 8355). (EA# 12180, 12181,12182+12183=1218w,12184, 13350 PPNO 0142F,151E,3985,3986,3987) SAFETEA LU # 570. CONSTRUCT MODIFIED IC @ I-5 EMPIRE AVE, AUX LNS NB & SB BETWEEN BURBANK BLVD & EMPIRE AVE; AND MODIFY EXISTING STRUCTURES. ADD AUXILIARY LANE BETWEEN ALAMEDA AND OLIVE FROM PM 28.43 to PM 29.78	7/30/2022

[12] Projects may include TCM and non-TCM portions. Committed TCMs include only that portion of the projects that meets the definition of TCMs.

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
CALTRANS	LA0B875	Route 10: HOV LANES AND PAVEMENT REHAB FROM CITRUS TO ROUTE 57 (EA# 11934 + 31120 = 1193U, PPNo 0310B+4812=0310B). USE TOLL CREDIT AS LOCAL MATCH.	12/31/2022
CARSON, CITY OF	LATP17M024	Design and construct a 1.8 mile bike and pedestrian path (Class 1 facility) along the top of the Dominguez Channel levee between Avalon Boulevard and 223rd Street / Wilmington Avenue in Carson.	9/1/2022
COMMERCE	LA0G1704	Project includes traffic signal upgrades, signal interconnect installation, adoptive signal detection, control system, software, signal sync, traffic lane alignments, traffic signage, freeway on and off ramp improvements, and other items to improve traffic flow and capacity. 4 intersections will receive signal sync: 1) Triggs St, Telegraph Rd, Atlantic Blvd, Goodrich Blvd, and Ferguson Dr; 2) Telegraph Rd and Atlantic Blvd; 3) Atlantic Blvd and Eastern Ave; and 4) Eastern Ave and Stevens Pl.	6/30/2026
COMPTON	LA0G1711	This Wilmington Avenue Regional Bikeway Corridor connects existing bikeways and lanes at Rosecrans Ave on the north and continues south to Victoria St. This project will provide bicycle elements including Class II bike lanes, pedestrian lighting, and missing sidewalks gaps to provide safe travels for pedestrians and bicyclists. This corridor will eventually connect the Compton Creek bike path at El Segundo with the Metro Blue Line Artesia Station. Project is 2.5 miles long.	3/31/2025
COMPTON	LATP17S012	This project is the final design and construction of 29.68 miles of gap closure in the bike lane network in the Cities of Compton and Carson. Project elements include Class I, II, and III bike lane improvements including striping, bike sharrows, directional painted green lines and wayfinding signage. Utilizing Toll Credits to match ATP.	12/31/2022
COMPTON	LAF9530	Enhance safety/improve non-motorized transportation travels along Central Av by installing protective buffered bike lanes, improving intersection crossings and closing sidewalk gaps	8/1/2021
COMPTON	LA0G1713	This project aims to develop and upgrade the existing and obsolete citywide traffic signal system to a state of the art intelligent transportation system that synchronizes traffic signal along Rosecrans Av from city limits to city limits. There are 20 signal intersections planned for synchronization.	6/30/2025
CUDAHY	LAF9605	The Cudahy City Wide Complete Streets Improvement Project focuses on the Atlantic Avenue Corridor and City Wide multimodal transportation improvements for the first/last mile. Project is approximately 1.1 miles long.	12/1/2021
CULVER CITY	LAF7303	NETWORK-WIDE SIGNAL SYNC WITH VID & ARTERIAL PERFORMANCE MEASUREMENT SYSTEM FOR ATCS : (1) Optimizes signal coordination timing network-wide. (2) Upgrades major intersections with enhanced system detection and arterial performance measurement capabilities along Washington Bl, Sepulveda Bl, Jefferson Bl, and others. (16 signals that are synched)	12/31/2021
DOWNEY	LAF9525	This project implements 17 miles of Class II bike lanes on eight roadways (seven of them with Road Diets) providing enhanced access to activity centers and multi-modal assets such as the Green Line and bike paths.	3/31/2022
DOWNEY	LAF5114	Telegraph Road Traffic Throughput and Safety Enhancement between the Rio Hondo River Channel to the San Gabriel River Channel, a distance of 2.2 miles. Project involves the construction of raised median islands, minor widening at intersections, transit priority system and bike (2.2 miles in length) and pedestrian circulation improvements.	6/30/2021

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
DOWNEY	LAF7311	DOWNEY CITYWIDE TRANSIT PRIORITY SYSTEM PROGRAM : (1) Synchronizes traffic signals along existing transit routes. (2) Installs new fiber optic communication along 5.5 miles of arterial streets to connect signals to the central traffic management center. (3) Installs and integrates transit priority system with the traffic signal system.	8/1/2024
EL MONTE	LAF3125	Ramona Corridor Transit Center Access Project. Construct a new underpass structure on Ramona Blvd under Santa Anita Ave to access the lower level of the El Monte Transit Center. The proposed bus tunnel ramps will begin east of the Santa Anita Avenue and Ramona Boulevard Intersection on Ramona Boulevard and the tunnel will continue under Santa Anita Avenue (along Romona Boulevard) to the lower level of the El Monte Transit Center and includes 1 "bus only" lane in each direction.	12/31/2021
EL MONTE	LA0G1180	A 0.5 mile Class III bike route with sharrows, a 0.7 mile Class II green-painted bike lane, and a 2 mile a Class II bike lane with buffer pavement stenciling. Improvements includes roadway resurfacing, highlighting, crosswalk improvements, camera installation at intersections, and wayfinding signage. The project runs 3.2 miles along Santa Anita from ELLIOT AVENUE (South) to WEST HONDO PARKWAY (North).	6/30/2022
EL SEGUNDO	LA9918809	Existing pavement shows widespread signs of deterioration throughout the corridor which constitutes a need for rehabilitation. Existing conditions on El Segundo Boulevard are missing ADA compliant curb ramps, larger traffic signal poles, dedicated bicycle facilities including bicycle detection, and adequate pedestrian crossings which will be addressed at specific locations as part of the project. 12,000 linear feet of bike lanes (Class II and Class III) will be installed.	11/15/2026
FOOTHILL TRANSIT ZONE	LA0G1501	Construct Bus Layover Facilities Jointly by AVTA, LADOT & Foothill Transit	12/31/2023
FOOTHILL TRANSIT ZONE	LA0G1234	Mt. San Antonio College (MSAC) Transit Center. The Transit Center includes 10 bus bays, 2 chargers for electric buses, a transit store, lighted sheltered wait areas, real-time bus arrival kiosks, and upgraded ADA and pedestrian access.	12/31/2022
GARDENA	LATR02020	Implement transit signal priority for 8.4 miles from the Harbor Gateway Transit Station to 120th Street in the city of Gardena. Also implementing real time arrival information through variety of media including smart phones, SMS texts, call centers, and website. Computer aided dispatching (CAD) system and automated vehicle location (AVL) system will also be implemented.	6/30/2022
GARDENA	LA0G1175	Computer Automated Dispatching/Automated Vehicle Location (CAD/AVL)Solution with Real Time Passenger Information Network. Adding TDC in construction phase to match 5307 in FY18/19 for $400.	12/31/2021
GLENDALE	LAF7709	GLENDALE REGIONAL BIKE PARKING NETWORK : Provides 2 high capacity bike parking facilities and 20 wayfinding signs for bicycle users within the City of Glendale, specifically Glendale Larry Zarian Transportation Center and the Glendale Marketplace/Public Library.	12/31/2021
GLENDALE	LA0G1411	Honolulu Ave and Montrose Ave at Pennsylvania Ave Traffic Signal Modification (Route I-210 Fwy Connectivity)	12/31/2022

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
HAWTHORNE	LAF9102	5 intersection locations; Signal improvement include Upgrade traffic signal controller and cabinet enabling, Rewiring of the signalized intersection to ensure communication between signal equipment; Upgrade pedestrian signals to count down type and push buttons, Install battery backup system to minimize disruption of traffic during power outage new vehicle detection including bicycle loops/sensors; new bike lane will be one mile (each way).	10/18/2021
HAWTHORNE	LAF7101	PRAIRIE AVENUE MOBILITY PROJECT : (1) Widens Prairie Av intersections at El Segundo Bl and at Rosecrans Av to construct double left-turn pockets for traffic flow improvement and to install Class III bike routes on both sides. (2) Traffic signal upgrade and synchronization of 8 intersections between 118th and Marine. (3) Installs Class III bike equipment, improves pedestrian facilities, and upgrades ADA access ramps, new median curbs and landscaping at intersections.	12/31/2021
HAWTHORNE	LA0G1548	Widen intersections modify and upgrade four traffic signal system, traffic striping, adjustment of utilities, excavation and removal of existing pavement, concrete, asphalt and construction of curb, gutter, sidewalks, driveways and ADA ramps. Signal Synchronization at: El Segundo Blvd at Ramona Ave. El Segundo Blvd. at Aviation Ave. El Segundo Blvd. at Isis Ave. El Segundo Blvd. at Van Ness Ave.	11/30/2022
HAWTHORNE	LA0G1547	Widen intersections, upgrade 6 traffic signal (including ADA ramps where signal upgrade impacts adjacent ramp), turn lane, striping, utilities, concrete, asphalt, curb, gutter, sidewalks, driveways, retaining walls, and raised medians. Rosecrans Avenue at Hawthorne Boulevard Rosecrans Avenue at Inglewood Avenue Rosecrans Avenue at Ocean Gate Avenue Rosecrans Avenue at Hindry Avenue Rosecrans Avenue at Isis Avenue Rosecrans Avenue at Aviation Boulevard	6/30/2022
HAWTHORNE	LA0G1546	Imperial Hwy Signal Improvements and Intersection. PA/ED, PS&E, ROW, Construction. Modify and upgrade 5 traffic signal, traffic striping, utilities, excavation, removal of existing pavement, concrete, asphalt and construction of curb, gutter, sidewalks and driveways. Signal Synchronization at: Imperial Highway at Prairie Avenue Imperial Highway at Freeman Avenue Imperial Highway at Hawthorne Boulevard Imperial Highway at Ramona Avenue Imperial Highway at Inglewood Avenue	6/20/2022
HUNTINGTON PARK	LA0G1669	This project will include new signal poles, conduit, wiring, controller cabinets and video detection. The locations include Slauson Ave at Alameda St, Slauson Ave at Santa Fe Ave, Slauson Ave at Miles Ave/Soto St, Slauson Ave at Boyle Ave/State St, Slauson Ave at Downey Rd/Malburg Way.	2/1/2023
INGLEWOOD	LAF9307	City of Inglewood ITS phase VI project: 5,280 feet of fiber optic along Pincay Drive; Replace 170 controllers with Type 2070 controllers at twelve intersections; Traffic signal synchronization along Pincay Drive between Prairie and Crenshaw; Install changeable message sign at Century/Prairie; and Modernizing City Hall TMC to provide Adaptive Traffic Control and meet current standards.	6/30/2022
INGLEWOOD	LAF7319	Inglewood ITS - PHASE V : (1) Designs and constructs computerized traffic control and monitoring systems. (2) Expands central traffic control and advance traffic management at 39 intersections (3) improves 6.13 miles of fiber optic communications, (4) expands Closed Circuit Television Cameras (CCTV) at 10 intersections, (5) installs Changeable Message Signs (CMS) at 2 intersections, and (6) installs new communication hubs at 3 intersections.	8/31/2021

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LA CANADA-FLINTRIDGE	LAF5522	Foothill Blvd. Link Bikeway & Pedestrian Greenbelt Project, Briggs Ave. to Alta Canyada Rd, construct 1.5 miles of Class II Bike Lanes, bike and bus facilities, raised median and 0.5 miles of pedestrian beltway with lighting and hardscape.	1/31/2022
LAKEWOOD	LA0G1262	Lakewood Bl Regional Corridor Capacity Enhancement project (Del Amo Bl to north City limit) - Class II bike lanes (1.9 mile) in each direction, new sidewalk, street resurfacing, ADA & stormwater compliance, traffic signal modifications, drought resistant landscaping & irrigation, signing & striping, and utility undergrounding within the existing City right of way.	12/31/2021
LAWNDALE	LAF7500	HAWTHORNE BOULEVARD CLASS II BICYCLE LANES: (1) Installs 1.0 mile of Class 2 bike lanes on Hawthorne Blvd for both directions. (2) Provides bicycle parking.	6/30/2021
LONG BEACH	LAF9314	The project consists of signal enhancements that will include synchronization and communications. Also are included are bicycle and pedestrian improvements and inclusion of the corridor into an Adaptive Traffic Control System	12/31/2022
LONG BEACH	LAF9130	Establishing a Great Street (Or Multimodal Corridor) in Long Beach - implementing the City's street prioritization framework. Improvement includes round-about, bus shelter upgrade, bulb-out, enhanced crossing, and Class II bike lane (3 miles)	5/1/2024
LONG BEACH	LAF7522	Delta Avenue Bicycle Boulevard. This north-south bicycle boulevard on Delta Ave (approximately 3 miles) in West Long Beach will consist of Class II lane segments and sharrow markings, traffic circles, traffic signal, and wayfinding signage to nearby Metro Blue Line stations and LA River Bike Path.	12/31/2021
LONG BEACH	LAF7316	ARTESIA CORRIDOR ATCS ENHANCEMENT PROJECT : (1) Upgrades traffic signals along Artesia Bl between Long Beach Bl and Downey Av to connect with Adaptive Traffic Control System (ATCS). (2) Installs CCTV and CMS on Artesia Bl. (3) Installs fiber optic cable and devices to connect signals to each other and traffic management center (TMC). (4) Two new traffic signals in Compton (5) Installs Class II bike lane in both directions from Atlantic Av to Susana Rd. (6) Pedestrian improvements.	6/30/2022
LOS ANGELES COUNTY	LA0G1486	The Project consists of design and construction of 1.86 miles of Class I bike path along Puente Creek and 0.37 miles of enhanced Class III bike route along Rimgrove and Witzman Drive adjacent to the Rimgrove County Park. The non-infrastructure portion of the Project includes bicycle and pedestrian safety education and encouragement training workshops and rodeos to students at 3 elementary, 1 middle, and 1 high school located near the proposed bikeway.	6/30/2023
LOS ANGELES COUNTY	LA0D461	RECONSTRUCT- THE OLD ROAD FROM HILLCREST PARKWAY TO LAKE HUGHES RD & WIDEN FROM 40' TO 68', 2 VEH. LANES and a 5' CLASS II BIKELANE IN EA DIR & STRIPPED MEDIAN (FROM 2 TO 4 LNS 2 EA DIR) for 2.1 miles.	6/30/2022
LOS ANGELES COUNTY	LAF5316	South Bay Forum Traffic Signal Corridors Project - systemwide coordination, timing and operational improvements and traffic signal synchronization, equipment upgrades and intersection operational improvements in South Bay region. 25 signals system wide. Additionally, this project will install any warranted and feasible roadway improvements along the routes to improve overall progression.	6/30/2022

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES COUNTY	LAF5315	San Gabriel Valley Forum Traffic Signal Corridors Project. This project includes 6 intersections at Myrtle Av/Peck Rd between Huntington Dr and Clark St and provides for system wide coordination, timing and operational improvements and traffic signal synchronization, equipment upgrades and intersection operational improvements. (approx.. 20+ signals)	6/30/2022
LOS ANGELES COUNTY	LAF5310	Ramona Boulevard/Badillo Street/Covina Boulevard TSSP/BSP. Implementation of a Traffic Signal Synchronization Project (TSSP) on Ramona Bl/Badillo St/Covina Bl from Santa Anita Av to the 57 Freeway. A Bus Signal Priority (BSP) project will be implemented on Ramona Bl/Badillo St from Tyler Av to Grand Av to give transit priority for Foothill Transit operations (approx.. 48 signal locations)	6/30/2022
LOS ANGELES COUNTY	LAF1321	San Gabriel Valley Forum Traffic Signal Corridors Project. Design & construction of multijurisdictional traffic signal synchronization, intersection operational improvements, and intelligent transportation system components. Synchronizes 83 consecutive intersections.	6/30/2022
LOS ANGELES COUNTY	LAF1312	Gateway Cities Forum Traffic Signal Corridors, Phase V. Design and construction of multijurisdictional traffic signal synchronization and intersection operational improvements on regional arterials in the Gateway Cities region. Includes 86 consecutive intersections.	6/30/2022
LOS ANGELES COUNTY	LAF1311	South Bay Forum Traffic Signal Corridors Project. Design & construction of multijurisdictional traffic signal synchronization, intersection operational improvements, and intelligent transp. system components on regional arterials. Synchronizes 50 consecutive intersections.	6/30/2022
LOS ANGELES COUNTY	LA0G1291	Huntington Dr - San Gabriel Bl to 132' w/o Michillinda Ave: Construct approx. 7200ft buffered Class II bike lanes, upgrade curbs & sidewalks to meet standards. Add pedestrian access through the median @S San Gabriel. Add drought tolerant landscaping/hardscape inside median. Install new traffic signal at Huntington Dr & Madre St/Muscatel Av which may require tree removal.	9/30/2022
LOS ANGELES COUNTY	LAF3310	South Bay Forum Traffic Signal Corridors Project. Design and construction of multijurisdictional traffic signal synchronization, operational improvements & ITS components on arterials in the South Bay area of LA County. (approx. 40+ signals)	6/30/2022
LOS ANGELES COUNTY	LAF3309	Gateway Cities Forum Traffic Signal Corridors Proj, Phase VI. Design and construct multijurisdictional traffic signal synchronization, intersection operational improvements & ITS components on regional arterials in Gateway Cites area. (approx.. 126 signals)	6/30/2022
LOS ANGELES COUNTY	LAF3308	San Gabriel Valley Forum Traffic Signal Corridors Project. Design and construction of multijurisdictional traffic signal synch, intersection operational improvements, and intelligent transportation system components on regional arterials. Approx. 183 signals total.	6/30/2022
LOS ANGELES COUNTY	LAF9304	The design and construction of traffic signal synchronization and intelligent transportation system improvements and installation of performance measurement devices in the Gateway Cities area. There are 39 intersections in the TSSP route.	6/30/2027
LOS ANGELES COUNTY	LAF9303	SOUTH BAY FORUM TRAFFIC SIGNAL CORRIDOR PROJECT. This project includes traffic signal synchronization on Crenshaw Boulevard between 120th Street and Rosecrans Avenue and Del Amo Boulevard between Avalon Boulevard and Susana Road (approx. 15+ signals) and also includes systemwide coordination timing, operational improvements and ITS.	6/30/2027

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES COUNTY	LAF7610	Aviation /LAX Green Line Station Community Linkages. The project includes improvements on corridors near the Metro Aviation/LAX Station including pedestrian and bicycle facilities, wayfinding signs, landscaping and traffic calming. An approximate total of 2 miles of bikeway and 2.5 miles of upgraded pedestrian facilities will be implemented.	6/1/2021
LOS ANGELES COUNTY	LAF7508	Vincent Community Bikeways. Install 2 miles of bike paths along the Big Dalton Wash between Irwindale Ave and Lark Ellen Ave and between Arrow Hwy and Citrus Ave, and 1.3 miles of bike lanes and 1.4 miles of bike routes to connect to the existing and proposed bikeways in the surrounding areas.	6/30/2022
LOS ANGELES COUNTY	LAF7308	EAST LOS ANGELES TRAFFIC SIGNAL CORRIDOR PROJECT : (1) Synchronizes traffic signals and implements upgrades at 13 signalized intersections along 3.5 mile segment of Eastern Av. between Medford St and Olympic Blvd. (2) Installs Fiber Optic Communications along Cesar Chavez Av, Ramona Bl, and Atlantic Bl to connect traffic signals to LADPW Advanced Transportation Management System (ATMS).	6/30/2022
LOS ANGELES COUNTY	LAF9511	South Whittier Community Bikeway Access Improvements: Construction of Class II & Class III bike facilities in the unincorporated County area of South Whittier along with various pedestrian intersection improvements	6/30/2022
LOS ANGELES COUNTY	LAF9504	E. Pasadena & E. San Gabriel Bikeway Access Improvements: Install approximately 4.8 miles of bike lanes and enhanced bike routes in the East Pasadena and East San Gabriel communities	12/31/2022
LOS ANGELES COUNTY	LAF7700	WILLOWBROOK INTERACTIVE INFORMATION KIOSKS : Provides information to public transit users by installing 3 interactive kiosks displaying transit, neighborhood, and cultural information. The project will serve the Willowbrook area at Martin Luther King Jr. Hospital, Kenneth Hahn Plaza, and the Metro Willowbrook/Rosa Parks Blue and Green Line Station.	6/30/2022
LOS ANGELES COUNTY	LAF7310	SOUTH BAY FORUM TRAFFIC SIGNAL CORRIDORS PROJECT : Project area is Normandie Av between 92nd St and El Segundo Bl, Manhattan Beach Bl between Manhattan Av and Van Ness Av, and Hawthorne Bl between Imperial Highway and Manhattan Beach Bl. Project scope includes (1) Synchronization and retiming traffic signals, equipment upgrades, system detection, CCTV cameras, changeable message signs. (2) Upgrade traffic signal operations to be capable of time-based coordination.	6/30/2022
LOS ANGELES COUNTY	LAF7307	SAN GABRIEL VALLEY FORUM TRAFFIC SIGNAL CORRIDOR PROJECT : Implements ITS enhancements including synchronization and retiming of traffic signals, equipment upgrades, system detection, CCTV cameras, and changeable message signs to expand Advanced Transportation Management System (ATMS).	6/30/2022
LOS ANGELES COUNTY	LAF7306	FOOTHILL BOULEVARD TRAFFIC SIGNAL CORRIDOR PROJECT : (1) Traffic signal synchronization, equipment upgrades and intersection operational improvements for 28 intersections along Foothill Bl between Lowell Av and Crown Av. (2) Installs two (2) Closed Circuit Television (CCTV) cameras and wireless network communications infrastructure which will provide for expansion of Advanced Transportation Management System (ATMS) along Foothill Bl.	6/30/2022

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES COUNTY	LAF7305	GATEWAY CITIES FORUM TRAFFIC SIGNAL CORRIDOR PROJECT : Designs and constructs ITS improvements along Norwalk Bl, San Antonio Dr, Pioneer Bl between Beverly Bl and Carson St including synchronization and retiming of traffic signals, equipment upgrades, system detection, CCTV cameras (up to 14 CCTVs), and changeable message signs.	6/30/2022
LOS ANGELES COUNTY	LATR02018	The Whittier Boulevard Transit Signal Priority Project (Project) includes the deployment of ITS infrastructure to enhance arterial operations and monitoring in East Los Angeles. Wireless communications and upgraded controller equipment will be deployed along a critical segment of Whitter Blvd. that serves Metro Rapid Line 720 and provides parallel capacity to the 1-10 ExpressLanes.	6/30/2022
LOS ANGELES COUNTY	LATP17M026	Install new raised bike lanes and sidewalks on an existing 4-lane, 0.8-mile roadway segment of Temple Avenue, between the cities of Walnut and Pomona. This gap closure project will connect bike and pedestrian facilities, two large colleges and employers in to adjacent cities. Sidewalk and bike lane are both 0.8 miles.	3/16/2022
LOS ANGELES COUNTY	LATP17M025	Install a 1.6 mile long and 17-foot wide walkway adjacent to existing Marvin Braude Bike Trail to close the gap between the existing walkways connecting Pacific Palisades and the City of Santa Monica. This will increase safety for cyclists/pedestrians which will increase usage and physical activity opportunities.	12/30/2021
LOS ANGELES COUNTY	LAF9302	The design and construction of traffic signal synchronization and intelligent transportation system improvements and installation of performance measurement devices in the San Gabriel Valley area.	12/31/2023
LOS ANGELES COUNTY MTA	LA0G1247	The Project consists of bicycle and pedestrian transportation linkage improvements to the Rail to Rail Active Transportation Corridor (ATC) Connector Project Segment A along an approximately 5.6-mile long corridor from the future Metro Crenshaw/LAX Fairview Heights Station to the existing Metro Blue Line Slauson Station.	12/31/2023
LOS ANGELES COUNTY MTA	LA0G635	Design and construction of pedestrian and transit enhancements along the public right-of-way of the Metro Gold Line Eastside Extension to surrounding neighborhood. Transit enhancements are within 3 miles of Eastside Goldline Extension station.	6/30/2021
LOS ANGELES COUNTY MTA	LA0G1169	Brighton to Roxford double track: This project adds 11 miles of 2nd track between Burbank and Sylmar on Metrolink's Antelope Valley Line (AVL). The project will eliminate the current bottleneck and improve on time performance and operational reliability on the AVL. This project will be designed to be compatible with the potential future high speed rail alignment.	12/31/2021
LOS ANGELES COUNTY MTA	LA0G1375	This is a large-scale deployment of the Freight Advanced Traveler Information System (FRATIS) Program to deploy advanced congestion management technologies which can achieve significant reductions in truck congestion, improve air quality, and reduce the use of fossil fuels in the Los Angeles region.	12/30/2023
LOS ANGELES COUNTY MTA	LA0G1167	Design and construction of streetscape, pedestrian and bicycle access improvements in the Little Tokyo and Arts District neighborhood of Downtown Los Angeles within a one-mile radius of the 1st/Central Station of the Regional Connector light rail line.	12/31/2021

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES COUNTY MTA	2018FBX00	Los Angeles County; software modifications and hardware upgrades of fare collection equipment at Metro rail stations and on Metro and Municipal Operator buses to address equipment obsolescence, enhance system security, communicate in near real-time, and support future TAP mobile app and other new payment technologies.	12/31/2023
LOS ANGELES COUNTY MTA	LATP17S022	The USC Bike Share Project will increase bike modal share by installing a bike-share kiosk network and bike fleet throughout many key locations within project area. Project is within 3 neighborhoods near Downtown Los Angeles where 5 Metro Rail stations are located- includes key destinations such as USC, the LA Coliseum and Sports Arena, LA Trade Technical College, and museums within Exposition Park. An encouragement and education effort is included. Utilizing Toll Credits to match ATP funds.	3/1/2021
LOS ANGELES COUNTY MTA	LA0G1550	The Patsaouras Plaza Busway Station project - a new transit busway station for the Metro Silver Line and other transit buses operating on the El Monte Busway.	6/30/2023
LOS ANGELES COUNTY MTA	LA0D198	CRENSHAW/LAX TRANSIT CORRIDOR - The Crenshaw/LAX Transit Corridor Project is an 8.5-mile light rail transit (LRT) line extending from the intersection of Crenshaw and Exposition Boulevards allowing for transfer to the Exposition Light Rail Transit line to a connection with the Metro Green Line at the Aviation/LAX Station (PPNO 4027A)	6/30/2022
LOS ANGELES COUNTY MTA	LA0G447	Metro Purple Line Westside Subway Extension Section 1 - Wilshire/Western to La Cienega	12/31/2023
LOS ANGELES COUNTY MTA	LATP19S011	Doran Street Grade Separations Active Transportation Access Project: This project will construct two bridges for shared use by pedestrians and cyclists across Verdugo Wash, San Fernando Road, railroad tracks, and SR-134. Linked to LA0G1050 (Doran Street and Broadway/Brazil safety and access project). The current estimated approximate bridge span lengths are 300 ft for the River Access Bridge and approximately 400 ft for the River Walk Bridge.	12/31/2024
LOS ANGELES COUNTY MTA	LA0G440	The project will extend the HOV lanes on I-5 from the SR-14 interchange to just south of the Parker Road interchange (I-5 PM 45.4 - 59.0), incorporating an additional northbound truck climbing lane from SR 14 to Calgrove Boulevard and an additional southbound truck climbing lane from Pico Canyon Road/Lyons Avenue to SR-14. Includes ITS HUB (I-5 PM 41.4 - 43.8) and extended project limits related to pavement delineation and advanced signage (I-5 PM 45.0 - 59.6).	12/31/2024
LOS ANGELES COUNTY MTA	LA0G010	Regional Connector - Light Rail in Tunnel allowing through movements of trains, Blue, Gold, Expo Lines. From Alameda / 1st Street to 7th Street/Metro Center	6/30/2022
LOS ANGELES COUNTY MTA	LA0G642	Metro Purple Line Westside Subway Extension Section 3	6/30/2027
LOS ANGELES COUNTY MTA	LA0G640	Pacific Surfliner Corridor - Raymer/Bernson Double Track Improvements - upgrade the rail corridor from a single track to a double track, install concrete ties on both tracks, install four new special trackwork turnouts, nine at-grade crossings and two bridges, a new second platform & new fencing at Northridge and a new pedestrian underpass. Other enhancements include signal relocation, utility relocation and drainage improvements.(PPNO 2098)	12/31/2021

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES COUNTY MTA	LA0G1052	Metro Purple Line Westside Subway Extension Section 2 - Wilshire/La Cienega to Century City	6/30/2026
LOS ANGELES COUNTY MTA	LATP17S023	The San Gabriel Valley Bike Share will increase bicycle modal share by installing a network of bike-share kiosks with a fleet of bicycles throughout 15 of the 30 San Gabriel Valley cities. The project will expand LA Metro's existing bike share network in Downtown Los Angeles and will include 840 bicycles at 84 bike share stations near transit hubs, employment centers, and colleges. A public education and awareness campaign is included.	2/25/2021
LOS ANGELES, CITY OF	LAF5518	This project is located in the City of Los Angeles in the West San Fernando Valley. Construction of a bicycle/pedestrian path from Owensmouth Av to Mason Av (1.25 miles) along the south bank of the LA River. Includes underpasses at De Soto Av and Canoga Av/Busway bridges. The project will include lighting, railing, striping and signage and a connection structure to the Metro Orange Line bikeway.	6/30/2021
LOS ANGELES, CITY OF	LAF3171	De Soto Ave Widening: Ronald Reagan Fwy to Devonshire St.. Minor widening of De Soto Ave fr SR-118 to Devonshire St to provide uniform roadway width in each direction as well as installing 10' sidewalk, curb and gutter. Sidewalk is 1.1 miles, 90% of the sidewalks along the project limits will be new.	6/30/2021
LOS ANGELES, CITY OF	LAF3647	Menlo Ave/MLK Vermont Expo Station Pedestrian Improvements. Improve pedestrian access to the new Expo station on Vermont Ave by installing sidewalks, landscaping, and lighting along Menlo Ave. and MLK Jr. Blvd. plus a median on MLK Blvd.	6/30/2022
LOS ANGELES, CITY OF	LAF3515	San Fernando Rd. Bike Path Ph. IIIB Construction. Construct 2.75 mile Class I bike path within METRO right-of-way along San Fernando Rd. between Tuxford St. and Cohasset St. to complete 12-mile bikeway.. The project is located within the City of Los Angeles, in the community of Sun Valley. The project consists of a Class I facility 12 feet in width and 2.75 miles in length between Tuxford St. and Cohasset St. (Burbank City limit).	6/30/2021
LOS ANGELES, CITY OF	LA0G901	Historic Los Angeles Streetcar	12/30/2021
LOS ANGELES, CITY OF	LAF5525	To design and construct curb-side bicycle parking (bicycle corral) that will serve each Council District. The project requires surface modifications to curbside parking areas for installing at least 150 bike racks.	6/30/2022
LOS ANGELES, CITY OF	LATP17S005	The City of Los Angeles will be implementing complete street treatments to improve Jefferson Boulevard between Vermont Avenue and Western Avenue, which includes buffered Class II (0.35 mi) and Class IV (0.65 mi) bicycle facilities, curb extensions, pedestrian refuge areas, path improvements, pedestrian lighting, and additional shade trees with Road Diet from 4 to 2 lanes (1 mile).	5/15/2023
LOS ANGELES, CITY OF	LATP17M014	Arts District Pedestrian & Cyclist Safety Project. The project will establish critical pedestrian and cyclist connections to and within the Arts District in Downtown Los Angeles which is a historic industrial neighborhood with a complex street system that challenges the mobility of all users whether they are on foot, on a bike or in a vehicle. Utilizing Toll Credits to match ATP funds.	4/26/2022
LOS ANGELES, CITY OF	LATP16S006	Boyle Heights Pedestrian Linkages. Pedestrian infrastructure improvements including sidewalk repairs, 3,400 linear feet of new sidewalk, and installation of pedestrian lighting, continental crosswalks, and curb ramps to improve connectivity within community and to 6th Street Viaduct Replacement Project. Utilizing Toll Credits.	10/1/2022

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES, CITY OF	LAF9422	LADOT will procure seven (7) 30-ft Electric clean fuel vehicles to reduce headways on six selected DASH routes	4/30/2022
LOS ANGELES, CITY OF	LA0G1566	Purchase of up to 120 electric 30' to 35' buses for the DASH program expansion	9/26/2022
LOS ANGELES, CITY OF	LAF9527	Project will construct a 3.1 mile cycletrack along Chandler Boulevard, connecting the Chandler and Orange Line Bike Paths and bridging a gap in the low-stress bicycle network	1/1/2023
LOS ANGELES, CITY OF	LAF7814	LADOT STREETS FOR PEOPLE: TRANSIT CORRIDOR PARKLETS AND PLAZAS: Installs 12 parklets and 3 plazas. The limits of the parklets will be equal to two curbside parking spaces (approx. 40x 6). The plaza limit varies ranging from 2,000 to 6,000 SF.	12/31/2021
LOS ANGELES, CITY OF	LA0G1380	Purchase of 170 solar-powered, real-time bus arrival information signs for bus stop improvement in the Los Angeles Promise Zone	6/30/2022
LOS ANGELES, CITY OF	LARE1701A	Implementing Dynamic Corridor Ramp Metering System (DCRMS) in I-405 Sepulveda Pass Corridor (Interstate 405 from I-10 to SR101), a system-wide adaptive ramp metering strategy which simultaneously coordinates with arterial traffic signal operation. The system will dynamically adjust traffic according to current capacity restrictions caused by incidents or recurrent congestion. Improve traffic movement and access to freeway and major arterial including transit operation.	12/31/2022
LOS ANGELES, CITY OF	LA0G1349	Purchase 35 alternative-fuel 30-foot buses to expand DASH fleet and increase service hours and headways.	12/31/2022
LOS ANGELES, CITY OF	LAE3764	Sepulveda Boulevard Closed-Circuit Television Traffic Signal Improvement Signal Sync	4/30/2025
LOS ANGELES, CITY OF	LA0C53	HOLLYWOOD INTERMODAL TRANSPORTATION AND PUBLIC PARKING CENTER ON HAWTHORNE AVE. BETWEEN HIGHLAND AVENUE AND NORTH ORANGE DRIVE (EXIST 500 SP PARK STRUCTURE).TCRP#49.2	10/1/2020
LOS ANGELES, CITY OF	LAF3644	Broadway Historic Theater District Pedestrian Improvements 4th-6th Streets. The project will improve pedestrian safety by installing curb extensions, widening sidewalks, improving pedestrian lighting, enhancing crosswalks, and provide pedestrian amenities; benches, street trees, landscaped buffers from traffic and 10 bike racks. Utilizing Toll Credits to match ATP funds.	6/30/2023
LOS ANGELES, CITY OF	LAF1524	San Fernando Rd. Bike Path Ph. IIIA - Construction. Recommend Phase IIIA-Construction of a Class I bike path within Metro owned rail right-of-way along San Fernando Rd. between Branford St. and Tuxford St incl bridge. 2 mile bikepath.	6/30/2021
MALIBU	LA0G1748	This project aims to improve safety and traffic flow by providing striping and signage for bicycles, a connecting bike path along the beach, separation of pedestrians and bicycles from the active roadway, connectivity to Pacific Coast Highway, a safe pathway for pedestrians, a sand wall, and driveways for Lifeguard Tower access. The proposed bicycle facility will include 1,200 ft of Class I, 1,800 ft of Class II, and 3,800 ft of Class III bike lanes. The pedestrian path is 1,350 ft.	6/30/2021
MALIBU	LA0G910	Pacific Coast Highway Regional Traffic Message Systems. The project will enable the City of Malibu and other agencies to notify travelers of critical regional traffic and safety information and facilitate traffic flow throughout the region. The project will install a maximum of 4 permanent changeable message signs at strategic locations along PCH/SR-1 corridor in the City of Malibu.	3/31/2021

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
Metro Gold Line Foothill Extension Construction Au	LA29212XY	METRO RAIL GOLD LINE FOOTHILL EXTENSION - AZUSA TO CLAREMONT (LA County Line) 12 MILE, 5 STATION LRT EXTENSION. SAFETEA-LU # 285 LEAD AGENCY WILL CHANGE TO METRO GOLD LINE.	6/30/2025
MONTEBELLO	LATP17M028	The project consists of dedicated Class II bike lanes, sidewalk construction, ADA-compliant corner ramps, and pedestrian lighting and traffic signal improvements along Montebello Boulevard to connect retail/employment centers with low/moderate income housing to increase active transportation-related activities. 1.4 miles from Lincoln Ave to Paramount Blvd.	3/16/2022
MONTEREY PARK	LAF9502	Monterey Pass Road Complete Streets Bike Project is a 1.6 mile corridor providing multimodal transportation alternatives increasing ped, bike & transit use for the first last mile.	12/31/2023
NORWALK	LA0G1342	Imperial Highway ITS Project, from San Gabriel River to Shoemaker Road: Traffic Signal Synchronization	3/31/2021
NORWALK	LATP17S028	Design and construct 12,000 LF of Class 2 bicycle lanes and improve 2,000 LF of sidewalk on Alondra Blvd. This is part of a long-range project identified in the Gateway Cities 2014 Strategic Transportation Plan to create over 14 miles of bike lanes along this corridor.	6/1/2026
PASADENA	LATP17M021	The City of Pasadena will install a 1.5-mile, two-way, protected cycle track (Class I) on Union Street from Hill Avenue to Arroyo Parkway, including necessary signal upgrades with Road diet from 3 to 2 lanes. Also installing bike boulevard (0.3 miles, Class III) along Holliston Avenue between Union St and Cordova St (no Road Diet.)	12/31/2022
PASADENA	LAF3522	Cordova Street Complete Streets Project. Convert the vehicular-oriented street to a complete street by removing 2 vehicular traffic lanes to accommodate bike and pedestrian facilities. City of Pasadena - Hill Street to Arroyo Parkway.	7/30/2023
PASADENA	LAF3701	Pasadena ARTS Enhanced Passenger Information. Enhancement of the Pasadena Area Rapid Transit System Vehicle Arrival Information System via telephone and 26-50 wayside signs..	12/31/2021
PICO RIVERA	LAF7502	Regional Bikeway Project. The project will install a bicycle/pedestrian bridge, Class II bicycle lanes, a Class I shared- use path, traffic calming medians, sidewalks, curb ramps, signal modifications, and wayfinding signage, connecting to two regional Class I routes.	6/30/2022
POMONA	LATP19S009	Priority projects of the Pomona Active Transportation Plan, including 10.2 miles of bike lanes, 1.8 miles of traffic calming measures, and 14 intersections of bike/ped improvements.	9/24/2024
POMONA	LAF9526	Pomona ATP Phase 2 Bicycle Network for Community Assets: Nearly 9 miles of bikeways along 5 roads, improving access to community destinations and assets, enhancing access to the local and regional multi-modal transportation network.	12/1/2026
REDONDO BEACH	LA0G1423	Purchase and install a Real Time Passenger Information System on Beach Cities Transit fixed route buses.	6/30/2022
REDONDO BEACH	LAF3502	Redondo Beach Bicycle Transportation Plan Implementation. Implement Class II and III bike facilities identified in the City of Redondo Beach's adopted Bicycle Transportation Plan. Approximately 2.1 centerline miles of bike lanes and 15.8 centerline miles of bike routes throughout the City of Redondo Beach.	6/30/2022

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
REDONDO BEACH	LAF5301	Grant Avenue Signal Improvements. This project is located in Redondo Beach in the South Bay subregion on Grant Av between Inglewood Av and Aviation Bl. The project will upgrade six existing traffic signals. The project involves synchronization, bike detection, signal replacement, video detection, adaptive signal coordination, wireless connection and integration into the Redondo Beach Traffic Management Center (TMC).	6/30/2022
REDONDO BEACH	LAF7521	BICYCLE TRANSPORTATION PLAN IMPLEMENTATION PHASE II: (1) Road diet with bidirectional Class 2 bike lanes on Prospect Av (3.33mi) and on Catalina Av (1.63mi). (2) Installs bulbouts at stop-controlled intersections on Catalina. (3) Installs roundabout on North Harbor Dr at Yacht Club Wy and at Herondo St. (4) Installs high-visibility crosswalks at all-way controlled intersections and at crossings approaching the roundabout.	12/31/2023
REDONDO BEACH	LA0D29	CITY BUS TRANSFER STATION. Relocate existing transit terminal & construct new transit center w/12 bus bays, pax waiting area & info center, & driver lounge. Property provides 339 public pkg spaces (plus 2 for staff maint & security) & bicycle facilities. Location 1521 Kingsdale Ave, RB, CA 90278. Project also includes minor surface street improvements on Kingsdale Ave and 182nd : Kingsdale widening adds dedicated right turn lane and 182nd restriping removes bus layover and adds a bike lane.	6/30/2022
SAN FERNANDO	LAF9313	This project improves operation of 6 major arterials by synchronizing 35 intersections along 6 corridors, minor lane/signal modification & installation of 3 changeable message signs.	3/31/2023
SANTA CLARITA	LA0G774	Vista Canyon Ranch Transit Center - relocate the existing, temporary Via Princessa Metrolink Station to the Vista Canyon project site; includes Metrolink Station and Bus Transfer Station, a pedestrian overpass or undercrossing of the tracks and an adjacent parking structure with up to 750 parking spaces.	6/30/2022
SANTA CLARITA	LAF9118	LYONS AV/DOCKWEILER DR EXTENSION (2 of 2): Construct Dockweiler Drive gap closure between 12th St. and existing terminus of Dockweiler Dr, just west of Valle Del Oro. Constructs 8-ft sidewalks and Class II bike lanes on both sides.	12/31/2024
SANTA CLARITA	LAF9513	Railroad Avenue Class I Bike Path: Project will add 1.45 miles of Class I bike path on Railroad Avenue and enhance connectivity to the Jan Heidt newhall Metrolink Station to the City's bicycle trail network	6/30/2023
SANTA MONICA	LAF7320	This project will enhance the existing Traffic Management System with the installation of video detection systems. The new equipment will facilitate detection of bicycles at intersections resulting in enhanced multi-modal signal timing. The detection of bicycles at intersections would optimize signal timing and create shorter call times for the transit corridors. New traffic signal poles may be required to install the video equipment.	12/31/2021
SIGNAL HILL	LATP17S010	The project will install approximately 2.0 lane miles of bike lanes (Class II) on Spring Street, repave roadway to minimize drainage to bike lanes/level surface, revised striping, signing, modified pedestrian walkways/ramps, signal pedestrian countdown heads, safety lighting, and install bio-retention stormwater quality devices.	9/15/2026

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
SOUTH EL MONTE	LAF5516	Installation of Class II bike lanes on Santa Anita Ave from Klingerman St to end of City Limits south of Merced Ave (1.5 mi) and on Merced Ave from Fern Ave to Santa Anita Ave (1.3 mi) while Class III bike routes with shared-lane markings will be installed on Lerma Ave from Merced Ave to SW City Limits (0.3 mi) and on Thienes Ave from Tyler Ave to SE City Limits (1 mi). The scope of work also includes installation of bike parking at the Civic Center and wayfinding/signage.	6/30/2022
SOUTH GATE	LA9918774	Construct raised median included in the scope of work is Timing and Coordination and Intelligent Transportation System for existing three (3) traffic signals.	12/31/2023
SOUTH GATE	LAF7309	TWEEDY BOULEVARD SIGNAL SYNCHRONIZATION PROJECT : (1) Interconnects 18 traffic signals using fiber optic cable and wireless communications (2) synchronizes signal timing to improve traffic flow, and reduces delays along the 2.7-mile arterial. (3) Install a Closed Circuit Television Camera (CCTV) at the intersection of Long Beach Bl to support the Advance Transportation Management Systems (ATMS).	4/30/2022
SOUTH GATE	LATP17S006	Install a Class I bike path (750 ft), Class II bike lanes (2.65 miles), and Class III bike routes (1.61 miles) along with pedestrian improvements including sidewalk, curb extensions, ADA curb ramps, high visibility crosswalks, rectangular rapid flashing beacon, bus shelters, and bike racks.	5/24/2026
SOUTH PASADENA	LAF5308	South Pasadena's ATMS, Central TCS and FOIC for Fair Oaks Av. This project is located in South Pasadena on Fair Oaks Av between Columbia St and Huntington Dr. It will establish a fiber-optic backbone communication system connection between 12 signals on Fair Oaks Av and City Hall and install the ATMS/central management/control system at its City Hall Building. Funds are for design and construction costs.	12/31/2021
SOUTHERN CALIF REGIONAL RAIL AUTHORITY	LA0G1596	San Fernando Road Bike Path Phase III - Crossings Safety Improvement. The project is located along San Fernando Road between Branford Street in the City of Los Angeles to CP Hollywood in the City of Burbank and includes 4.2 mile of bike path and 5 at-grade crossings.	12/31/2023
SOUTHERN CALIF REGIONAL RAIL AUTHORITY	LA0G1298	Procurement of two (2) new locomotives to increase Metrolink service frequency and reduce headways. The locomotives will be EPA Tier-4 F-125 units that will improve emissions, reliability and performance relative to the F59 locomotives currently in service.	12/31/2022
TORRANCE	LA0G358	South Bay Regional Intermodal Transit Center Project at 465 N. Crenshaw Blvd., Torrance, CA 90503.	6/30/2022
TORRANCE	LA0G1589	Anza Ave from Del Amo Blvd to Sepulveda Blvd; asphalt pavement rehabilitation, repair damaged sidewalks and curb and gutter, traffic signal improvements to increase capacity and throughput (video detection, pedestrian actuation), installation of emergency vehicle preemption. $258k of Toll Credits being used to match STPL funds in CON for FY20/21.	12/31/2022
TORRANCE	LA0G1280	Purchase of seven (7) all electric buses for a new circulator service. Rubber-wheel trolley service will operate in Old Town area, as well as hotel and financial district on Hawthorne Blvd. Origin/terminus is at the Torrance Transit Park and Ride Regional Terminal (465 Crenshaw Blvd).	12/31/2022
VERNON	LATP17M018	The project will install one-way protected cycle tracks (Class II - 1.13 miles) with a raised curbed buffer on Pacific Boulevard between Santa Fe Avenue and Fruitland Avenue and install safety improvement at signalized and uncontrolled crosswalk locations along Pacific Boulevard and at the uncontrolled cross location at Santa Fe Avenue and 52nd Street.	11/1/2022

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
WESTLAKE VILLAGE	LA0G1682	The project consists of a one (1) mile curvilinear pedestrian walkway extending along Lindero Canyon Rd from Agoura Road to Foxfield Drive, creating a safe corridor for pedestrians by eliminating the need to walk in the street, which has a 45mph speed limit and had a history of pedestrian/vehicular accidents. The project includes bioswales and infiltration elements, site lighting, seat walls, landscape improvements.	12/31/2022
WHITTIER	LAF7519	WHITTIER GREENWAY TRAIL EAST EXTENSION : This project is located in the City of Whittier. It will implement a two-mile Class I bike/pedestrian path on a City-controlled easement along the Union Pacific Railroad corridor from Mills Av to Leffingwell Rd, and it will also provide a trailhead east of Mills Av. The project promotes a regional bikeway corridor by extending the 4.5-mile Whittier Greenway Trail east at the City and LA County limits. $247 in Toll Credits added in FY 19 to match CMAQ	1/31/2022
WHITTIER	LAF5314	Gateway Cities Forum Traffic Signal Corridors Project - improve traffic signal operations by upgrading each traffic signal to federal and state standards, providing additional vehicle detection to enable operation as a fully traffic-actuated signal, installing the appropriate components to enable each signal to be capable of time-based coordination and retiming signals to improve the overall progression of traffic.(approximately 17 signals included)	6/30/2021
WHITTIER	LATP16S011	Whittier Greenway Trail East Extension Gap Closure. Acquisition of final 0.5 mile and construction/completion of final 2.8 miles of the 7.3-mile Whittier Greenway Trail, a Class I bicycle and pedestrian trail along southern boundary of Whittier, connecting LA & Orange County.	6/30/2021

TABLE IV-C-A-2. ORANGE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
ANAHEIM	ORA151509	West Street and Citron Street Sidewalk Gap Closure - Construction of sidewalk gap closures to create new 5-ft-wide sidewalk, curb and gutter, and drainage facilities along West and Citron Streets, as well as non-infrastructure activities. Toll Credit for ATP-MPO.	2/1/2023
ANAHEIM	ORA152211	Nohl Ranch Open Space Trail - project will consist of a 10-foot wide Class I bikeway and a 3 to 10-foot wide pedestrian trail (pending clearance), in compliance with Caltrans standards. The project alignment would be approximately 5,100 LF and connect Anaheim Hills Road to the signalized crossing on the east side of Avenido Bernardo North. Ancillary features of the project include lighting, lane markings, signs, bicycle parking and pedestrian amenities.	6/30/2023
LA HABRA	ORA113011	La Habra Union Pacific Railroad Bikeway. ENG for Union Pacific Railroad ROW between La Habra West City Limits and La Habra East City Limits. ROW for La Habra West City Limits to Beach Boulevard. Toll Credit Match for ATP-MPO - Split project with ORA190920 for ROW.	7/1/2025

TABLE IV-C-A-2. ORANGE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
ORANGE COUNTY	ORA170205	HAZARD AVENUE BIKEWAY PROJECT between Goldenwest Street and Euclid Avenue. Construct approximately 4 miles of a Class IV (paved, on-road protected) Bikeway in the cities of Westminster and Garden Grove.	12/1/2023
ORANGE COUNTY	ORA172202	OC Loop El Cajon Bikeway Gap Closure (Segment H) - Install Class II, III & IV bikeway facilities within the City of Yorba Linda, Anaheim & unincorporated Orange County spanning 1.2 miles from Fairlynn Blvd to the terminus of the existing Santa Ana River Regional Riding & Hiking Trail and Bikeway.	10/31/2026
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA130099	Purchase (15) Expansion Paratransit Vans (OCTA)	12/31/2022
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA171401	Six 40' Compressed Natural Gas Expansion Buses (Route 529)	9/30/2024
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA080909	OC STREETCAR BETWEEN SARTC AND A NEW TRANSIT CENTER IN GARDEN GROVE, NEAR THE INTERSECTION OF HARBOR BOULEVARD AND WESTMINSTER AVENUE. (Transit Development Credit Match for FHWA Transfer FY16/17 is $306k & TDC Match for FHWA Transfer FY18/19 is $2.822M)	12/31/2022
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA030605	I-405 FROM SR-73 TO I-605. Add 1 MF lane in each direction and additional capital improvements (by 2022), convert existing HOV to HOT. Add 1 additional HOT lane each direction. Combined with ORA045, ORA151, ORA100507, ORA120310, and ORA030605A. Signage from PM 7.6 to 24.2	12/31/2026
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA085004	Anaheim Canyon Station project will add double track and another platform as well as extend the existing platform to be in conformance with the Metrolink standards for passenger platform length. (TDCs in FY18/19 $136 for DES, $29 for ROW and $2,532 for CON; 5307 FHWA Transfer: $43 in FY19/20 from Orange Parking Structure savings already in FTA grant CA-2017-072)	12/31/2022
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA030612	PLACENTIA TRANSIT STATION - E OF SR-57 AND MELROSE ST AND N OF CROWTHER AVE. CONSTRUCT NEW METROLINK STATION AND RAIL SIDING PPNO 9514	12/31/2022
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA190701	Orange County Traffic Signal Synchronization Projects: El Toro Road, Magnolia Street and Brookhurst Street. El Toro Road (Bridger Road to Orange Street): 9 miles and includes 20 traffic signals. Magnolia Street (Banning Avenue to Commonwealth Avenue): The 16.2 miles and includes 50 traffic signals. Brookhurst Street (PCH to Commonwealth Avenue): The 16.5 miles and includes 58 traffic signals	1/31/2022
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA112702	Rideshare Vanpool Program - Capital Lease Cost FY12/13 - FY20/21. This project includes subsidy, marketing, database, ride guide and associated costs for the Rideshare/Vanpool program. Transit Development Credits: FY18/19 FTA 5307 Transfer @ $516, FY20/21 CMAQ @ $516 and FY21/22 CMAQ @ $516	9/30/2024
SANTA ANA	ORA190901	Freemont Elementary and Spurgeon Intermediate SRTS - Pedestrian/bicyclist traffic safety improvements for Fremont Elementary and Spurgeon Intermediate safe routes to school. Work includes bulbouts, curb ramps, 2,383 linear feet (lf) of new sidewalk, 10,824 lf of class 3 bikeways and a road diet with 5,280 lf of class 2 bikeways. State only funds.	12/15/2024
SANTA ANA	ORA152212	Bristol Street Protected Bicycle Lanes - Install 1.25 mile protected bike lane on Bristol Street from Edinger Avenue to 1st Street.	6/30/2023

TABLE IV-C-A-2. ORANGE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
SANTA ANA	ORA170802	First Street Pedestrian Improvements - Widen existing sidewalks by three feet, narrow the vehicle lanes, construct ADA improvements on sidewalks and wheel chair ramps, provide high visibility marked crosswalks, and add a signal controlled pedestrian crossing along First Street, 1.1 mile corridor.	12/14/2026
SANTA ANA	ORA152210	Bristol Street - Edinger Avenue Class II Bike Lanes - Install a 1.25 mile Class II Bike Lane on Bristol Street from Sunflower Avenue to Central Avenue and install a .5 mile Class II Bike Lane on Edinger Avenue from Bristol Street to Flower Street.	6/30/2023
SANTA ANA	ORA151502	Santa Ana and Fifth Protected Bike Lane - Install median protected bike lanes on Santiago, Sixth, Brown, Garfield, French, Fifth and Santa Ana with all applicable signage, striping, and signal improvements. ATP State only funding.	12/1/2026
SANTA ANA	ORA151503	The Edinger Ave Protected Bike Lanes Project - Install bike lanes down the 1.7 mile corridor passing through residential homes, schools, parks, and small business shopping centers. The Project includes a Safe Routes to School program at 3 schools. ATP State-Only funded.	12/1/2026
SANTA ANA	ORA190905	Standard Avenue Class IV Protected Bike Lane and Class II Buffered Bike Lane from 3rd Street to Warner Avenue and Protected Intersection Project at McFadden in the City of Santa Ana. Project includes 9,900 linear feet (lf) of road diets, 4,000 lf class II, 1,700 lf class III, and 5,900 lf class IV bikeways. ATP toll credits.	12/15/2024
SANTA ANA	ORA190904	McFadden Ave. Protected Bike Lane and Bicycle Blvd. Project - McFadden Ave. 15,050 linear feet of class IV protected bike lanes and road diets and 6,365 linear feet of class III Bicycle Blvd from Harbor Blvd to Grand Ave in the City of Santa Ana. ATP toll credits.	12/15/2024
TCA	10254	SAN JOAQUIN HILLS TRANSPORTATION CORRIDOR (SJHTC - SR 73). 15 MI TOLL RD BETWEEN 1-5 IN SAN JUAN CAPISTRANO & RTE 73 IN IRVINE, CONSISTENT WITH SCAG/TCA MOU 4/5/01. EXISTING 3 M/F EA DIR. 1 ADDITIONAL M/F EA DIR, PLUS CLIMBING & AUX LANES BY 2022.	Undergoing TCM Substitution
TCA	ORA051	FOOTHILL TRANSPORTATION CORRIDOR-NORTH (FTC-N - SR 241). 12.7 MI TOLL ROAD BETWEEN OSO PKWY AND ETC, CONSISTENT WITH SCAG/TCA MOU 4/05/01. EXISTING 2 M/F IN EA DIR. 2 ADDITIONAL M/F, PLS CLIMBING & AUX LANES BY 2022.	Undergoing TCM Substitution
TCA	ORA050	EASTERN TRANSPORTATION CORRIDOR (ETC- SR 241/261/133) 26.4 MI TOLL ROAD CONNECTS SR 91 to I-5 via SR 261 and SR 133, CONSISTENT WITH SCAG/TCA MOU 4/05/01. EXISTING 2 M/F EA DIR. 2 ADDITIONAL M/F IN EA DIR, PLUS CLIMBING AND AUX LANES BY 2022.	Undergoing TCM Substitution
VARIOUS AGENCIES	ORA111207	241/91 EXPRESS LANES (HOT) CONNECTOR: NB SR-241 TO EB SR-91, WB SR-91 TO SB SR-241.	12/31/2035
VARIOUS AGENCIES	ORA100511	SR-55 WIDENING BETWEEN I-405 AND I-5 - ADD 1 MF AND 1 HOV LANE EACH DIRECTION AND FIX CHOKEPOINTS FROM I-405 TO I-5; ADD 1 AUX LANE EA DIR BTWN SELECT ON/OFF RAMP AND NON-CAPACITY OPERATIONAL IMPROVEMENTS THROUGH PROJECT LIMITS. Toll Credit for RSTP and CMAQ. (Including street traffic signal improvement at I-5/Newport Avenue onramp for mitigation. non-capacity)	4/30/2027
VARIOUS AGENCIES	ORA111801	I-5 (Alicia Parkway to El Toro Road) Segment 3 - The project will add one general purpose lane on the I-5 in each direction between Alicia Parkway and El Toro Road (approximately 1.7 miles), Extend the 2nd HOV lane in both directions and add auxiliary lanes where needed.	9/30/2025

TABLE IV-C-A-2. ORANGE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
VARIOUS AGENCIES	ORA111209	LAGUNA NIGUEL TO SAN JUAN CAPISTRANO PASSING SIDING - ADD 1.8 MILES OF NEW RAILROAD TRACK ADJACENT TO THE EXISTING MAIN TRACK. (INCLUDES SLOPE STABILIZATION/RETAINING WALL) MP 193.9 - MP 195.7 (project will utilize TDC Match - 5307 FHWA Transfer: $438 in FY13/14; $2,125 in FY16/17. CMAQ: $264 in FY21/22. 5307 FHWA Transfer: $47 in FY19/20 from Orange Parking savings already in grant CA-2017-072)(PPNO 2107)	2/28/2023
VARIOUS AGENCIES	ORA111210	I-5 FROM SR 55 TO SR 57 - ADD 1 HOV LANE EACH DIRECTION (PPNO 2883A). Signage from PM 31.1 to 37.7. (Utilize toll credit match)	12/31/2021

TABLE IV-C-A-3. RIVERSIDE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
CITY OF EASTVALE	RIV210402	in the City of Eastvale: Pedestrian Safety Improvement Project - Construction of sidewalk along Hall Avenue between Chandler Street and Walters (approximately 2,000 sf), Citrus Street between Scholar Way and Carrollton Place (1,420 ft) and handicap ramp at the intersection of Schleisman Road and Sumner Avenue.	12/31/2021
CITY OF JURUPA VALLEY	RIV160504	IN WESTERN RIVERSIDE COUNTY FOR THE CITY OF JURUPA VALLEY - SRTS PROJECT TO PROVIDE CURB, GUTTER, SIDEWALK, AND DIRT TRAILS ALONG MARTIN ST, 48TH ST, AND TROTH ST, INCLUDING LED CROSSWALK FLASHERS AT THE MARTIN/BELLEGRAVE INTERSECTION AND CURB BUMP OUTS AT THE MARTIN ST INTERSECTIONS.	12/31/2024
HEMET	RIV181010	IN CITY OF HEMET - HEMET VALLEY BIKEWAY CONX: INSTALL CLASS II (1,200 LF), III (10,500 LF) BIKE LNS, NEW S/W (4,000 LF) W/ ADA RAMPS, XING IMP., ON PALM BW ESPLANDE & JOHNSTN, WHITTIER BW PALM & GILBERT, JOHNSTN BW PALM & GILBERT, GILBERT BW WHITTIER & CHAMBERS, CHAMBERS BW GILBERT & STATE; BIKE STAGING W/ DETECTION, LOCKERS, REPAIR AREA; INCL OUTREACH. (ATP-3 AUG STATE) TC UTILIZ FOR FY19, FY20.	9/1/2023
RIVERSIDE COUNTY	RIV181007	IN WEST RIV CO IN UNINCORPORATED CABAZON : CABAZON SRTS SIDEWALK SAFETY IMPROVEMENTS: INSTALL 3,000 LF OF NEW S/W, CURB&GUTTER, PAVEMENT WIDENING, ADA CURB RAMPS, DRIVEWAY APPROACHES, SIGNS, MARKINGS ALONG THE EAST SIDE OF BROADWAY ST. (B/W CARMEN AVE & 400 FT. S/O MAIN ST) & ALONG THE S/S OF CARMEN AVE (B/W ALMOND ST & CABAZON ELEMENTARY) (ATP-3 AUG-STATEWIDE) (STATE-ONLY FUNDS)	12/31/2022
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV200105	In Western Riverside County - Continue the implementation of subsidies for eligible vanpools commuting to worksites in Western County.	12/30/2030

TABLE IV-C-A-3. RIVERSIDE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV160101	IN WESTERN RIVERSIDE COUNTY ON SR-91/I-15: On I-15 - ADD TOLL EXPRESS LANE MEDIAN DIRECT CONNECT FROM SB15 TO WB91 & EB91 TO NB15, 1 TOLL EXPRESS LANE EACH DIRECTION FROM HIDDEN VALLEY TO SR91 DIRECT CONNECTOR. CONSTRUCT OPERATIONAL IMPROVEMENT BY EXTENDING THE EB91 EXPRESS LANE AND AUXILARY LANE ALONG SR91. CONSTRUCT ADDITIONAL SIGNAGE ALONG SR91 AT PM R18.0 IN OR COUNTY.	6/30/2023
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV111207	IN WESTERN RIVERSIDE COUNTY - CONTINUE THE IMPLEMENTATION OF PARK & RIDE FACILITIES THROUGH PROPERTY LEASES (VARIOUS LOCATIONS THROUGHOUT THE WESTERN COUNTY).	12/30/2028
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV151104	FREEWAY SERVICE PATROL (FSP) – CONTINUED IMPLEMENTATION OF FSP ON SR-91 (ORANGE COUNTY LINE TO 60/91/215 INTERCHANGE), SR-60 (MILLKEN TO THEODORE), I-215 (SAN BERNARDINO COUNTY LINE TO MURRIETA HOT SPRINGS), I-15 (SR-60 TO SR-79/TEMECULA PARKWAY).	12/31/2028
RIVERSIDE TRANSIT AGENCY	RIV180131	IN WESTERN RIV CO IN THE CITY OF HEMET FOR RTA - CONSTRUCTION OF THE HEMET MOBILITY HUB ON 2 ACRE PARCEL LOCATED EAST OF RAIL ROW, SOUTH OF EAST DATE STREET, W/O NORTH JUANITA ST, AND NORTH OF EAST DEVONSHIRE AVE TO INCLUDE: 10 BUS BAYS, 10 SHELTERS/CANOPIES, 20 PARKING SPACES, 1 TRAFFIC SIGNAL AT DEVONSHIRE & CARMALITA, 1 CONTROLLED INTERSECTION AT DEVONSHIRE AND JUANITA; STORAGE AND RESTROOM FACILITY. (FTA 5339: FY15 $1,626 (URBAN) ; FY16 $317 AND FY17 $326 (SMALL URBAN).	12/31/2030
RIVERSIDE, CITY OF	RIV181012	IN WESTERN RIVERSIDE COUNTY IN THE CITY OF RIVERSIDE - LA SIERRA NEIGHBORHOOD SIDEWALK IMP: INSTALLATION OF 1.28 MILE OF ADA-COMPLIANT SIDEWALK ON CARMINE ST, RICHMOND ST, NORWOOD AVE. FROM COLLEGE AVENUE TO SIERRA VISTA AVE., ON DOVERWOOD DR. FROM BUTLER DR. TO LA SIERRA AVE., ON A PORTION OF BUTLER DR. AND ON COLLEGE AVE FROM DOVERWOOD DR. TO NORWOOD AVE. (ATP-3 AUG STATEWIDE, SOF)	3/30/2023
RIVERSIDE, CITY OF	RIV140841	IN WESTERN RIVERSIDE COUNTY FOR CITY OF RIVERSIDE-IOWA AVE & MLK BLVD BIKE IMPROVEMENTS: CONSTRUCT 0.8 MI 10 FT WIDE TWO DIR MULTI-USE PATH ON N.SIDE OF MLK BLVD B/W CANYON CREST DR & CHICAGO AVE & WIDENING IOWA AVE B/W MLK BLVD & EVERTON PL INCLUDES GRADING, ASPHALT PAVING, SIGNS, & RESTRIPING & INSTALL 6 FT CLASS II BIKE LNS FOR 0.8 MI WITH 2 FT BUFFERS	12/31/2020
RIVERSIDE, CITY OF	RIV160404	IN WESTERN RIVERSIDE COUNTY FOR THE CITY OF RIVERSIDE - CITYWIDE BIKE AND PEDESTRIAN IMPROVEMENTS INCLUDING: INSTALL OF 5.5 MI OF CLASS II BIKE LANES ON CENTRAL AVE; 2.4 MI OF CYCLE TRACKS ON WATKINS DR AND CANYON CREST; SHARROW PAVEMENT MARKINGS AROUND FAIRMOUNT PARK; 20 BIKE RACKS THROUGHOUT DOWNTOWN AREA; & HAWK SIGNALS AT 3 UNCONTROLLED CROSSWALKS.	12/31/2024

TABLE IV-C-A-4. SAN BERNARDINO COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
FONTANA	20131506	IN FONTANA: SAN SEVAINE TRAIL (PHASE 1, SEG 2) North/South 1.25 mile long, 12 ft wide paved multi-use trail from Banyan St. to the Pacific Electric Trail in Fontana	6/30/2022
OMNITRANS	20151301	REDLANDS PASSENGER RAIL PROJECT (RPRP): NEW PASSENGER RAIL SERVICE FROM RIALTO / E ST IN SAN BERNARDINO TO REDLANDS. (SBCTA is sub recipient of FTA funds & is actual project Lead Agency)(TD Credits: 5307-TR FTA FUNDS FY19/20 $3,998) (THE PROJECT MANAGEMENT COST OF APPROX $20M IN LOCAL FUNDS IS NOT INCLUDED IN FTIP TOTAL COST.)(Includes locomotive purchase from study project 20151303)	12/31/2021
OMNITRANS	20150307	COUNTY-WIDE VANPOOL PROJECT (Ongoing)(TDC: FY16/17 CMAQ CON $460k)	6/30/2023
SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY	201186	AT SR-210/BASE LINE IC: RECONSTRUCT/WIDEN BASE LINE BETWEEN CHURCH AVE AND BOULDER AVE FROM 4 TO 6 THROUGH LANES AND EXTEND LEFT TURN LANES, WIDEN RAMPS : WB EXIT 1 TO 3 LANES, WB AND EB ENTRANCES 1 TO 3 LANES INCLUDING HOV PREFERENTIAL LANES (EA 1C970)	12/31/2022
SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY	20190702	SBCTA Metrolink Station Accessibility Improvement Project - Phase II: Bicycle and pedestrian accessibility improvements near five Metrolink transit stations (Montclair, Upland, Rancho Cucamonga, Fontana, and San Bernardino). Toll Credit to match ATP	5/21/2024
SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY	20159901	I-15 Express Lanes (Contract 1): Construct 1 Exp. Lane in each direction between Cantu-Galleano Ranch Rd. and SR-60 and 2 Exp. Lanes in each direction between SR-60 and north of Foothill Blvd. Additional improvements to AUX LN widening, undercrossing, and reconstruction of ramps and lane transitions where needed.	10/1/2026
VARIOUS AGENCIES	20159902	I-10 CORRIDOR EXPRESS LANE WIDENING (Contract 1): FROM SAN ANTONIO AVE TO I-10/I-15 IC; IMPLEMENT 2 EXPRESS LNS IN EACH DIRECTION FOR A TOTAL OF 4 GENERAL PURPOSE AND 2 EXPRESS LNS IN EACH DIRECTION AND AUX LANE WIDENING, UNDERCROSSINGS, OVERCROSSINGS, AND RECONSTRUCTION OF RAMPS AND LANE TRANSITIONS WHERE NEEDED. (Toll Credits to match STP, CMAQ) (Toll System Provider (TSP) split as 20159902a)	10/1/2023

Attachment B: Reasonably Available Control Measure (RACM) Analysis - TCMs

Section 108 (f) 1. Programs for Improved Public Transit					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
1.1	Regional Express Bus Program	Purchase of buses to operate regional express bus services.	Yes		CTCs (MTA, OCTA), Transit Operators
1.2	Transit access to airports	Operation of transit to airport to serve air passengers.	Yes		Transit Operators, Burbank Glendale Pasadena Airport, CTCs (MTA, SCRRA)
1.3	Accelerate Bus Retrofit Program	Accelerate application of retrofit of diesel-powered buses to achieve earlier compliance with state regulations.	Yes		CTCs (MTA, OCTA), Transit Operators
1.4	Mass transit alternatives	Major change to the scope and service levels.	Yes		SCAG, CTCs
1.5	Expansion of public transportation systems	Expand and enhance existing public transit services.	Yes		CTCs
1.6	Transit service improvements in combination with park-and-ride lots and parking Management	Local jurisdictions and transit agency improve the public transit system and add new park-and-ride facilities and spaces on an as needed basis.	Yes		CTCs (MTA, SCRRA)

Section 108 (f) 1. Programs for Improved Public Transit					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
1.7	Free transit during special events	Require free transit during selected special events to reduce event-related congestion and associated emission increases.	No	The Legislature significantly reduced authority of SOUTH COAST AQMD to implement indirect source control measures through revisions to the Health & Safety Code (HSC 40717.8). Transit agencies should decide individually whether this measure is economically feasible for them. Note that the Mobile Source Air Pollution Reduction Review Committee (MSRC) has been co-funding free event center shuttle service projects.	
1.8	Require that government employees use transit for home to work trips, expand transit, and encourage large businesses to promote transit use	Require all government employees use transit a specified number of times per week, or expand transit, and encourage business to promote transit use.	Yes		CTCs
1.9	Increase parking at transit centers or stops	Encourage transit convenience by providing additional parking at transit centers.	Yes		CTCs
1.10	Expand regional transit connection ticket distribution	Provides interchangeability of transit ticket.	Yes		CTCs, Metrolink
1.11	Bus Signal Priority	Wireless bus signal priority system on bus fleets for increased operation efficiency and travel time savings.	Yes		Transit Agencies

Section 108 (f) 1. Programs for Improved Public Transit					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
1.12	Passenger rail improvements	Installation of additional platforms, double tracks, concrete ties, bridges, signal relocation.	Yes		Cities, Transit Agencies
1.13	Alternative Fuel Buses	Self-explanatory.	Yes		Cities, Transit Agencies
1.14	Intermodal Centers	Improved transit connection of various travel modes	Yes		Cities, Transit Agencies
1.15	Maglev	Construct regional low-speed magnetic levitation transit	No	Though considered in past SCAG transportation plans, Maglev has never been a committed TCM; in addition, the region is already being serviced by light rail; Not Cost-effective.	
1.16	High Speed Rail	Construct high speed rail connecting large metropolitan centers in the state	Yes		HSRA
1.17	**Public transit facility improvements and operating assistance**	**Construct and/or improve bus and rail terminals, stations, and maintenance facilities**	**Yes**		**CTCs, Transit Agencies**
1.18	**Paratransit Service**	**Self-explanatory**	**Yes**		**CTCs, Cities, Transit Agencies**
1.19	**Express Busways/Dedicated Bus Lanes**	**Construct bus-only lanes**	**Yes**		**CTCs**

Section 108 (f) 2. Restriction of Certain Roads or Lanes to, or Construction of Such Roads or Lanes for Use By, Passenger Buses or High Occupancy Vehicles					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
2.1	Update High Occupancy Vehicle (HOV) Lane Master Plan	Analysis of increased enforcement, increasing occupancy requirements, conversion of existing HOV lanes to bus only lanes and/or designation of any new carpool lanes as bus-only lanes; utilization of freeway shoulders for peak-period express bus use; commercial vehicle buy-in to HOV lanes; and appropriateness of HOV lanes for corridors that have considered congestion pricing or value pricing.	Yes		SCAG, Caltrans, CTCs
2.2	Fixed lanes for buses and carpools on arterials	Provide fixed lanes for buses and carpools on arterial streets where appropriate.	Yes		CTCs (MTA, OCTA), LA City
2.3	Expand number of freeway miles available, allow use by alternative fuel vehicles, changes to HOV lane requirements and hours	Various measures evaluated in many ozone nonattainment areas. Specifics vary according to freeway system, use patterns and local characteristics.	Yes		CARB, Caltrans
2.4	Express toll lanes/High Occupancy Toll (HOT) Lanes	Self-explanatory.	Yes		Caltrans, CTCs

Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
3.1*	Commute solutions	The federal *Commuter Choice Program* provides for benefits that employers can offer to employees to commute to work by methods other than driving alone.	Yes		Employer, SOUTH COAST AQMD
3.2*	Parking cash-out	State law requires certain employers who provide subsidized parking for their employees to offer a cash allowance in lieu of a parking space.	Yes		Employer, CARB
3.3*	Employer Rideshare Program Incentives	Employer rideshare incentives and introduction of strategies designed to reduce single occupant vehicle trips. Implementation includes information systems and marketing. Examples include: employee awareness campaigns, Transportation Management Associations (TMA) membership, alternative work hours, and financial incentives.	Yes		CTCs, Caltrans, Employer, SOUTH COAST AQMD
3.4*	Implement Parking Charge Incentive Program	Evaluate feasibility of an incentive program for cities and employers that convert free public parking spaces to paid spaces. Review existing parking polices as they relate to new development approvals.	Yes		Cities, Counties, Employer

* *This measure relates to SOUTH COAST AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen. Note: Rule 2202 is subject to change through the South Coast AQMD rule amendment process.*

Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
3.5*	Preferential parking for carpools and vanpools	This measure encourages public and private employers to provide preferential parking spaces for carpools and vanpools to decrease the number of single occupant automobile work trips. The preferential parking could include covered parking spaces or close-in spaces.	Yes		Employer, SOUTH COAST AQMD
3.6*	Employee parking fees	Encourage public and private employers to charge employees for parking.	Yes		Employer, SOUTH COAST AQMD
3.7	Merchant transportation incentives	Implement "non-work" trip reduction ordinances requiring merchants to offer customers mode shift travel incentives such as free bus passes and requiring owners/managers/developers of large retail establishments to provide facilities for non-motorized modes.	No	Require state legislation.	
3.8*	Purchase/lease/third-party vans for vanpool programs	Provide a specified number of vans for use in employee commute travel.	Yes		Employer, SOUTH COAST AQMD
3.9*	Encourage regulated employers to subsidize the cost of transit for employees	Provide outreach and possible financial incentives to encourage local employers to provide transit passes or subsidies to encourage less individual vehicle travel.	Yes		Employer, SOUTH COAST AQMD

* *This measure relates to SOUTH COAST AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by South Coast AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen. Note: Rule 2202 is subject to change through the South Coast AQMD rule amendment process.*

Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
3.10*	Compressed work weeks	Work 80 hours in 9 days, or 40 hours in 4 days, or 36 hours in 3 days in lieu of working 40 hours in 5 days.	Yes		Employer, SOUTH COAST AQMD
3.11*	Telecommuting	Goal of specified percentage of employees telecommuting at least one day per week.	Yes		Employer, SOUTH COAST AQMD
3.12	Income Tax Credit to Telecommuters	Provide tax relief to employees who participate in telecommuting programs.	No	Requires State legislation.	
3.13*	**Extend parking cash-out rule to more employers**	**Self-explanatory**	**No**	**Requires State legislation.**	
3.14	**Bike to Work Day/Month**	**Encourage biking to work during bike awareness month. Provide outreach activities, education on the bike-to-work option, and provide assistance in trying to bike to work.**	**Yes**		**Employers, Cities, Counties, VCAPCD, CTCs**

* *This measure relates to SOUTH COAST AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by SOUTH COAST AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen. Note: Rule 2202 is subject to change through the South Coast AQMD rule amendment process.*

Section 108 (f) 4. Trip Reduction Ordinance

In December 1995, Congress changed the Clean Air Act Amendments to make the Employee Commute Option program voluntary (no longer mandatory). California State Law prohibits mandatory employer based trip reduction ordinance programs (SB437). (HSC 40717.9) To account for these restrictions, SOUTH COAST AQMD Rule 2202 provides employers with a menu of options to reduce mobile source emissions generated from employee commutes. Rule 2202 complies with federal and state Clean Air Act requirements, HSC 40458, and HSC 182(d)(1)(B) of the federal Clean Air Act. Nevertheless, some jurisdictions continue to implement Trip Reduction Ordinances. For example, the City of Santa Monica requires new and existing non-residential development projects to adopt Emission Reduction Plans and pay transportation impact fees to reduce traffic congestion and improve air quality in the city.

Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions

Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
5.1	Develop Intelligent Transportation Systems	The term "Intelligent Transportation Systems" includes a variety of technological applications intended to produce more efficient use of existing transportation corridors. Includes measures like ramp-metering, and real-time transit information systems.	Yes		CTCs, Caltrans, and Cities
5.2	Coordinate traffic signal systems	This measures implements and enhances synchronized traffic signal systems to promote steady traffic flow at moderate speeds.	Yes		CTCs, Counties, and Cities
5.3	Reduce traffic congestion at major intersections	This measure implements a wide range of traffic control techniques designed to facilitate smooth, safe travel through intersections. These techniques include signalization, turn lanes or median dividers. The use of grade separations may also be appropriate for high volume or unusually configured intersections.	Yes		CTCs, Counties, and Cities

Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
5.4	Site-specific transportation control measures	This measure could include geometric or traffic control improvements at specific congested intersections or at other substandard locations. Another example might be programming left turn signals at certain intersections to lag, rather than lead, the green time for through traffic.	Yes		CTCs, Counties, and Cities
5.5	Removal of on-street parking	Require all commercial/industrial development to design and implement off-street parking.	Yes		CTCs, Counties, and Cities
5.6	Reversible lanes	Implement reversible lanes on arterial streets to improve traffic flow where appropriate.	Yes		CTCs, Counties, and Cities
5.7	One-way streets	Redesignate streets (or portions of in downtown areas) as one-way to improve traffic flow.	Yes		CTCs, Counties, and Cities
5.8	On-Street parking restrictions	Restrict on-street parking where appropriate.	Yes		CTCs, Counties, and Cities
5.9	Bus pullouts in curbs for passenger loading	Provide bus pullouts in curbs, or queue jumper lanes for passenger loading and unloading.	Yes		CTCs, Counties, and Cities
5.10	Additional freeway service patrol	Operation of additional lane miles of new roving tow truck patrols to clear incidents and reduce delay on freeways during peak periods.	Yes		CTCs, CHP
5.11	Fewer stop signs, remove unwarranted and "political" stop signs and signals	Improve flow-through traffic by removing stop signs and signals. Potential downside in safety issues.	Yes		CTCs, Counties, and Cities

Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
5.12	Ban left turns	Banning all left turns would stop the creation of bottlenecks although slightly increase travel distances.	No	Left turns are not allowed in some heavy-traffic streets. No clear demonstration of emission reduction benefits.	
5.13	Changeable lane assignments	Increase number of one-way lanes in congested flow direction during peak traffic hours.	Yes		Caltrans, CTCs, Counties, and Cities
5.14	Adaptive traffic signals and signal timing	Self-explanatory.	Yes		Counties, Counties, and Cites
5.15	Freeway bottleneck improvements (add lanes, construct shoulders, etc.)	Identify key freeway bottlenecks and take accelerated action to mitigate them.	Yes		Caltrans, SCAG
5.16	Minimize impact of construction on traveling public. Have contractors pay when lanes are closed as an incentive to keep lanes open.	Prohibit lane closures during peak hours, limit work to weekends and/or nights.	Yes		Caltrans
5.17	Internet provided road and route information	Reduce travel on highly congested roadways by providing accessible information on congestion and travel.	Yes		CTCs, Caltrans, Counties, Cities
5.18	Regional route marking systems to encourage underutilized capacity	Encourage travel on local roads and arterials by better route marking to show alternatives.	Yes		Caltrans, Counties, Cities
5.19	Congestion management field team to clear incidents	Self-explanatory.	Yes		CTCs, CHP
5.20	Use dynamic message signs to direct/smooth speeds during incidents	Self-explanatory.	Yes		Caltrans

Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
5.21	Get real-time traffic information to trucking centers and rental car agencies	Reduce travel in congested areas by providing information directly to high volume travelers.	Yes		CTCs, Caltrans
5.22	55 mph speed limit during ozone season	Self-explanatory	No	Reductions in freeway speeds are governed by California Vehicle Code 22354, which authorizes Caltrans to lower speeds after doing an engineering and traffic survey, which shows that the legislatively-set maximum speed of 65 mph, is more than is reasonable or safe. No consideration of emissions reductions is contemplated under this statute. This measure is not feasible until the statute is changed.	
5.23	Require 40 mph speed limit on all facilities	Depends on area's emission factors.	No	The California Vehicle Code Sections 22357 and 22358 mandates a methodology for setting speed limits for local areas. This measure is not feasible until the statute is changed.	

Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
5.24	Require lower speeds during peak periods	Self-explanatory.	No	The California Vehicle Code Sections 22357 and 22358 mandates methodology for setting speed limits for local areas. This measure is not feasible until the statute is changed.	
5.25	On-street parking restrictions	Restrict on-street parking where appropriate.	Yes		State, Counties, and Cities
5.26	**Roundabouts at low traffic intersections**	**Construct roundabouts and remove stop signs as appropriate**	**Yes**		**Counties, Cities**
5.27	**Eco-Driving educational program**	**Education program to improve vehicle efficiency by improving driving habits**	**No**	**No clear demonstration of emission reduction benefits.**	

Section 108 (f) 6. Fringe and Transportation Corridor Parking Facilities Serving Multiple Occupancy Vehicle Programs or Transit Service					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
6.1	Park-and-ride lots	Develop, design, and implement new park-and-ride facilities in locations where they are needed, particularly free parking near transit facilities.	Yes		Caltrans, CTCs, Transit Operators, SCRRA

Section 108 (f) 6. Fringe and Transportation Corridor Parking Facilities Serving Multiple Occupancy Vehicle Programs or Transit Service					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
6.2	Park-and-ride lots serving perimeter counties	Specific to a locality.	Yes		Caltrans, CTCs, Transit Operators, SCRRA

Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
7.1	Off-peak goods movement	Restrict truck deliveries by time or place in order to minimize traffic congestion during peak periods.	Yes		PierPass (A non-profit organization of marine terminal operators at the Ports of Los Angeles and Long Beach)
7.2	Truck restrictions during peak periods	Restrict truck travel during peak periods in order to minimize traffic congestion.	Yes		See Measure 7.1
7.3	Involve school districts in encouraging walking/bicycling to school	Decrease vehicle emissions associated with school trips by reducing these trips through education and out-reach programs.	Yes		School Districts

Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
7.4	Adjust school hours so they do not coincide with peak traffic periods and ozone seasons	Measure to reduce travel during peak periods and ozone-contributing periods in the early morning.	No	School hours are dictated by many variables, including overcrowding and year-round schooling. This measure is not feasible.	
7.5	Area-wide tax for parking	Reduce driving by limiting parking through implementation of pricing measures.	Yes		Counties, Cities
7.6	Increase parking fees	Reduce driving by limiting parking spaces through pricing measures.	No	Attorney General ruled South Coast AQMD lacks authority to implement this measure.	
7.7	Graduated pricing starting with highest in Central Business District (CBD)	Increase parking charge in the CBD or other high volume areas in a city to discourage vehicle travel in these areas.	Yes		Market Driven
7.8	Purchase parking lots and convert into other land uses	Limit parking by converting available parking to other land uses to discourage driving.	Yes		Counties and Cities

Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
7.9	Limit the number of parking spaces at commercial airlines to support mass transit	Reduce airport travel by limits on parking at airports.	No	Regulatory agencies do not have the legal authority to make local land use decisions. It is at the discretion of the regional or local airport authority to make local land use decisions pertaining to airports. Additionally, It is necessary to have significant mass transit available at airports before this measure can be implemented.	
7.10	No CBD vehicles unless LEV, alternative fuel, or electric	Define high-use area and ticket any vehicles present unless they are low emitting, alternative fueled or electric.	No	The Legislature significantly reduced authority of the SOUTH COAST AQMD to implement indirect source control measures through revisions to the Health & Safety Code (40717.6, 40717.8, and 40717.9).	
7.11	Auto restricted zones	No vehicles allowed in certain areas where high emissions, congestion or contribution to ozone problems.	Yes		Counties and Cities
7.12	Incentives to increase density around transit centers	Lower travel by increasing residential and commercial density in areas near transit.	Yes		Counties and Cities
7.13	Land use/air quality guidelines	Guidelines for developments that contribute to achieving air quality goals.	Yes		CARB, SOUTH COAST AQMD,SCAG

Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
7.14	Cash incentives to foster jobs/housing balance	Specific to locality – encouraged by California Clean Air Plan.	No	Has never been a committed TCM. No dedicated source of funding for this measure.	
7.15	Trip reduction oriented development	Land use decisions that encourage trip reductions.	Yes		Counties, Cities, CTCs
7.16	Transit oriented development	Land use decisions that encourage walkable communities and multi-modal transit systems.	Yes		Counties, Cities, CTCs
7.17	Sustainable development	Land use decisions that create equitable standards of living to satisfy the basic needs of all peoples, all while taking the steps to avoid further environmental degradation.	Yes		Counties, Cities, CTCs
7.18	Smart Parking Detection System	Utilize mobile communication devices to access the parking availability at multiple lots and provide real-time inventory of parking spaces.	Yes		Cities
7.19	**Programs to encourage goods movement by rail**	**Self-explanatory**	**Yes**		**CARB**
7.20	**Divert Trucks from Nonattainment Areas**	**Require pass-through trucks to choose routes away from the SCAG region**	**No**	**No authority to implement; Not feasible because whole South Coast region is nonattainment area under one or more NAAQS.**	
7.21	**Buy parking lots and convert to other land use**	**Limit parking by converting available parking to other land uses to discourage driving**	**Yes**		**Counties, Cities**

Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
8.1*	Financial Incentives, Including Zero-Bus Fares	Provide financial incentives or other benefits, such as free or subsidized bus passes and cash payments for not driving, in lieu of parking spaces for employees who do not drive to the workplace.	Yes		SOUTH COAST AQMDSOUTH COAST AQMD, Employer
8.2	Internet ride matching services	Provide match-lists, route info, hours and contact information over the internet to assist individuals in joining or developing carpools.	Yes		CTCs, Employer
8.3*					
8.4*	Credits and incentives for carpoolers	Self-explanatory – form depends on locality.	Yes		SOUTH COAST AQMD, Employer
8.5*	Employers provide vehicles to carpoolers for running errands or emergencies	Having vehicles available for workday errands makes it easier to go to work without one.	Yes		SOUTH COAST AQMD, Employer
8.6	Subscription services	Free van services to provide transportation for the elderly, handicapped or other individuals who have no access to transportation.	Yes		County, CTCs, Employer
8.7	School carpools	Self-explanatory and voluntary.	Yes		School Parents

* *This measure relates to SOUTH COAST AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by South Coast AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen. Note: Rule 2202 is subject to change through the South Coast AQMD rule amendment process.*

Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
8.8*	Guaranteed ride home	Self-explanatory.	Yes		CTCs, SOUTH COAST AQMD, Employer
8.9	Transit Voucher Program	Transit vouchers for elderly and low income commuters.	Yes		CTCs, Cities, Counties
8.10	Rideshare and vanpool services	Non-employer based rideshare and vanpool option near transit stations.	Yes		CTCs, Transit Agencies, Cities and Counties

Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
9.1	Establish Auto-Free Zones and pedestrian malls	Establish auto free zones and pedestrian malls where appropriate.	Yes		Counties and Cities

* *This measure relates to SOUTH COAST AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by SOUTH COAST AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen. Note: Rule 2202 is subject to change through the South Coast AQMD rule amendment process.*

Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
9.2	Encouragement of pedestrian travel	This measure involves encouraging the use of pedestrian travel as an alternative to automobile travel. Pedestrian travel is quite feasible for short shopping, business, or school trips.	Yes		CTCs, Counties, Cities, SCAG
9.3	Bicycle/Pedestrian Program	Fund high priority projects in countywide plans consistent with funding availability.	Yes		CTCs, Counties, and Cities
9.4	Close certain roads for use by non-motorized traffic	During special events, weekends, or certain times of the day, close some roads to all but non-motorized traffic.	Yes		Counties, and Cities
9.5	Encourage bicycle travel	Promotion of bicycle travel to reduce automobile use and improve air quality. Bikeway system planning, routes for inter-city bike trips to help bicyclists avoid other, less safe facilities. Another area for potential actions is the development and distribution of educational materials, regarding bicycle use and safety.	Yes		SCAG, CTCs, Counties, Cities, and Employer
9.6	Free bicycles	Provide free bikes in the manner of Boulder, CO. Simple utilitarian bikes that can be used throughout the metro area and dropped off at destination for use by anyone desiring use.	No	Bike share is being implemented in the South Coast region; free bikes are not cost-effective; Evidence suggests that bicycle theft is a problem in other programs and renders the measure technologically and economically infeasible.	

Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
9.7*	Cash rebates for bikes	Provide financial incentives to purchase bicycles and thereby encourage use.	Yes		Employer
9.8	Close streets for special events for bikes and pedestrians	Self-explanatory.	Yes		Counties and Cities
9.9	Use condemned dirt roads for bike trails	Self-explanatory.	No	Not applicable because there are no condemned dirt roads in the region.	
9.10	**Safe Routes to School programs**	**Encourage educational and encouragement programs with families and schools and support policies to improve pedestrian and bicycle safety.**	**Yes**		**State, Counties, CTCs, and Cities**

* *This measure relates to SOUTH COAST AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by SOUTH COAST AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen. Note: Rule 2202 is subject to change through the South Coast AQMD rule amendment process.*

Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
10.1*	Bike racks at work sites	Self-explanatory.	Yes		SOUTH COAST AQMD, Employer
10.2	Bike racks on buses	Bike racks would be placed on a to-be-determined number of buses to increase bicycle travel.	Yes		CTCs, Transit Operators, SCRRA
10.3	Regional bicycle parking	Bike Transit Centers	Yes		CTCs
10.4	Develop bicycle travel facilities	Encourages a variety of capital improvements to increase bicycle use. Off-street bikeways where high-speed roadways preclude safe bicycling. Clearly mark travel facilities with signs and provide adequate maintenance.	Yes		CTCs, Transit Operators, SCRRA
10.5	Expedite bicycle projects from RTP/SCS	Create bicycle and pedestrian master plan and build out at an accelerated rate to achieve benefits in advance of attainment deadline.	Yes		SCAG, CTCs, Counties, Cities
10.6	Provide bike/pedestrian facilities safety patrols	Self-explanatory.	Yes		Counties and Cities
10.7	Inclusion of bicycle lanes on thoroughfare projects	Self-explanatory.	Yes		State, CTCs, Counties, and Cities

* *This measure relates to SOUTH COAST AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by SOUTH COAST AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen. Note: Rule 2202 is subject to change through the South Coast AQMD rule amendment process.*

Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
10.8	Bicycle lanes on arterial and frontage roads	Self-explanatory.	Yes		State, Counties, and Cities
10.9	Bicycle route lighting	Self-explanatory.	Yes		State, Counties, Cities
10.10	Complete Streets	Install bicycle and pedestrian facilities, upgrade traffic control systems, urban design improvements, street lights and transit connections.	Yes		Cities, Counties, CTCs, Transit Agencies
10.11	Bike Share	Provide bike-share and neighborhood electric vehicle transit services in downtown areas.	Yes		Cities, Counties, Transit Agencies
10.12	Bike Purchase Incentives	Cash incentives to transit riders to purchase collapsible or electric bikes.	Yes		Cities
10.13	Longer Bike Racks on Buses	Install or modify bike rack on transit buses to accommodate up to three bikes	Yes		Transit Agencies
10.14	Greenway Network	Use riverbeds and other rights-of-way for bike and pedestrian paths to separate them from auto traffic	Yes		Cities, Counties
10.15	First Mile/Last Mile Program	Variety of strategies to encourage active transportation including wayfinding, sidewalk improvements, pedestrian priority signalization, and bike/pedestrian facilities near transit.	Yes		CTCs, Transit Agencies

Section 108 (f) 11. Programs to Control Extended Idling of Vehicles					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
11.1	Limit excessive car dealership vehicle starts	Require car dealers to limit the starting of vehicles for sale on their lot(s) to once every two weeks. Presently, a number of new and used car dealers start their vehicles daily to avoid battery failure and assure smooth start-ups for customer test drives.	No	This measure was investigated by the SOUTH COAST AQMD and it was determined that in contrast to colder climates where vehicles are started on a daily basis, vehicles in the South Coast started much less frequently. For this reason it was determined not to be technologically feasible. No clear demonstration of emission reduction benefits.	
11.2	Encourage limitations on vehicle idling	Encourage limitations to limit extended idling operations.	Yes		CARB
11.3	Turn off engines while stalled in traffic	Public outreach or police-enforced program.	No	This measure raises safety and congestion concerns. No clear demonstration of emission reduction benefits.	
11.4	Outlaw idling in parking lots	Self-explanatory and police-enforced program.	No	Enforcement of idle restrictions is a low priority for police relative to their other missions. The cost effectiveness of this measure has not been demonstrated. It is not economically feasible. No clear demonstration of emission reduction benefits.	
11.5	Reduce idling at drive-throughs; ban drive-throughs	Mandate no idling or do not allow drive-through windows during ozone season.	No	No clear demonstration of emission reduction benefits.	

Section 108 (f) 11. Programs to Control Extended Idling of Vehicles					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
11.6	Promote use of pony engines	Use special battery engines to keep air conditioning and other truck systems working while truck not in use.	Yes		CARB
11.7	Idle restrictions at airport curbsides	Self-explanatory and police-enforced.	Yes		Airport Authority
11.8	Truck Stop Electrification	Provide electric charging stations for at truck stops to power heating/AC units and other on-board equipment.	Yes		CARB
11.9	**Reduce idling at schools**	**Self-explanatory**	**Yes**		**CARB**

Section 108 (f) 12. Program to Reduce Motor Vehicle Emissions Consistent with Title II, Which Are Caused by Extreme Cold Start Conditions	
Not applicable. The definition of an "extreme cold start" specifies temperatures below 20 degrees Fahrenheit.	Not applicable in the South Coast - No extreme cold start conditions

Section 108 (f) 13. Employer-sponsored programs to permit flexible work schedules					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
13.1*	Alternative work schedules	Enables workers to choose their own working hours within certain constraints. Flextime provides the opportunity for employees to use public transit, ridesharing, and other Nonmotorized transportation. A related strategy, staggered work hours, is designed to reduce congestion in the vicinity of the workplace. Alternative workweeks have been implemented extensively by large private and public employers.	Yes		SOUTH COAST AQMD, Employer
13.2*	Modifications of work schedules	Implement alternate work schedules that flex the scheduled shift time for employees. Encourage the use of flexible or staggered work hours to promote off-peak driving and accommodate the use of transit and carpooling.	Yes		SOUTH COAST AQMD, Employer
13.3*	Telecommunications-Telecommuting/Teleconferencing	Encourage telecommuting and use of telecommuting/teleconferencing equipment in place of motor vehicle use where appropriate. Set-up satellite work centers closer to where employees live to reduce motor vehicle use where appropriate.	Yes		SOUTH COAST AQMD, Employer

* *This measure relates to SOUTH COAST AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by SOUTH COAST AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen. Note: Rule 2202 is subject to change through the South Coast AQMD rule amendment process.*

Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
14.1	Areawide public awareness programs	This measure focuses on conducting ongoing public awareness programs throughout the year to provide the public with information on air pollution and encourage changes in driving behavior and transportation mode use.	Yes		SOUTH COAST AQMD
14.2	Special event controls	This measure would require new and existing owners/operators of the special event centers to reduce mobile source emissions generated by their events. A list of optional strategies would be available that reduce mobile source emissions.	Yes		Counties, Cities, Special Event Operators
14.3	Land Use/development alternatives	This measure includes encouraging land use patterns, which support public transit and other alternative modes of transportation. In general, this measure would also encourage land use patterns designed to reduce travel distances between related land uses	Yes		CARB, SCAG, SOUTH COAST AQMD, Counties, Cities
14.4	Voluntary No-Drive Day Programs	Conduct voluntary No-Drive Day Programs during the ozone season through media and employer based public awareness activities.	Yes		CTCs
14.5**	New Development Air Quality Impact Evaluation	Evaluate air quality impacts of new development and recommend or require mitigation for significant adverse impacts.	Yes		SOUTH COAST AQMD, Counties, Cities, CEQA Lead Agencies

** SOUTH COAST AQMD *and SCAG recommend mitigation as commenting agencies on new development projects; cities and counties require mitigation under their discretionary authority as lead agency.*

Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
14.6	Transportation for Livable Communities (TLC)/Housing Incentive program	Program provides planning grants, technical assistance, and capital grants to help cities and Nonprofit agencies define and implement transportation projects that support community plans including increased housing near transit.	Yes		SCAG, State
14.7	Incentives to increase density around transit centers	Lower travel by increasing residential and commercial density in areas near transit.	Yes		Counties, Cities, CTCs
14.8	Incentives for cities with good development practices	Provide financial or other incentives to local cities that practice air quality-sensitive development.	Yes		CTCs, Counties, Cities
14.9	Increase State gas tax	Self-explanatory.	No	Need State legislation. State gas tax has been increased by SB 1.	
14.10	Pay-As-You-Drive Insurance	Self-explanatory.	No	Need State legislation. No clear demonstration of emission reduction benefits and does not advance attainment date.	

Section 108 (f) 15. Programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other Non-motorized means of transportation when commercially feasible and in the public interest					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
15.1[13]	Encourage Pedestrian Travel	Promote public awareness and use of walking as an alternative to the motor vehicle.	Yes		SOUTH COAST AQMD, SCAG, CTCs, Counties, Cities, Employer
15.2	Pedestrian and bicycle overpasses where safety dictates	Ongoing implementation as development occurs.	Yes		Counties, Cities

Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
16.1	Counties assess ten dollar license plate fee to fund repair/replacement program for high-emitters	Self-explanatory.	Yes		CARB, BAR[14]

[13] *This measure relates to SOUTH COAST AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by SOUTH COAST AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen. Note: Rule 2202 is subject to change through the South Coast AQMD rule amendment process.*

[14] *Similar program administered with different funding source as part of smog check*

Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks					
16.2	Offer incentives for retirement and replacement of vehicles for participants meeting specific requirements	Self-explanatory.	Yes		CARB, SOUTH COAST AQMD[15]
16.3	Demolish impounded vehicles that are high emitters	Self-explanatory.	No	SOUTH COAST AQMD Rule 1610 issues mobile source emission reduction credits in exchange for the scrapping of old, high emitting vehicles.	
16.4	Do whatever is necessary to allow cities to remove the engines of high emitting vehicles (pre-1980) that are abandoned and to be auctioned	Self-explanatory.	No	SOUTH COAST AQMD Rule 1610 issues mobile source emission reduction credits in exchange for the scrapping of old, high emitting vehicles	
16.5	Accelerated retirement program	Identify high-emitting vehicle age groups and develop a program to remove them from use.	Yes		CARB, SOUTH COAST AQMD

17. Other					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
17.1	Truck-Only Lanes	Self-explanatory.	Yes		Caltrans, CTCs

[15] *Voluntary car scrapping programs to generate credits. Note: South Coast AQMD rules are subject to change through an amendment process.*

17. Other					
17.2	Promote business closures on high ozone days	Non-employer-based strategy to require local business to close on bad air quality days, thereby reducing travel.	No	No authority to implement; not economically feasible	
17.3	Clean Fleet Vehicles for Government Employees	Provide alternative fuel vehicles for government employees.	Yes		CARB, SOUTH COAST AQMD, Counties, Cities

AGENDA ITEM 3

REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 – Regional Council Room
Los Angeles, CA 90017
November 3, 2022

To: Community Economic & Human Development Committee (CEHD)
Energy & Environment Committee (EEC)
Transportation Committee (TC)

From: Michael Gainor, Senior Planner
(213) 236-1822, gainor@scag.ca.gov

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

Subject: Federal Performance Measures (PM 2/PM 3) Existing Conditions

RECOMMENDED ACTION:
Receive and File

STRATEGIC PLAN:
This item supports the following Strategic Plan Goal 2: Advance Southern California's policy interests and planning priorities through regional, statewide, and national engagement and advocacy.

EXECUTIVE SUMMARY:
The purpose of this report is to provide an analysis of current and emergent trends in the performance of the SCAG regional transportation system and to establish a comparative baseline to inform the update of regional performance targets in support of the federal transportation performance management program. This report focuses specifically on Performance Management Package 2 (PM 2), which addresses National Highway System (NHS) pavement and bridge condition; and Performance Management Package 3 (PM 3), which evaluates NHS system performance, freight movement, and the Congestion Mitigation and Air Quality Improvement (CMAQ) program. The federal performance management program reporting period is organized in four-year cycles, with second reporting period beginning in 2022. For each federal performance cycle, statewide and regional PM 2 and PM 3 targets must be updated to represent anticipated outcomes after two years and after four years.

Caltrans released its draft statewide PM 2 and PM 3 targets for the second federal performance reporting cycle in October 2022. From that date, SCAG will have 180 days to determine whether to adopt the statewide targets at the regional level or to identify a separate set of targets specific to the region. If SCAG opts to establish its own targets for any of the applicable PM 2 or PM 3 performance measures, the regional targets must be reported to Caltrans by April 1, 2023. A

primary purpose for this Existing Conditions report is to inform the decision-making process regarding the establishment of updated federal performance targets for the SCAG region.

BACKGROUND:

In July 2012, the Moving Ahead for Progress in the 21st Century (MAP-21) federal transportation authorization legislation was signed into law, establishing a legislative foundation for a national performance-based transportation planning program. This effort was expanded with the subsequent federal authorization, the Fixing America's Surface Transportation (FAST) Act in December 2015 and reaffirmed by the Infrastructure Investment and Jobs Act (IIJA) in November 2021.

In support of the federal performance management program, SCAG collaborates with Caltrans to establish, monitor, and report on regional performance measures and targets relating to transportation safety, transit system infrastructure and safety, pavement and bridge condition, NHS Performance, freight movement on the Interstate System, and performance of the regional CMAQ program. This process requires the setting of two-and four-year statewide and regional targets for most of these federally defined transportation performance areas. The transportation safety (PM 1) targets are updated on annual basis and are therefore an exception to this reporting timeframe.

The focus of this report is on existing conditions in the SCAG region relative to NHS pavement and bridge condition (PM 2) and NHS system performance (PM 3). PM 3 also includes performance measures for freight movement on the Interstate system and overall performance of the regional CMAQ program. The PM 2 and PM 3 packages each consist of a set of metrics for which statewide and regional targets are established and performance trends assessed over a four-year federal reporting cycle. Opportunities are provided at the two-year mid-point of each reporting cycle to review current performance trends and revise the targets, as needed.

At the conclusion of each four-year performance period, Caltrans is required to submit a report to FHWA detailing how the state has performed toward achieving the targets set for each of the measures and, specifically, whether it has achieved "significant progress" toward the defined performance goals. In the context of federal performance reporting, 'significant progress' is achieved if the outcome for a particular measure shows improvement over the baseline. The FHWA "significant progress" determination only applies to the statewide targets, not to regional targets. However, Caltrans incorporates the regional performance data provided by SCAG and other MPOs into its statewide report. If the state fails to demonstrate significant progress toward its targets, Caltrans is required to draft a supplemental report to FHWA explaining why the targets were not met and what strategies are being implemented to support achievement of the targets over the subsequent federal reporting period.

The updated PM 2 and PM 3 performance targets will be effective over a four-year federal performance reporting period from 2022 through 2025. Like for the initial reporting period, PM 2 and PM 3 performance targets will be set for both two-year and four-year intervals. The four-year targets will be re-assessed after two years (in 2023) to determine whether they are still viable. At that time, both Caltrans and SCAG will have the opportunity to change any (or all) of their respective targets to accommodate any changes in anticipated performance trajectory.

FHWA released a Notice of Proposed Rulemaking in July 2022 introducing an additional metric to the PM 3 package of measures for which targets will be required. The proposed new measure is for reduction in mobile-source greenhouse gas (GHG) emissions relative to levels reported in 2021. The implementation date for the new metric, and for the setting of performance targets, is still pending at the time of this report. SCAG will be an active participant throughout the FHWA rulemaking process for this proposed new national performance measure.

Another revision to the PM 3 measures for the second federal performance cycle is the change of threshold for applicable Urban Areas that require reporting under the CMAQ performance measures. For the initial reporting cycle, only U.S. Census designated Urban Areas with populations of one million or more (that also were within a nonattainment or maintenance area for ozone, carbon monoxide or particulate matter) required the setting of targets and reporting of progress for the Annual Hours of Peak Hour Excessive Delay and Share of Non-SOV Travel measures.

The two Urban Areas that met the threshold for the initial federal reporting cycle were Los Angeles/Long Beach/Anaheim and Riverside/San Bernardino. For the second reporting cycle, the Urban Area population threshold has been lowered to 200,000 or more. This change will result in eight additional Urban Areas in the SCAG region to be included in the target setting and performance monitoring process for those two metrics. The additional Urban Areas subject to PM 3 reporting include Mission Viejo/Lake Forest/San Clemente in Orange County; Murrieta/ Temecula/Menifee and Indio/Cathedral City in Riverside County; Oxnard and Thousand Oaks in Ventura County; Lancaster/Palmdale and Santa Clarita in Los Angeles County; and Victorville/ Hesperia in San Bernardino County.

NEXT STEPS:

- SCAG staff will coordinate with Caltrans on the establishment of regional targets based either on the adoption of the statewide targets at the regional level, or the development of a separate set of performance targets that are specific to the SCAG region but are consistent with the statewide targets.

- SCAG will consult with Caltrans on the establishment of PM 3 targets relative to Peak Hour Excessive Delay (PHED) and Non-SOV Mode Share for the ten applicable U.S. Census designated

Urban Areas in the SCAG region. For these two metrics, FHWA requires MPOs and State DOTs to mutually agree upon a single, unified set of two-year and four-year performance targets.

- SCAG will continue coordination with FHWA and Caltrans on development and implementation of the proposed new national GHG emissions measure and on the establishment of statewide and regional performance targets.

- SCAG will seek guidance from this Committee on the release of the full PM 2/PM 3 Existing Conditions report and on the update of regional performance targets.

FISCAL IMPACT:
The budget for this task is included in the FY 22-23 SCAG Overall Work Plan (OWP) under work element 310.4874.04 (Connect SoCal Performance Measurement & Monitoring).

ATTACHMENT(S):
1. PM2_PM3_Existing Conditions_11-3-22

Federal Performance Management Program

Performance Packages 2 & 3 (PM 2/PM 3)

2022 Existing Conditions Report SCAG Region

Summary of Findings

Southern California Association of Governments, October 2022

TABLE OF CONTENTS

PURPOSE

This purpose of this report is to analyze trends in the performance of the regional multimodal transportation system and to establish a comparative baseline dataset to inform the update of regional transportation system performance targets. This report focuses specifically on the federal performance-based planning requirements relative to federal Performance Management Package 2 (PM 2), which addresses National Highway System (NHS) pavement and bridge condition; and federal Performance Management Package 3 (PM 3), which evaluates NHS system performance and the Congestion Management and Air Quality (CMAQ) program.

FEDERAL PERFORMANCE MONITORING

In July 2012, the 'Moving Ahead for Progress in the 21st Century' (MAP-21) federal transportation authorization legislation was signed into law, establishing a legislative foundation for a national performance-based transportation planning program. This effort was expanded with the subsequent federal authorization, the 'Fixing America's Surface Transportation' (FAST) Act in December 2015 and reaffirmed by the Infrastructure Investment and Jobs Act (IIJA) in November 2021.

In support of the federal performance management program, SCAG collaborates with Caltrans to establish, monitor, and report on regional performance measures and targets relating to transportation safety, transit system infrastructure and safety, pavement and bridge condition, National Highway System (NHS) Performance, freight movement on the Interstate System, and performance of the regional CMAQ program. This process requires the setting of two-and four-year statewide and regional targets for most of these federally defined transportation performance areas. The transportation safety (PM 1) targets are updated on annual basis and are therefore an exception to this reporting timeframe.

PERFORMANCE MANAGEMENT PACKAGES (PM) 2 & 3

The focus of this report is on the reporting of existing conditions in the SCAG region relative to NHS pavement and bridge condition (PM 2) and NHS system performance (PM 3). PM 3 also includes performance measures for freight movement on the Interstate system and overall performance of the regional CMAQ program. The PM 2 and PM 3 packages each consist of a set of specific quantifiable metrics for which statewide and regional targets are established and performance trends assessed over a four-year federal

reporting cycle. Opportunities are provided at the two-year mid-point of each reporting cycle to review current performance trends and revise the targets, as needed.

At the conclusion of each four-year performance period, Caltrans is required to submit a report to the Federal Highway Administration (FHWA) detailing how the state has performed toward achieving the targets set for each of the measures and, specifically, whether it has achieved 'significant progress' toward the defined performance goals. In the context of federal performance reporting, 'significant progress' is achieved if the outcome for a particular measure shows improvement over the baseline. The FHWA 'significant progress' determination only applies to the statewide targets, not to regional targets. However, Caltrans incorporates the regional performance data provided by SCAG and other MPOs into its statewide report. If the state fails to demonstrate significant progress toward its targets, Caltrans is required to draft a supplemental report to FHWA explaining why the targets were not met and what strategies are being implemented to support achievement of the targets over the subsequent federal reporting period.

PM 2 PERFORMANCE MEASURES

The PM 2 measures provide a standard basis for assessing the structural integrity of critical transportation infrastructure, specifically the nation's highways and bridges. This information is used to prioritize transportation infrastructure investments at the national, state, and regional levels based on an assessment of which facilities are in greatest need of rehabilitation. Prioritizing investments through this data-driven, or performance-based, planning process enhances transportation system safety and maximizes the service life of existing infrastructure.

PM 2 consists of a total of six national performance measures for evaluating NHS pavement and bridge condition:

1) **National Highway System (NHS) Pavement Condition**
   - Percentage of Interstate System pavement in 'Good' condition.
   - Percentage of Interstate System pavement in 'Poor' condition.
   - Percentage of non-interstate NHS pavement in 'Good' condition.
   - Percentage of non-interstate NHS pavement in 'Poor' condition.

2) **National Highway System (NHS) Bridge Condition**
   - Percentage of NHS bridges in 'Good' condition.
   - Percentage of NHS bridges in 'Poor' condition.

The PM 2 NHS pavement condition categories (Good, Fair, and Poor) are based on a combined assessment of the International Roughness Index (IRI) rating, cracking, and faulting of a highway pavement segment. PM 2 classifies pavement condition on a highway segment as being in 'Good' condition if it rates highly in all three of the performance elements. A pavement segment is classified in 'Poor' condition if it performs poorly in two or more of the three elements. All pavements not meeting one of those two criteria are classified as 'Fair' condition.

For NHS bridges, condition assignment is based on the combined ratings for deck, superstructure, and substructure condition. Bridge deck condition refers the quality of its surface pavement and is used to assess the driving experience over the span. PM 2 classifies bridge condition within the three categories of 'Good', 'Fair', and 'Poor'. An NHS bridge is classified as being in 'Good' condition if its lowest score for any of the three performance elements is seven or higher. A bridge is classified in 'Poor' condition if it receives a rating of four or lower for any of the three elements. All NHS bridges not meeting one of those two criteria are classified as being in 'Fair' condition.

PM 3 PERFORMANCE MEASURES

The PM 3 measures feature a total of six performance metrics under three general categories including NHS system performance, Interstate freight movement, and CMAQ program performance. The NHS system performance category is focused on travel time reliability for both the Interstate System and for non-interstate NHS roadways. The PM 3 freight movement metric evaluates travel time reliability for heavy duty trucks on the Interstate System. The CMAQ program measures are used to determine the effectiveness of CMAQ investments for achieving the program's objectives of relieving traffic congestion and improving air quality.

The PM 3 'NHS System Performance' category includes two specific measures to assess travel time reliability on major highways in the region. Travel time reliability refers to the difference between the expected travel time and the actual travel experience on a specific highway. Travel time reliability differs from congestion in that a congested roadway may be considered 'reliable' if travel time may be dependably estimated. Travel time reliability measures the variability in travel time on a specific roadway from day to day. If a route is 'dependably' congested, a traveler may plan sufficient time to reach a desired destination on time. Unreliable highways, conversely, are not amenable to dependable travel planning. Unreliable travel times not only increase levels of stress and frustration among

drivers, but also impact the regional economy as many commercial activities are highly dependent on a transportation system that produces reliable travel times.

PM 3 uses the 'Level of Travel Time Reliability' (LOTTR) metric to assess performance of a roadway in providing reliable travel times based on observed travel time data generated through a national database. The LOTTR calculation is based on a comparison of the longest travel times with the average travel times observed along a highway segment at a specified time of day. A higher ratio indicates a less reliable travel time.

1) **National Highway System Performance**
    - Percent of reliable person miles travelled on the Interstate System.
    - Percent of reliable person miles travelled on the non-interstate NHS.

The PM 3 'Freight Movement' category features one performance measure to assess travel time reliability for heavy duty trucks on the Interstate System. The efficient and timely movement of goods on Interstate highways is a major factor for ensuring regional economic productivity and for promoting an economically competitive region.

PM 3 uses the 'Truck Travel Time Reliability Index' (TTTRI) to calculate the share of regional Interstate mileage that produces reliable truck travel times. The TTTRI assesses the difference between the expected travel time along an Interstate segment and actual travel times. The TTTRI compares the longest travel times with the average travel times observed along an Interstate segment at a particular time to calculate an indexed value that may be used to identify, compare, and quantify major freight truck bottlenecks along regional Interstate highways. Freight bottlenecks are often caused by recurrently congested roadway conditions due to traffic volumes exceeding capacity. The TTTRI is defined as the 95th percentile truck travel time divided by the 50th percentile truck travel time, with a lower index value representing a higher level of reliability.

2) **Freight Movement**
    - Percentage of Interstate System mileage providing 'reliable' truck travel times.

PM 3 also includes three performance measures to support CMAQ Program assessment. The 'Annual Hours of Peak Hour Excessive Delay' (PHED) metric is used to monitor traffic congestion conditions during periods of peak travel demand. Specifically, the measure assesses the difference between free flow travel time along a highway segment and the actual time observed. Unlike the reliability measures described above, the PHED metric is used specifically to assess highway congestion.

The 'Percent of Non-Single Occupancy Vehicle Travel' metric is used to assess the impact of regional strategies for reducing the number of motor vehicles on NHS highways. Finally, the 'Total Emissions Reduction' variable quantifies the impact of CMAQ investments toward achieving regional air quality improvement objectives.

3) CMAQ Program

- Annual hours of peak hour excessive delay per capita.
- Percent of Non-Single Occupancy Vehicle (Non-SOV) travel.
- Total emissions reductions by applicable pollutants.

NHS PAVEMENT & BRIDGE CONDITION (PM 2)

In developing the initial PM 2 targets, Caltrans coordinated with SCAG and other major MPOs in the state to establish statewide performance targets that were consensually determined to be both ambitious and feasibly achievable within the defined performance period. The regional targets developed for the initial performance period are reflective of the mutually agreed upon statewide targets. The SCAG regional PM 2 targets for the initial federal performance period are presented in **Figure 1**.

Figure 1: SCAG Region NHS Pavement & Bridge Condition (PM 2) Targets

PM 2 Performance Measures	Baseline (2017)		2-Year Targets (1/1/18 - 12/31/19)				4-Year Targets (1/1/20 - 12/31/21)			
	Good	Poor	Good	Chg	Poor	Chg	Good	Chg	Poor	Chg
Interstate Pavement	44.9%	3.1%	45.1%	+0.2%	3.5%	+0.4%	44.5%	-0.4%	3.8%	+0.7%
Non-Interstate NHS Pavement	3.7%	14.4%	4.0%	+0.3%	13.8%	-0.6%	4.7%	+1.0%	12.7%	-1.7%
NHS Bridges	36.1%	14.8%	37.9%	+1.8%	14.0%	-0.8%	41.4%	+5.3%	12.4%	-2.4%

The two-year Interstate pavement condition targets reflect an expectation of a minimal increase (0.2 percent) in the share of pavements in 'Good' condition between 2017 and 2019, and an increase of 0.4 percent in the share of Interstate pavements in 'Poor' condition. After four years, the Interstate pavement targets called for an increase of 0.7 percent in the share in 'Good' condition, and a decrease of 1.7 percent in the share of 'Poor' condition pavements. For non-interstate NHS, a small increase (1.0 percent) in the share of pavements in 'Good' condition was targeted, along with a decrease (-1.7 percent) in the share of pavements in 'Poor' condition.

For NHS bridges, an increase of 1.8 percent in the share of 'Good' condition bridges was projected after two years, and a 5.3 percent increase after four years, while also targeting decreases of -0.8 percent in the share of bridges in 'Poor' condition by the end of 2019, and -2.4 percent by the end of 2021.

NHS PAVEMENT CONDITION IN THE SCAG REGION

To compare actual performance with the targets, **Figure 2** provides observed PM 2 Interstate pavement condition data for the years 2017 and 2019. Over that two-year period, the share of Interstate System pavements in 'Good' condition increased by 3.0 percent, exceeding the two-year target of 0.2 percent. The share of Interstate pavements in 'Poor' condition decreased by 1.2 percent, again achieving the two-year target which anticipated an increase of 0.4 percent in the share of 'Poor' condition pavements.

Figure 2: Interstate System Pavement Condition: 2017-2019

NHS Facilities	Good			Poor		
	2017	2019	Change	2017	2019	Change
Interstate Pavement	44.9%	47.9%	+3.0%	3.1%	1.9%	-1.2%

A shown in **Figure 3**, the share of non-interstate NHS pavements in 'Good' condition decreased by one percent (3.7% to 2.7%) between 2017 and 2019, as compared to the targeted increase of 0.3 percent. While a decreased share of non-interstate pavements in 'Poor' condition was projected by 2019 (0.6 percent), the observed share increased by 6.2 percent (14.4% to 20.6%) over that two-year period. These results indicate that significant work is needed to preserve existing NHS pavement infrastructure in the SCAG region.

The SCAG region includes a total of 12,170 lane miles of locally maintained non-interstate NHS roadways which comprises 58.5 percent of the statewide total. Pavement condition varies significantly among the six counties in the SCAG region, with Imperial County having the largest share of NHS pavements classified as being in 'Good' condition, at 12.7 percent; and Los Angeles County having the lowest share, at 0.9 percent. Los Angeles County also has the highest share of pavements in 'Poor' condition, at 27.6 percent; with Ventura County reporting the lowest share of poor condition pavements, at only 9.0 percent. A significant majority of non-interstate NHS pavements in the SCAG region, and in each of the six counties, are in 'Fair' condition.

Figure 3: Non-Interstate NHS Pavement: Existing Conditions (2019)

Jurisdiction	Lane Miles	Good	Fair	Poor
Imperial County	288	11.7%	62.2%	26.1%
Los Angeles County	6,451	0.9%	71.5%	27.6%
Orange County	3,059	3.9%	85.9%	10.2%
Riverside County	678	5.3%	79.7%	15.0%
San Bernardino County	1,156	4.9%	79.0%	16.1%
Ventura County	538	5.0%	86.0%	9.0%
SCAG Region	**12,170**	**2.7%**	**76.7%**	**20.6%**
Statewide	20,803	3.0%	79.0%	18.0%
SCAG Statewide Share	58.5%	52.7%	56.8%	58.5%

As compared to the statewide value of 3.0 percent, the SCAG region had a slightly lower share of pavements in 'Good' condition (2.7 percent) in 2019, while the regional share of non-interstate NHS pavements in 'Poor' condition (20.6 percent) also exceeded the statewide share (18.0 percent). Highways and bridges in the SCAG region experience an inordinate level of wear due to multiple factors related to the prominence of the SCAG region as an international trade hub.

The SCAG regional share of total statewide lane miles of non-interstate NHS pavements in 'Good' condition (52.7 percent) is nearly six percent below the regional share of total statewide lane mileage, indicating that the SCAG region had a smaller share of pavement segments in 'Good' condition relative the state overall in 2019. However, the corresponding share of SCAG region pavements in 'Poor' condition was equal to the regional share of total statewide NHS lane mileage (58.5 percent).

NHS BRIDGE CONDITION IN THE SCAG REGION

Figure 4 indicates NHS bridge condition by county in the SCAG region for the year 2019. Of the 988 total NHS bridge structures in the SCAG region, 51.2 percent met the criteria for 'Good' condition in 2019, with 41 percent classified as being in 'Fair' condition, and 7.8 percent in 'Poor' condition. The 'SCAG Share' value indicates the proportion of SCAG region NHS bridges located in each county. 'County Share' refers to the percentage of bridges within each county that are in 'Good', 'Fair', and 'Poor' condition.

Figure 4: SCAG Region NHS Bridge Condition: 2019

County	NHS Bridges		Good		Fair		Poor	
	Total	SCAG Share	Total	Share	Total	Share	Total	Share
Imperial	28	2.8%	6	21.4%	17	60.7%	5	17.9%
Los Angeles	577	58.4%	289	50.1%	250	43.3%	38	6.6%
Orange	193	19.5%	120	62.2%	58	30.1%	15	7.7%
Riverside	78	7.9%	47	60.3%	29	37.2%	2	2.5%
San Bernardino	76	7.7%	27	35.6%	40	52.6%	9	11.8%
Ventura	36	3.6%	17	47.2%	11	30.6%	8	22.2%
SCAG Region	**988**	**100.0%**	**506**	**51.2%**	**405**	**41.0%**	**77**	**7.8%**

More than half (51.2 percent) of NHS bridges in the SCAG region were classified as being in 'Good' condition, and less than eight percent were in 'Poor' condition in 2019. However, there is significant variation in performance among the six counties, with Orange and Riverside counties each reporting more than 60 percent of bridges in 'Good' condition, and Imperial and Ventura reporting significantly higher shares of bridges in 'Poor' condition, at 17.9 percent and 22.2 percent, respectively.

NHS SYSTEM/CMAQ PROGRAM PERFORMANCE (PM 3)

The federal performance measures established to support PM 3 objectives includes a total of six metrics within three transportation planning areas: 1) NHS system performance; 2) Freight movement; and 3) CMAQ program performance. The two NHS system performance measures focus specifically on travel time reliability on both the Interstate System and non-interstate NHS highways.

The single PM 3 performance measure established for the freight movement category is a travel time reliability indicator for truck travel on the Interstate System. The three PM 3 CMAQ program performance metrics used in the initial federal performance reporting cycle include one measure for traffic congestion (peak hour excessive delay per capita), one measure for air quality (emission reductions by applicable pollutants), and one metric that supports both air quality and traffic congestion objectives (non-single occupancy vehicle travel mode share).

NHS SYSTEM PERFORMANCE

Starting with the NHS system performance measures, travel time reliability refers the consistency or dependability of travel times from day to day or across different times of the day on a particular roadway segment. For federal performance reporting purposes, travel time reliability is quantified by determining the percentage of total person miles travelled on an NHS roadway that are considered 'reliable' through use of a methodology referred to as 'Level of Travel Time Reliability' (LOTTR). LOTTR is calculated by dividing the 80th percentile (longer travel time) traffic speed by the 50th percentile (average) traffic speed along a roadway segment. A roadway is considered 'reliable' if its LOTTR value is less than 1.50, meaning a larger share of total trips taken on that segment are near the average travel time.

Travel time reliability performance targets were set for both the Interstate System and for non-interstate NHS roadways. The regional travel time reliability targets for the initial federal reporting period are shown in **Figure 5**.

Figure 5: NHS Travel Time Reliability Targets

Travel Time Reliability	2017 Baseline	2-Year Target		4-Year Target	
		Target	Change from Baseline	Target	Change from Baseline
Interstate System	64.6%	65.1%	+0.5%	65.6%	+1.0%
Non-Interstate NHS	73.0%	N/R	N/R	74.0%	+1.0%

A conservative approach was used in setting the initial travel time reliability targets for Interstate and non-interstate NHS highways due to uncertainty in the availability and reliability of data resources. The Interstate System targets were established by Caltrans and reflect a modest expectation of a 0.5 percent travel time reliability improvement after two years, and an improvement of one percent after four years. A four-year travel time reliability improvement target of 1.0 percent was also established for non-interstate NHS roadways. Two-year targets for non-interstate travel time reliability were not required for the initial federal reporting period due to data availability limitations.

Figure 6 features observed travel time reliability performance of NHS roadways in the SCAG region between 2017 and 2021. NHS travel time reliability performance is represented by the calculated percentage of total person miles travelled along a roadway segment that meet a quantitatively defined travel time performance threshold to be classified as 'reliable'.

Figure 6: SCAG Region NHS Travel Time Reliability Performance

Travel Time Reliability	2017	2018	2019	2020	2021
Interstate System	59.6%	61.0%	60.3%	74.8%	65.2%
Non-Interstate NHS	68.9%	71.4%	73.3%	81.8%	79.2%

For purposes of federal reporting, travel time 'reliability' refers to the ability for a traveler to reach a destination within a planned timeframe with a high level of confidence. A 'reliable' roadway will allow travelers to feel confident in their ability to get to a desired location with a minimum amount of unexpected delay due to congested conditions. The extra travel time required to ensure arrival at a destination at a particular time is referred to as 'buffer time'. Conversely, an 'unreliable' highway will require a significant amount of buffer time into travel scheduling to ensure timely arrival to a destination.

Interstate travel time reliability in the SCAG region has remained relatively stable since 2017, with about 60 percent of highways meeting the criteria for being 'reliable'. The one outlier year to this otherwise consistent performance trend was in 2020, when regional travel patterns were significantly impacted by the COVID-19 pandemic, resulting in less vehicle traffic on the transportation system and, therefore, more reliable travel times.

The change in travel time reliability on Interstate highways in the SCAG region improved by 0.7 percent between 2017 and 2019, from 59.6 percent of segments reporting reliable travel times in 2017, to 60.3 percent in 2019. This two-year improvement exceeds the regional performance target of 0.5 percent. By 2021, Interstate travel time reliability in the region improved by an additional 4.9 percent from the value reported in 2019, with 65.2 percent of segments reporting reliable travel times. This substantial improvement in Interstate travel time reliability likely reflects the continued impact of the COVID-19 pandemic on overall travel demand, as the value reported for 2020 was even higher at 74.8 percent. Regardless, the observed improvement in Interstate travel time reliability performance of 5.6 percent significantly exceeds the regional target of 1.0 percent.

A similar (pre-pandemic) travel time reliability performance pattern is evident for non-interstate NHS roadways in the SCAG region, with about 70 percent of highways reporting reliable travel times, again with the notable exception of the 2020 pandemic year, when more than 80 percent of non-interstate NHS roadways produced reliable travel times. While two-year performance targets were not required for non-interstate travel time reliability, the share of reliable non-interstate roadway segments in the SCAG region improved by 4.4 percent between 2017 and 2019. At the conclusion of the initial federal

performance reporting period in 2021, non-interstate travel time reliability improved by a total of 8.3 percent since the 2017 base year, again reflecting the on-going travel reduction impacts of the COVID-19 pandemic.

FREIGHT MOVEMENT

Freight movement performance is assessed by travel time reliability for heavy-duty trucks on the Interstate System. The metric used to assess truck travel time reliability for federal reporting is the 'Truck Travel Time Reliability Index' (TTTRI). Truck travel time reliability refers to the level of confidence a truck driver should have in being able to traverse a particular highway segment within a planned time frame. A highway producing reliable truck travel times allows freight conductors to confidently plan travel along a designated route. A segment providing unreliable truck travel times would require significant amounts of additional travel buffer time to ensure timely arrival at a destination.

The TTTRI is calculated by dividing the 95th percentile (longer travel time) observed truck travel speed by the 50th percentile (average travel time) travel speed along a specific segment of the Interstate System. This ratio indicates the overall reliability of truck travel time on the Interstate System, with higher TTTRI values signifying segments that require more buffer time to ensure timely travel and lower ratios indicating more dependable (reliable) truck travel times. The observed truck travel time reliability values for all Interstate segments in the SCAG region are weighted and aggregated to produce a single systemwide TTTRI value.

Figure 7 shows the truck travel time reliability performance targets established for the initial federal performance reporting period. Once again, a conservative approach was used in setting the targets, with modest truck travel time reliability improvements of minus 0.01 and minus 0.02 anticipated by 2019 and 2021, respectively, from the 2017 base year observed value of 1.69.

Figure 7: Truck Travel Time Reliability Targets

Truck Travel Time Reliability Index	2017 Baseline	2-Year Target		4-Year Target	
		Target	Change from Baseline	Target	Change from Baseline
Interstate System	1.69	1.68	-0.01	1.67	-0.02

Figure 8 shows observed truck travel time reliability performance on the Interstate System in the SCAG region from 2017 to 2021. The table indicates that truck travel time has

generally not been very reliable in the region over recent years, with observed TTTRI values above 1.70 for all but one of the five reported years. Again, the exception to this truck travel reliability trend was 2020, with pandemic induced congestion reduction resulting in a more 'reliable' TTTRI value of 1.67. Reporting of truck travel time reliability for non-interstate NHS roadways was not required for the initial reporting period.

Figure 8: SCAG Region Truck Travel Time Reliability Performance

Truck Travel Time Reliability Index	2017	2018	2019	2020	2021
Interstate System	1.70	1.76	1.72	1.67	1.70

Between 2017 and 2019, truck travel time reliability in the SCAG region worsened from 1.70 to 1.72 and did not achieve the regional target of 1.69 after the first two years of the federal performance period. By the conclusion of the initial four-year reporting period in 2021, truck travel time reliability in the SCAG region improved to 1.70. However, this observed value reflects no improvement over the 2017 base year (also 1.70) and does not achieve the four-year regional performance target of 1.68.

CMAQ PROGRAM PERFORMANCE

The third element of the PM 3 performance management package applies to implementation of the federal Congestion Management and Air Quality (CMAQ) program. The CMAQ program was established to help support implementation of the federal Clean Air Act through the provision of funding to reduce traffic congestion and improve air quality in areas where National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide, or particulate matter are not met (nonattainment areas); and in previous nonattainment areas that are now in compliance (maintenance areas). The CMAQ program provides SCAG a major resource in helping to address significant regional issues related to air quality, mobile source emissions, and traffic congestion.

CMAQ projects programmed in the SCAG FTIP are subject to intensive review and evaluation process by SCAG and its six County Transportation Commissions to ensure that the program functions cohesively to contribute toward achievement of regional emissions and congestion reduction goals. As the nation's largest MPO, with a continuously expanding economy and an exceptionally diverse land use and settlement pattern, the SCAG region has encountered significant challenges confronting the air quality and traffic congestion issues that have been, and continue to be, very consequential to the public

health and quality of life of residents of Southern California. SCAG structures its CMAQ investments to ensure that the entirety of the program, and its component projects, work synergistically to maximize the program's air quality and traffic congestion benefits across the region.

AIR POLLUTANT EMISSIONS REDUCTION

The first of the three CMAQ program performance assessment areas included in PM 3 is criteria air pollutant emission reductions. The two-year and four-year performance targets were set with the understanding that emissions would be expected to worsen over the reporting period, although at a slower pace than would otherwise be expected without planned CMAQ program investments.

Figure 9 displays the SCAG regional PM 3 CMAQ program emissions reduction targets. A minimal increase in emissions for each applicable criteria pollutant was anticipated after two years (1.0 percent) and after four years (2.0 percent).

Figure 9: SCAG Region CMAQ Program Emissions Reduction Targets (kg per day)

Applicable Pollutant	2017 Baseline	2-Year Target		4-Year Target	
		Target	Change from Baseline	Target	Change from Baseline
CO	1,524.35	1,539.59	+1.0%	1,554.84	+2.0%
PM-10	74.45	75.19	+1.0%	75.94	+2.0%
PM-2.5	61.25	61.86	+1.0%	62.48	+2.0%
NOx	420.24	424.44	+1.0%	428.64	+2.0%
VOC	208.86	210.95	+1.0%	213.04	+2.0%

PEAK HOUR EXCESSIVE DELAY

The second PM 3 CMAQ program performance focus area provides a measure for traffic congestion through the assessment of annual hours of 'Peak Hour Excessive Delay' (PHED) experienced per capita. PHED is a calculated value representing the difference between the observed travel time along a roadway segment and a designated threshold travel time. The amount of time required to travel a particular segment beyond the established threshold value is referred to as 'excessive delay'.

For the initial four-year federal reporting period, the PHED metric was only required to be reported for U.S. Census designated Urban Areas with populations of more than one million that were also in nonattainment or maintenance areas for ozone, carbon monoxide or particulate matter. For each applicable Urban Area, Caltrans was required to coordinate with SCAG to establish a single four-year performance target (two-year targets were not required for this measure).

Two Urban Areas in the SCAG region met the requirements for PHED monitoring for the initial federal performance reporting cycle: Los Angeles/Long Beach/Anaheim and Riverside/San Bernardino. The four-year PHED performance targets for each of these areas are displayed in **Table 10**.

Highways in the Los Angeles/Long Beach/Anaheim Urban Area, which produced nearly 46 hours of excessive delay per capita in 2017, are significantly more congested than those in the Riverside/San Bernardino area, where annual per capita delay was a comparatively tolerable 14.2 hours. However, both SCAG Urban Areas were assigned the same modest congestion improvement target of -1.0 percent over the initial four-year reporting period.

Figure 10: Peak Hour Excessive Delay Targets (annual hours per capita)

Urban Area	2017 Baseline	4-Year Target	
		Value	Change
Los Angeles/Long Beach/Anaheim	45.7	45.2	-1.0%
Riverside/San Bernardino	14.2	14.1	-1.0%

Figure 11 illustrates the observed PHED results for the years 2017 through 2021 for both Urban Areas in the SCAG region.

Figure 11: Peak Hour Excessive Delay (PHED) Performance Results

Urban Area	2017	2018	2019	2020	2021	2017-21 Change
Los Angeles/Long Beach/Anaheim	45.7	45.1	38.3	18.9	28.3	-38.1%
Riverside/San Bernardino	14.2	13.6	14.3	8.3	14.1	-0.1%

Hours of per capita excessive delay has steadily declined in the Los Angeles/Long Beach/Anaheim Urban Area since 2017, dropping from 45.7 hours to only 28.3 annual hours per capita over that four-year period. However, it must be stressed once again that

the exceedingly low value recorded for 2020 (18.9) and, to a lesser extent, 2021 (28.2), are reflective of reduced travel demand resulting from the on-going COVID-19 pandemic. However, the more moderate annual decreases in annual hours of excessive delay per capita experienced in 2018 (45.1) and 2019 (38.3) may be more reliable indicators of a positive trend toward less congested conditions in the Los Angeles/Long Beach/Anaheim Urban Area. Although influenced by travel impacts of the pandemic, the significant decrease in delay observed over the initial four-year federal reporting period (more than 38 percent) achieves the one percent four-year performance target established for this Urban Area.

For the Riverside/San Bernardino Urban Area, annual per capita hours of peak hour excessive delay remained relatively stable over the initial four-year federal performance reporting period, dropping from 14.2 hours in 2017 to 14.1 hours in 2021. The anomalously low value of 8.3 hours reported for the year 2020 should be considered within the context of pandemic related travel demand impacts experienced during that year. Considering the full four-year reporting period, the improvement in peak hour excessive delay from 14.2 hours to 14.1 hours in the Riverside/San Bernardino Urban Area amounts to a change of -0.1 percent, which does not meet the PM performance target of 1.0 percent established for this Urban Area.

On-going trends in travel delay will be better understood over the coming years as the longer-term impacts of the pandemic on travel behavior in the SCAG region resolve.

NON-SINGLE OCCUPANCY VEHICLE (NON-SOV) TRAVEL

The last of the three CMAQ program performance measures, 'Non-Single Occupancy (non-SOV) Travel', is used to assess usage of transportation modes other than driving alone in a motor vehicle. A higher non-SOV mode share is desirable in highly congested urban areas since that would indicate less congested roadways and reduced criteria pollutant emissions due to fewer motor vehicles on the roadways. Like the PHED measure described above, this metric applied only to the two U.S. Census designated Urban Areas in the SCAG region: Los Angeles/Long Beach/Anaheim, and Riverside/San Bernardino.

Figure 12 indicates the performance targets established for non-SOV mode share for each of the two designated Urban Areas in the SCAG region. The U.S. Census American Community Survey (ACS) reported that 25.6 percent of commuters in the Los Angeles/Long Beach/Anaheim region used a travel mode other than driving alone in 2017. Caltrans and SCAG mutually agreed upon a two-year target of 26.1 percent, representing

an increased non-SOV share of 0.5 percent by 2019; and a four-year target of 26.6 percent, which would represent a total increase of 1.0 percent from 2017 to 2021.

The reported 2017 non-SOV travel mode share in the Riverside/San Bernardino area was somewhat lower than that of the Los Angeles/Long Beach/Anaheim area, at 22.7 percent. However, the two-year and four-year targets established for increased non-SOV travel mode share were identical for both Urban Areas, at 0.5 percent and 1.0 percent, respectively. The performance targets for the Riverside/San Bernardino region translate to a non-SOV commuter mode share of 23.2 percent after two years, and 23.7 percent after four years.

Figure 12: Non-SOV Commute Mode Share Targets

Urban Area	2017 Baseline	2-Year Target		4-Year Target	
		Value	Change	Value	Change
Los Angeles/Long Beach/Anaheim	25.6%	26.1%	+0.5%	26.6%	+1.0%
Riverside/San Bernardino	22.7%	23.2%	+0.5%	23.7%	+1.0%

Figure 13 features the observed non-SOV mode share values for each Urban Area for the years 2017 through 2020, with the last column showing the percentage change over the four-year reporting period. For the Los Angeles/Long Beach/Anaheim area, the non-SOV mode share has remained quite stable at about 25 percent for each reported year, with the uptick observed in 2020 (to nearly 27 percent) possibly the result of pandemic-related changes in travel behavior. The continued monitoring of non-SOV mode share over the coming years will provide a better understanding of emergent trends in travel mode choice among commuters in the Los Angeles/Long Beach/Anaheim area. However, the 1.3 percent increase in non-SOV commuter mode share observed between 2017 and 2020 achieves the four-year PM 3 target of 1.0 percent.

Figure 13: Non-SOV Commute Mode Results: 2017-20

Urban Area	2017	2018	2019	2020	2017-20 Change
Los Angeles/Long Beach/Anaheim	25.6%	24.8%	24.9%	26.9%	+1.3%
Riverside/San Bernardino	22.7%	20.9%	21.1%	21.8%	-0.9%

Non-SOV mode share in the Riverside/San Bernardino Urban Area is not quite as consistent over time as observed for the Los Angeles/Long Beach/Anaheim area, with annual fluctuations ranging between about 21 to 23 percent. While a small increase was observed between 2019 and 2020 (0.7 percent), the total change in non-SOV mode share decreased over the four-year reporting period by 0.9 percent, which does not achieve the target of a 1.0 percent increase established for the Riverside/San Bernardino Urban Area.

PM 2/PM 3 Target Update

Caltrans initiated its process for updating the statewide performance targets for PM 2 and PM 3 in March 2022. The draft statewide PM 2 targets for the second federal performance reporting cycle were released by Caltrans in June 2022, and the draft PM 3 targets were announced in August 2022.

Upon establishment of the statewide targets, SCAG will have 180 days to determine whether to adopt the statewide targets at the regional level or to identify a separate set of targets specific to the region. The date of establishment of the statewide targets is October 1, 2022. If SCAG opts to establish its own regional targets for any (or all) of the PM 2 and PM 3 federal performance measures, the regional targets must be reported to Caltrans within that 180-day period. A primary purpose for this 'Existing Conditions' report is to inform the decision-making process regarding the establishment of updated PM 2 and PM 3 performance targets for the SCAG region.

The updated PM 2 and PM 3 performance targets will be effective over a four-year federal performance reporting period from 2022 through 2025. Like for the initial reporting period, PM 2 and PM 3 performance targets will be set for both two-year and four-year intervals. The four-year targets will be re-assessed after two years (in 2023) to determine whether they are still viable. At that time, both Caltrans and SCAG will have the opportunity to change any (or all) of their respective targets to accommodate any changes in anticipated performance trajectory.

In addition to the six PM 3 performance measures discussed earlier in this report that were used for the first federal reporting cycle, FHWA released a Notice of Proposed Rulemaking in July 2022 to introduce an additional metric to the PM 3 package of measures for which targets will be required. The proposed new measure is for reduction in mobile-source greenhouse gas (GHG) emissions relative to levels reported in 2021. The implementation date for the new metric, and for the setting of performance targets, was

still pending at the time of this publication. SCAG will be an active participant throughout the FHWA rulemaking process for this proposed new national performance measure.

One additional revision to the PM 3 measures to be implemented in the second federal performance cycle is the change of threshold for applicable Urban Areas that require reporting under the CMAQ performance measures. For the initial reporting cycle, only U.S. Census designated 'Urban Areas' with populations of one million or more (that also were within a nonattainment or maintenance area for ozone, carbon monoxide or particulate matter) required the setting of targets and reporting of progress for the 'Annual Hours of Peak Hour Excessive Delay' and 'Share of Non-SOV Travel' measures.

The two Urban Areas that met the threshold for the initial federal reporting cycle were Los Angeles/Long Beach/Anaheim and Riverside/San Bernardino. For the second reporting cycle, the Urban Area population threshold has been lowered to 200,000 or more. This change will result in eight additional Urban Areas in the SCAG region to be included in the target setting and performance monitoring process for those two metrics.

Figure 14 shows the ten Urban Areas in the SCAG region with 2010 populations exceeding 200,000. The 2020 U.S. Census Urban Area population data is scheduled to be released in December 2022 however no changes are expected that would impact the current list of applicable Urban Areas.

Figure 14: SCAG Region Urban Areas

Urban Area	Population (2010)
Los Angeles-Long Beach-Anaheim	12,150,996
Riverside-San Bernardino	1,932,666
Mission Viejo-Lake Forest-San Clemente	583,681
Murrieta-Temecula-Menifee	441,546
Oxnard	367,260
Indio-Cathedral City	345,580
Lancaster-Palmdale	341,219
Victorville-Hesperia	328,454
Santa Clarita	258,653
Thousand Oaks	214,811

PM 2 Statewide Targets

The proposed updated statewide PM 2 targets were released with Caltrans' draft 2022 Transportation Asset Management Plan (TAMP) in June of 2022. The TAMP provides an overview and analysis of existing pavement and bridge conditions throughout the state for both the State Highway System (SHS) and National Highway System (NHS). The TAMP is updated by Caltrans every four years in correspondence with the federal performance reporting cycle. SCAG, along with the other MPOs in the state coordinated with Caltrans in development of the draft 2022 TAMP, which includes pavement and bridge condition information at the statewide, MPO, county, and jurisdictional level.

Figure 15 provides the draft statewide PM 2 targets for the second federal reporting cycle (2022-25). It should be noted that the two-year interim targets are developed only for forecasting purposes as infrastructure improvement projects are often long-term efforts. The four-year targets are more representative of the results of efforts currently underway for improving infrastructure performance.

Figure 15: Draft Statewide PM 2 Second Cycle Targets

Performance Measure	Second Federal Reporting Cycle (2022-25)				
	Baseline (2021)	2-Yr Target (2023)		4-Yr Target (2025)	
Interstate Pavement Condition: Good	47.9%	47.2%	-0.7%	49.2%	+1.3%
Interstate Pavement Condition: Poor	1.9%	1.9%	0.0%	1.7%	-0.2%
Non-Interstate Pavement Condition: Good	23.8%	21.7%	-2.1%	28.2%	+4.4%
Non-Interstate Pavement Condition: Poor	9.9%	10.5%	+5.6%	9.0%	-0.9%
NHS Bridge Condition: Good	48.5%	49.1%	+0.6%	47.3%	-1.2%
NHS Bridge Condition: Poor	5.4%	5.9%	+0.5%	4.4%	-1.0%

PM 3 Statewide Targets

In developing the draft PM 3 targets, Caltrans established three different baseline scenarios. One of the three scenarios will be selected for adoption following additional discussion and input by MPOs. Scenario 1 is based on the 2021 observed data. Scenario 2 adjusts the baseline data to account for the pandemic. The Scenario 2 figures were developed through a reconciliation of pre-pandemic (2019) data and the observed 2021

data. Scenario 3 is based on 2021 observed data but features more aggressive performance targets.

Figure 16 features the draft statewide NHS System Performance and Freight targets for the second federal reporting cycle, including proposed targets for each of the three baseline scenarios discussed above. For the travel time reliability measures, Scenario 1 provides two-year targets for a modest 0.5 percent increase in reliable person-miles traveled on both the Interstate System and non-interstate NHS highways, with a 1.0 percent increase after four years. Accordingly, the truck travel time targets call for a decrease (improvement) of 0.01 in the truck travel time reliability index after two years, and a 0.02 decrease by 2025.

Figure 16: Draft Statewide PM 3 Second Cycle Targets (NHS System/Freight)

NHS System Performance Measures	Second Federal Reporting Cycle (2022-25)								
	Baseline Scenario 1			Baseline Scenario 2			Baseline Scenario 3		
	Baseline	2-Yr Target	4-Yr Target	Baseline	2-Yr Target	4-Yr Target	Baseline	2-Yr Target	4-Yr Targe
Reliable Person-Miles Traveled: Interstate	73.8%	74.3%	74.8%	68.0%	68.5%	69.0%	73.8%	74.8%	75.8%
Reliable Person-Miles Traveled: Non-Interstate	83.7%	84.2%	84.7%	79.0%	79.5%	80.0%	83.7%	84.7%	85.7%
Interstate Truck Travel Time Reliability Index	1.60	1.59	1.58	1.65	1.64	1.63	1.60	1.58	1.56

As discussed above, Scenario 2 adjusts the baseline data to account for impacts on transportation system performance caused by the COVID-19 pandemic that were still disrupting normal travel patterns in 2021. Scenario 2 incorporates a lower performing baseline for all three of the reliability performance measures to reflect more typical (pre-pandemic) traffic patterns. While the baseline dataset is different under Scenario 2, the targets are the same as for Scenario 1, with a 0.5 percent increase in reliable person-miles traveled on both Interstate and non-interstate highways after two years, and a 1.0 percent increase after four years. For Interstate truck travel reliability, the two-year and four-year TTTI targets indicate modest decreases of 0.01 and 0.02, respectively.

Scenario 3 represents a more aggressive approach toward improving travel reliability conditions. This scenario uses the same baseline dataset as Scenario 1 (2021 observed data) but doubles the level of targeted improvement proposed in Scenario 1 for both reporting years. Scenario 3 calls for a 1.0 percent increase in reliable person-miles traveled

on both Interstate and non-interstate highways after two years, and a 2.0 percent increase after four years. For Interstate truck travel reliability, the TTTI targets aspire to more significant decreases (improvements) of 0.02 after two years and 0.04 after four years.

Figure 17 shows the draft statewide PM 3 Peak Hour Excessive Delay (PHED) targets for the second federal performance reporting cycle. PHED is one of the measures used to assess performance of the CMAQ program for relieving congestion in areas that are within air quality nonattainment or maintenance areas. For the initial federal reporting cycle, only Urban Areas with populations over one million were required to be reported. In the SCAG region, the two Urban Areas meeting these requirements were Los Angeles/Long Beach/Anaheim and Riverside/San Bernardino. As with the other PM 3 measures, Caltrans developed three baseline scenarios and established draft four-year targets relative to each. Two-year targets are not required for the PHED performance measures.

Figure 17: Draft Statewide PM 3 Second Cycle Targets (Excessive Delay)

Annual Hours of Peak-Hour Excessive Delay (per capita)	Baseline Scenario 1		Baseline Scenario 2		Baseline Scenario 3	
	Baseline	4-Yr Target	Baseline	4-Yr Target	Baseline	4-Yr Target
Los Angeles-Long Beach-Anaheim	33.1	32.8	37.9	37.6	33.1	32.8
Riverside-San Bernardino	16.5	16.3	16.5	16.3	16.5	16.3

For the second federal reporting cycle, the population threshold for Urban Areas that must be reported for the CMAQ measures will be reduced from one million to 200 thousand. This means that eight additional Urban Areas in the SCAG region will be included for target-setting and monitoring for the PHED and non-SOV mode share measures. SCAG will coordinate with Caltrans on the establishment of a single set of targets for each of the ten Urban Areas for both measures.

Figure 18 presents the draft statewide targets for the 'Non-Single Occupancy Vehicle (Non-SOV) Travel Mode Share' PM 3 performance measure for the two SCAG Urban Areas reported for the initial federal performance cycle. Two-year and four-year targets are identified for each of the three baseline scenarios established by Caltrans.

The baseline non-SOV mode share for Scenario 1 and Scenario 3 are the same at 26.9 percent for Los Angeles/Long Beach/Anaheim, and 21.7 percent for Riverside/San Bernardino. While Scenario 2 uses an adjusted set of baseline values, it features same targets for non-SOV mode share increase over the two-year (0.5 percent) and four-year

(1.0 percent) periods for both Urban Areas. Scenario 3 uses the same baseline values as Scenario 1 but employs more vigorous targets of a 1.0 percent increase in non-SOV travel mode share by 2023, and a 2.0 percent increase by 2025. SCAG will coordinate with Caltrans on the determination of a single unified set of performance targets for these two Urban Areas, well as for the additional eight Urban Areas in the SCAG region that will be included in the second federal reporting cycle.

Figure 18: Draft Statewide PM 3 Second Cycle Targets (Non-SOV Mode Share)

Non-SOV Travel Mode Share	Baseline Scenario 1			Baseline Scenario 2			Baseline Scenario 3		
	Baseline	2-Yr Target	4-Yr Target	Baseline	2-Yr Target	4-Yr Target	Baseline	2-Yr Target	4-Yr Target
Los Angeles-Long Beach-Anaheim	26.9%	27.4%	27.9%	26.1%	26.6%	27.1%	26.9%	27.9%	28.9%
Riverside-San Bernardino	21.7%	22.2%	22.7%	20.7%	21.5%	21.7%	21.7%	22.7%	23.7%

Proposed New GHG Reduction Measure

In July of 2022 FHWA released a Notice of Proposed Rulemaking (NOPR) to add a new national greenhouse gas (GHG) reduction performance measure to the existing set of PM 3 metrics. The proposed new rule would establish a national framework for assessing progress being made toward achievement of national climate goals by requiring states to monitor and report mobile-source GHG emissions. The proposed rule would require Caltrans and SCAG to establish declining carbon dioxide targets and a method for the measurement and reporting of transportation related GHG emissions. The proposed rule would not mandate the level of GHG emission reduction targets for individual state DOTs and MPOs, as agencies would be provided the flexibility to correlate targets with their respective climate change policies and objectives.

The proposed rule would require Caltrans and SCAG to establish statewide and regional GHG emissions targets over the same four-year federal performance reporting cycle used for the other PM 3 metrics. Targets must be structured to reduce carbon dioxide emissions generated by on-road mobile sources, including automobiles and trucks.

SCAG will collaborate with both FHWA and Caltrans on the development of the proposed new measure and on the establishment of an initial set of statewide and regional targets in support of the proposed new on-road GHG emission reduction performance measure.

AGENDA ITEM 4

REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 – Regional Council Room
Los Angeles, CA 90017
November 3, 2022

To: Energy & Environment Committee (EEC)
Transportation Committee (TC)
Regional Council (RC)

From: Rongsheng Luo, Program Manager II
(213) 236-1994, luo@scag.ca.gov

Subject: Status Update on Clean Air Act Highway Sanction Clocks in SCAG Region

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

RECOMMENDED ACTION FOR EEC, TC, AND RC:
Receive and File

STRATEGIC PLAN:
This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians.

EXECUTIVE SUMMARY:
At the September 2022 Regional Council (RC) meeting, Kome Ajise, SCAG Executive Director, alerted the Regional Council of two proposed disapprovals of air quality state implementation plan (SIP) by the U.S. Environmental Protection Agency (EPA) concerning local rules of three local air districts within SCAG region. These two SIP disapprovals, if finalized as proposed, would respectively and immediately trigger a 24-month highway sanction clock in the impacted areas. Furthermore, if the underlying issues are not corrected in time, the highway sanction will be imposed 24 months after the SIP disapproval.

Since then, one of the SIP disapprovals has been finalized and will trigger the highway sanction clock in the Western Mojave Desert area upon the effective date of the disapproval on October 31, 2022. In addition, EPA has finalized several other actions to disapprove additional SIPs concerning different local rules of two local air districts within SCAG region, as well as to determine failure of three local air districts to submit their respective required SIPs. All the EPA final actions will trigger separate highway sanction clocks within the respective air districts on October 31, 2022. If the underlying issues are not corrected in time, highway sanctions will be imposed in these areas respectively in October 2024.

Staff has been meeting with staff of the impacted air districts and will continue to work closely with them to monitor their efforts and progress to address the underlying issues. This staff report includes general background information about highway sanction clock and highway sanction, a

summary of active highway sanction clocks in the SCAG region, and staff's effort to address these highway sanction clocks to prevent imposition of highway sanctions.

BACKGROUND:

I. Highway Sanction Clock and Highway Sanction

Pursuant to federal Clean Air Act (CAA), local air districts and the California Air Resources Board (ARB) are responsible for preparing air quality state implementation plans (SIPs) in California to fulfill air quality planning requirements to attain applicable national ambient air quality standards established by the U.S. Environmental Protection Agency (EPA). A SIP deficiency (e.g., SIP disapproval or finding of failure to submit a required SIP) regardless of whether related to transportation, if finalized by EPA, will trigger a CAA mandated 24-month highway sanction clock upon effectiveness of the EPA action; further, if the SIP deficiency is not corrected within the 24 months, the CAA mandated highway sanction would be imposed in the impacted area.

A highway sanction is prohibition on Federal funds for highway projects within a sanctioned area. Once EPA imposes a highway sanction, the Federal Highway Administration (FHWA) may not approve or award any grants in the sanctioned area except those that are specifically exempted including safety programs and projects, seven congressionally-authorized activities (mainly TCM type of projects such as capital program for public transit, HOV lanes, and traffic signal synchronization projects), and air quality improvement projects that would not encourage single occupancy vehicle (SOV) capacity. In other words, a highway sanction restricts federal funding to projects that expand highway capacity, nonexempt project development activities, and any other project that does not explicitly meet exemption criteria.

A highway sanction clock will be turned off and a highway sanction will not be imposed if the EPA determines that a subsequent SIP submission corrects the identified deficiencies before the highway sanction imposition deadline.

II. Active Highway Sanction Clocks in the SCAG Region

Six highway sanction clocks were all triggered in October 2022. Table 1 below is a summary of these active highway sanction clocks.

Table 1 Active Highway Sanction Clocks within SCAG Region

Highway Sanction Clock	Impacted Area	Start Date	Impacted Air District	Cause of Highway Sanction Clock and Link to Federal Register Notice	Start Date of Highway Sanction if Imposed

Highway Sanction Clock	Impacted Area	Start Date	Impacted Air District	Cause of Highway Sanction Clock and Link to Federal Register Notice	Start Date of Highway Sanction if Imposed
1	South Coast AQMD Jurisdiction	10/24/2022	South Coast AQMD	Limited disapproval of District Rule 1118 to address CAA Section 110 and Part D. https://www.govinfo.gov/content/pkg/FR-2022-09-22/pdf/2022-20137.pdf	10/24/2024
2	Western Mojave Desert Ozone Nonattainment Area	10/31/2022	Antelope Valley AQMD (Antelope Valley portion); Mojave Desert AQMD (San Bernardino County portion)	Disapproval of District Rules 315 submitted to address CAA Section 185 with respect to the 1-hour ozone standard. https://www.govinfo.gov/content/pkg/FR-2022-09-29/pdf/2022-20858.pdf	10/31/2024
3	South Coast AQMD Jurisdiction	10/31/2022	South Coast AQMD	Disapproval of Reasonably Available Control Technology (RACT) demonstration for District Rules 463 and 1178 to address 2008 and 2015 8-hour ozone standards https://www.govinfo.gov/content/pkg/FR-2022-09-30/pdf/2022-20870.pdf	10/31/2024
4	Ventura County Ozone Nonattainment Area	10/31/2022	Ventura County APCD	Disapproval of Reasonably Available Control Technology (RACT) demonstration for District Rules 71.1 and 71.2 to address 2008 and 2015 8-hour ozone standards https://www.govinfo.gov/content/pkg/FR-2022-09-30/pdf/2022-20870.pdf	10/31/2024

Highway Sanction Clock	Impacted Area	Start Date	Impacted Air District	Cause of Highway Sanction Clock and Link to Federal Register Notice	Start Date of Highway Sanction if Imposed
5	Western Mojave Desert Ozone Nonattainment Area	10/31/2022	Antelope Valley AQMD (Antelope Valley portion); Mojave Desert AQMD (San Bernardino County portion)	Failure to submit required contingency measures SIP for 2008 8-hour ozone standard. https://www.govinfo.gov/content/pkg/FR-2022-09-29/pdf/2022-20874.pdf	10/31/2024
6	Coachella Valley Ozone Nonattainment Area	10/31/2022	South Coast AQMD	Failure to submit required contingency measures SIP for 2008 8-hour ozone standard. https://www.govinfo.gov/content/pkg/FR-2022-09-29/pdf/2022-20874.pdf	10/31/2024

III. Staff's Effort to Address Highway Sanction Clocks to Prevent Imposition of Highway Sanctions in the SCAG Region

Because a highway sanction could impact many important transportation projects and a highway sanction was imposed in Imperial County ten years ago in 2012 due to similar reasons, SCAG staff at all levels takes these EPA actions and the highway sanction clocks very seriously.

As noted in the Executive Summary of this staff report, SCAG Executive Director Kome Ajise alerted the Regional Council of the then proposed SIP disapprovals in early September to raise the awareness of the emerging issues.

Because these highway sanction clocks are triggered by EPA actions on SIPs of local air districts, both the corrective actions by involved air districts and subsequent approvals by EPA are required to turn off these highway sanction clocks. Therefore, SCAG staff has been meeting and will continue to meet as necessary with staff of impacted air districts to discuss about their respective SIP disapprovals especially about their effort to correct the SIP deficiencies.

In addition, at SCAG staff's request, staff representatives of the impacted air districts have been reporting and will continue to report on their efforts to address the underlying issues at SCAG's monthly Transportation Conformity Working Group meetings.

Once the air district has started its process to address its SIP deficiency, staff will be actively involved in the process to closely monitor and track the progress, report on and undertake appropriate interagency consultation to resolve any significant issues.

The focus of staff's current effort is to work with all impacted air districts to turn off these highway sanction clocks as soon as possible before the highway sanction could be imposed. However, staff will also look into any potential proactive actions that could be taken to minimize the impact should the highway sanction be imposed.

Finally, staff will provide the EEC, the TC, and/or the RC with timely status update as appropriate.

FISCAL IMPACT:
Work associated with this item is included in the current FY 2022-23 Overall Work Program (025.0164.01: Air Quality Planning and Conformity).

AGENDA ITEM 5

REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 – Regional Council Room
Los Angeles, CA 90017
November 3, 2022

To: Community Economic & Human Development Committee (CEHD)
Energy & Environment Committee (EEC)
Transportation Committee (TC)
Regional Council (RC)

From: Roland Ok, Program Manager II
(213) 236-1819, ok@scag.ca.gov

Subject: SCAG's Draft Digital Action Plan

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

RECOMMENDED ACTION FOR CEHD, EEC, TC AND RC:
Receive and File

STRATEGIC PLAN:
This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians. 2: Advance Southern California's policy interests and planning priorities through regional, statewide, and national engagement and advocacy. 3: Be the foremost data information hub for the region. 4: Provide innovative information and value-added services to enhance member agencies' planning and operations and promote regional collaboration. 6: Deploy strategic communications to further agency priorities and foster public understanding of long-range regional planning. 7: Secure funding to support agency priorities to effectively and efficiently deliver work products.

EXECUTIVE SUMMARY:
In February 2021, SCAG's Regional Council adopted Resolution No. 21-629-2, which pledged SCAG to assist in bridging the digital divide in underserved and unserved communities. The resolution directed staff to (1) develop a Digital Action Plan, (2) Collect and invest in broadband data for mapping and analysis, (3) conduct studies which propose solutions and/or strategies to assist in the deployment of broadband infrastructure, (4) incorporate broadband planning into SCAG's programs, including the development of future Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS or Connect SoCal). SCAG's Digital Action Plan lays out the action the agency will take to provide accessibility and in turn foster an equitable, prosperous, and resilient region for all residents. Staff is requesting members of SCAG's Regional Council and Policy Committees review and provide feedback on the vision, goals, strategies, and guiding principles of the Draft Digital Action Plan to inform the development of specific actions and deliverables to be included in the final plan.

BACKGROUND:
In February 2021, SCAG's Regional Council adopted Resolution No. 21-629-2[1], which pledged SCAG to assist in bridging the digital divide in underserved and unserved communities. The resolution directed staff to:

(1) Develop a Digital Action Plan
(2) Collect and invest in broadband data for mapping and analysis
(3) Conduct studies which propose solutions and/or strategies to assist in the deployment of broadband infrastructure
(4) Incorporate broadband planning into SCAG's programs, including the development of future Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS or Connect SoCal).

OVERVIEW OF THE DIGITAL DIVIDE:
The digital divide is defined as the growing gap between the members of society who have reliable access to broadband services and/or adequate devices for connecting to the internet, and those who do not. However, the digital divide is a complex issue, which is caused by three key factors:

- **Availability** – A lack of infrastructure or proper service
- **Affordability** – A lack of affordable subscription rates or devices
- **Literacy** – A lack of understanding or knowledge or how to participate in digital activities

Nearly half of California's population or approximately 19 million residents live within the six counties (Imperial, Los Angeles, Orange Riverside, San Bernardino, and Ventura) of the SCAG region. It is currently projected that the population will increase from 19 million to over 24 million.[2] While the region is growing and is diverse in its population, economy and environment, the region faces digital access challenges. Within the SCAG Region approximately 9-10% residents within SCAG region do not have access to broadband and 3% do not have access to a computer. Upon closer inspection:

- 20% of Seniors aged 65 and over do not have access to broadband and 12% do not own a computer
- 13% of the Black population do not have access to broadband and 5% do not own a computer
- 11% of the Native American/Indigenous population do not have access to broadband and 4% do not own a computer
- 12% of the Latino/Hispanic population do not have access to broadband and 4% do not own to a computer

[1] Resolution No. 21-629-2. Available at: https://scag.ca.gov/sites/main/files/file-attachments/resolution_no._21-629-2_-_support_to_increase_broadband_access.pdf?1646942018
[2] For more information, please visit https://scag.ca.gov

- 70% of those without internet are concentrated within low-income households

A detailed set of regional and county level data is available in the Draft Digital Action Plan (Attachment 1).

VISION, GOALS, STRATEGIES AND GUIDING PRINCIPLES:
The Draft Digital Action Plan is guided by a vision, goals and a set of guiding principles based on feedback from member jurisdictions, elected officials who participated in some of the digital divide working groups, and stakeholders (public and private).

Vision Statement: The vision statement is consistent with Resolution 21-629-2 and SCAG's Strategic Plan and is as follows:

"We envision an equitable region that fosters accessibility and adoption of affordable high-speed broadband and digital devices for all its residents"

Goals: The Digital Action Plan is divided into four major goals, each with its own strategies, guiding principles and supporting actions:

1. **Accessibility and Affordability** – Every household in the region should have access to affordable high-speed broadband services and high-quality devices
2. **Adoption** – All residents should have the confidence and skills to participate in digital activities
3. **Consensus** – Build partnerships and reach consensus that high-quality and affordable broadband is an essential service to everyone and provides economic, environmental and safety benefits to the region
4. **Planning** – Develop broadband technical tools and studies which provide value to the region

SCAG Strategies: To reach the Plan's goals, four core strategies were developed (also known as **SCAG** strategies):

1. **Seek and Secure** - Seek and secure broadband funding for our local jurisdictions and stakeholders to deploy broadband infrastructure, digital devices, and advance digital equity initiatives.
2. **Coordinate and Collaborate** - Coordinate, collaborate and build partnerships with public agencies, local jurisdictions, partners, and the public and align work efforts to collectively bridge the digital divide.
3. **Advocate and Assist** – Advocate for better data, Southern California's fair share in funding, and open access to broadband networks, and assist low-income and rural households in underserved and unserved communities.
4. **Gather and Gain** - Gather data and gain knowledge through broadband technical and strategic studies, disseminate findings and inform decision makers and the public.

Guiding Principles: The principles which drive the strategies and actions to fulfil the goals and overall vision are as follows:

- **Break.** Break down barriers which inhibit the deployment of broadband infrastructure
- **Resilience.** Plan or advocate for networks that are efficient and assist in resiliency for communities and infrastructure
- **Invest.** Invest in communities affected by the digital divide
- **Data Driven**. Collect and share data to determine opportunity zones and solutions
- **Grassroots.** Use a bottom-up approach and listen to and prioritize a community's needs
- **Expedite.** Develop solutions which can be quickly implemented and efficiently
- **Determine.** Determine funding opportunities and potential partnerships
- **Innovate.** Promote an atmosphere which allows for healthy competition and innovative solutions which are speed driven, while remaining technologically agnostic
- **Visionary.** Plan or advocate for networks that are scalable, sustainable and accommodate future needs and innovative technology
- **Integrate.** Integrate findings into traditional disciplines of transportation and land use planning
- **Dependable**. Promote transparency and gain the trust of the public, other agencies, and stakeholders
- **Educate.** Educate the public, policy makers and stakeholders and build consensus for collective action

PREVIOUS AND CURRENT WORK EFFORTS:
Staff across the agency have worked on several projects to address the digital divide or work related to broadband (directly and indirectly) conducted by the Broadband Planning team and other departments. Some of the key work efforts include but are not limited to the following:

Request for Qualifications for Prospective Partnerships - SCAG and SANDAG conducted a joint request for qualifications to seek partnerships (RFQPP) to deploy broadband infrastructure and provide high-quality and affordable broadband service to residents, businesses, public agencies, public agencies, educational institutions, and tribes in the Southern California region. The goal of the RFQPP is to secure funding from state or federal sources for ISPs, constructors, engineer firms and non-profits to partner with local jurisdictions for planning efforts, construction and operation of last mile services, and advocacy efforts for digital literacy.

VMT Report - In early 2022, SCAG together with the California Emerging Technology Fund (CETF) and the regional broadband consortia released a report titled Transportation Broadband Strategies to Reduce VMT and GHGs (vehicle miles traveled and greenhouse gases, respectively). The study

used the first year of the COVID-19 pandemic's "shelter in place" orders to study some impacts on the transportation system. With travel restrictions in place, many people were forced to participate in a trial run of "tele-everything" which includes teleworking, tele-medicine, remote learning, e-commerce, etc. As such, the project team used the observed traffic patterns in conjunction with online surveying to analyze potential impacts of broadband on VMT and GHGs.

ACP/Go-Human - To provide access to affordable internet to unserved and underserved areas across the region, SCAG is partnering with the CETF for a Digital Equity Call for Action to leverage and bolster their existing campaign for the Affordable Connectivity Program (ACP).

Permit Streamlining - SCAG is developing a permit streamlining report, model permit and ordinance template that can be readily adopted by local jurisdictions within the SCAG region. The report will identify streamlined broadband permitting practices that may lead to lower cost of entry and operation of broadband systems, reduce the risk of delays during the planning, permitting and construction phases, provide opportunities for increasing revenue, and create new avenues for competitive entries.

PROPOSED ACTIONS AND DELIVERABLES:

SCAG staff is currently developing a set of proposed actions and deliverables. Actions and deliverables will be aligned with the goals, strategies, and guiding principles of the Digital Action Plan and SCAG's Strategic Plan. Work efforts proposed will assist and go beyond bridging the digital divide. While bringing accessibility to underserved and unserved communities are of the highest priority, the future of transportation will rely on digital infrastructure, as communications infrastructure facilitates the flow of images and data required for state-of-the-art transportation management and safety improvements, including connected and autonomous vehicles, reliance on big data, and expanded use of technology which would support emergency services. [3] Staff plans to have the actions and deliverables be vetted internally, externally with stakeholders, and by the Regional Council and Policy Committee members.

NEXT STEPS:

Staff is requesting members of the Regional Council and Policy Committees to review the currently available contents of the Digital Action Plan and provide feedback at upcoming meetings. Further, Staff will present the Digital Action Plan to working groups and stakeholders for comments and feedback (See Table 1, Next Steps). Staff will a complete set of actions and deliverables into the Plan and present a complete 1st draft of the Plan to the Transportation Committee (or other Policy Committees upon request) on January 5, 2023, during which Staff will request that the Transportation Committee recommend that the Regional Council approve and adopt the Digital Action Plan. Staff will then present a final copy of the Plan to the Regional Council Spring of 2023,

[3] Please note that proposed actions and deliverables are dependent on available funding and staffing resources and the annual Overall Work Program development.

for approval and adoption. Comments can be provided to Roland Ok, Program Manager II, via email at ok@scag.ca.gov.

Table 1, Next Steps

Milestones	Date
Subregional Council of Directors	10/26/22
Emerging Technology Committee	10/27/22
Transformation SoCal Working Group	November - December 2022
Equity Working Group	12/8/22
GLUE Council	12/12/22
1st Complete Draft to Transportation Committee	1/5/23
Final Digital Action Plan to Regional Council (Approval and Adoption)	Spring 2023

Upon approval and adoption, SCAG staff will take steps to formally implementing the Digital Action Plan and integrate work efforts into SCAG's Overall Work Program (as feasible). Further, the Digital Action Plan is anticipated to be a "living document", with opportunities to identify new actions over time, and SCAG staff will provide the Policy Committees and the Regional Council with periodic updates to ensure progress and accountability.

FISCAL IMPACT:
Work on this project is funded in SCAG's Fiscal Year 2022-2023 Overall Work Program (OWP) under 100.4901.01 (Broadband Planning).

ATTACHMENT(S):
1. SCAG's Draft Digital Action Plan

SCAG'S DIGITAL ACTION PLAN

DRAFT | NOVEMBER 2022

SCAG™
INNOVATING FOR A BETTER TOMORROW

SCAG™
INNOVATING FOR A BETTER TOMORROW

ABOUT SCAG

SCAG is the nation's largest metropolitan planning organization (MPO), representing six counties, 191 cities and more than 19 million residents. SCAG undertakes a variety of planning and policy initiatives to encourage a more sustainable Southern California now and in the future.

VISION

Southern California's Catalyst for a Brighter Future

MISSION

To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.

SCAG'S DIGITAL ACTION PLAN

DRAFT | NOVEMBER 2022

TABLE OF CONTENTS

INTRODUCTION

Participating in digital activities is vital for someone to fully participate in society. Yet, a sizable portion of our population do not have access to broadband, devices, or digital literacy. Those who do not have access tend to reside in low-income or rural areas, be persons of color, be of senior age, have limited English proficiency, and/or suffer from disabilities. And while this is not a new phenomenon, the growing gap between those with and those without has widened with the onset of the COVID-19 pandemic. This is what is known as the digital divide.

Both low-income urban and rural communities are either underserved or unserved with respect to broadband infrastructure and approximately 10% of residents within the region do not have access to the internet. More specifically:

13% OF THE BLACK POPULATION DO NOT HAVE ACCESS TO BROADBAND AND 5% DO NOT OWN A COMPUTER

20% OF SENIORS AGED 65 AND OVER DO NOT HAVE ACCESS TO BROADBAND AND 12% DO NOT OWN A COMPUTER

11% OF THE NATIVE AMERICAN/INDIGENOUS POPULATION DO NOT HAVE ACCESS TO BROADBAND AND 4% DO NOT OWN A COMPUTER

70% OF THOSE WITHOUT INTERNET ARE CONCENTRATED WITHIN LOW-INCOME HOUSEHOLDS

12% OF THE LATINO/HISPANIC POPULATION DO NOT HAVE ACCESS TO BROADBAND AND 4% DO NOT OWN A COMPUTER

The digital divide has and will continue to result in negative social impacts. Those without access cannot:

- Participate in remote or e-learning
- Apply for current jobs online or telework
- Apply for essential social services
- Visit the doctor virtually or order life-saving medication
- Protect themselves from identity theft or cyber crimes
- Participate in future jobs which require digital skills

Without the lack of investment in infrastructure, devices, and literacy programs, the gap will likely widen and worsen conditions for those who currently suffer economic, health, and social inequities. To halt, mitigate and close the divide, action must be taken.

HOW WE GOT HERE

Disruptive technological changes over the past three decades have been pivotal to the growth of the SCAG region. The internet, computers and smartphones have provided unprecedented access to information. Digital activities have enhanced and are responsible for the growth of financial services, businesses, work, education, healthcare, and commerce.

While most residents who reside in the region have benefited from technology, there remains a sizable population who remain unconnected. This was made apparent with the COVID-19 pandemic, as the world underwent lockdown periods, forcing many to rely upon digital activities to participate in society and continue their way of life. Those who were unconnected experienced severe disadvantages as they could not access healthcare services, food services, telework and e-learning. The post-COVID-19 society will further rely on faster broadband speeds and better devices, and disparities between those who have access and those who do not will widen.

In response, SCAG's Regional Council adopted Resolution No. 21-629-2 on February 2, 2021, which pledged SCAG to assist in bridging the digital divide in underserved and unserved communities.[1] The resolution calls for staff to engage in the following key tasks:

- Develop an Action Plan
- Collect and invest in broadband data and develop detailed broadband maps and determine broadband opportunity zones
- Conduct studies which propose solutions and/or strategies to assist in the rapid deployment of broadband infrastructure, evaluate the efficacy of broadband as a "green strategy"
- Incorporate broadband planning into SCAG's programs, including the development of future Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS or Connect SoCal)

SCAG's Digital Action Plan lays out actions the agency will take to provide digital accessibility and in turn foster an equitable, prosperous, and resilient region for all residents.

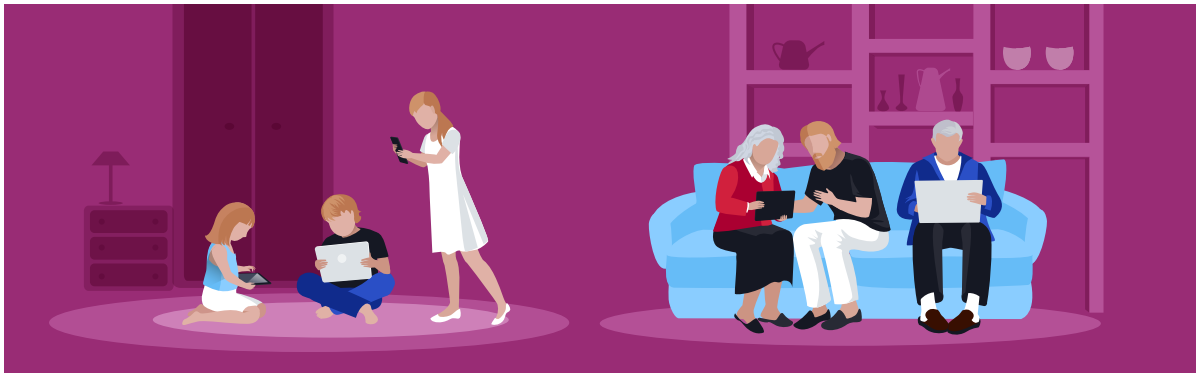
1 Resolution No. 21-629-2. Available at: *https://scag.ca.gov/sites/main/files/file-attachments/resolution_no._21-629-2_-_support_to_increase_broadband_access.pdf?1646942018*

VISION, GOALS AND GUIDING PRINCIPLES

SCAG's Digital Action Plan is guided by a bold vision, goals and a set of guiding principles based on feedback from member jurisdictions, elected officials who serve on our regional council and committees, and stakeholders (public and private), and is consistent with Resolution 21-629-2 and SCAG's Strategic Plan. The Digital Action Plan is driven by staff who are committed to equity, innovation, and resilience.

VISION STATEMENT

"WE ENVISION AN EQUITABLE REGION THAT FOSTERS ACCESSIBILITY AND ADOPTION OF AFFORDABLE HIGH-SPEED BROADBAND AND DIGITAL DEVICES FOR ALL ITS RESIDENTS"



GOALS

The Digital Action Plan is divided into four major goals, each with its own strategies, guiding principles and supporting action.

1. **Accessibility and Affordability** – Every household in the region should have access to affordable high-speed broadband services and high-quality devices.
2. **Adoption** – All residents should have the confidence and skills to participate in digital activities.
3. **Consensus** – Build partnerships and reach consensus that high-quality and affordable broadband is an essential service to everyone and provides economic, environmental and safety benefits to the region.
4. **Planning** – Develop broadband technical tools and studies which provide value to the region.

SCAG STRATEGIES

To reach our goals, we have developed four core strategies (also known as SCAG Strategies):

S **SEEK AND SECURE**

Seek and secure broadband funding for our local jurisdictions and stakeholders to deploy broadband infrastructure, digital devices, and advance digital equity initiatives.

C **COORDINATE AND COLLABORATE**

Coordinate, collaborate and build partnerships with public agencies, local jurisdictions, partners, and the public and align work efforts to collectively bridge the digital divide.

A **ADVOCATE AND ASSIST**

Advocate for better data, Southern California's fair share in funding, and open access to broadband networks and assist low-income and rural households in underserved and unserved communities.

G **GATHER AND GAIN**

Gather data and gain knowledge through broadband technical and strategic studies, disseminate findings and inform decision makers and the public.

GUIDING PRINCIPLES

These are the principles which drive our strategies and actions to fulfil our goals and overall vision:

B **BREAK.**

Break down barriers which inhibit the deployment of broadband infrastructure

R **RESILIENCE.**

Plan or advocate for networks that are efficient and assists in resiliency for communities and infrastructure

I **INVEST.**

Invest in communities affected by the digital divide

D **DATA DRIVEN.**

Collect and share data to determine opportunity zones and solutions

G **GRASSROOTS.**

Use a bottom-up approach and listen to and prioritize a community's needs

E **EXPEDITE.**

Develop solutions which can be quickly implemented and efficiently

D **DETERMINE.**

Determine funding opportunities and potential partnerships

I **INNOVATE.**

Promote an atmosphere which allows for healthy competition, innovative solutions which are speed driven, while remaining technologically agnostic

V **VISIONARY.**

Plan or advocate for networks that are scalable, sustainable and accommodate future needs and innovative technology

I **INTEGRATE.**

Integrate findings into traditional disciplines of transportation and land use planning

D **DEPENDABLE.**

Promote transparency and gain the trust of the public, other agencies, and stakeholders

E **EDUCATE.**

Educate the public, policy makers and stakeholders and build consensus for collective action

BROADBAND FOR ALL

FIRST MILE
Global internet networks

BROADBAND
Reliable, high-speed internet that is always on

MIDDLE-MILE
The physical infrastructure required to connect global internet networks with local networks

LAST MILE
The final leg of a network that allows local carriers to provide service to homes, businesses, and community institutions

BROADBAND 101

DEFINITION OF BROADBAND

In the context of internet access, broadband is used to mean any high-speed internet access that is always on and faster than dial-up access. According to the Federal Communications Commission (FCC), currently the minimum speeds which qualify as broadband are a minimum of 25 megabits per second (Mbps) for downloading data and 5 megabits per second for uploading data, commonly referred to as "25/3 Mbps".

BROADBAND INFRASTRUCTURE

One of the greatest things about the internet is that nobody owns it. It is a global connection of networks, both big and small. Since its birth in 1969, the internet has grown from four host computer systems to tens of millions.[2]

Broadband service relies on a network of communications infrastructure, and while there are various components within broadband infrastructure, the three big pieces of broadband infrastructure are what is known as the "backbone" infrastructure which consists of the global network, middle and last mile.

- **First Mile/Global Internet Network** is a collective of networks which span across international and continental boundaries usually through undersea or terrestrial fiber optic cables. This allows large amounts of data to span over long distances at a global or national scale.
- **Middle mile** is physical infrastructure required to enable internet connectivity and is made up of high-capacity fiber lines that carry large amounts of data at high speeds over long distances between local networks and the global internet network.
- **Last Mile** allows for an Internet Service Provider (ISPs) to provide a connection to a home, business, or community anchor institution via wired or wireless connection. For last mile connections to work, it must link to the middle-mile network.

2 ARPANET. Available at: *https://www.darpa.mil/about-us/timeline/arpanet*

HOW BROADBAND IS BUILT

Building broadband infrastructure requires several key players:

- Public Sector (Federal, State, Local)
- Private Property Owners
- Internet Service Providers (public or private)

To build broadband networks, ISPs must adhere to standards regulated and administered by the Federal Communications Commission (FCC) then design and install on public and/or private land. To do so, they must first obtain permits and easements.

- Permits allow ISPs to access to public right of ways, such as highways, streets, sidewalks and in some cases trails. Permitting entities include local government, state agencies such as the California Department of Transportation (Caltrans), or federal agencies such as the Bureau of Land Management (BLM)
- Easements are provided by private property owners and allow ISPs to access the property and build necessary equipment

Once permits have been granted, construction begins and the type of infrastructure is dictated by what the permit allows, local ordinances allow, and the service an ISP wishes to offer. Such infrastructure may include:

- **Aerial fiber** – Aerial fiber are one of the quickest ways of providing wireline last mile services. ISPs work with electric utilities and/or telephone companies and use their poles to install fiber which run parallel to existing electric or telephone conduit.
- **Underground Infrastructure** – Underground installations require trenching along streets, sidewalks, or highways to install cable, fiber, or other forms of conduit. Installing underground infrastructure is the most used method of providing middle and last mile services.
- **Wireless Facilities** – Wireless facilities are last mile services which provide cellular or hotspot services using 5G signals. Wireless towers and antennas require “line-of-sight” between towers to allow signals to move from one to another.
- **Satellite** – Satellites are a last mile service which deployed into orbit via spacecraft, in which signals are beamed down to Earth. This is an emerging technology and is regulated by the Federal Aviation Administration (FAA) Office of Commercial Space Transportation.

WHO ARE THE INTERNET SERVICE PROVIDERS?

While no one person, company, organization, or government owns the internet, the gatekeepers who provide access to the internet are the ISPs. Most ISPs are within the private sector and provides access to consumers through paid subscriptions.

In rare instances a local government may decide to provide municipal fiber services. Such services are either designed, built, and operated by the local government or leased to smaller private companies to maintain and operate, while the local government provides general oversight.

SERVICE AND SPEED

ISPs provide high speed internet access via multiple types of service technologies such as the following:

- **Digital Subscriber Line (DSL)** provides broadband connection over telephone lines.
- **Cable** provides broadband connection over the same connections that deliver cable television service.
- **Fiber** provides the fastest broadband connection which transmits data through light pulses via fiber optic cables.
- **Wireless broadband** uses over the air radio waves between a cellular tower and the home.
- **Satellite broadband** connections use satellites orbiting the earth to send signals to a fixed device typically mounted on the roof or side of a home.

Broadband speeds vary depending on the technology. For example, a cable line may provide speeds from 25/3 Mbps to 500/50 Mbps, whereas fiber may deliver speeds from 250/250 Mbps to 1000/1000 Mbps (See

Table 1. Fixed Broadband Upload and Download Speed Ranges by Broadband Technology). The type of service someone may access is dependent on location of service, price, and availability of service provider and/or associated technology.

Depending on the type of activity a user participates in, minimum speeds are needed for adequate performance for each application. For example, general browsing and email may take up to 1 Mbps and a standard definition video may require 3-4 Mbps, whereas ultra-high definition may take up to 25 Mbps.

Depending on the type of service a household has, individuals within the household may be able to participate in one or several activities simultaneously. However, if the service speed is substandard, multiple activities occurring at the same time can result in a loss of quality or cause a network slowdown. For example, a household with a 25/3 Mbps connection may not be able to stream two 4k resolution videos at the same time, as they would require a minimum download speed of 50 Mbps (See Table 2. Broadband Speed Guide). As a result, the user may experience blurry or pixelated video quality.

TABLE 1 Fixed Broadband Upload and Download Speed Ranges by Broadband Technology

BROADBAND TECHNOLOGY	DOWNLOAD SPEED RANGE	UPLOAD SPEED RANGE
Cable	10-500 Mbps	5-50 Mbps
DSL	5-34 Mbps	1-10 Mbps
Fiber	250-1000 Mbps	250-1000 Mbps
Wireless	10-25 Mbps	1 Mbps
Satellite	25-100 Mbps	1-20 Mbps

Source: Tyler Cooper, DSL vs Cable vs Fiber. Comparing Internet Options, Broadband Now. Available at: https://broadbandnow.com/guides/dsl-vs-cable-vs-fiber.

TABLE 2 Broadband Speed Guide

ACTIVITY	MINIMUM DOWNLOAD SPEED
GENERAL USAGE	
Browsing and Email	1 Mbps
Streamlining Online Radio	Less than 0.5 Mbps
Voip Calls	Less than 0.5 Mbps
Student	5-25 Mbps
Telecommuting	5-25 Mbps
File Downloading	10 Mbps
Social Media	1 Mbps
WATCHING VIDEO	
Standard Definition Video	3-4 Mbps
High Definition (HD) Video	5-8 Mbps
Ultra HD (4k) Video	25 Mbps
VIDEO CONFERENCING	
Standard Personal Video	1 Mbps
HD Personal Video Call	1.5 Mbps
HD Video Teleconferencing	6 Mbps
GAMING	
Console connecting to the internet	3 Mbps
Online multiplayer	4 Mbps

Source: Broadband Speed Guide. FCC. Available at: https://www.fcc.gov/consumers/guides/broadband-speed-guide

THE BENEFITS OF BROADBAND

The technology supporting connectivity continues to advance as do the benefits of getting connected. Here are some examples as to how broadband can benefit society.

ACCESSIBILITY:
BROADBAND HELPS PEOPLE WITH DISABILITIES TO PARTICIPATE IN SOCIETY

- People who face physical mobility challenges can participate in the workforce via telework
- The hearing impaired can communicate through chat programs or text messages or use webcams to communicate with one another through sign language
- People experiencing visual impairment can use text-to-voice programs or learn and connect through audio streaming services

CIVIC ENGAGEMENT:
BROADBAND EMPOWERS CIVIC ENGAGEMENT AND EFFECTIVE GOVERNANCE

- Access to the internet allows residents to attend virtual council meetings and allows them to participate in civic life and gives them a means to communicate directly with public officials
- The internet gives them access to petitions, participating in comment periods and other forms of engagement which can foster and bolster democratic values
- It would also assist residents to be informed of and receive government benefits

ECONOMIC DEVELOPMENT:
BROADBAND FOSTERS ECONOMIC GROWTH

- Broadband makes it easier for job seekers to search for jobs and apply to them
- Broadband can support business growth through advertisement, e-commerce startups and access to small business loans
- Broadband also allows people to gain access to financial services such as traditional banking or investing in the stock market

EDUCATION:
BROADBAND CAN ENHANCE EDUCATION

- Broadband can help facilitate flexibility to accommodate different learning styles via remote learning
- Class websites or apps give students the ability to download assignments and materials.
- Students can work with their peers to complete group assignments
- Email and direct messaging allow students or parents to communicate with their teachers

PUBLIC HEALTH:
BROADBAND CAN IMPROVE ACCESS TO HEALTHCARE

- Broadband can help people to connect with medical professionals virtually
- Broadband allows people to order prescription medication online and have them delivered to their home

PUBLIC SAFETY:
BROADBAND CAN HELP CREATE A SAFER SOCIETY

- Broadband allows emergency dispatchers (911 operators) to communicate quickly with the police or fire department
- Improvements to wireless broadband can enable advances to disaster response and early warning systems
- Enhanced broadband infrastructure can assist in developing a safer and more efficient transportation system (intelligent transportation systems, traffic signal synchronization, connected and automated vehicles (CAV))

SMART CITIES:
BROADBAND CAN MAKE CITIES "SMARTER"

- Broadband is essential for smart parking and transportation systems
- Broadband allows for smart resource monitoring systems for water monitoring, trash disposal and EV charging systems.

SUSTAINABILITY:
BROADBAND IS A "GREEN STRATEGY"

- Telework, E-learning, and other remote access options have the potential to reduce car travel and the associated greenhouse gas emissions.
- Broadband is necessary to collect, analyze and track climate change data.

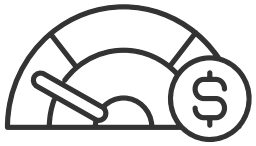
THE DIGITAL DIVIDE

WHAT IS THE DIGITAL DIVIDE?

Broadband provides endless benefits to society and its residents. However, there are those amongst us that lack this critical service. During the COVID-19 pandemic, disparities amongst low-income urban and rural households, young students, and senior citizens became more apparent as they did not have access to essential services that are dependent on having broadband and devices. When compared to those who were connected, those who were unconnected or under connected were at a disadvantage with respect to educational, economic, medical, and social opportunities. **This is the digital divide.**

Simply put, the digital divide refers to the growing gap between the members of society who have reliable access to broadband service and/or an adequate device for connecting to the internet, and those who do not. However, the digital divide is a complex issue, and a multitude of factors have caused the issue to persist. In other words, **there is not just one divide but multiple divides.**

AVAILABILITY
A lack of infrastructure or proper service



AFFORDABILITY
A lack of affordable subscription rates or devices

LITERACY
A lack of understanding or knowledge of how to participate in digital activities

WHO IS AFFECTED BY THE DIGITAL DIVIDE?

Studies on the digital divide have been conducted since the mid to late 1990s. According to a 1998 study by Stanford University, the highest levels of disparities occurred amongst Black and Latino populations, low-income households, and those who are non-college educated.[3] This remains true to this day, but more recent studies have highlighted the disparities between seniors, K-12 students, employed versus unemployed, and urban versus rural households.

However, barriers to access are varied and complex and while data is not easily available, additional factors and populations should be considered for future analysis. This includes but is not limited to:

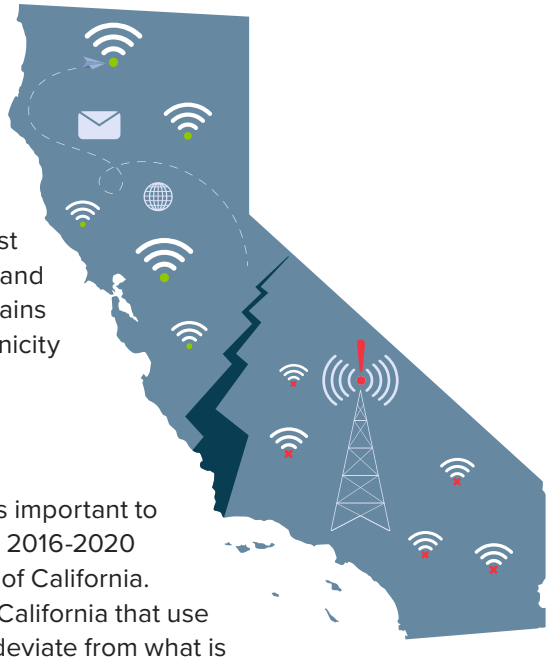
- Immigrants, undocumented residents, and refugee households
- Veterans
- People who are incarcerated
- People with disabilities
- People with chronic or complex medical issues
- People who are homeless or experiencing housing insecurity
- People who are experiencing food insecurity
- People who live in areas with terrain challenges
- Small business owners

At a geographic level, those who experience the digital divide often live in **unserved** and **underserved** communities.

- **Unserved communities** are those that do not have access to broadband infrastructure or access to devices.
- **Underserved communities** are those that do not have sufficient service (i.e., minimum speeds of 25/3 Mbps).

3 Digital Divide. Stanford University. Available at: *https://cs.stanford.edu/people/eroberts/cs181/projects/digital-divide/start.html*

THE DIGITAL DIVIDE IN CALIFORNIA



Overall, broadband adoption is on the rise in the state of California. In 2008, approximately 55% of California's population had adopted broadband, and this has risen to approximately 90% in 2021.[4] However, there remains at least 9 to 10% of the population who are not connected to broadband or don't have computers to access the internet, and this remains uneven across income, age groups, education, and race/ethnicity lines.[5]

DATA

Before we present data on the digital divide in California, it is important to note that for consistency purposes, SCAG chose to use ACS 2016-2020 Census Data to provide a baseline assessment for the State of California. There are several documents regarding the digital divide in California that use different data sources and analysis from those reports may deviate from what is presented in this plan.

RACIAL GAP

While progress has been made, when compared to the White and Asian populations, Black, Native American/Indigenous and Latino/Hispanic populations are less likely to be connected or own a computer (See Table 3, Population by Race and Age in California without Broadband and Computer).

- 12% of the Black population do not have access to broadband and 5% do not own a computer
- 13% of the Native American/Indigenous population do not have access to broadband and 11% do not own a computer
- 11% of the Latino/Hispanic population do not have access to broadband and 4% do not own to a computer

4 2021 CETF-USC Statewide Broadband Adoption Survey. Available at: *https://www.cetfund.org/wp-content/uploads/2021/03/Statewide-Survey-on-Broadband-Adoption-CETF-Report.pdf*

5 2021 CETF-USC Statewide Broadband Adoption Survey. Available at: *https://www.cetfund.org/wp-content/uploads/2021/03/Statewide-Survey-on-Broadband-Adoption-CETF-Report.pdf*

TABLE 3 Populations in California without Broadband and Computers

	POPULATION	WITH BROADBAND	WITH BROADBAND (PERCENT)	WITHOUT BROADBAND	WITHOUT BROADBAND (PERCENT)	NO COMPUTER	NO COMPUTER (PERCENT)
CALIFORNIA (TOTAL)	38,521,288	35,169,205	91%	3,352,083	**9%**	1,314,283	**3%**
CALIFORNIA							
White alone	21,605,116	19,708,956	91%	1,896,160	**9%**	796,947	**4%**
Black or African American alone	2,129,228	1,868,171	88%	261,057	**12%**	107,189	**5%**
Native American and Indigenous	300,670	262,564	87%	38,106	**13%**	15,269	**5%**
Asian alone	5,740,307	5,439,896	95%	300,411	**5%**	115,970	**2%**
Latino/Hispanic	15,132,999	13,409,156	89%	1,723,843	**11%**	608,017	**4%**
AGE							
Under 18 years	8,935,169	8,326,146	93%	609,023	**7%**	153,899	**2%**
18 to 64 years	24,081,685	22,358,042	93%	1,723,643	**7%**	537,093	**2%**
65 years and over	5,504,434	4,485,017	82%	1,019,417	**18%**	623,291	**11%**

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates

AGE GAPS

When compared amongst their age group, the largest disparities are amongst the senior populace (See Table 3, Populations in California without Broadband and Computer).

- 18% of Seniors aged 65 and over do not have access to broadband and 11% do not own a computer

INCOME GAPS

Internet subscriptions are unaffordable to low-income households (See Table 4. Low Income Households in California Without Internet)

- Low-income households account for 70% of the digital divide
- 1 in 4 or 25% of low-income households do not have access to the internet

GAPS BASED ON EDUCATIONAL ATTAINMENT

Those who are under-educated are less likely to have a broadband subscription or a computer when compared to populations with a college degree and above.

- 30% of people who are undereducated (less than high school graduate) do not have access to broadband and 18% do not own a computer

EDUCATION GAPS

Efforts across the state have been made by school districts to connect children, there is a sizable number of young students who are not connected. Further, there are many college students who are not connected.

- 6% percent of students from pre-K to 12th grade have no internet subscription or no computer.
- 5% of students who are in college or graduate school do not have an internet subscription or computer.

TABLE 4 Low Income Households in California Without Internet

HOUSEHOLD INCOME AND SUBSCRIPTION	HOUSEHOLDS
LESS THAN $10,000 TO $50,000	4,277,540
With dial-up Internet subscription alone	14,340
With a broadband Internet subscription	3,281,288
Without an Internet subscription	981,912
$50,000 TO $74,999	2,007,523
With dial-up Internet subscription alone	5,111
With a broadband Internet subscription	1,816,691
Without an Internet subscription	185,721
$75,000 OR MORE:	6,818,051
With dial-up Internet subscription alone	7,344
With a broadband Internet subscription	6,552,860
Without an Internet subscription	257,847
Total Low Income Households	4,277,540
Total Households (No Internet)	1,425,480
Total Low income Households (No Internet)	**981,912**
Concentration Rate of all Digital Divide (Low-Income Households)	**70%**
Low Income Households Experiencing Digital Divide	**25%**

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates
Note: The average household size is three. Low-income households are those with annual income below $50,000; this is roughly 225% of the federal poverty line for a household with three persons ($51, 818)

TABLE 5 Adoption by Educational Attainment (California)

	TOTAL	BROADBAND INTERNET SUBSCRIPTION	BROADBAND (PERCENT)	NO BROADBAND (PERCENT)	NO COMPUTER IN HOUSEHOLD	PERCENT NO COMPUTER IN HOUSEHOLD
TOTAL POPULATION	38,521,288	35,169,205	91%	**9%**	1,314,283	3%
EDUCATIONAL ATTAINMENT						
Household population 25 years and over	26,159,970	23,640,443	90%	**10%**	1,110,161	4%
Less than high school graduate or equivalency	4,135,249	3,286,510	80%	**20%**	418,783	10%
High school graduate	12,827,397	11,519,254	90%	**10%**	564,765	4%
Bachelor's degree or higher	9,197,324	8,834,679	96%	**4%**	126,613	1%

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates

TABLE 6 Students in California without Internet or a Computer

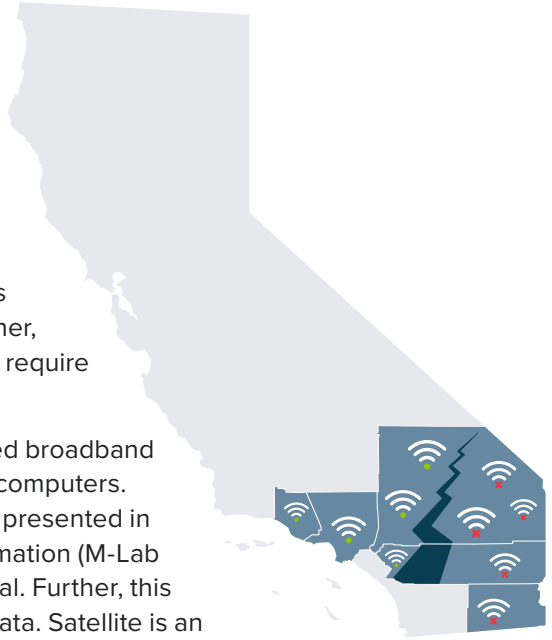
	TOTAL	PERCENT
PRE K-12 (TOTAL STUDENTS)	7,098,947	
Has a computer and Internet Subscription	6,639,034	94%
No subscription or no computer	459,913	6%
UNDERGRADUATE OR HIGHER (TOTAL STUDENTS)	2,958,260	
Has a computer and Internet Subscription	2,818,536	95%
No subscription or no computer	139,724	5%

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates

THE DIGITAL DIVIDE IN THE SCAG REGION

PRESENTATION OF DATA

Before we present data on the state of the Region, it is important to note that SCAG's Digital Action Plan relies on best and current available data provided by the Federal Communications Commission (FCC), California Public Utilities Commission (CPUC), and United States Census Bureau. Further, both the FCC and CPUC have recognized that their data sets require updates as they do not present details at the granular level.



This assessment focuses primarily on the accessibility of fixed broadband services (wired or wireless infrastructure) and availability of computers. Data on speed, availability and cost of service providers are presented in limited fashion as data are taken from open sources of information (M-Lab and Broadband Now) and should be considered experimental. Further, this assessment does not provide data on cellular and satellite data. Satellite is an emerging technology and requires further assessment, and while cellular services are important, they are often inadequate to qualify as broadband by the current federal definition of 25/3 Mbps, as the average cellular data plan provides on average 10/1 Mbps.[6]

Regardless of limitations, SCAG believes that the data provides valuable insight on the state of the region and will continue to work towards securing accurate data and will periodically update the Regional Council as better data comes along.

Further, for County level data and figures, please refer to Appendix A: County Level Data and Appendix B for County Level Figures.

GENERAL

Nearly half of California's population or approximately 19 million residents live within the six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) of the SCAG region. It is currently projected that the population will increase from 19 million to over 24 million.[7] While the region is growing and is diverse in its population, economy and environment, the region faces digital access challenges. Like the State of California, the SCAG Region follows the same trends as the state as 9% residents within SCAG region do not have access to broadband and 3% do not have access to a computer (See Table 7. Population in the SCAG Region Without Broadband and Computers).

6 Defining Broadband: Minimum Threshold Speeds and Broadband Policy. EveryCRSReport. Available at: *https://www.everycrsreport.com/reports/R45039.html*

7 For more information, please visit *https://scag.ca.gov*

TABLE 7 Population in the SCAG Region Without Broadband and Computers

COUNTY	TOTAL POPULATION	WITH BROADBAND	WITHOUT BROADBAND	WITHOUT BROADBAND (PERCENT)	WITHOUT DEVICE	WITHOUT DEVICE (PERCENT)
Imperial	170,517	149,865	20,652	12%	11,412	7%
Los Angeles	9,858,119	8,824,138	1,033,981	10%	388,863	4%
Orange	3,126,693	2,931,456	195,237	6%	71,198	2%
Riverside	2,399,905	2,204,195	195,710	8%	72,686	3%
San Bernardino	2,110,605	1,901,118	209,487	10%	63,346	3%
Ventura	832,500	761,388	71,112	9%	34,249	5%
SCAG	**18,498,339**	**16,772,160**	**1,726,179**	**9%**	**641,754**	**3%**

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates

AGE, RACE AND EDUCATIONAL ATTAINMENT GAPS

Like California, there are disparities amongst certain age groups, races, and educational attainment populations (See Table 8. Populations (Age, Race and Educational Attainment) in the SCAG Region without Broadband or a Computer).

When compared amongst their age group, the largest disparities are amongst the senior populace

- 20% of Seniors aged 65 and over do not have access to broadband and 12% do not own a computer

The Black, Native American/Indigenous and Latino/Hispanic population are less likely to be connected or own a computer compared to the White and Asian Population.

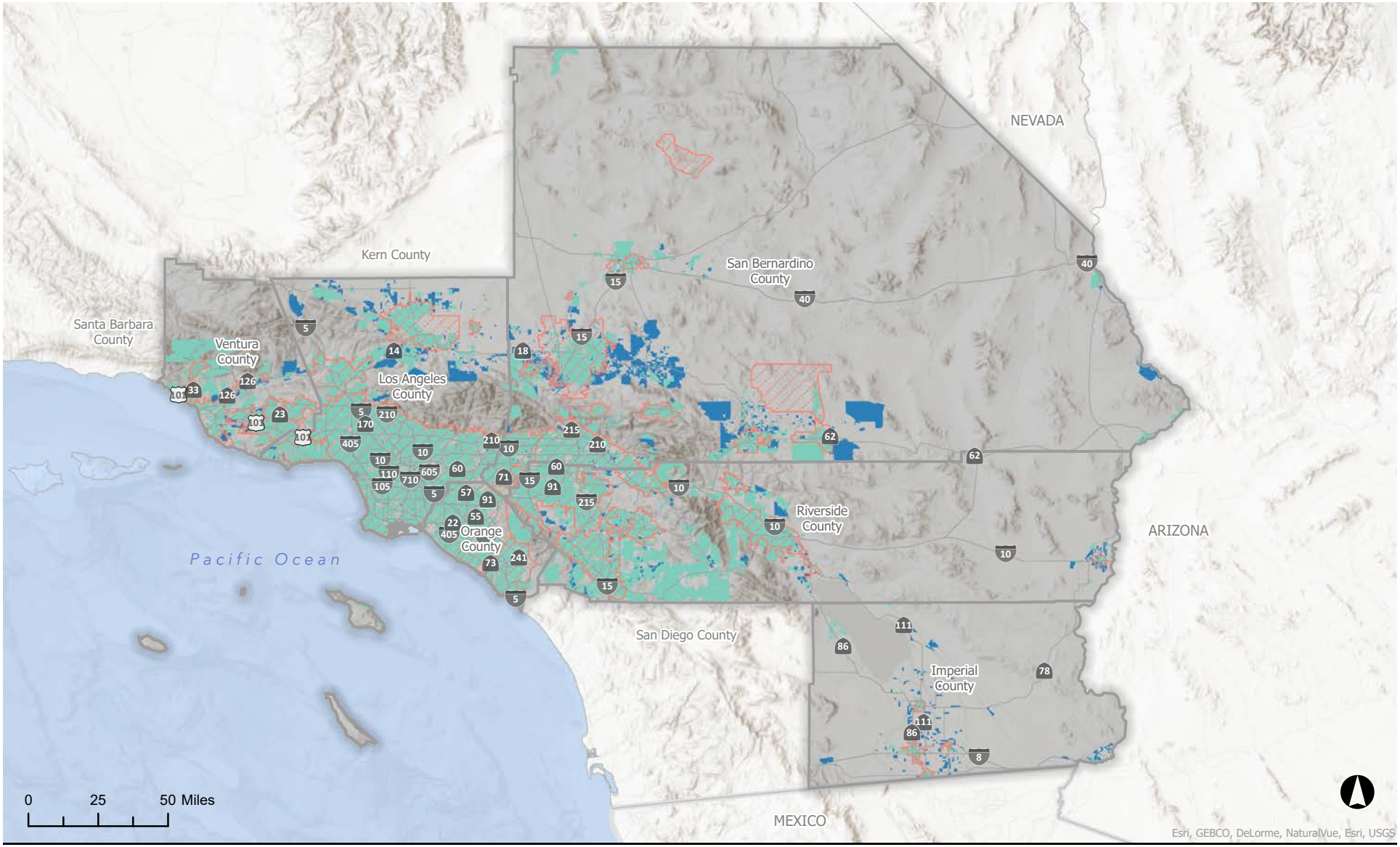
- 13% of the Black population do not have access to broadband and 5% do not own a computer
- 11% of the Native American/Indigenous population do not have access to broadband and 4% do not own a computer
- 12% of the Latino/Hispanic population do not have access to broadband and 4% do not own to a computer
- While the SCAG region is performing better than the state, even still:
- 20% of people who are undereducated (less than high school graduate) do not have access to broadband and 9% do not own a computer

FIXED BROADBAND SERVICE

There is a difference in accessibility when comparing urban and rural communities. 68% of urban areas in the SCAG Region are served by fixed broadband (25/3 Mbps minimum), whereas only 5% of rural areas are served by the fixed broadband. (See Figure 1. Fixed Broadband by Census Block, Federal Threshold: 25 Mbps / 3 Mbps). However, this does not mean that only 5% of households in rural areas have internet, rather this map depicts the vastness of the region and gives us a sense of where the infrastructure is being prioritized.

Further analysis shows that 15% of households in urbanized areas and 13% in rural areas experience speeds under the 25/3 Mbps (See Table 9, Urbanized and Rural Areas Experiencing Speeds Under the 25/3 Mbps Threshold).

FIGURE 1 Fixed Broadband by Census Block, Federal Threshold 25 Mbps/3 Mbps



Urbanized Boundary

SCAG Fixed Consumer Deployment

Below Federal Threshold

Meets Federal Threshold

Source: SCAG 2022, FCC Open Data 2022

TABLE 8 Populations (Age, Race and Educational Attainment) in the SCAG Region without Broadband or a Computer

	POPULATION	WITH BROADBAND	WITHOUT BROADBAND	WITHOUT BROADBAND (PERCENT)	NO COMPUTER	NO COMPUTER (PERCENT)
TOTAL POPULATION IN HOUSEHOLDS	18,498,339	16,772,160	1,726,179	9%	**641,754**	3%
AGE						
Under 18 years	4,297,268	3,973,280	323,988	8%	**76,325**	2%
18 to 64 years	11,668,879	10,762,294	906,585	8%	**265,274**	2%
65 years and over	2,532,192	2,036,586	495,606	20%	**300,155**	12%
RACE						
White	9,754,588	8,863,158	891,430	9%	**367,438**	4%
Black or African American	1,167,554	1,015,104	152,450	13%	**61,178**	5%
Native American/Indigenous	136,164	121,086	15,078	11%	**6,037**	4%
Asian	2,502,952	2,361,855	141,097	6%	**54,751**	2%
Hispanic/Latino	8,697,391	7,687,091	1,010,300	12%	**334,814**	4%
EDUCATIONAL ATTAINMENT						
Household population 25 years and over	12,520,746	11,235,724	1,285,022	10%	**540,919**	4%
Less than high school graduate or equivalency	2,286,848	1,821,768	465,080	20%	**217,236**	9%
High school graduate	6,166,434	5,522,441	643,993	10%	**263,273**	4%
Bachelor's degree or higher	4,067,464	3,891,515	175,949	4%	**60,410**	1%

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates

TABLE 9 Urbanized and Rural Areas Experiencing Speeds Under the 25/3 Mbps Threshold

COUNTY	URBANIZED AREA	RURAL AREA
Imperial County	22%	24%
Los Angeles County	16%	9%
Orange County	9%	5%
Riverside County	14%	13%
San Bernardino County	16%	15%
Ventura County	12%	14%
SCAG Region	**15%**	**13%**

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates, Caltrans Adjusted Area 2010.

SERVICE PROVIDERS, COST AND SPEED

An average of 11 ISPs provides broadband at the zip code level across the SCAG Region. Speed and cost differ across the region when looking at the data at the County Level. For example, there is a stark difference between the speed of service and cost in urban areas and rural areas. Los Angeles County has higher speeds and lower cost of subscription when compared to Imperial County.

16% of the SCAG region experiences outages or slow traffic, resulting in speeds which fall under the 25/3 Mbps, with Imperial County facing the greatest disparities at 67%.

INCOME GAPS

Low-income households without internet connection are spread throughout the SCAG Region

- Concentration of low-income households without internet are the highest in Imperial and Riverside County (See Figure 2. Low Income Households without Broadband: Percent of Households by Census Block)
- 70% of those without internet are concentrated within low-income households
- A total of 22% of low-income households within the SCAG Region do not have access to the internet

EDUCATION GAPS

- Like the state, there is a sizable number of young students and college students who are not connected (See Table 13. Students in the SCAG Region without Internet or Computer).
- 7% percent of students from pre-K to 12th grade has no internet subscription or no computer.
- 5% of students who are in college or graduate school do not have an internet subscription or computer

TABLE 10 Internet Service Provider Cost Summary

COUNTY	AVERAGE NUMBER OF PROVIDERS PER ZIP CODE	AVERAGE MBPS	AVERAGE LOWEST PRICE TERRESTRIAL BROADBAND PLAN PER ZIP CODE
Imperial	10	79	$68.36
Los Angeles	12	237	$35.24
Orange	13	101	$34.94
Riverside	12	78	$35.69
San Bernardino	10	71	$42.49
Ventura	11	98	$36.19
SCAG	**11**	**111**	**$42.15**

Source: BroadbandNow 2020

TABLE 11 Average Broadband Speed Test

	25+ / 3+ MBPS	1-25 / 3+ MBPS	1-25 / UP 0-3 MBPS	BELOW 25/3 TOTAL	NO DATA
Imperial	33%	25%	42%	67%	0%
Los Angeles	80%	9%	1%	11%	10%
Orange	81%	11%	0%	11%	8%
Riverside	72%	19%	7%	25%	3%
San Bernardino	62%	11%	14%	25%	13%
Ventura	76%	8%	3%	11%	14%
SCAG Region	**75%**	**11%**	**5%**	**16%**	**9%**

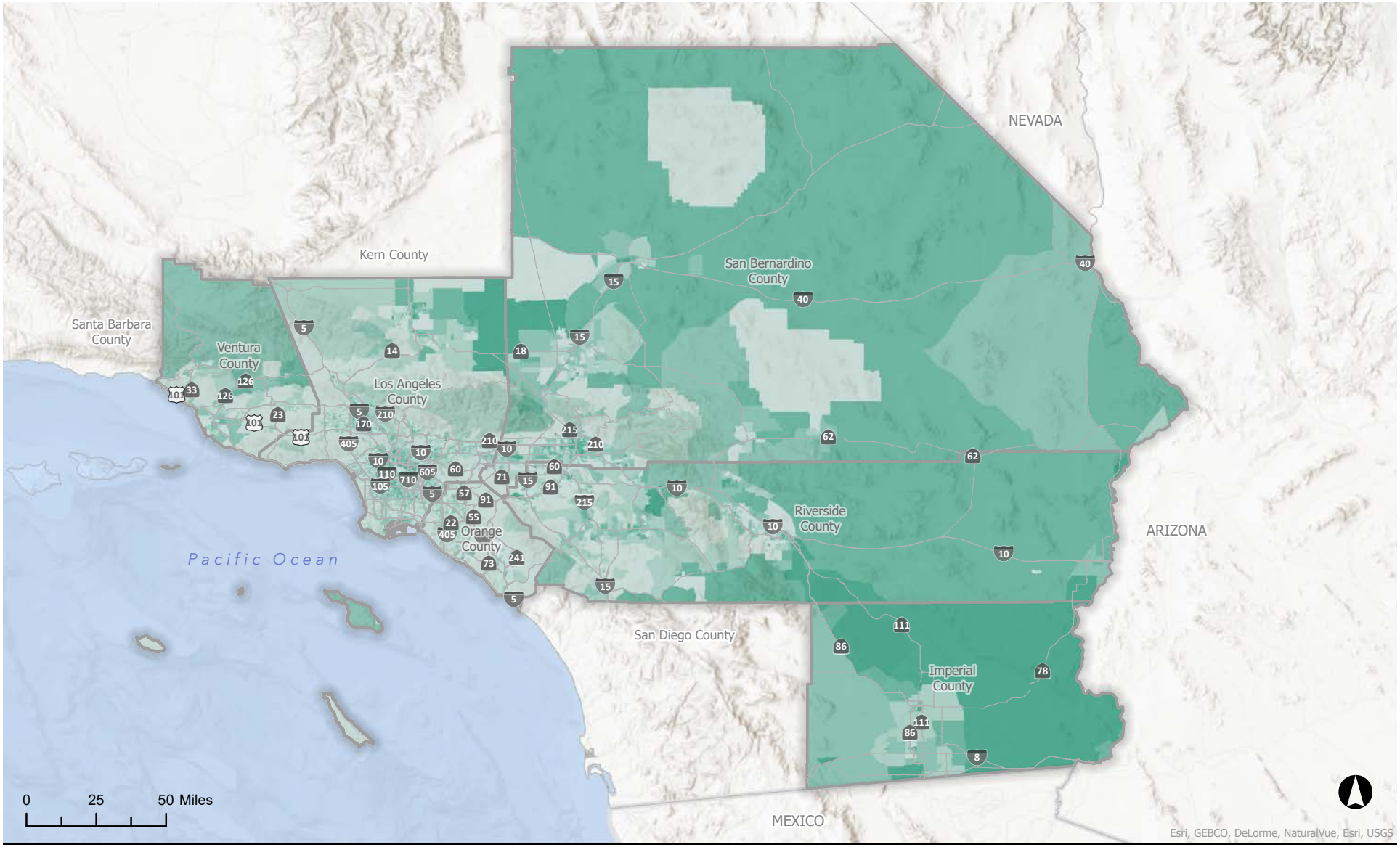
Data Source: M-Lab's data (Dec 2019 - Oct 2020)

TABLE 12 Low Income Households in the SCAG Region Without Internet

HOUSEHOLD INCOME AND SUBSCRIPTION	HOUSEHOLDS
LESS THAN $10,000 TO $50,000	2,078,828
With dial-up Internet subscription alone	5,724
With a broadband Internet subscription	1,585,676
Without an Internet subscription	487,428
$50,000 TO $74,999	962,993
With dial-up Internet subscription alone	2,121
With a broadband Internet subscription	870,282
Without an Internet subscription	90,590
$75,000 OR MORE:	3,024,594
With dial-up Internet subscription alone	3,450
With a broadband Internet subscription	2,897,226
Without an Internet subscription	123,918
Total Low Income Households	2,078,828
Total Households (No Internet)	701,936
Total Low income Households (No Internet)	**487,428**
Concentration Rate of Digital Divide (Low-Income Households)	**70%**
Low Income Households Experiencing Digital Divide	**22%**

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates
Note: The average household size is three. Low-income households are those with annual income below $50,000; this is roughly 225% of the federal poverty line for a household with three persons ($51, 818)

FIGURE 2 Low Income Households Without Broadband: Percent of Households by Census Block



0% - 4.8%
4.9% - 11.9%
12.0% - 20.3%
20.4% - 32.5%
32.6% - 100%

Source: SCAG 2022, ACS 2016-2020 5-Year Summary File

TABLE 13 Students in the SCAG Region without Internet or a Computer

	TOTAL	PERCENT
PRE K-12 (TOTAL STUDENTS)	3,419,260	
Has a computer and Internet Subscription	3,173,412	93%
No subscription or no computer	245,853	7%
UNDERGRADUATE OR HIGHER (TOTAL STUDENTS)	1,454,875	
Has a computer and Internet Subscription	1,380,784	95%
No subscription or no computer	74,096	5%

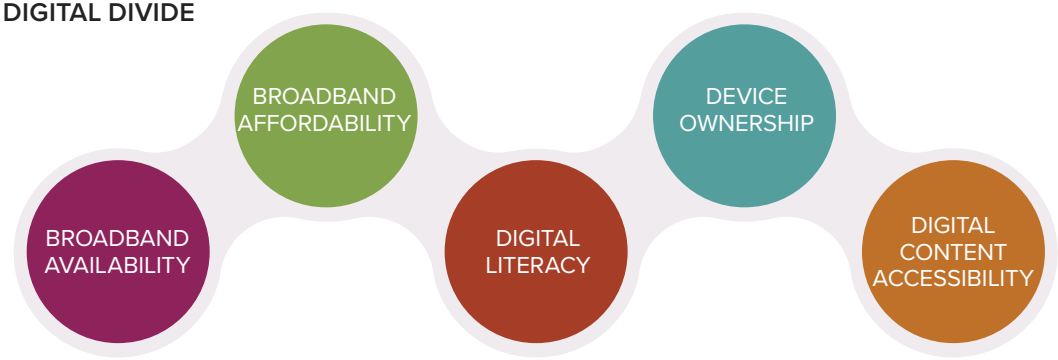
Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates

WHAT'S CAUSING THE DIGITAL DIVIDE

BARRIERS AND CAUSES FOR THE DIVIDE

As previously mentioned, there are many barriers which prevent digital access and adoption. Earlier we categorized the digital divide resulting from Availability, Affordability and Literacy. But even that is too basic of an explanation, and a deeper dive is necessary.

THE DIGITAL DIVIDE



HIGH COST AND LITTLE RETURN TO PROVIDE INFRASTRUCTURE

While broadband infrastructure may seem ubiquitous, there are pockets of rural and urban areas in American and within the SCAG region with no infrastructure or poor/old infrastructure. These are known as "digital deserts" where high-speed internet access is unavailable at any price or service is unreliable, unaffordable, or too slow.[8] In a nationwide study by the FCC, Purdue University and Oklahoma State University, approximately 21.3 million people had speeds less than the standard of 25/3 or approximately 5 million people and/or 2.2 million households had access to no provider, and more than two-thirds of these deserts were in rural areas.[9]

In rural areas, the economic incentive for ISPs to upgrade infrastructure or provide services are not there due to the lack of a customer base. To bring high-speed wireline services to rural areas, an ISP would have to make a substantial investment to cover conduit costs and the cost of digging miles of trenches only to reach a few customers per mile.[10] Urban areas may have some form of internet access but are considered substandard as they rely on older technology. An example of old technology is DSL, which relies on existing telephone lines and provide speeds that are considerably

8 Why digital deserts are counting on an infrastructure deal. NBCNews. Available at: *https://www.nbcnews.com/news/nbcblk/large-swaths-digital-deserts-are-counting-infrastructure-deal-rcna2429*
9 A parched country study shows that digital deserts exist. Connected Nation. Available at: *https://connectednation.org/blog/2019/09/18/a-parched-country-study-shows-digital-deserts-exist/*
10 Why is it so hard to get fast & reliable rural internet? Get Unwired. Available at: *https://www.getunwired.com/why-is-it-so-hard-to-get-fast-reliable-rural-internet*

slower than cable or fiber-optics broadband. Underserved urban areas are disproportionately located in communities of color and a high concentration of low-income households and experience "underinvestment" in which ISPs are unwilling to upgrade the network due to the lack of financial incentives. In some cases, underserved communities (both urban and rural) may experience higher subscription rates but slower speeds.[11] An example of this was previously shown on Table 10. Internet Service Provider Cost Summary, in which Imperial County residents paid more for lower speeds when compared to residents in Los Angeles County.[12]

Municipal broadband is an option many local jurisdictions have considered and, in some cases, implemented. Some local jurisdictions opt to build maintain and operate their own fiber network, while others build the infrastructure and lease the fiber to small providers to provide service to its residents. Some notable examples in the SCAG Region include OntarioNet (City of Ontario)[13] and Culver Connect (Culver City)[14], both of which provide high-speed fiber to its residents. However, this is not an option for many local jurisdictions and other attempts have failed. For local jurisdictions with fewer resources, the capital cost of investment is too high and cannot be supported by a city or county's budget. Broadband infrastructure projects require municipalities to take on enormous upfront costs, and unsuccessful projects can lead to expensive litigation and unreliable service.[15] During the COVID-19 pandemic, municipal budgets have plummeted, and many cities have cut their budget due to the decreased tax revenue.[16] Further, the rising cost of construction materials and technology equipment due to inflation and supply chain issues have exacerbated the infeasibility of a municipal service.

UNCOMPETITIVE MARKET

Lack of competition can cause stagnation of technology and speed. Millions of Americans do not have a real choice when it comes to internet service. As referenced earlier, the SCAG region is served by an average of 11 ISPs at the zip code level, however in urban areas in different regions of the nation, the majority can choose up to one to two ISPs (one usually being the cable company and the other a telephone company).[17] In rural areas, residents are fortunate to get any service at all. For fixed wireline services, cable and DSL are the most common choices. While fiber services are considered the gold standard as they provide the greatest level of reliability and speed, ISPs which hold a monopoly on service areas have little incentive to modernize their equipment as there are no competitors who are willing to provide better service for cheaper rates. The lack of competition results in high subscription rates with stagnant speeds.

INCONSISTENT THRESHOLDS FOR BROADBAND SPEEDS

As stated before, the FCC's minimum threshold for what qualifies as broadband is 25/3 Mbps. This has been the federal threshold since 2015, and these speeds are proving to be inadequate in todays and tomorrow's environment as multiple people in a single household are participating in activities simultaneously (See Table 2. Broadband Speed Guide).

Further, the FCC's threshold for broadband does not apply to rural areas. The United States Department of Agriculture (USDA) defines minimum broadband speeds as 10/1 Mbps.[18] This inconsistency in minimum thresholds allow for greater disparities in service quality. As shown on Table 1, Fixed Broadband Upload and Download Speed Ranges by Broadband Technology, broadband speed is dependent on the type of technology a user subscribes to. While fiber can provide up to 1000/1000 Mbps, older technologies such as DSL can fall below 25/3 Mbps, thereby causing additional confusion as to whether services like DSL should qualify as broadband.

11 The nuances of digital redlining explained. Governing Daily. Available at: *https://www.governing.com/community/the-nuances-of-digital-redlining-explained/*
12 Imperial County is considered rural by the Rural County Representatives of California (RCRC). Available at: *https://www.rcrcnet.org/imperial*
13 OntarioNet. Available at *https://www.ontarioca.gov/fiber*
14 CulverConnect. *https://www.culvercity.org/City-Projects/Culver-Connect-Municipal-Fiber-Network*
15 Can municipal broadband networks close the digital divide? The regulatory review. Available at: *https://www.theregreview.org/2021/08/11/schaengold-municipal-broadband-networks-close-digital-divide/*
16 How COVID-19 is harming State and City Budgets: *https://www.cfr.org/backgrounder/how-covid-19-harming state-and-city-budgets*
17 Profiles of Monopoly and Telecom. ISLR. Available at: *https://cdn.ilsr.org/wp-content/uploads/2020/08/2020_08_Profiles-of-Monopoly.pdf?_ga=2.245667776.595357048.1662312884-1507830798.1662312884&_gl=1*nubjw3*_ga*MTUwNzgzMDc5OC4xNjYyMzEyODg0*_ga_M3134750WM*MTY2MjMzMDU0OC4yLjEuMTY2MjMzMDU0OC4wLjAuMA*
18 Reconnect Program. USDA. *https://www.usda.gov/sites/default/files/documents/reconnect-all-faqs.pdf*

PERMITTING, ORDINANCES AND COST ISSUES

Other issues can also inhibit the development or upgrading of broadband infrastructure. In a survey conducted by the San Diego Association of Governments (SANDAG), ISPs have stated that permitting challenges are one of the key barriers to infrastructure deployment. The survey found that permitting processes are not transparent, cost and time consuming, and inconsistent with respect to fees.[19] Long permitting timeframes leads to increased cost and project delays, and as a result much of that cost is rolled over to the consumer. Local codes and preferred practices can also inhibit development. Many cities prefer that an ISP provide terrestrial or underground wireline services and prohibit the use of aerial fiber. Aerial fiber allows for an ISP to leverage existing light, energy and/or telephone poles to layout conduit, thereby allowing an ISP to save time on permitting and avoid trenching and road repair costs. The interviews also indicated that road repair costs are contentious issue between a local jurisdiction and the ISP in which there are disagreements upon the cost burden an ISP or local jurisdiction should take upon when backfill activities occur.

LACK OF ORGANIZED AND ACCESSIBLE INFORMATION ON PERMITTING

INCONSISTENCY ACROSS JURISDICTIONS, SOMETIMES EVEN WITHIN AN AGENCY

RESTRICTIVE POLICIES AND PROHIBITIVE CONDITIONS THAT DON'T COMPLY WITH FCC GUIDELINES

UNCERTAIN TIMELINES AND COST

LACK OF STANDARDS FOR MICROTRENCHING

19 Summary of provider interviews: Challenges and Opportunities for Broadband Infrastructure Deployment. SANDAG. Available at: *https://www.sandag.org/uploads/meetingid/meetingid_5841_28872.pdf*

MATERIALS AND TERRAIN

In certain cases, ISPs are providing adequate service, but speeds are affected by the user's home itself. Older and historic homes tend to have poor internet connections due to the materials that were used to build the walls. Modern homes are designed with wiring and internet/cable service in mind. However, older homes prioritized building strength over modern technology. Common materials found in older homes such as metal plaster lath, metal stucco lath, foil insulation, and steel reinforced concrete can block Wi-Fi signals.[20] Homes in communities such as South Los Angeles may experience poor Wi-Fi signals as approximately 50% (125,000 out of 250,000) were built between 1939 and 1950, during an era where the most commonly used material for insulation was foil.[21] Affordable housing complexes such as those administered by the Housing Authority of Los Angeles (HACLA), also face signal issues as most of the public housing complexes were built during the World War II era.[22]

Terrain can also present a problem. In mountainous areas wireless signals from towers tend to be weak due to line of sight issues.[23] Foliage, rain and wind can also affect latency speeds. This poses a challenge in urban areas for cellular services and in rural areas can affect last-mile wireless solutions and cellular services.[24] An increasing amount of satellite service providers have entered the broadband market over the past years. However, this technology is new and emerging and is affected by atmospheric and terrain conditions. Long distance travel from space to Earth, even at light speed, already causes minor delays, and atmospheric conditions like storm and rain result in a degradation of service.[25]

20 What's in your home's walls and why it's disrupting your WiFi signal. MyMove. Available at: *https://www.mymove.com/internet/wifi-vs-walls-why-historic-homes-have-terrible-connections-and-how-to-fix-it/*
21 South L.A. Demographics. Available at: *https://www.point2homes.com/US/Neighborhood/CA/Los-Angeles/South-LA-Demographics.html*
22 HACLA-Public Housing. HACLA. Available at: *https://www.hacla.org/en/about-public-housing*
23 Technology in the mountains: Why it's not up to speed, Aspen Times. Available at: *https://www.aspentimes.com/news/technology-in-the-mountains-why-its-not-up-to-speed/*
24 11 building materials than can kill your cell phone signals. Wilson Amplifiers. Available at: *https://www.wilsonamplifiers.com/blog/11-major-building-materials-that-kill-your-cell-phone-reception/*
25 Pros and Cons of Satellite Internet Service. Available at: *https://www.satelliteinternet.com/resources/satellite-internet-pros-and-cons/*

LACK OF DEVICES

Broadband adoption is meaningless without a device. Such devices could include a computer, a smart phone, or a tablet. This is referred to as the "device divide" or the "technology gap." Approximately 650,000 residents faced difficulties acquiring a device during the height of the COVID-19 pandemic, when computers and webcams were in high-demand but people faced short supplies and high prices, and those who did experienced financial strain (further discussed under ***Affordability***).[26]

Throughout the nation, smartphone ownership has been on the rise. Out of all the digital devices available in the market, low-income families saw the biggest gains in smartphone ownership, with 76% of low-income households owning a smartphone.[27] While phones and tablets allow for some level of connectivity, a person without a proper computer can face significant challenges should they wish to pursue telework opportunities or e-learning opportunities.

These challenges are particularly true for students of low-income households, and this form of digital divide is commonly referred to as the "homework gap". In 2009, the FCC Broadband Task force reported that approximately 70% of teachers assigned homework requiring access to broadband and devices. In addition, while 65% of students accessed the internet at home to complete their work, the remaining students, mostly concentrated in low-income households, relied on public libraries or public spaces that provided Wi-Fi.[28] Prior to the pandemic, students in low-income households could rely on services in libraries or schools, but the COVID-19 pandemic forced most of the schools to go virtual and previously relied upon facilities were no longer available. As a result, the lack of accessibility resulted in difficulties with attending online classes, connecting with their peers and teachers, and doing homework.

26 Device Shortage Impacts Digital Device. Community Tech Network. Available at: *https://www.communitytechnetwork.org/blog/device-shortage-impacts-digital-divide/*

27 Digital divide persists even as Americans with lower incomes make gains in tech adoption. Pew Research Center. Available at: *https://www.pewresearch.org/fact-tank/2021/06/22/digital-divide-persists-even-as-americans-with-lower-incomes-make-gains-in-tech-adoption/*

28 The homework gap: The cruelest part of the Digital Divide. NEA. *https://www.nea.org/advocating-for-change/new-from-nea/homework-gap-cruelest-part-digital-divide*

AFFORDABILITY

In a survey done by the California Emerging Technology Fund (CETF) and the University of Southern California, 68% of respondents stated that affordability was the main reason that kept them from adopting broadband.[29]

68%

OF RESPONDENTS STATED THAT AFFORDABILITY WAS THE MAIN REASON THAT KEPT THEM FROM ADOPTING BROADBAND

According to BroadbandNow, roughly 95% of California residents have the "opportunity" to access broadband subscriptions, and the most popular package provides 100/20 Mbps at $69.99 per month.[30, 31], However, the opportunity of access does not always lead to adoption in low-income communities. As shown on Table 14. Sample of Cities Comparing Poverty Rates and Broadband Adoption, the following cities within the SCAG region experience a poverty rate between 13% to 24%, but only 75% to 86% of households have broadband due to affordability issues.

There have been several attempts to provide affordable internet to low-income households. For example, ISPs such as Charter Spectrum provide affordable rates as low as $17.99 a month under their Internet Assist program.[32] Government subsidies such as the FCC administered Affordable Connectivity Program (ACP) provide qualifying households $30 a month to pay for broadband.[33] However, over 65% of unconnected or smartphone only households are not aware of discount internet plans, and fewer than 25% of those who are aware report ever having applied.[34] This indicates that there may be several factors at play: a lack of outreach, language barriers, or a cumbersome application process.

29 2021 Statewide Survey on Broadband Adoption, CETF and USC. Available at: *https://www.cetfund.org/wp-content/uploads/2021/03/Annual_Survey_2021_CETF_USC_Final_Summary_Report_CETF_A.pdf*

30 Price after initial 12-month promotion of 49.99 per month.

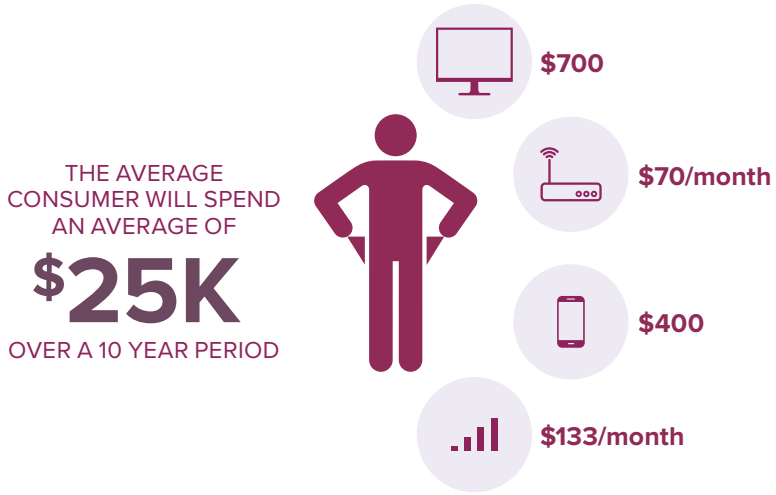
31 BroadbandNow Data. Broadband Now. Available at: *https://broadbandnow.com/research/data*

32 Spectrum Internet Assist. Charter Spectrum. Available at: *https://www.spectrum.com/internet/spectrum-internet-assist*

33 Affordable Connectivity Program. Federal Communications Commission. Available at: *https://www.fcc.gov/acp*

34 2021 Statewide Survey on Broadband Adoption, CETF and USC. Available at: *https://www.cetfund.org/wp-content/uploads/2021/03/Annual_Survey_2021_CETF_USC_Final_Summary_Report_CETF_A.pdf*

Low-income households are also less likely to own a tablet or laptop than those with higher incomes or higher education levels.[35] The average price of a desktop computer and laptop ranges from $600 to $700 with a life span of 5-6 years.[36] On average a smartphone costs approximately $400 (with a lifespan of 2.5 years) and a cellular plan cost $113 per month.[37, 38], Assuming a person decides to purchase a computer (at $700), broadband subscription (at $70 a month), smartphone (at $400) and cellular data plan (at $133 a month), the average consumer will spend an average of $25,000 over a 10 year period.[39] As difficult as it is for low-income households, their situation worsened during the pandemic due to dwindling supply of affordable and/or refurbished devices, as manufacturing delays caused a global chip shortage, and inflation caused a sharp increase in prices.[40]



35 The demographics of device ownership. Pew Research Center. Available at: *https://www.pewresearch.org/internet/2015/10/29/the-demographics-of-device-ownership/*
36 ASP Global Forecast. Statista. Available at: *https://www.statista.com/statistics/722992/worldwide-personal-computers-average-selling-price/*
37 Is having a smartphone a requirement in 2022? Investopedia. *https://www.investopedia.com/is-having-a-smartphone-a-requirement-in-2021-5190186#citation-13*
38 Average Smartphone Lifespan 2014 to 2025. Statista. Available at: *https://www.statista.com/statistics/619788/average-smartphone-life/*
39 This assumes no inflation, no accidents, no repairs, and no insurance.
40 Intel CEO warns chip shortage won't end until at least 2023 - as laptop sales get hit by supply issues. Available at: *https://www.theverge.com/2021/10/21/22739192/intel-chip-shortage-q3-2021-earning-laptop-revenue*

DIGITAL LITERACY

Digital literacy or rather digital "illiteracy" is another form of the digital divide. As essential services are now reliant on the internet, society requires one to be able to use technology to boost productivity (school and work) to one's work or one's life (i.e., banking, e-commerce, scheduling appointments).

To be considered digitally literate, one needs to:

1. Be able to use digital technology (computer), navigate through various tools (programs) to create content:
   - *A student knows how to use a computer and a word processing program to draft a history report*
2. The ability to understand and access and share information through various formats:
   - *Now the student knows how to use a web browser to source information for the history report, draft and submit the report to his/her professor using email.*
3. The ability to build upon digital skills and apply them in other settings:
   - *The student is now a young professional and can apply his/her digital skills to send emails, create spreadsheets, research and draft memos and reports for his/her supervisor.*

Digital literacy is no longer exclusive to higher education or white-collar professions. Digital literacy goes beyond word processing, researching, or analyzing charts, and is now a requirement in blue collar professions. Essential service jobs such as retail, food services, construction, and others require computers or other tools to increase productivity. For example, plumbers must adapt and offer Venmo or Square to their customers to accept payments. This also affects immigrant owned businesses as owners must be digitally literate as they may be required to develop a website, provide online shopping options, and post advertisements on social media.

TABLE 14 Sample of Cities Comparing Poverty Rates and Broadband Adoption

	SANTA ANA	COMPTON	SAN BERNARDINO	EL CENTRO	SANTA PAULA	DESERT HOT SPRINGS
Population Estimates	309,441	93,597	222,203	44,158	30,759	32,716
Households with a Computer	94%	91%	92%	89%	82%	88%
Households with a Broadband Subscription	86%	75%	77%	85%	78%	82%
Median Households Income	$72,406	$58,703	$49,287	$47,366	$62,241	$37,818
Persons in Poverty	13%	20%	24%	24%	16%	24%

Source: Census QuickFacts: Santa Ana, Compton, San Bernardino, El Centro, Santa Paula, Desert Hot Springs

TABLE 15 Reasons for Non-Adopters

REASONS	PERCENT
Not interested	21%
Don't have a computer	13%
Too difficult	10%
Don't have the skills	8%
Too old to learn	8%
Don't have access	7%
Too expensive	6%
Don't need or want it	6%
Waste of time	4%
Physically unable (poor eyesight or disabled)	4%
Too busy/No time	3%
Worried about security	3%
Other	7%
SUMMARY OF REASONS	
Relevance (not interested/waste of time/too busy/ don't need or want)	34%
Usability (difficult/too old/don't know how/physically unable/worried about security)	32%
Price (too expensive/don't have a computer	19%
Lack of Availability/Access	7%

Source: Inland Empire Regional Broadband Consortium - Broadband Acccess Plan

Unfortunately, many non-adopters do not understand or recognize the value of the internet. Approximately 16% of Americans are not digitally literate and people who face challenges tend to be one or a combination of the following demographics: senior, less educated (did not finish high school), low-income, of Black or Latino descent and/or foreign-born citizens who face language barriers.[41] And while there are those consider internet too expensive; many consider it a waste of time or are not interested in using the internet (See Table 15. Reasons From Non-Adopters).[42]

Those who are not digitally literate are likely to be members of populations with a high concentration of health and financial risks. With access, senior citizens can apply for public medical assistance, visit their doctors online and purchase medication directly from the hospital websites. Low-income households and minority communities can access information or apply for public assistance programs online. Digital literacy can also protect one from crime. Senior citizens and minority communities are also the most common targets for online scams such as phishing and identity theft.[43] These groups stand to benefit the most from digital literacy, yet they often have the lowest levels of knowledge in these areas, and educational programs are rarely suited to their needs.

41 A description of U.S. Adults who are not digitally literate. United States Department of Education. Available at: *https://nces.ed.gov/pubs2018/2018161.pdf*

42 Inland Empire Broadband Consortium Infrastructure and Access Plan. IERBC. Available at: *http://iebroadband.com/Portals/0/Inland%20Empire%20Broadband%20Infrastructure%20and%20Access%20Plan%2011-6-2014.pdf*

43 Researchers aim to boost digital literacy skills of populations vulnerable to scams. Available at: *https://news.ku.edu/2019/01/16/researchers-develop-test-program-boost-digital-literacy-skills-populations-most-risk*

The "homework gap" experienced by children of low-income households can prevent social mobility. A study found that six- to seven-year-olds scored a higher average digital quotient (DQ) score than adults who are aged 45-49.[44] While there are concerns over social media and its impact on children, there are benefits to early exposure. Children can quickly learn to access and exchange information, develop basic software and coding skills, learn different languages, and develop other special skills such as music and art, through free online resources. Children who are digitally divided may fall behind peers of more affluent backgrounds, decreasing the likelihood of being a competitive applicant for universities, trade schools and the workforce.[45]

The effect of the digital divide is starting to show amongst young adults. Black and Latino/Hispanic communities are 10 years behind White communities with respect to digital skills.[46] Approximately 60% of the Latino/Hispanic population and 70% of the Black population cite being unprepared for jobs which require digital skills.[47] Combined with the rapid digitization of the U.S. economy, this suggests that large numbers of the Black and Latino/Hispanic American workers could be disqualified or underprepared for 86% of jobs in the U.S. by 2045.[48]

POOR DATA

Detailed data on broadband infrastructure, service availability and reliability, and adoption are not available to the public. Data that is available to the public (i.e., FCC[49] and CPUC[50] maps) are either inaccurate or not useful due to the lack granularity. Inaccurate data makes it difficult for state and local governments to justify their funding needs as current maps may show a region's baseline state to appear better than actual reality. For example, a state or federal map may say that a resident in a particular neighborhood should have services that can provide speeds up to 25/3 or 100/20 Mbps, but the resident may experience maximum speeds of 10/1 Mbps. There have been attempts to use speed test data from data collector firms such as Ookla[51] and M-lab[52], but this too can be inaccurate as users tend to report speeds when broadband is activated for the first time and when they are experiencing bottlenecks or outages, thus capturing speeds at extreme ends. This level of inaccuracy hinders progress as it is difficult to gauge the full extent of the digital divide.

MPOs such as SCAG and SANDAG, with the assistance from Caltrans and CPUC have made attempts to determine baseline conditions by analyzing data at the census block level, but it still does not provide the level of accuracy needed to determine last-mile infrastructure. This is not the fault of the state and/or federal government as granular or address level data is held by the ISPs and are proprietary and cannot be released to the public.

44 Ofcom: six-year-olds understand digital technology better than adults. The Guardian. Available at: *https://www.theguardian.com/technology/2014/aug/07/ofcom-children-digital-technology-better-than-adults*

45 The demographics of device ownership. Pew Research Center. Available at: *https://www.pewresearch.org/internet/2015/10/29/the-demographics-of-device-ownership/*

46 America's Racial Gap & Big Tech's closing window. Deutsche Bank. Available at: *https://www.dbresearch.com/PROD/RPS_EN-PROD/America%27s_Racial_Gap_%26_Big_Tech%27s_Closing_Window/RPS_EN_DOC_VIEW.calias?rwnode=PROD0000000000464258&ProdCollection=PROD0000000000511664*

47 The U.S. has a "racial tech gap" problem. Marketplace. *https://www.marketplace.org/2020/09/18/racial-tech-gap-broadband-hardware-access-deutsche-bank-employment-wealth-digitization-us-economy/*

48 The U.S. has a "racial tech gap" problem. Marketplace. *https://www.marketplace.org/2020/09/18/racial-tech-gap-broadband-hardware-access-deutsche-bank-employment-wealth-digitization-us-economy/*

49 Fixed Broadband Deployment. FCC. Available at: *https://broadbandmap.fcc.gov/#/*

50 California Interactive Broadband Map. CPUC. Available at: *https://www.broadbandmap.ca.gov/*

51 SpeedTest. Ookla. Available at: *https://www.speedtest.net/*

52 Measurement Lab. M-Lab. Available at: *https://www.measurementlab.net/*

EFFORTS TO BRIDGE THE DIVIDE

FEDERAL GOVERNMENT

Like the State of California, the United States Government has made attempts to bridge the digital divide with the passage of legislative bills to fund broadband infrastructure, subsidies, and programs. This section provides a high-level overview of some of the federal government's initiatives.

CORONAVIRUS AID, RELIEF, AND ECONOMIC SECURITY (CARES) ACT

In response to the COVID-19 pandemic, the CARES act, a $2.2 trillion economic stimulus bill was passed by the U.S. Congress and signed into law by President Donald Trump on March 27, 2020. The CARES act set aside funding to assist with telehealth programs, affordable broadband for households, and digital access for the education sector.[53] Key programs funded by the CARES act are as follows:

- **COVID-19 Telehealth Program** – A $500 million federal initiative administered by the FCC which supports the efforts of health care providers to continue serving their patients by providing telecommunications services, information services, and connected devices necessary to enable telehealth during the COVID-19 pandemic.[54]
- **Emergency Broadband Benefit (Now Defunct)** – $3.2 billion Emergency Broadband Benefit administered by the FCC to help households struggling to pay for internet service during the pandemic. The program provided a discount of up to $50 per month towards broadband service for eligible households and up to $75 per month for households on Tribal lands. Eligible households also received a one-time discount of up to $100 to purchase a laptop, desktop computer, or tablet from participating providers if they contribute more than $10 or less than $50 toward the purchase price.[55]
- **Emergency Connectivity Fund** – A $7.1 billion Emergency Connectivity Fund administered by the FCC that enabled eligible schools and libraries to purchase equipment and advanced telecommunications and information services for use by students, school staff, and library patrons at locations other than a school or library.[56]

53 CARES act. Available at: *https://www.congress.gov/bill/116th-congress/senate-bill/3548/text*
54 COVID-19 Telehealth Program. Available at: *https://www.fcc.gov/covid-19-telehealth-program-invoices-reimbursements*
55 Emergency Broadband Benefit Program. Available at: *https://www.fcc.gov/broadbandbenefit*
56 Emergency Connectivity Fund. Available at: *https://www.fcc.gov/emergency-connectivity-fund*

INFRASTRUCTURE INVESTMENT AND JOBS ACT

The Infrastructure Investment and Jobs Act (IIJA), a $1.2 trillion plan, was passed by the U.S. Congress and signed into law by President Joseph Biden on November 15, 2021. Approximately $65 billion was set aside for broadband and digital divide initiatives. Key programs funded by the IIJA are as follows:

- **Broadband Equity, Access, Deployment (BEAD) Program** – A $42.5 billion program administered by the National Telecommunications and Information Administration (NTIA) to expand high-speed internet access by funding planning, infrastructure deployment and adoption programs in all 50 states.[57]
- **Enabling Middle-Mile Broadband Infrastructure Program** – A $1 billion program administered by the NTIA which funds the extension of middle mile infrastructure to reach unserved and underserved areas.[58]
- **Digital Equity Program** – A $2.75 billion program administered by the NTIA to fund programs which support the closure of the digital divide, promote equity and digital inclusion so that individuals and communities have the information technology capacity that is needed for full participation in the society and economy of the United States.[59]
- **ReConnect Program** – A $2 billion program administered by the USDA which furnishes loans and grants to provide funds for the costs of construction, improvement, or acquisition of facilities and equipment needed to provide broadband services in eligible rural areas.[60]
- **Affordable Connectivity Program (ACP)** – A $14.2 billion program administered by the FCC to replaces the now defunct EBB (Emergency Broadband Benefit) program. The benefit provides a discount up to $30 per month towards internet service for eligible households and up to $75 month for households on qualifying Tribal lands. Eligible households can also receive a one-time discount of up to $100 to purchase a device from participating providers if they contribute more than $10 and less than $50 toward the purchase price.[61]
- **Tribal Broadband Connectivity Program** – A $980 million program directed to tribal governments to be used for broadband deployment on tribal lands, as well as for telehealth, distance learning, broadband affordability, and digital inclusion.[62]

57 Broadband Equity, Access, and Deployment (BEAD) Program. Available at: *https://broadbandusa.ntia.doc.gov/resources/grant-programs/broadband-equity-access-and-deployment-bead-program#:~:text=The%20Broadband%20Equity%2C%20Access%2C%20and,and%20the%20Commonwealth%20of%20the*

58 Enabling Middle Mile Broadband Infrastructure Program. Available at: *https://broadbandusa.ntia.doc.gov/resources/grant-programs/enabling-middle-mile-broadband-infrastructure-program*

59 Digital Equity Program. Available at: *https://broadbandusa.ntia.doc.gov/resources/grant-programs/digital-equity-programs*

60 ReConnect Loan and Grant Program. Available at: *https://www.usda.gov/reconnect*

61 Affordable Connectivity Program. Available at: *https://www.fcc.gov/acp*

62 Tribal Broadband Connectivity Program. Available at: *https://broadbandusa.ntia.doc.gov/resources/grant-programs/tribal-broadband-connectivity-program*

REDEFINING BROADBAND

On July 15, 2022, FCC chairwoman Jessica Rosenworcel circulated a Notice of Inquiry that would kick off the agency's annual evaluation of the state of broadband across the country and proposed increasing the national standard for minimum broadband speeds and proposed setting a long-term goal for broadband speed.[63] The Notice of Inquiry states that the 25/3 Mbps metric is not just behind the times, it is a harmful one because it masks the extent to which low-income neighborhoods and rural communities are being left behind and left offline. The Notice of Inquiry proposes to increase the national broadband standard to 100 megabits per second for download and 20 megabits per second for upload, and discusses a range of evidence supporting this standard, including the requirements for new networks funded by the IIJA. Further, the Notice of Inquiry proposes to set a separate national goal of 1 Gbps/500 Mbps for the future. While this new definition has yet to be adopted, it is apparent that the FCC is aware of the issues ahead and are working towards a solution.

63 Chairwoman Rosenworcel proposes increase in minimum broadband speeds. FCC. Available at: *https://www.fcc.gov/document/chairwoman-rosenworcel-proposes-increase-minimum-broadband-speeds*

STATE OF CALIFORNIA

Since the onset of the COVID-19 Pandemic, the State of California has accelerated its efforts to bridge the digital divide. This section will provide a high-level overview of some of the State's initiatives.

EXECUTIVE ORDER N-73-20

On August 2020, Governor Gavin Newsom signed Executive Order N-73-20 to advance the state's commitment to bridging the digital divide by increasing equitable, affordable access to high-speed internet service across California.[64] The executive order addresses the following:

- **Speed:** Directives to redefine California's minimum broadband speed threshold to 100/20 Mbps
- **Broadband for All Plan**: Authorized the development of the California Broadband for All Plan (Published in December 2020)[65]
- **Mapping and Data:** Directs agencies to gather data and develop a mapping tool which provides granular data, to the fullest extent as possible
- **Public/Private Partnerships:** Directs agencies to work with the private sector to project current and future demand for broadband
- **Funding:** Directs agencies to identify funding sources to support infrastructure, devices, and digital literacy programs
- **Infrastructure Deployment:** Directs state agencies to deploy new or bolster infrastructure to accommodate broadband to support low-income and rural communities, emergency services, agriculture and food systems, and recommendations for low-cost broadband for public and low-income housing
- **Outreach:** Develop tools for qualified applicants to apply for affordable broadband plans
- **Digital Literacy:** Directs agencies to analyze the needs of seniors and provide literacy training

64 Executive Order N-73-20. Available at: *https://www.gov.ca.gov/wp-content/uploads/2020/08/8.14.20-EO-N-73-20.pdf*

65 California's Broadband for All Plan. Available at: *https://broadbandcouncil.ca.gov/wp-content/uploads/sites/68/2020/12/BB4All-Action-Plan-Final.pdf*

AB/SB 156 – BROADBAND BUDGET BILL

On July 20, 2021, Governor Gavin Newsom signed Assembly Bill/Senate Bill 156, also known as the Broadband Budget Bill.[66] At $6 billion, the Broadband Budget Bill is the largest public infrastructure investment in the nation. The bill prioritizes the construction of broadband infrastructure in unserved and underserved communities, providing grant opportunities to support local jurisdictions, tribal governments, the education sector, digital devices, digital literacy programs and technical studies. AB/SB 156 provides:

- $2 Billion for last-mile broadband infrastructure, which will increase connectivity to unserved and underserved low-income urban and rural communities
- 3.25 billion for a statewide, open-access, middle mile network
- $750 million to a loan loss reserve account
- Reforms the California Advance Service Funds (CASF) which provides additional funding to bond accounts, digital literacy programs, Regional Broadband Consortiums (RBC), and technical reports[67]

CPUC BROADBAND IN SCHOOLS INITIATIVE

The CPUC and the California Department of Education (CDE) formed a partnership to distribute a total of $30 million to support connectivity. The funds were supported were made available from the California Teleconnect Fund (CTF) and California Advanced Services Fund (CASF).[68] The funds provided 50 percent discounts on the cost of hotspot services and were targeted towards low-income communities, communities with high percentages of residents with limited English proficiency, and communities' high percentages of residents with limited education attainment.

66 AB/SB 156 – Broadband Budget Bill. Available at: *https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB156*
67 AB/SB 156 – Broadband Budget Bill. Available at: *https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB156*
68 Governor Newsom Announces Cross-Sector Partnerships to Support Distance Learning and Bridge the Digital Divide. Available at: *https://www.gov.ca.gov/2020/04/20/governor-newsom-announces-cross-sector-partnerships-to-support-distance-learning-and-bridge-the-digital-divide/*

CALIFORNIA BROADBAND MIDDLE MILE INITIATIVE

After the passage of the Broadband Budget Bill, CDT retained GoldenStateNet, a subsidiary of CENIC networks to administer open access broadband connections through middle-mile infrastructure across California.[69]

While California has been developing middle mile development over the past several decades, on November 18, 2021, 18 accelerated middle-mile projects were unveiled, 5 of which are in the SCAG Region (See Table 16. Middle Mile Projects in the SCAG Region and Figure 3. Broadband Middle Mile: Unserved Groups and Fiber Builds) (For County-Level Maps, please refer to Appendix C County Level Middle-Mile Projects).[70]

Upon completion of the middle-mile network, local jurisdictions and ISPs will have the opportunity to connect their last-mile solutions to the network and provide affordable high-speed broadband services to their communities.

CALIFORNIA DEPARTMENT OF TRANSPORTATION

Caltrans has recognized the importance of broadband and have been tasked to provide oversight over the construction of the middle-mile network be installed along their right of way (ROW).[71]

Further, Caltrans has been promoting the use of "Dig Once" policies for transportation network improvements. According to the Federal Highway Administration (FHWA), "Dig Once" refers to requirements designed to reduce the number and scale of repeated excavations for the installation and maintenance of broadband facilities in ROW.[72] Simply put, whenever major roadway improvements occur, an entity should take the opportunity to install conduit simultaneously, to minimize time, cost, and environmental impacts.

69 GoldenstateNet/CENIC. Available at: *https://cenic.org/initiatives/goldenstatenet*
70 Middle Mile Broadband Initiative. CDT. Available at: *https://middle-mile-broadband-initiative.cdt.ca.gov/pages/resources*
71 Middle Mile Broadband Initiative. CDT. Available at: *https://middle-mile-broadband-initiative.cdt.ca.gov/pages/resources*
72 Dig Once Policy. FHWA. Available at: *https://www.fhwa.dot.gov/policy/otps/policy_brief_dig_once.pdf*

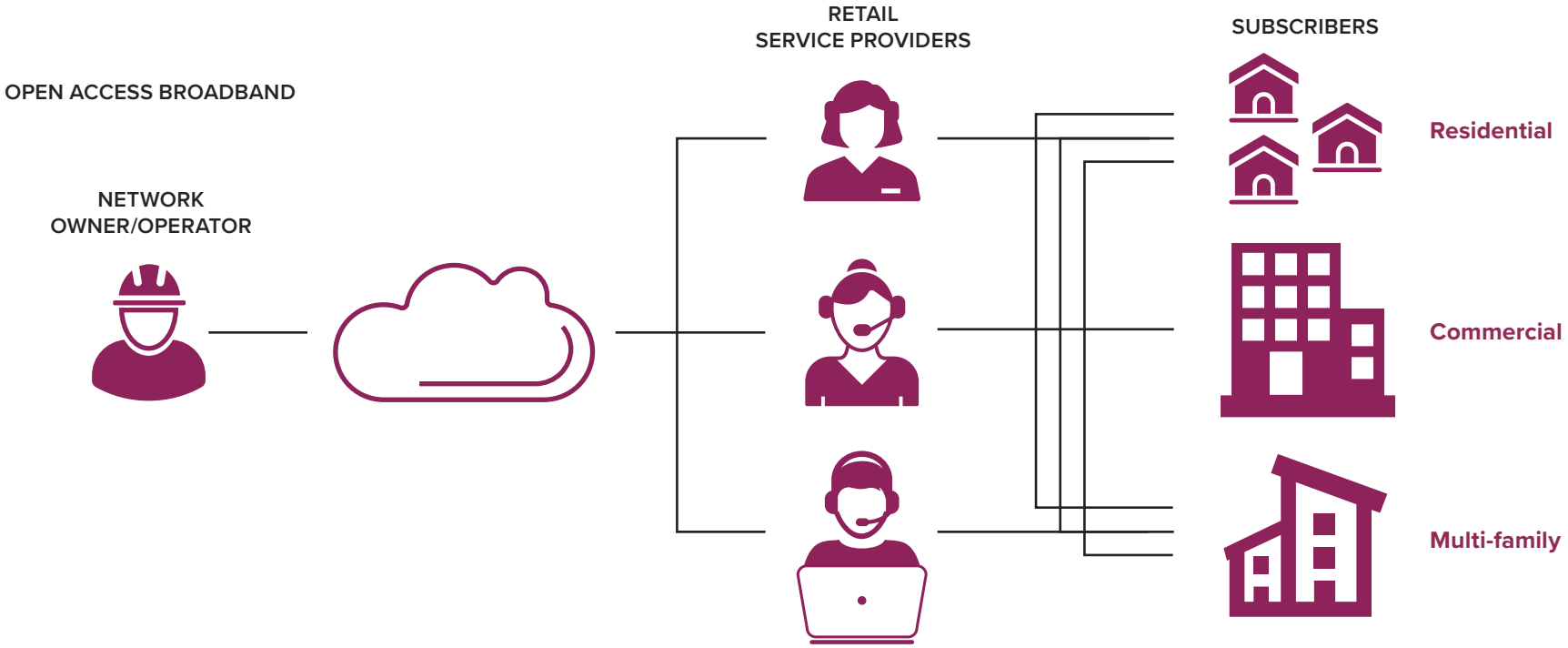
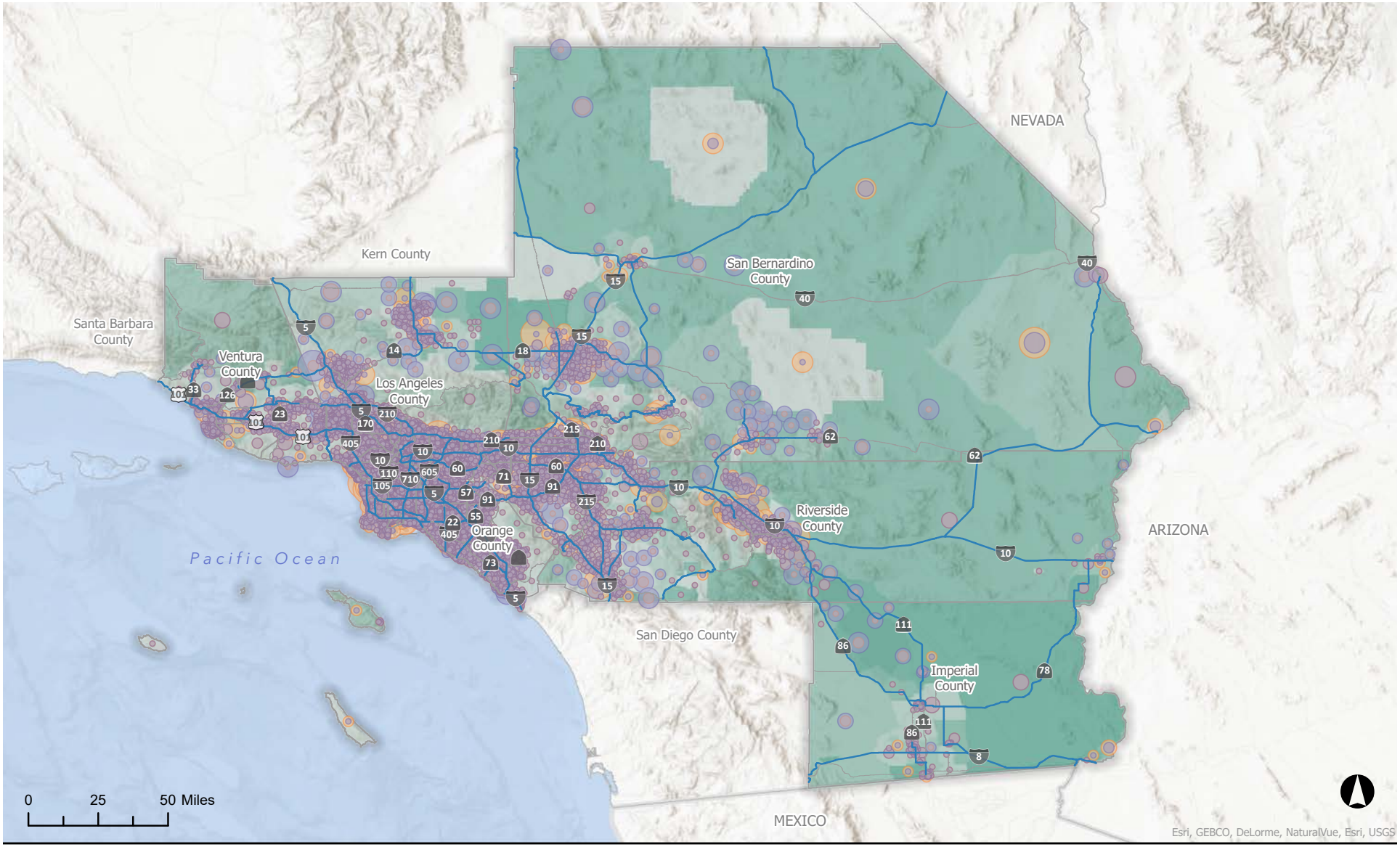


TABLE 16 Middle Mile Projects in the SCAG Region

PROJECT NAME	DESCRIPTION	MILES (FIBER)
San Bernardino	Hwy 247, High Desert, Barstow to Thorn	47.6
Los Angeles/South Los Angeles	South Los Angeles communities including South Gate, Lynwood, Paramount, Bell Flower, Compton and Lakewood	120
Orange County	Inland Orange County communities including Buena Park, Orange Fullerton, Garden Grove and Westminster	80
Riverside County (Coachella Valley)	Palm Springs to Indio and Coachella	20.5
Riverside/San Diego County	San Diego and Riverside counties including the Cahuilla Reservation, Julian and Santee	227.8

Source: GoldenStateNet. Middle Mile Broadband Initiative. Available at: https://middle-mile-broadband-initiative.cdt.ca.gov/pages/cdt-approval-tpa-recommendations

FIGURE 3 Broadband Middle Mile: Unserved Groups and Fiber Builds



Source: SCAG 2022, ACS 2016-2020 5-Year Summary File, 2021 Middle-Mile Broadband Initiative

CALIFORNIA BROADBAND COUNCIL

The California Broadband Council (CBC) was established in 2010 by SB 1462 (Chapter 338, Statutes of 2010) to promote broadband deployment in unserved and underserved areas of the state as defined by the Public Utilities Commission, and broadband adoption throughout the state.[73]

The CBC identifies state resources, encourages public and private partnerships, and recommends strategic policy to establish effective structures for providing world-class high-speed Internet access throughout California. The 12-member CBC is run by CDT's Office of Broadband and Digital Literacy which provides support by managing the statewide ecosystem of individuals and organizations dedicated to closing the digital divide.

OTHER ENDEAVORS

Digital Devices – In April 2020, the state mobilized companies, business leaders and philanthropists through public-private partnerships to facilitate distance learning at school districts in need across the state. As many families of low-income households reported that they needed broadband or devices, a public-private partnership initiative was formed to connect students with mobile hotspots, laptops, Chromebooks, tablets, and other devices.[74]

Digital Literacy – On August 31, 2022, The California Department of Education announced its partnership with technology company Footsteps2Brilliance on a new bilingual digital reading and writing initiative.[75] The program is targeted towards solving both the language literacy and digital illiteracy issues students of minority populations face. The program is an app-based system that gamifies learning through 500 bilingual activities, from interactive books to games to songs.[76]

73 California Broadband Council. CBC. Available at: *https://broadbandcouncil.ca.gov/about-us/*
74 Governor Newsom Announces Cross-Sector Partnerships to Support Distance Learning and Bridge the Digital Divide. Available at: *https://www.gov.ca.gov/2020/04/20/governor-newsom-announces-cross-sector-partnerships-to-support-distance-learning-and-bridge-the-digital-divide/*
75 California rolls out free bilingual digital literacy program for young students. Available at: *https://spectrumnews1.com/ca/la-west/education/2022/08/31/california-rolls-out-free-bilingual-digital-literacy-program-for-young-students*
76 Footsteps2Brilliance. Available at: *https://www.footsteps2brilliance.com/*

LOCAL JURISDICTIONS

Local jurisdictions play a critical, if not the most critical role for last mile access. While ISPs are design, deploy and operate, local jurisdictions guide the development of broadband through their planning efforts, permitting process and are the most knowledgeable of areas that need service. Local jurisdictions have made attempts to the bridge the divide by developing visionary plans and programs or providing service themselves. Below are two examples of local jurisdictions doing their part.

ISD INTERNAL SERVICES DEPARTMENT COUNTY OF LOS ANGELES

LOS ANGELES COUNTY (INTERNAL SERVICES DEPARTMENT)

Los Angeles County has several digital equity initiatives. However, one which deserves highlighting is the Free Broadband Initiative Pilot Program proposed by the Los Angeles County Internal Services Department (ISD).[77] The goal is to develop a pilot program which can eventually scale to provide free wireless services to approximately 365,000 households that are either unconnected or under connected. The Plan proposes a pilot program which would:

- **Develop Community Wireless Networks** that utilize radio service and 5 GHz wireless antennas mounted on County managed real estate assets and privately-owned sites whose owners will make their buildings available for the network.
- **Install Radios and Routers** at the homes of eligible LA County residents, initially focused on four areas of the county with some of the lowest levels of broadband adoption – the neighborhoods around the I-110 Corridor, East Los Angeles, the Alameda corridor around Tweedy Boulevard, and the rural Antelope Valley – and deployed in partnership with community-based organizations, generating well-paying jobs for residents in these communities whenever possible.

77 Free Broadband for the Residents of the County of Los Angeles. LA County ISD. Available at: *https://file.lacounty.gov/SDSInter/bos/bc/1113566_UtilizingExistingInfrastructureandResourcestoAccelerateDigitalEquity9-30-21.pdf*

- **Procure a Managed Service Provider (MSP – different from an ISP)** to provide network development and management services under County oversight, working in collaboration with community-based organizations for local hiring.
- **Create an inter-agency Pilot Program Management Team** supported by a professional program management team experienced with wireless network deployments, with the mandate to ensure that County real estate assets and relevant permits are secured efficiently and to monitor pilot program progress to inform its refinement and the development of further County actions.

RIVERSIDE COUNTY (RIVCO CONNECT)

In September 2016, the Riverside County Board of Supervisors approved the Riverside Broadband Master Plan, proposed by their Digital Equity Department (RIVCO Connect) to establish a road map that can be used by County departments to work together to develop fiber to the premises (FTTP) infrastructure. Infrastructure would consist of "dark fiber" or fiber that has yet to be activated and can be used for either the development of a municipal or privately operated network. The Broadband Master Plan lays out a vision which provides general design guidelines, is technology agnostic and is aligned with their general plan and is forward thinking (i.e., planning for smart cities initiatives).[78]

Over the past few years, RIVCO Connect also implemented a digital equity program (DEP) which seeks to bridge the digital divide by acting on the following strategies[79]:

- **Digital Equity Program** – RIVCO Connect advances digital equity by through the refurbishment, repurposing and donation of surplus computers and related technology equipment in partnership and collaboration with Community Action Partnership (CAP), the County's Department of Public Social Services (DPSS) and the Economic Development Agency (EDA), the county is working with community non-profit organizations to donate and train residents on the use of computers. Since the goal of the county is to enable resident's self-sufficiency, the DEP program also hires and trains those receiving social service benefits through DPSS to do e-waste sorting and materials handling, refurbish computers, and general warehouse operations. This training program helps those in need to gain skills and experiences that help them to qualify participants for future employment opportunities.
- **Broadband** – RIVCO Connect advocates for high-speed broadband services throughout all 87 incorporated, unincorporated, and tribal communities within Riverside County. This advocacy includes a low cost or free option for qualifying residents. High speed broadband services are the foundation of 5G cellular services, smart and intelligent communities, and connected families around our nation.
- **Digital Literacy Training** – The DEP program has partnered with school districts throughout the county, other local government agencies, non-profit organizations to provide computer literacy training.

78 Riverside County Broadband Master Plan. Riverside County. Available at: *https://rivcoconnect.org/Portals/0/RivcoDocs/Broadband%20Master%20Plan%20for%20Riverside%20County.pdf*

79 RIVCO Connect. Riverside County. Available at: *https://rivcoconnect.org/About-Us/Documents*

INTERNET SERVICE PROVIDERS

ISPs can and have been playing a pivotal role in bridging the digital divide. Below are some examples of private sector initiatives.

AT&T

In April 2021, AT&T announced a $2 billion investment to bridge the digital divide.[80] The investment will go towards discounted access for low-income families and schools:

Access Program – AT&T is providing up to 100 Mbps for $30 per month or less. Contracts or installation fees are waived, and a Wi-Fi modem is provided at no charge. Anyone who is qualified under the ACP program is qualified for this service.[81]

Connected Learning – AT&T's connected learning program provides connectivity for students and teachers. The goal of this program is to assist in closing the homework gap by providing students and teachers discounted wireless data plans and free Wi-Fi hotspots. In addition, AT&T has been Investing in teacher-focused organizations across the nation and digital literacy programs to help students with special needs.[82]

COX COMMUNICATIONS

Cox communications is doing its part by offering two low-income internet options for qualifying participants through its Connect2Compete and Connect Assist Programs.

Connect2Compete – The Connect2Compete program provides affordable internet plans for households with students and offers up to 100 Mbps for $9.95/mo. and includes a free Wi-Fi modem and no deposits or annual contracts. To qualify for this plan, participants must have at least one K-12 student in their household and have at least one member of the household enrolled in the National School Lunch Program (NSLP), Public Housing, Supplemental Nutrition Assistance Program (SNAP) or Temporary Assistance for Needy Families (TANF).[83]

Connect Assist – For households who do not qualify for the Connect2Compete program. The Connect Assist provides low-cost internet plans to households who are qualified under the ACP program.[84]

80 AT&T Makes $2 Billion, 3-Year Commitment to Help Bridge the Digital Divide AT&T Available at: *https://about.att.com/story/2021/digital_divide.html*
81 Access. AT&T. Available at: *https://www.att.com/internet/access/*
82 ConnectedLearning. AT&T. Available at: *https://about.att.com/csr/home/society/education.html*
83 Connect2Compete. COX Communications. Available at: *https://www.cox.com/residential/internet/connect2compete.html*
84 Connect Assist. COX Communications. Available at: *https://www.cox.com/residential/internet/low-cost-internet-plans.html*

SPECTRUM

Since the onset of the COVID-19 Pandemic, Spectrum has worked towards bridging the digital divide by developing programs which expand digital education and digital literacy and are providing affordable internet plans to households.

Spectrum Digital Education Program – This program supports non-profit organizations to educate communicate community members on the benefits of broadband and provide, digital devices, digital literacy training, through a grant program. Since 2020, 48 grants have been distributed across the nation and has helped in teaching seniors' digital skills, purchasing of laptops for underserved communities, online classes to assist in homework or job support, and setting up technology labs.[85]

Spectrum Internet Assist – Spectrum is providing up to 30 Mbps for $30 per month or less. Data caps are waived, and a modem is provided at no charge. Anyone who is qualified under the ACP program is qualified for this service.[86]

85 Spectrum Digital Education Program. Spectrum. Available at: *https://corporate.charter.com/digital-education*

86 Spectrum Internet Assist. Spectrum. Available at: *https://www.spectrum.com/internet/spectrum-internet-assist*

VERIZON

Verizon is doing its part by improving educational opportunities for disadvantaged students, providing low-cost internet plans to households, and expanding connectivity into rural communities.

Innovative Learning Program – In 2012, Verizon launched its Innovative Learning Program which provides free internet access and devices, and works with educational institutions, non-profits, and technology experts to develop online STEM (Science, Technology, Engineering, and Math) programs and lessons to students. Verizon's initiative goal is to assist 10 million students by 2030.[87]

Fios Forward and Affordable Mobile Plans – For households qualified under the ACP program, Verizon offers free or discounted fiber plans and affordable cellular plans.[88]

Rural Connectivity – Verizon is also in the process of expanding its 5G Home Internet to more areas of the U.S., including rural communities. Verizon is currently available in 31 markets, and it announced in the first quarter of 2021 that it plans to offer up to 1 Gig speeds to 250 million Americans on its 5G network by 2024. This project will cost $10 billion.[89]

87 Innovative Learning Program. Verizon. Available at *https://www.verizon.com/about/responsibility/digital-inclusion/verizon-innovative-learning*

88 Fios Forward and Discounted Mobile Plans. Verizon. Available at: *https://www.verizon.com/home/promo/affordable-connectivity-program/?CMP=OLA_CON_NA_22222_NA_20211230_NA_NM20210172_00001*

89 Which internet providers are addressing the digital divide? AllConnect. Available at: *https://www.allconnect.com/blog/which-internet-providers-are-addressing-the-digital-divide*

NON-PROFITS

Non-profits play an important role in bridging the digital divide. Public and privately funded non-profits consist of researchers and leaders who are invested in helping the public through philanthropy, research on niche topics, and grassroots efforts to advocate for the specific needs of their communities. Their expertise, deep ties to the communities, and passion to bridge the digital divide provide reach far beyond the government and private sector. Below are some non-profit initiatives:

CALIFORNIA EMERGING TECHNOLOGY FUND[90]

The California Emerging Technology Fund (CETF) is a non-profit which focuses on forging partnerships and fostering public policy to close the Digital Divide. CETF has provided seed capital to grants for non-profit organizations in three priority communities: rural and remote areas; urban disadvantaged neighborhoods; and people with disabilities. As a result, more than 100 grantees have delivered digital literacy training to more than 800,000 residents and got more than 250,000 low-income households online.

Additionally, CETF has advanced policies and initiatives such as securing the Governor's Executive Order on Digital Literacy; designing and managing School2Home, founding and funding the California Telehealth Network; leading projects to connect residents in publicly subsidized complexes; developing model policies for smart communities, and conducting annual studies with the University of Southern California assessing the adoption progress rate of California.

NATIONAL CORE[91]

National CORE is a non-profit organization centered around developing and operating housing. While housing is their primary objective, National CORE also works on supporting efforts with local communities, businesses, nonprofits, and community-based organizations to advance equity across the region.

They recognize that low-income urban neighborhoods and underserved rural communities, including Tribal Lands, often lack the infrastructure to access the internet – this "digital divide" creates a huge barrier to educational and economic growth for many communities. National CORE has provided support in convening a broad coalition of leaders representing health, education, business, government, philanthropy, and other disciplines to address broadband connectivity issues throughout the Southern California region.

INLAND EMPIRE REGIONAL BROADBAND CONSORTIUM[92]

The Inland Empire Regional Broadband Consortium (IERBC) is a non-profit dedicated towards addressing broadband technology access, planning, service reliability, affordability, infrastructure requirements and deployment, and needs within both San Bernardino and Riverside Counties. IERBC represents a variety of urban, suburban, rural, mountain and desert interests in the region with strong concern and commitment to becoming a 'smart region', closing the Digital Divide, and improving broadband speed, reliability, availability, cost, and access in the Inland Empire.

90 California Emerging Technology Fund. Available at: *https://www.cetfund.org/*

91 National Core. Available at: *https://nationalcore.org/about-us/commitment-to-community/*

92 Inland Empire Regional Broadband Consortium. Available at: *http://www.iebroadband.com/*

IERBC is funded through the California Public Utilities Commission (CPUC) to provide collaborative broadband planning within the San Bernardino and Riverside County region. And to-date, IERBC has successfully facilitated $55 million in CPUC California Advanced Services Fund (CASF) Broadband Infrastructure and Adoption Grants in Riverside and San Bernardino Counties.

LOS ANGELES DIGITAL EQUITY ACTION LEAGUE[93]

The Los Angeles Digital Equity Action League (LA DEAL) is a non-profit Regional Broadband Consortia funded and recognized by the CPUC to advance broadband initiatives in Los Angeles County. The LA DEAL Consortium convenes with community leaders and stakeholders to develop and implement an actionable roadmap to end the digital divide, including overcoming specific barriers to universal broadband access and adoption across L.A. County. LA DEAL provides tutorials and information regarding broadband grant opportunities, leads mapping initiatives, hosts workshops and task forces and works with stakeholders to develop policies directed towards bridging the digital divide.

LOS ANGELES/ORANGE COUNTY BROADBAND COLLABORATIVE[94]

The Los Angeles/Orange County Broadband Collaborative (LA/OCRBC) is a non-profit and is comprised of six sub-regional consortiums representing communities in both Los Angeles and Orange Counties.

The LA/OCRBC is responding to the pandemic by helping engage key stakeholders to address the Digital Divide, including local government officials, major employers, community leaders, and Internet Service Providers (ISPs). LA/OCRBC over the past few years have been hosting forums which discuss and advocate the need for broadband, its associated technology, and its benefits to society.

PARTNERSHIPS

As shown, there are several players working towards bridging the digital divide, all in their own unique way. Some choose to fund, some build, some provide service, some provide information, and some advocate. But there is one missing critical piece that has yet to be discussed: ***Partnerships***.

Addressing all the barriers and serving the needs of millions of households spread across a vast region is an impossible task for one entity or sector to handle. The formation of partnerships across all sectors allows for a unified approach to solutions, without the expense of each party, including the household in need.

For example, a local jurisdiction and an ISP may have asymmetric goals when it comes to broadband. A local jurisdiction may want to exercise a level of control to ensure that broadband will remain responsive to community needs, and they will place higher value on advancing initiatives such as economic development, education, workforce development over profit. Whereas an ISPs primary objective is to meet revenue and return on investments. An effective partnership can enable each entity to achieve its goals.

93 Los Angeles Digital Action League. Available at: *https://ladeal.org/*
94 Los Angeles/Orange County Broadband Collaborative. Available at: *https://laocrbc.org/index.php/en/about*

PARTNERSHIP MODELS

There are several models for partnerships and no model is better than the other. A partnership should be designed to execute the project in a timely and cost-effective manner, provide an affordable high-speed service to households, and if possible, technology agnostic. The NTIA recommends that partnerships follow one of three models:[95]

- **Private Sector Led** – A commercial operator (private or non-profit) builds, owns and operates the network. Community Anchor Institutions (libraries, schools, medical facilities) and economic development authorities support the business case by contributing planning, monetary and regulatory support, and by aggregating demand and securing customer commitments in advance.
- **Government-Led and Privately Supported** – A public entity (e.g., state, county or city government, municipal electric utility, or rural coop) owns the network and private partners construct, operate and/ or maintain the network in exchange for financial and in-kind support, as well as the types of contributions described in the private-sector led model. The public entity may either use an existing organization, such as a municipal electric system, or create an entirely new one.
- **Joint-Ownership Model** – A commercial operator (private or non-profit) and the public enterprise jointly invest in the network and share capacity. Both partners also contribute a mix of financial, in-kind, and other support to the project.

These models do not apply to infrastructure projects only, they also apply to digital device, digital literacy, and equity programs as well.

EQUAL PARTNERSHIP

Regardless of which model is chosen, all parties involved should be treated as equals as each partner provides critical resources:[96]

- **Government** – Federal, state, and local governments provide leadership, large scale public investments via taxes, identify community needs, develop policies and initiatives, access to public lands, right of way (ROW) access, and can host community and townhall meetings.
- **Private Sector** – The private sector can provide materials, equipment, innovative design and engineering, private capital, customer and network support and expertise.
- **Community Forces** – Non-profit groups can conduct research, outreach, host campaign efforts, fundraising, educate, spread awareness and work with community leaders to drive or locate demand at a grassroots level.

Leveraging all these skillsets can bring a project to fruition and those who are underserved and unserved benefit the most.

THE PARTNER OF ALL PARTNERS

But how do these partners connect with one another to form relationships, share resources, and reach a common goal? Who can bring everyone together?

That is where SCAG comes in!

95 The power of broadband partnerships. NTIA. Available at: *https://broadbandusa.ntia.doc.gov/sites/default/files/publication-pdfs/bbusa_power_broadband_partnerships.pdf*

96 The power of broadband partnerships. NTIA. Available at: *https://broadbandusa.ntia.doc.gov/sites/default/files/publication-pdfs/bbusa_power_broadband_partnerships.pdf*

SCAG'S DIGITAL ACTION PLAN

The Digital Action Plan lays out a comprehensive set of goals, strategies, and actions that the agency will take towards bridging the digital divide. SCAG has already initiated work efforts which align with the agency's goals and the Digital Action Plan (described under ***The Work We've Done So Far***). The Action Plan proposes additional work efforts, potential deliverables, associated partnerships, and a high-level timeline for each proposed deliverable. SCAG will monitor implementation, evaluate agency priorities, and update the Digital Action Plan on an annual basis to show our progress. Bridging the digital divide will require SCAG to collaborate with various stakeholders, including the federal, state, local governments, other public agencies, non-profits, the education and health sector, and industry leaders.

ABOUT SCAG

Founded in 1965, the Southern California Association of Governments (SCAG) is a Joint Powers Authority under California state law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization (MPO) and under state law as a Regional Transportation Planning Agency and a Council of Governments.[97]

The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 191 cities in an area covering more than 38,000 square miles. The agency develops long-range regional transportation plans including sustainable communities' strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and a portion of the South Coast Air Quality management plans. SCAG's governing body consists of an 86-member Regional Council to help accommodate new responsibilities mandated by the federal and state governments, as well as to provide more broad-based representation of Southern California's cities and counties.

97 About SCAG. SCAG. Available at: *https://scag.ca.gov/about-us*

SCAG also has close ties with state agencies such as Caltrans and the California Department of Housing and Community Development (HCD) and federal agencies such as the United States Department of Transportation Federal Highway Administration (FHWA). Further, SCAG works with stakeholders from the business, environmental, and non-profit community. By leveraging our regional council, policy committees, and technical working groups, SCAG has extensive experience in bringing representatives from all sectors to develop solutions and strategies with respect to transportation, housing, climate change, and now broadband.

Just as middle-mile and last-mile infrastructure brings connectivity to public/private sectors and households to interact with one another. SCAG can serve as the "conduit" to connect various stakeholders and agencies together to educate and collaborate with one another, conduct consensus building exercises and develop actionable strategies to bridge the digital divide. **However, unlike infrastructure:**

SCAG does not need to be built, we already exist and are already activated.

VISION STATEMENT

"WE ENVISION AN EQUITABLE REGION THAT FOSTERS ACCESSIBILITY AND ADOPTION OF AFFORDABLE HIGH-SPEED BROADBAND SERVICES AND DIGITAL DEVICES FOR ALL ITS RESIDENTS."

GOALS

The Digital Action Plan is divided into four major goals, each with its own strategies, guiding principles, and supporting action.

1. **Accessibility and Affordability** – Every household in the region should have access to affordable high-speed broadband services and high-quality devices
2. **Adoption** – All residents should have the confidence and skills to participate in digital activities
3. **Consensus** – Build partnerships and reach consensus that high-quality and affordable broadband is an essential service to everyone and provides economic, environmental and safety benefits to the region
4. **Planning** – Develop broadband technical tools and studies which provide value to the region

SCAG STRATEGIES

To reach our goals, we have developed four core strategies (also known as SCAG Strategies):

- **Seek and Secure** – Seek and secure broadband funding for our local jurisdictions and stakeholders to deploy broadband infrastructure, digital devices, and advance digital equity initiatives.
- **Coordinate and Collaborate** – Coordinate, collaborate and build partnerships with public agencies, local jurisdictions, partners, and the public and align work efforts to collectively bridge the digital divide.
- **Advocate and Assist** – Advocate for better data, Southern California's fair share in funding, open access to broadband networks and assist low-income and rural households in underserved and unserved communities.
- **Gather and Gain** – Gather data and gain knowledge through broadband technical and strategic studies, disseminate findings and inform decision makers and the public.

GUIDING PRINCIPLES

These are the principles which drive our strategies and actions to fulfil our goals and overall vision:

- **Break.** Breakdown barriers which inhibit the deployment of broadband infrastructure
- **Resilience.** Plan or advocate for networks that are efficient and assists in resiliency for communities and infrastructure
- **Invest.** Invest in communities affected by the digital divide
- **Data Driven.** Collect and share data to determine opportunity zones and solutions
- **Grassroots.** Use a bottom-up approach and listen to and prioritize a community's needs
- **Expedite.** Develop solutions which can be quickly implemented and efficiently

- **Determine.** Determine funding opportunities and potential partnerships
- **Innovate.** Promote at atmosphere which allows for healthy competition, innovative solutions which are speed driven, while remaining technologically agnostic
- **Visionary.** Plan or advocate for networks that are scalable, sustainable and accommodates future needs and innovative technology
- **Integrate.** Integrate findings into traditional disciplines of transportation and land use planning
- **Dependable.** Promote transparency and gain the trust of the public, other agencies, and stakeholders
- **Educate.** Educate the public, policy makers and stakeholders and build consensus for collective action

BEYOND THE DIVIDE

The need for better broadband infrastructure goes beyond bridging the digital divide. The future of transportation will rely on digital infrastructure, as communications infrastructure facilitates the flow of images and data required for state-of-the-art transportation management and safety improvements, including connected and autonomous vehicles, reliance on big data, and expanded use of technology which would support emergency services. These improvements are aligned with State of California's Climate Action plan as for Transportation Infrastructure (CAPTI)[98] and initiatives such as Vizion Zero which aim to support safe and efficient mobility for all transportation system users, including freight and transit operators. At the local scale, smart cities initiatives such as signal synchronization and smart utilities (water, gas, and electricity) require systems to be able to communicate with one another and will be reliant on high-speed fiber and wireless towers. Further, as telework increases in adoption, the way we look at land-use development will also change. While data is not readily available, there is a likelihood that our housing needs, peak traffic (due to shifts in travel patterns), commerce and other factors will change over the decades.

SCAG'S CORE VALUES

Broadband is a new and exciting program for SCAG, and there is a lot of work ahead of us. Bridging the digital divide appears to be a daunting task but our core values provide a solid foundation for the program's success.

SCAG's Strategic Plan – In early 2018, SCAG adopted a new strategic plan which guides the agency to work toward a brighter future for Southern California.[99] The strategic plans mission and vision statements, core agency values and set of goals and objectives, allows SCAG to pursue a strategic path that prioritizes innovation, collaboration, and solutions to improve the quality of life for all Southern Californians.

98 CAPTI: Climate Action for Transportation Infrastructure. Available at: *https://calsta.ca.gov/-/media/calsta-media/documents/capti-july-2021-a11y.pdf*
99 SCAG's Strategic Plan. SCAG. Available at: *https://scag.ca.gov/post/strategic-plan*

As such, our work in broadband and the Digital Action Plan is consistent with the following goals:

- **Goal 1** – Produce innovative solutions that improve the quality of life for Southern Californians
- **Goal 2** – Advance Southern California's policy interests and planning priorities through regional, statewide, and national engagement and advocacy
- **Goal 3** – Be the foremost data information hub for the region
- **Goal 5** – Provide innovative information and value-added services to enhance member agencies' planning and operations and promote regional collaboration
- **Goal 7** – Secure funding to support agency priorities to effectively and efficiently deliver work products

Resolution No. 20-623-2, SCAG's Commitment to Equity – In July 2020, SCAG's Regional Council adopted Resolution 20-623-2, affirming its commitment to advancing justice, equity, diversity, and inclusion throughout Southern California. The resolution called for the formation of an ad hoc Special Committee on Equity and Social Justice to further develop SCAG's response to advancing equity.[100] The Committee met on a quarterly basis starting on September 20, 2020, and concluding in March 2021, culminating in the development of a Racial Equity Early Action Plan.

> "AS CENTRAL TO SCAG'S WORK, RACIAL EQUITY DESCRIBES THE ACTIONS, POLICIES, AND PRACTICES THAT ELIMINATE BIAS AND BARRIERS THAT HAVE HISTORICALLY AND SYSTEMICALLY MARGINALIZED COMMUNITIES OF COLOR, TO ENSURE ALL PEOPLE AN BE HEALTHY, PROSPEROUS, AND PARTICIPATE FULLY IN CIVIC LIFE.

Racial Equity Early Action Plan – On May 6, 2021, SCAG's Regional Council adopted the Racial Equity Early Action Plan, which seeks to guide and sustain SCAG's regional leadership in service of equity and social justice over the years to come. The Early Action Plan provides a definition of equity and establishes goals, strategies, and a set of "early actions" to advance racial equity through SCAG's policies, practices, and activities.

The framework of the Early Action Plan includes four goals:

- **Shift Organizational Culture** – Focus SCAG's internal work and practices on inclusion, diversity, equity, and awareness
- **Center Racial Equity in Regional Policy & Planning** – Bring equity into SCAG's regional planning functions
- **Encourage Racial Equity in Local Planning Practices** – Promote racial equity in efforts involving local elected officials and planning professionals
- **Activate and Amplify** – Communicate broadly SCAG's commitment to racial equity and join with others in different fields and sectors to amplify impact

Resolution No. 21-629-2, SCAG's commitment to Bridging the Digital Divide – SCAG's regional council adopted Resolution No. 21-629-2 on February 2, 2021, which pledges SCAG to assist in bridging the digital divide in underserved and unserved communities.[101] The resolution calls for staff to engage in the following key tasks:

- Develop an Action Plan
- Collect and invest in broadband data and develop detailed broadband maps and determine broadband opportunity zones
- Conduct studies which propose solutions and/or strategies to assist in the rapid deployment of broadband infrastructure, evaluate the efficacy of broadband as a "green strategy"
- Incorporate broadband planning into SCAG's programs, including the development of future Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS or Connect SoCal)

100 Resolution No. 20-623-2. SCAG. Available at: *https://scag.ca.gov/sites/main/files/file-attachments/rcresolution206232.pdf?1604640361*

101 Resolution No. 21-629-2. Available at: *https://scag.ca.gov/sites/main/files/file-attachments/resolution_no._21-629-2_-_support_to_increase_broadband_access.pdf?1646942018*

THE WORK WE'VE DONE SO FAR

Staff across the agency have worked on several projects to address the digital divide or work related to broadband (directly and indirectly) conducted by the Broadband Planning team and other Departments. Some of our work efforts are but not limited to the following:

Advocacy, Coordination and Partnerships – Since the beginning of the COVID-19, SCAG has conducted advocacy exercises, coordinated with stakeholders and agencies, and formed partnerships. Examples include but are not limited to:

- **Southern California (SoCal) Transformation** – SoCal Transformation is a working group which consists of representatives from multiple sectors: government, non-profits, education, health, ISPs, and other private sectors. The group meets every two weeks to discuss the current state of Broadband, legislature related to broadband, funding sources, presentation on respective work efforts and a discussion of solutions/actions to bridge the digital divide. Since its inception, SCAG has been a key player and partner to the working group and have shared its work products, announced opportunities, and provided presentations.
- **Joining forces with San Diego Association of Governments (SANDAG)** – SCAG has joined forces with SANDAG to collaborate and align on our work efforts. Over the past several years, both SCAG and SANDAG have worked in unison on tracking and applying for funding, advocacy and comment letters to state and federal agencies, workshops, resolutions, proposals, and reports.
- **Partnership with California Emerging Technology Fund (CETF)** – SCAG has formed a partnership with CETF to conduct several work efforts such as our VMT (Vehicle Miles Traveled) report, permit streamlining efforts, and promotion of the ACP campaign.
- **Caltrans and Caltrans Equity Leadership Group** – SCAG has been in close communication with Caltrans, tracking the progress of the middle-mile construction and has been an active supporter and participant of their Equity Leadership Group.
- **Big 4 MPOs** – SCAG has collaborated with the Big 4 MPOs which include, SCAG, SANDAG, Sacramento Area Council of Governments (SACOG) and Metropolitan Transportation Commission (MTC) to advocate for transportation agencies to be involved the development and access to CDTs middle-mile network. Access to the network would assist in modernizing California's transportation network as it would allow for the implementation of emerging technologies.
- **Advocacy for our Member Jurisdictions and Stakeholders** – SCAG has conducted outreach exercises and submitted comment letters to various governmental agencies (federal and state), requesting that Southern California get its fair share of broadband funding.

Sample Resolution and Model Policy for Local Jurisdictions to support Broadband – SCAG developed a sample resolution and model policy paper for local jurisdictions to use as a template.[102] Like SCAG's Resolution No 21-629-2, the sample resolution recognizes digital divide and commits its member jurisdiction to solving the crisis. Four (Imperial, Orange, San Bernardino, Ventura) out of the six Counties used this template to develop their own resolution and all have been approved and adopted. The model policy paper for local jurisdiction staff to use as a roadmap for their own digital equity or broadband plan. The policy paper lays out governance structure and a list of best management practices.

Request for Qualifications for Prospective Partnerships – SCAG and SANDAG conducted a joint request for qualifications to seek partnerships (RFQPP) to deploy broadband infrastructure and provide high-quality and affordable broadband service to residents, businesses, public agencies, public agencies, educational institutions, and tribes in the Southern California region. The goal of the RFQPP is to secure funding from state or federal sources for ISPs, constructors, engineer firms and non-profits to partner with local jurisdictions for planning efforts, construction and operation of last mile services, and advocacy efforts for digital literacy. A pool of 20 qualified candidates were selected and funding and work efforts must go towards serving unserved or underserved communities. The RFQPP is an experimental exercise and first in the nation, which has become a template for other agencies or partnerships to model after.

102 Sample Resolution and Model Policy Paper. SCAG. Available at: *https://scag.ca.gov/sites/main/files/file-attachments/attach4_sampleresolutionandpolicypaper_local_jurisdictions.pdf?1646942032*

VMT Report – In early 2022, SCAG released a report titled Transportation Broadband Strategies to Reduce VMT and GHGs (vehicle miles traveled and greenhouse gases, respectively). The study used the first year of the COVID-19 pandemic's "shelter in place" orders to study some impacts on the transportation system. With travel restrictions in place, many people were forced to participate in a trial run of "tele-everything" which includes teleworking, tele-medicine, remote learning, e-commerce, etc. As such, SCAG decided to use the observed traffic patterns in conjunction with online surveying to analyze potential impacts of broadband on VMT and GHGs.

The topline results for the analysis year of 2045 showed that targeted improvements to broadband infrastructure in areas where there is low adoption (under 50% of households and higher concentration of essential workers) would potentially yield a 1-2% reduction in VMT over baseline conditions, while regionwide improvements paired with expanded telework policies could yield a 15% reduction in VMT. Increased broadband adoption could be a significant tool to reduce VMT and congestion, and many low-income households and essential workers, while usually not having jobs that allow for telework, would still reduce non-work trips if they had broadband service.

ACP/Go Human – To provide access to affordable internet to unserved and underserved areas across the region, SCAG is partnering with the California Emerging Technology Fund (CETF) for a Digital Equity Call for Action to leverage and bolster their existing campaign for the Affordable Connectivity Program (ACP). Millions of Californians are eligible for assistance by the ACP, but relatively few are aware of the program. SCAG seeks to explore opportunities to support the promotion of the ACP in alignment with SCAG's Vehicles Miles Traveled (VMT) reduction goals and equity commitments, as established in SCAG's commitment to racial equity in the July 2020 Resolution and the adopted Racial Equity Early Action Plan. This pilot is also in support of SCAG's "Go Human Evolution" project.

The program will develop a Toolkit and provide direct support to communities in the SCAG region to implement strategies to increase applications to the ACP and thus adoption of broadband in underserved communities. The Toolkit will also serve as a resource to eligible areas more broadly, promoted through targeted outreach and partner engagement. The program will also develop cohorts of "Digital Navigators" in counties across the region to lead ACP enrollment in their communities and implement strategies outlined in the Toolkit. Lastly, this pilot will include a sponsorship program to bolster the campaign and local engagement efforts. In coordination with CETF, SCAG will conduct outreach to internet service providers and members of the Business Community to raise funding to increase support for the campaign initiatives and awareness of the ACP.

Permit Streamlining – SCAG is coordinating with SANDAG to develop streamlined broadband permitting practices that are regionally consistent. This includes identifying regional or local policies or legislation that may inhibit broadband deployment, developing regional permitting standards and practices, coordinating local efforts with state initiatives, and more. To develop these standards, SANDAG has convened the Regional Digital Infrastructure Taskforce (ReDIT), which consists of local agency staff and technical experts (representing the SANDAG and SCAG Region) involved in digital infrastructure permitting and services.[103]

Leveraging the findings from SANDAG's taskforce, SCAG is developing a permit streamlining report, model permit and ordinance template that can be readily adopted by local jurisdictions within the SCAG region. The report will identify streamlined broadband permitting practices that may lead to lower cost of entry and operation of broadband systems, reduce the risk of delays during the planning, permitting and construction phases, provide opportunities for increasing revenue, and create new avenues for competitive entries.

103 ReDIT Taskforce. SANDAG. Available at: *https://www.sandag.org/index.asp?committeeid=124&fuseaction=committees.detail*

SoCal Transformation Workshop on Broadband and Housing – On October 21, 2021, SCAG and SANDAG in partnership with a coalition of stakeholders, hosted a workshop on "Connecting Publicly Subsidized Housing Complexes to High-Speed Internet".[104] The purpose of the workshop was to discuss opportunities to bridge the digital divide in public housing that would ultimately: (a) connect all residents in publicly subsidized housing complexes to high-speed internet service; (b) help residents acquire affordable computing devices; and (c) provide digital literacy training to ensure that residents can utilize the internet to improve their lives. The workshop featured a roundtable discussion among affordable housing developers & administrators, internet service providers (ISPs), and state and federal agencies.

Connect SoCal – As part of the upcoming 2024 Connect SoCal Plan (Regional Transportation Plan/Sustainable Communities Strategies), SCAG is developing on-model strategies and language which incorporates broadband based or tele-everything assumptions. Strategies are aimed towards supporting travel demand management, improve travel efficiency and reducing GHG emissions for the SCAG region.

UC Davis Study – SCAG partnered with researchers at the University of California at Davis to investigate the temporary and longer-term Impacts of the COVID-19 pandemic on mobility. They found that remote work was most widespread in Fall 2020. Physical commutes had partially rebounded by Summer 2021, but workers are increasingly adopting a hybrid work model. In Summer 2021, 29% of survey respondents reported working a hybrid schedule (versus 15% pre-pandemic), and in Summer 2021, only 14% of survey respondents commuted to the office every day (versus 44% pre-pandemic). A significant portion of workers expect to continue some form of remote or hybrid work after the pandemic. However, low-income workers are less likely to work remotely, and higher incomes correlate with higher likelihood of remote/hybrid work. Additionally, Hispanic workers were more likely to continue to commute to physical job sites at the beginning of the pandemic, but the gap between Hispanic and non-Hispanic groups shrank as time went on.

SCAG has done a lot of work and has made progress, but this is not enough,

SCAG needs to take further action.

104 Connecting Publicly Subsidizing Housing Complexes to High-Speed Internet. SCAG. Available at: *https://scag.ca.gov/sites/main/files/file-attachments/socal_transformation_affordable_housing_workshop.pdf?1646941873*

ACTIONS AND DELIVERABLES IN DEVELOPMENT

APPENDIX A
COUNTY-LEVEL DATA

APPENDIX A – TABLE 1 Populations (Age, Race and Educational Attainment) in Imperial County without Broadband or a Computer

	POPULATION	WITH BROADBAND	WITHOUT BROADBAND	WITHOUT BROADBAND (PERCENT)	NO COMPUTER	NO COMPUTER (PERCENT)
TOTAL POPULATION IN HOUSEHOLDS	170,517	149,865	8,923	5.2%	**11,412**	6.7%
AGE						
Under 18 years	51,735	48,406	1,734	3.4%	**1,542**	3.0%
18 to 64 years	95,757	85,998	5,009	5.2%	**4,558**	4.8%
65 years and over	23,025	15,461	2,180	9.5%	**5,312**	23.1%
RACE						
White	101,161	88,655	6,230	6.2%	**6,003**	5.9%
Black or African American	2,610	2,164	253	9.7%	**193**	7.4%
Native American/Indigenous	1,940	1,480	190	9.8%	**237**	12.2%
Asian	2,352	2,266	53	2.3%	**33**	1.4%
Hispanic/Latino	146,368	129,067	7,445	5.1%	**9,569**	6.5%
EDUCATIONAL ATTAINMENT						
Household population 25 years and over	101,954	85,866	6,530	6.4%	**9,294**	9.1%
Less than high school graduate or equivalency	29,169	20,796	2,713	9.3%	**5,626**	19.3%
High school graduate	55,953	49,336	3,220	5.8%	**3,212**	5.7%
Bachelor's degree or higher	16,832	15,734	597	3.5%	**456**	2.7%

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates

APPENDIX A – TABLE 2 Populations (Age, Race and Educational Attainment) in Los Angeles County without Broadband or a Computer

	POPULATION	WITH BROADBAND	WITHOUT BROADBAND	WITHOUT BROADBAND (PERCENT)	NO COMPUTER	NO COMPUTER (PERCENT)
TOTAL POPULATION IN HOUSEHOLDS	9,858,119	8,824,138	631,669	6.4%	**388,863**	3.9%
AGE						
Under 18 years	2,173,094	1,984,489	141,058	6.5%	**45,855**	2.1%
18 to 64 years	6,352,776	5,801,185	384,312	6.0%	**160,804**	2.5%
65 years and over	1,332,249	1,038,464	106,299	8.0%	**182,204**	13.7%
RACE						
White	4,702,718	4,212,444	279,791	5.9%	**201,712**	4.3%
Black or African American	778,623	665,340	65,138	8.4%	**47,513**	6.1%
Native American/Indigenous	76,021	67,747	4,849	6.4%	**3,348**	4.4%
Asian	1,462,589	1,368,993	53,392	3.7%	**38,365**	2.6%
Hispanic/Latino	4,801,406	4,184,898	407,322	8.5%	**204,616**	4.3%
EDUCATIONAL ATTAINMENT						
Household population 25 years and over	6,802,101	6,025,812	437,119	6.4%	**328,401**	4.8%
Less than high school graduate or equivalency	1,361,234	1,065,005	154,500	11.3%	**140,026**	10.3%
High school graduate	3,136,072	2,761,431	216,242	6.9%	**152,321**	4.9%
Bachelor's degree or higher	2,304,795	2,199,376	66,377	2.9%	**36,054**	1.6%

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates

APPENDIX A – TABLE 3 Populations (Age, Race and Educational Attainment) in Orange County without Broadband or a Computer

	POPULATION	WITH BROADBAND	WITHOUT BROADBAND	WITHOUT BROADBAND (PERCENT)	NO COMPUTER	NO COMPUTER (PERCENT)
TOTAL POPULATION IN HOUSEHOLDS	3,126,693	2,931,456	119,457	3.8%	**71,198**	2.3%
AGE						
Under 18 years	696,133	663,714	23,866	3.4%	**7,830**	1.1%
18 to 64 years	1,974,052	1,874,968	69,625	3.5%	**27,438**	1.4%
65 years and over	456,508	392,774	25,966	5.7%	**35,930**	7.9%
RACE						
White	1,797,620	1,693,892	56,909	3.2%	**43,944**	2.4%
Black or African American	51,921	47,840	2,340	4.5%	**1,611**	3.1%
Native American/Indigenous	15,308	14,259	630	4.1%	**419**	2.7%
Asian	660,137	627,670	20,830	3.2%	**11,057**	1.7%
Hispanic/Latino	1,059,447	969,140	58,052	5.5%	**30,241**	2.9%
EDUCATIONAL ATTAINMENT						
Household population 25 years and over	2,155,505	2,006,540	84,820	3.9%	**60,587**	2.8%
Less than high school graduate or equivalency	298,600	255,499	22,399	7.5%	**20,167**	6.8%
High school graduate	961,041	888,331	41,200	4.3%	**29,705**	3.1%
Bachelor's degree or higher	895,864	862,710	21,221	2.4%	**10,715**	1.2%

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates

APPENDIX A – TABLE 4 Populations (Age, Race and Educational Attainment) in Riverside County without Broadband or a Computer

	POPULATION	WITH BROADBAND	WITHOUT BROADBAND	WITHOUT BROADBAND (PERCENT)	NO COMPUTER	NO COMPUTER (PERCENT)
TOTAL POPULATION IN HOUSEHOLDS	2,399,905	2,204,195	120,596	5.0%	**72,686**	3.0%
AGE						
Under 18 years	612,679	575,181	28,905	4.7%	**8,362**	1.4%
18 to 64 years	1,439,969	1,337,728	68,923	4.8%	**32,194**	2.2%
65 years and over	347,257	291,286	22,768	6.6%	**32,130**	9.3%
RACE						
White	1,339,385	1,230,681	61,558	4.6%	**45,246**	3.4%
Black or African American	153,129	139,724	8,431	5.5%	**4,834**	3.2%
Native American/Indigenous	18,494	16,701	920	5.0%	**862**	4.7%
Asian	159,897	153,985	4,206	2.6%	**1,652**	1.0%
Hispanic/Latino	1,189,653	1,076,982	73,467	6.2%	**38,400**	3.2%
EDUCATIONAL ATTAINMENT						
Household population 25 years and over	1,565,094	1,420,169	81,449	5.2%	**61,445**	3.9%
Less than high school graduate or equivalency	266,480	218,163	24,900	9.3%	**22,933**	8.6%
High school graduate	931,429	849,981	47,127	5.1%	**33,129**	3.6%
Bachelor's degree or higher	367,185	352,025	9,422	2.6%	**5,383**	1.5%

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates

APPENDIX A – TABLE 5 Populations (Age, Race and Educational Attainment) in San Bernardino County without Broadband or a Computer

	POPULATION	WITH BROADBAND	WITHOUT BROADBAND	WITHOUT BROADBAND (PERCENT)	NO COMPUTER	NO COMPUTER (PERCENT)
TOTAL POPULATION IN HOUSEHOLDS	2,110,605	1,901,118	143,749	6.8%	**63,346**	3.0%
AGE						
Under 18 years	570,118	522,800	39,530	6.9%	**7,441**	1.3%
18 to 64 years	1,296,559	1,187,149	81,964	6.3%	**26,312**	2.0%
65 years and over	243,928	191,169	22,255	9.1%	**29,593**	12.1%
RACE						
White	1,184,441	1,066,610	74,671	6.3%	**41,100**	3.5%
Black or African American	166,986	146,499	13,737	8.2%	**6,727**	4.0%
Native American/Indigenous	17,612	15,643	1,356	7.7%	**588**	3.3%
Asian	157,451	150,408	4,268	2.7%	**2,675**	1.7%
Hispanic/Latino	1,143,676	1,016,705	95,291	8.3%	**30,631**	2.7%
EDUCATIONAL ATTAINMENT						
Household population 25 years and over	1,329,462	1,182,603	91,424	6.9%	**53,561**	4.0%
Less than high school graduate or equivalency	250,563	199,647	31,808	12.7%	**18,697**	7.5%
High school graduate	789,065	707,354	50,543	6.4%	**29,976**	3.8%
Bachelor's degree or higher	289,834	275,602	9,073	3.1%	**4,888**	1.7%

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates

APPENDIX A – TABLE 6 Populations (Age, Race and Educational Attainment) in Ventura County without Broadband or a Computer

	POPULATION	WITH BROADBAND	WITHOUT BROADBAND	WITHOUT BROADBAND (PERCENT)	NO COMPUTER	NO COMPUTER (PERCENT)
TOTAL POPULATION IN HOUSEHOLDS	832,500	761,388	35,831	4.3%	**34,249**	4.1%
AGE						
Under 18 years	193,509	178,690	9,439	4.9%	**5,295**	2.7%
18 to 64 years	509,766	475,266	20,183	4.0%	**13,968**	2.7%
65 years and over	129,225	107,432	6,209	4.8%	**14,986**	11.6%
RACE						
White	629,263	570,876	28,101	4.5%	**29,433**	4.7%
Black or African American	14,285	13,537	394	2.8%	**300**	2.1%
Native American/Indigenous	6,789	5,256	950	14.0%	**583**	8.6%
Asian	60,526	58,533	957	1.6%	**969**	1.6%
Hispanic/Latino	356,841	310,299	24,954	7.0%	**21,357**	6.0%
EDUCATIONAL ATTAINMENT						
Household population 25 years and over	566,630	514,734	23,362	4.1%	**27,631**	4.9%
Less than high school graduate or equivalency	80,802	62,658	8,284	10.3%	**9,787**	12.1%
High school graduate	292,874	266,008	11,402	3.9%	**14,930**	5.1%
Bachelor's degree or higher	192,954	186,068	3,676	1.9%	**2,914**	1.5%

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates

APPENDIX A – TABLE 7 Low Income Households in Imperial County Without Internet

HOUSEHOLD INCOME AND SUBSCRIPTION	HOUSEHOLDS
LESS THAN $10,000 TO $50,000	24,448
With dial-up Internet subscription alone	55
With a broadband Internet subscription	17,439
Without an Internet subscription	6,954
$50,000 TO $74,999	6,788
With dial-up Internet subscription alone	0
With a broadband Internet subscription	6,143
Without an Internet subscription	645
$75,000 OR MORE:	14,532
With dial-up Internet subscription alone	47
With a broadband Internet subscription	13,871
Without an Internet subscription	614
Total Low Income Households	24,448
Total Households (No Internet)	8,213
Total Low income Households (No Internet)	**6,954**
Concentration Rate of all Digital Divide (Low-Income Households)	**85%**
Low Income Households Experiencing Digital Divide	**28%**

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates
Note: The average household size is three. Low-income households are those with annual income below $50,000; this is roughly 225% of the federal poverty line for a household with three persons ($51, 818)

APPENDIX A – TABLE 8 Low Income Households in Los Angeles County Without Internet

HOUSEHOLD INCOME AND SUBSCRIPTION	HOUSEHOLDS
LESS THAN $10,000 TO $50,000	1,206,218
With dial-up Internet subscription alone	3,160
With a broadband Internet subscription	898,768
Without an Internet subscription	304,290
$50,000 TO $74,999	527,863
With dial-up Internet subscription alone	1,195
With a broadband Internet subscription	473,209
Without an Internet subscription	53,459
$75,000 OR MORE:	1,598,423
With dial-up Internet subscription alone	2,101
With a broadband Internet subscription	1,526,049
Without an Internet subscription	70,273
Total Low Income Households	1,206,218
Total Households (No Internet)	428,022
Total Low income Households (No Internet)	**304,290**
Concentration Rate of all Digital Divide (Low-Income Households)	**71%**
Low Income Households Experiencing Digital Divide	**25%**

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates
Note: The average household size is three. Low-income households are those with annual income below $50,000; this is roughly 225% of the federal poverty line for a household with three persons ($51, 818)

APPENDIX A – TABLE 9 Low Income Households in Orange County Without Internet

HOUSEHOLD INCOME AND SUBSCRIPTION	HOUSEHOLDS
LESS THAN $10,000 TO $50,000	270,173
With dial-up Internet subscription alone	943
With a broadband Internet subscription	220,475
Without an Internet subscription	48,755
$50,000 TO $74,999	147,146
With dial-up Internet subscription alone	447
With a broadband Internet subscription	135,153
Without an Internet subscription	11,546
$75,000 OR MORE:	622,682
With dial-up Internet subscription alone	585
With a broadband Internet subscription	601,155
Without an Internet subscription	20,942
Total Low Income Households	270,173
Total Households (No Internet)	81,243
Total Low income Households (No Internet)	**48,755**
Concentration Rate of all Digital Divide (Low-Income Households)	**60%**
Low Income Households Experiencing Digital Divide	**18%**

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates
Note: The average household size is three. Low-income households are those with annual income below $50,000; this is roughly 225% of the federal poverty line for a household with three persons ($51, 818)

APPENDIX A – TABLE 10 Low Income Households in Riverside County Without Internet

HOUSEHOLD INCOME AND SUBSCRIPTION	HOUSEHOLDS
LESS THAN $10,000 TO $50,000	263,005
With dial-up Internet subscription alone	712
With a broadband Internet subscription	208,706
Without an Internet subscription	53,587
$50,000 TO $74,999	124,844
With dial-up Internet subscription alone	178
With a broadband Internet subscription	114,678
Without an Internet subscription	9,988
$75,000 OR MORE:	348,564
With dial-up Internet subscription alone	283
With a broadband Internet subscription	334,431
Without an Internet subscription	13,850
Total Low Income Households	263,005
Total Households (No Internet)	77,425
Total Low income Households (No Internet)	**53,587**
Concentration Rate of all Digital Divide (Low-Income Households)	**69%**
Low Income Households Experiencing Digital Divide	**20%**

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates
Note: The average household size is three. Low-income households are those with annual income below $50,000; this is roughly 225% of the federal poverty line for a household with three persons ($51, 818)

APPENDIX A – TABLE 11 Low Income Households in San Bernardino County Without Internet

HOUSEHOLD INCOME AND SUBSCRIPTION	HOUSEHOLDS
LESS THAN $10,000 TO $50,000	241,608
With dial-up Internet subscription alone	529
With a broadband Internet subscription	185,062
Without an Internet subscription	56,017
$50,000 TO $74,999	117,304
With dial-up Internet subscription alone	204
With a broadband Internet subscription	106,235
Without an Internet subscription	10,865
$75,000 OR MORE:	281,178
With dial-up Internet subscription alone	315
With a broadband Internet subscription	268,480
Without an Internet subscription	12,383
Total Low Income Households	241,608
Total Households (No Internet)	79,265
Total Low income Households (No Internet)	**56,017**
Concentration Rate of all Digital Divide (Low-Income Households)	**71%**
Low Income Households Experiencing Digital Divide	**23%**

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates
Note: The average household size is three. Low-income households are those with annual income below $50,000; this is roughly 225% of the federal poverty line for a household with three persons ($51, 818)

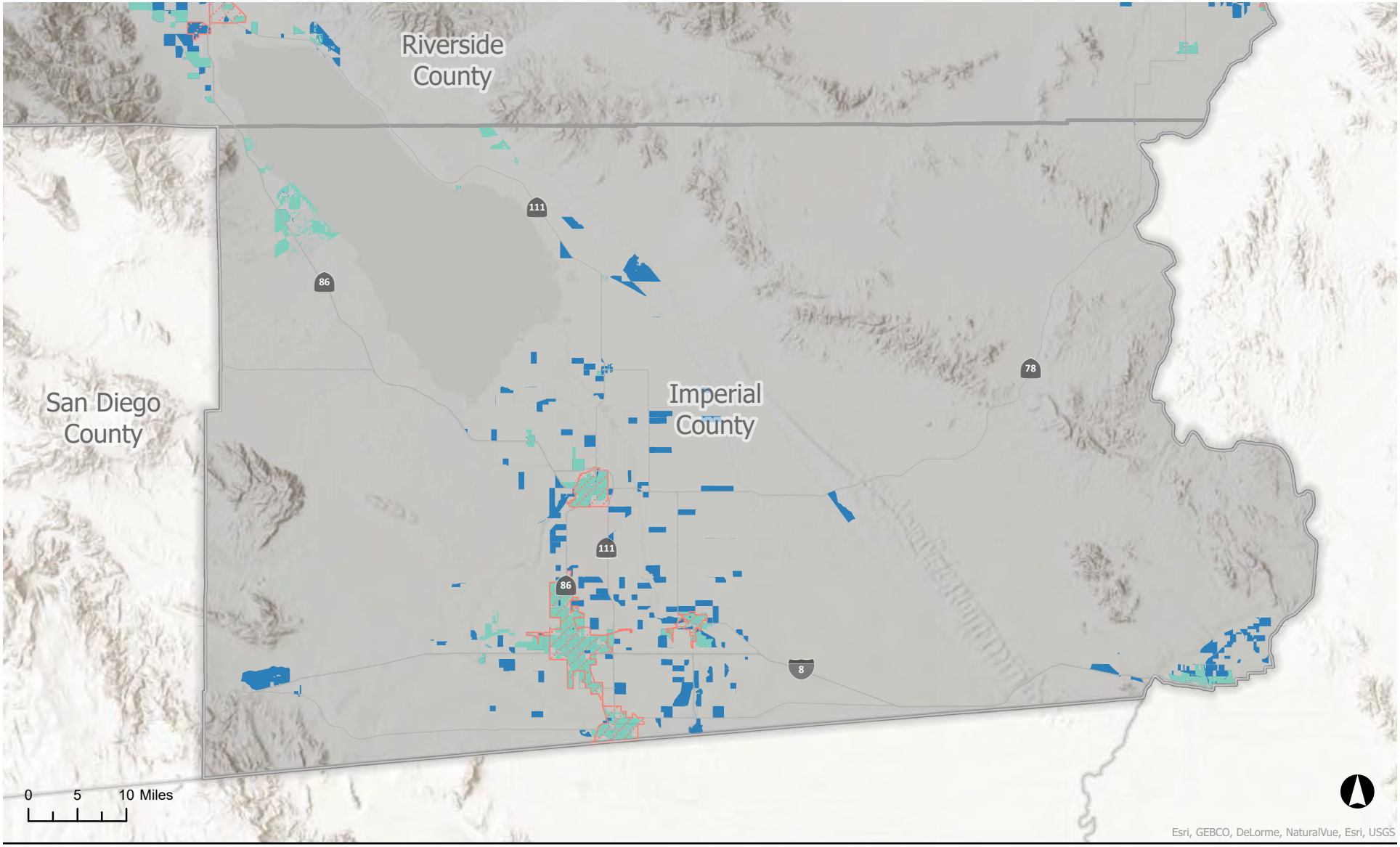
APPENDIX A – TABLE 12 Low Income Households in Ventura County Without Internet

HOUSEHOLD INCOME AND SUBSCRIPTION	HOUSEHOLDS
LESS THAN $10,000 TO $50,000	73,376
With dial-up Internet subscription alone	325
With a broadband Internet subscription	55,226
Without an Internet subscription	17,825
$50,000 TO $74,999	39,048
With dial-up Internet subscription alone	97
With a broadband Internet subscription	34,864
Without an Internet subscription	4,087
$75,000 OR MORE:	159,215
With dial-up Internet subscription alone	119
With a broadband Internet subscription	153,240
Without an Internet subscription	5,856
Total Low Income Households	73,376
Total Households (No Internet)	27,768
Total Low income Households (No Internet)	**17,825**
Concentration Rate of all Digital Divide (Low-Income Households)	**64%**
Low Income Households Experiencing Digital Divide	**24%**

Source: U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates
Note: The average household size is three. Low-income households are those with annual income below $50,000; this is roughly 225% of the federal poverty line for a household with three persons ($51, 818)

APPENDIX B
COUNTY-LEVEL FIGURES

APPENDIX B – FIGURE 1 Fixed Broadband by Census Block: Imperial County



Urbanized Boundary

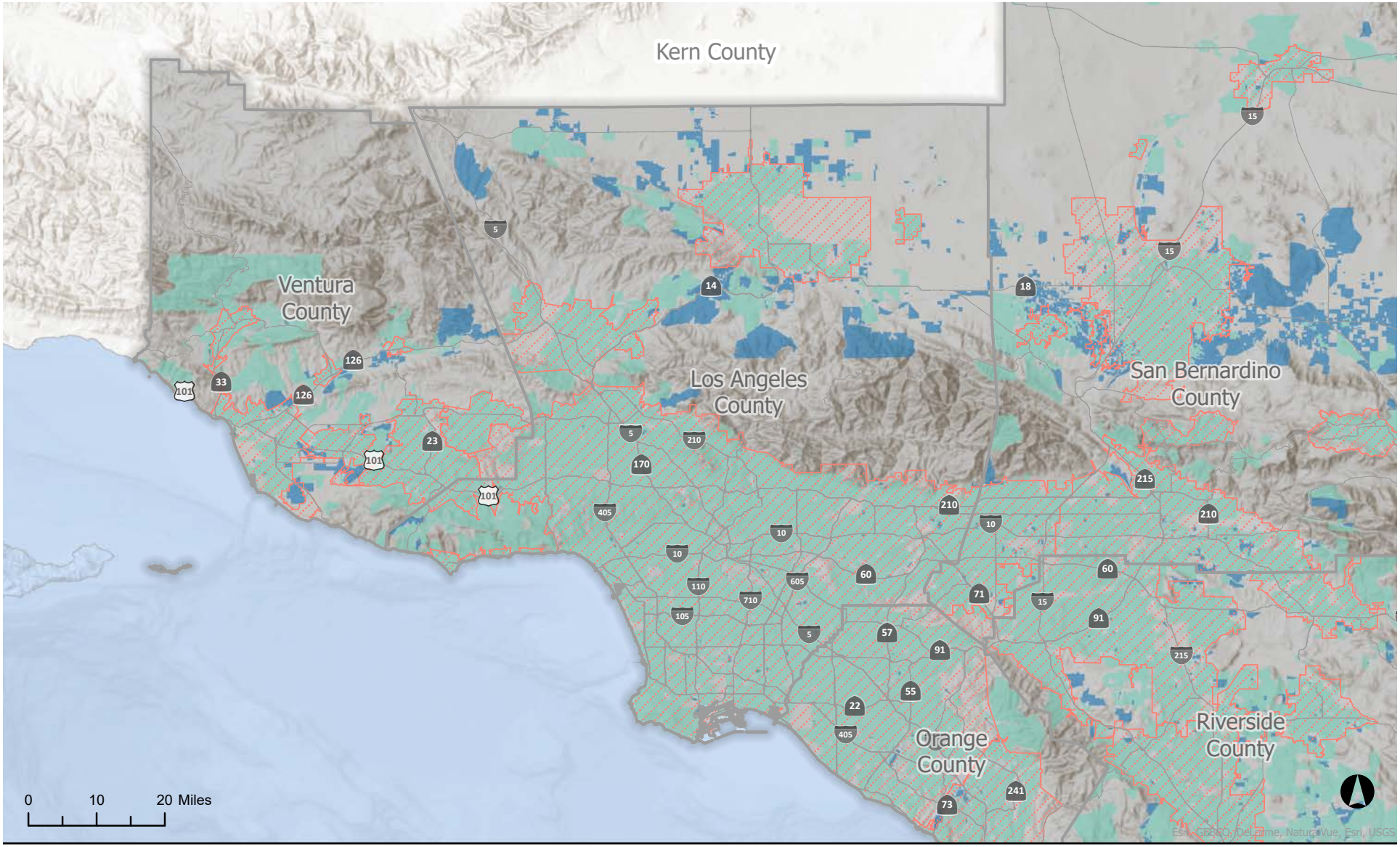
SCAG Fixed Consumer Deployment

Below Federal Threshold

Meets Federal Threshold

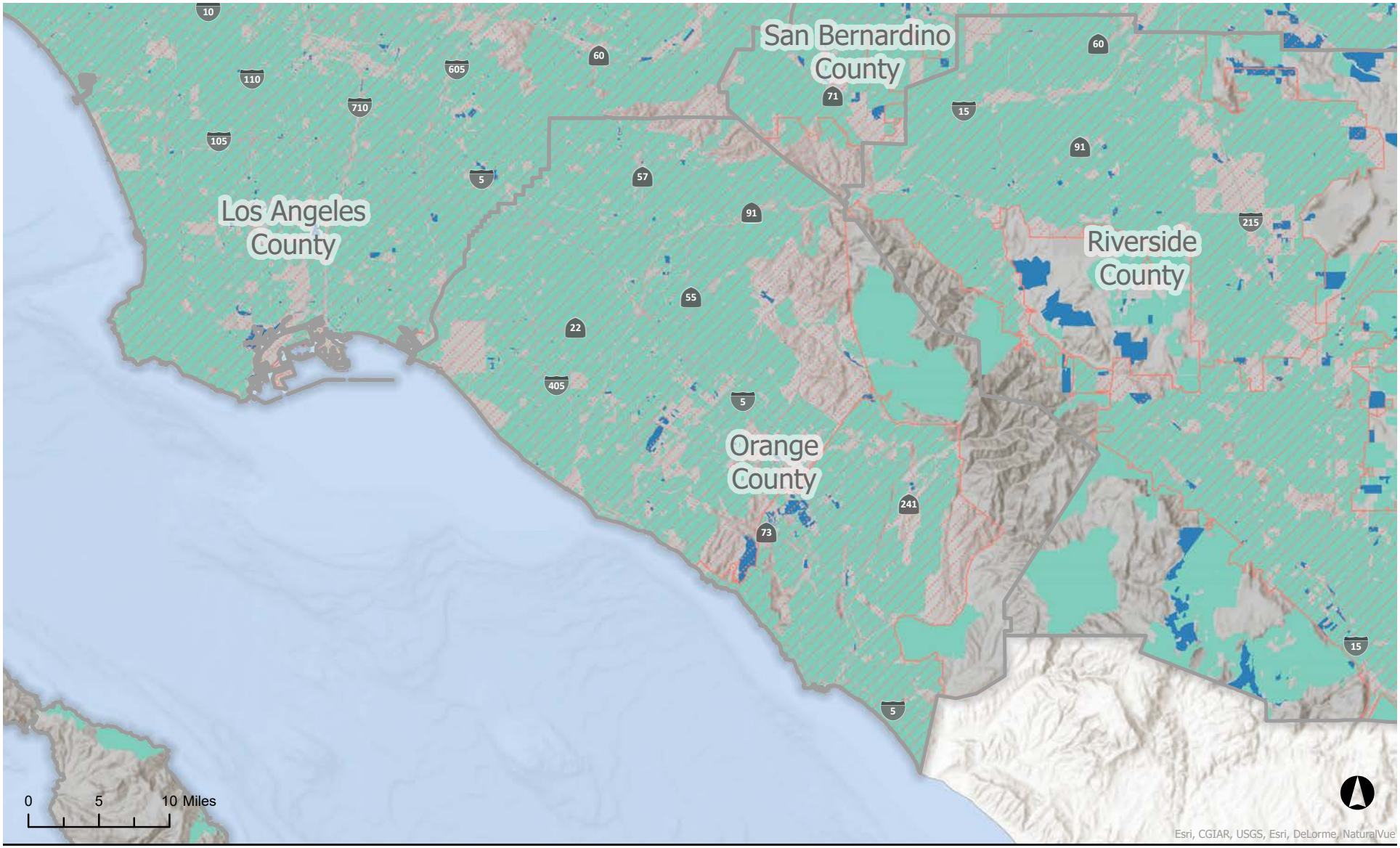
Source: SCAG 2022, FCC Open Data 2022

APPENDIX B – FIGURE 2 Fixed Broadband by Census Block: Los Angeles County



Source: SCAG 2022, FCC Open Data 2022

APPENDIX B – FIGURE 3 Fixed Broadband by Census Block: Orange County



Urbanized Boundary

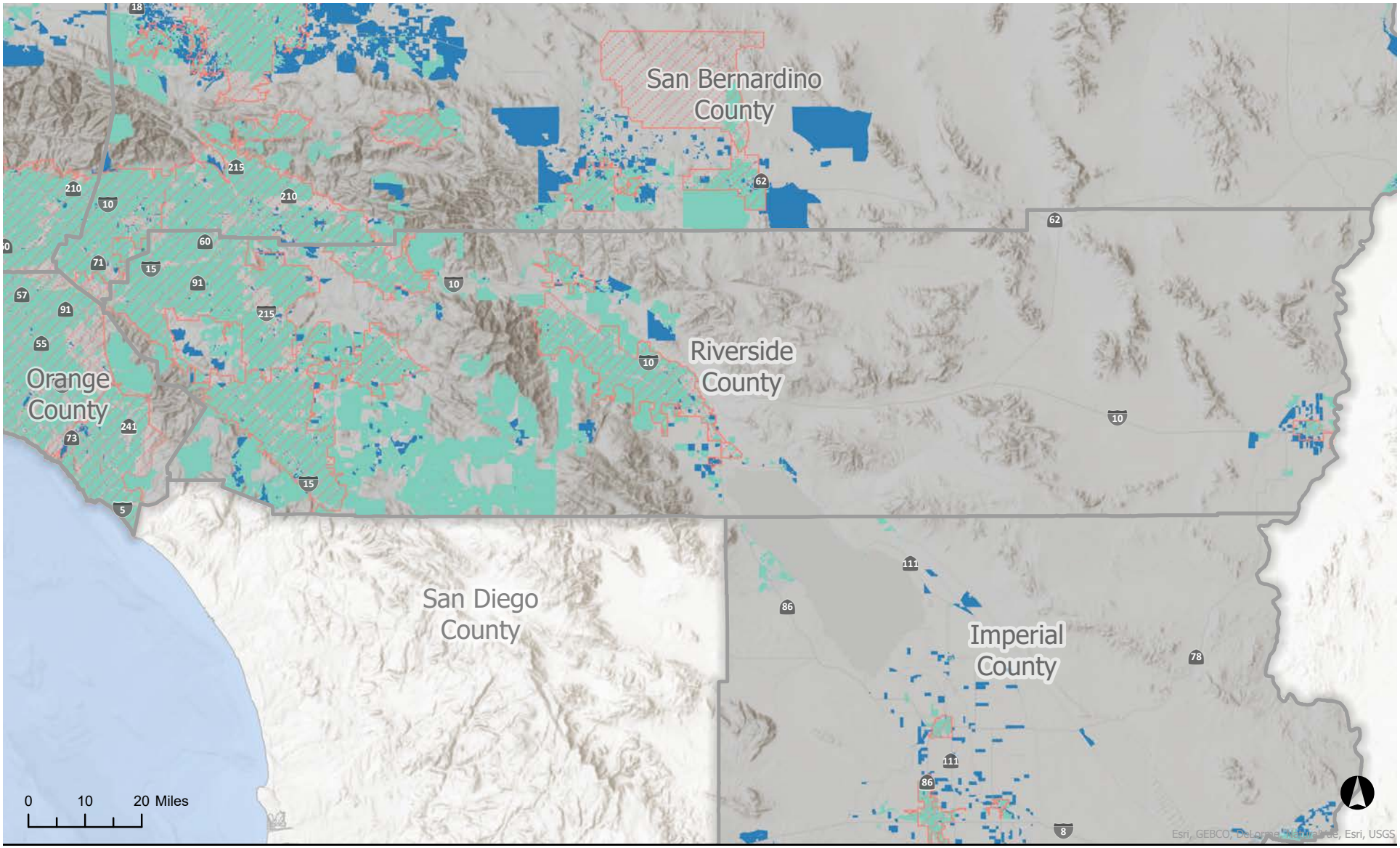
SCAG Fixed Consumer Deployment

Below Federal Threshold

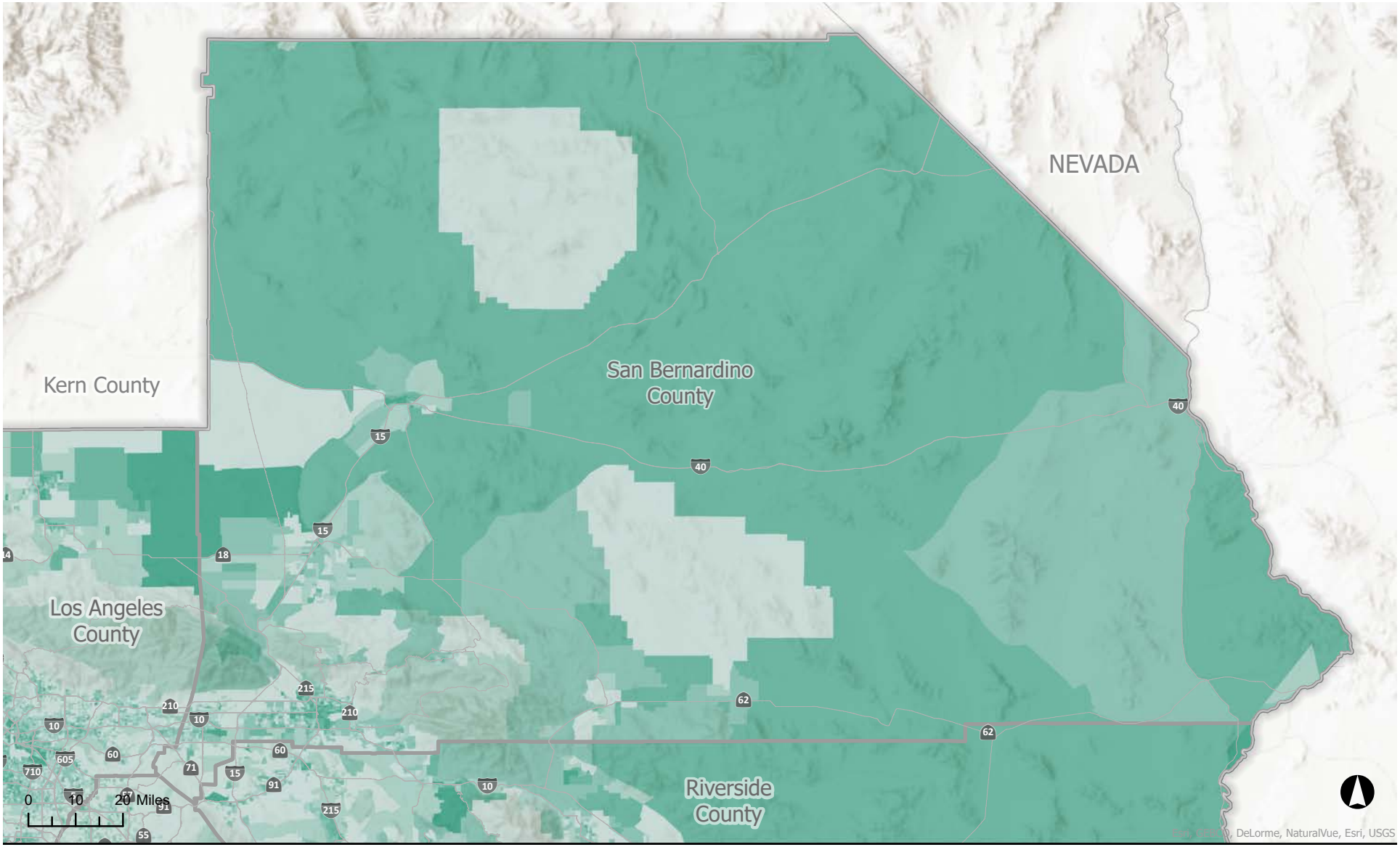
Meets Federal Threshold

Source: SCAG 2022, FCC Open Data 2022

APPENDIX B – FIGURE 4 Fixed Broadband by Census Block: Riverside County



Source: SCAG 2022, FCC Open Data 2022

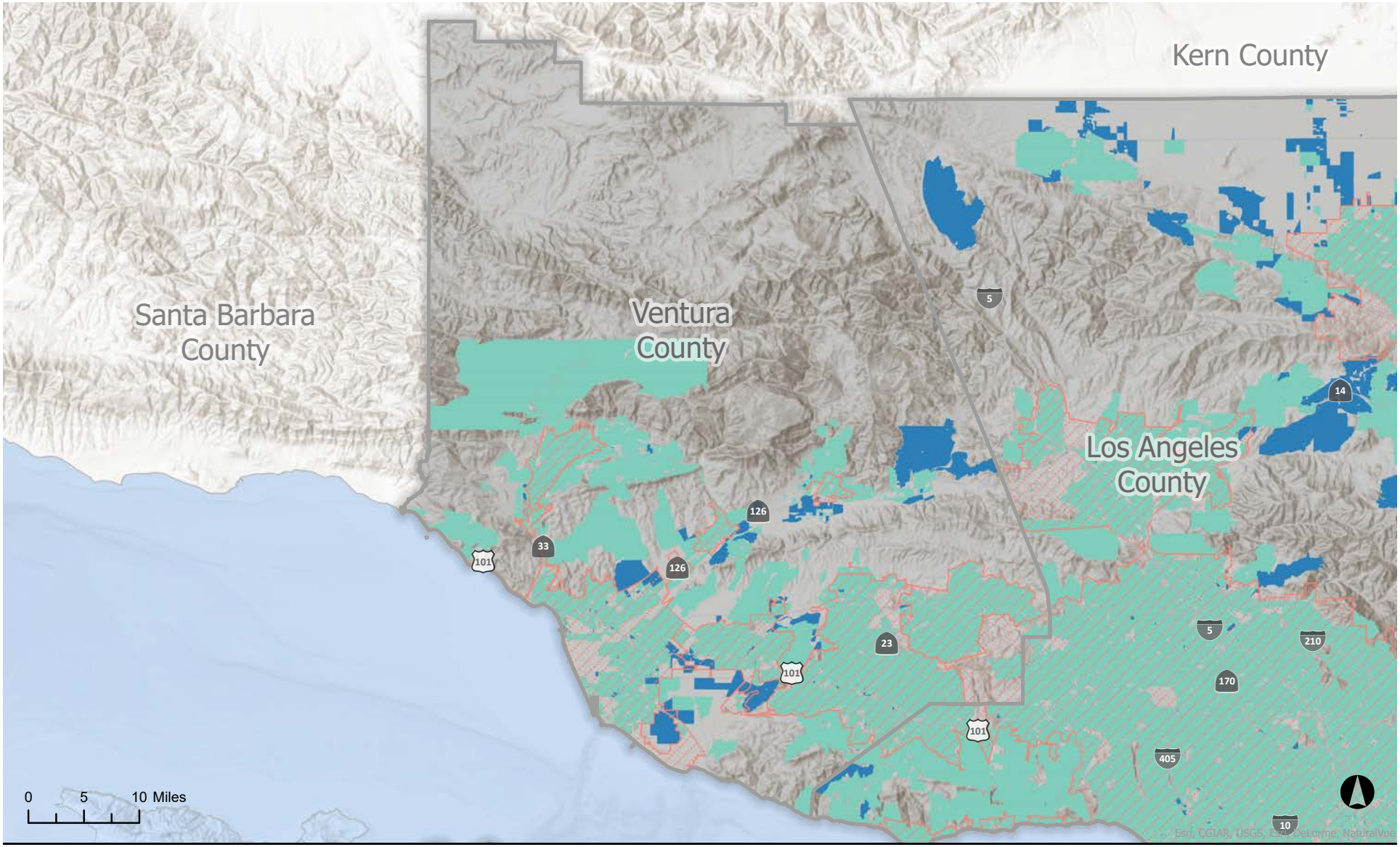


Percent Low Income Households

- 0% - 4.8%
- 4.9% - 11.9%
- 12.0% - 20.3%
- 20.4% - 32.5%
- 32.6% - 100%

Source: SCAG 2022, ACS 2016-2020 5-Year Summary File, 2021 Middle-Mile Broadband Initiative

APPENDIX B – FIGURE 6 Fixed Broadband by Census Block: Ventura County



Urbanized Boundary

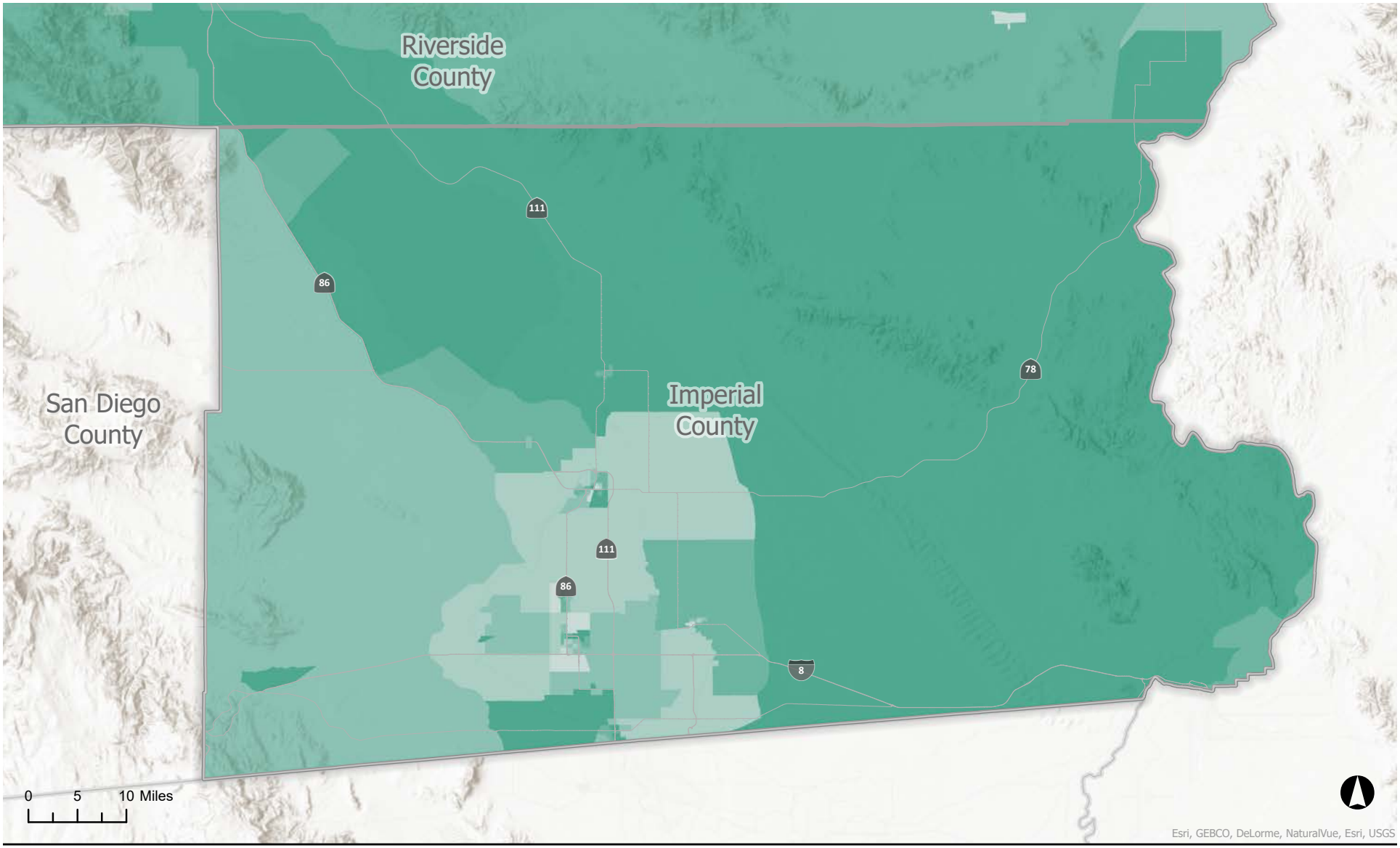
SCAG Fixed Consumer Deployment

Below Federal Threshold

Meets Federal Threshold

Source: SCAG 2022, FCC Open Data 2022

APPENDIX B – FIGURE 7 Low Income Households Without Broadband: Imperial County

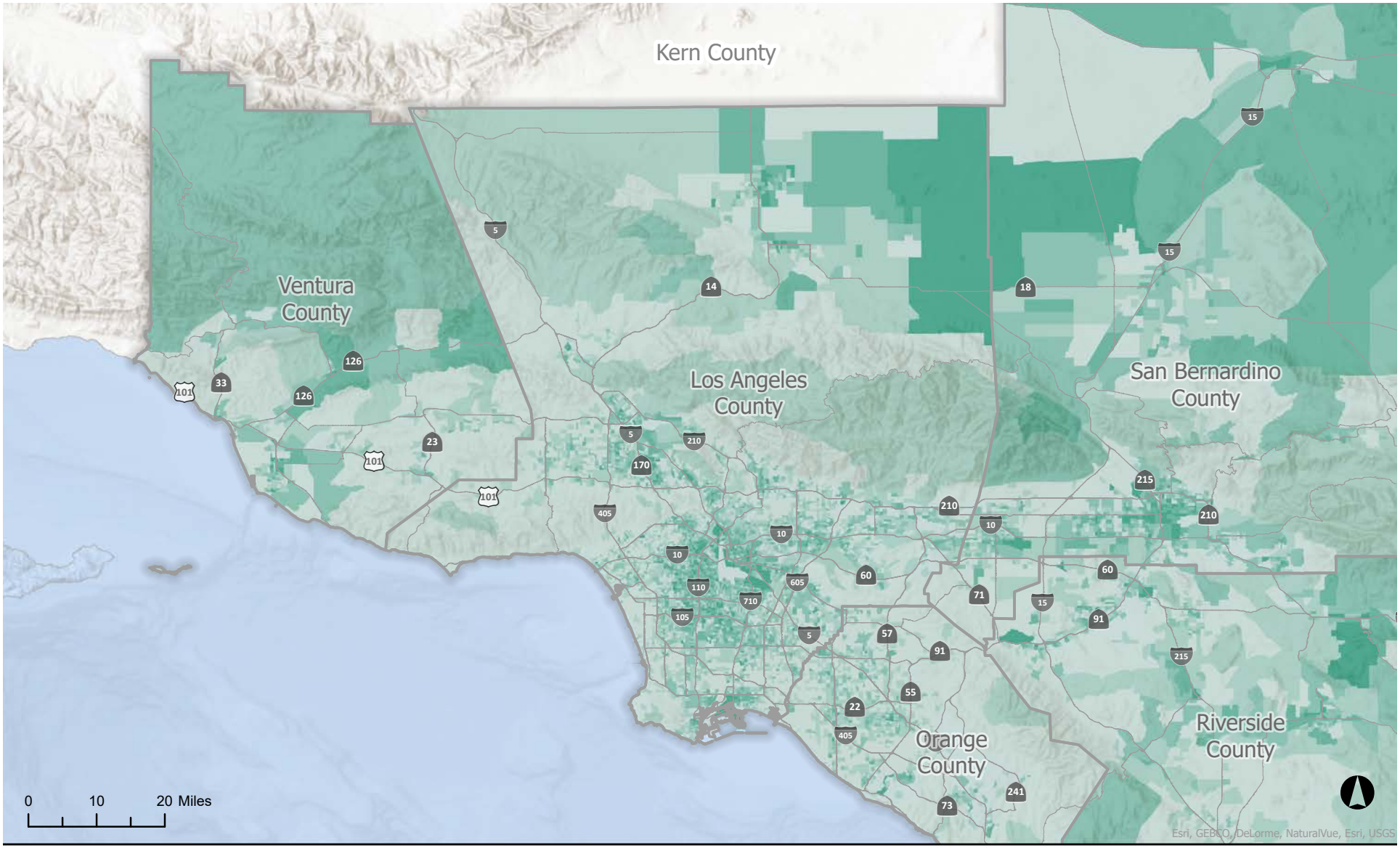


Percent Low Income Households

- 0% - 4.8%
- 4.9% - 11.9%
- 12.0% - 20.3%
- 20.4% - 32.5%
- 32.6% - 100%

Source: SCAG 2022, ACS 2016-2020 5-Year Summary File, 2021 Middle-Mile Broadband Initiative

APPENDIX B – FIGURE 8 Low Income Households Without Broadband: Los Angeles County

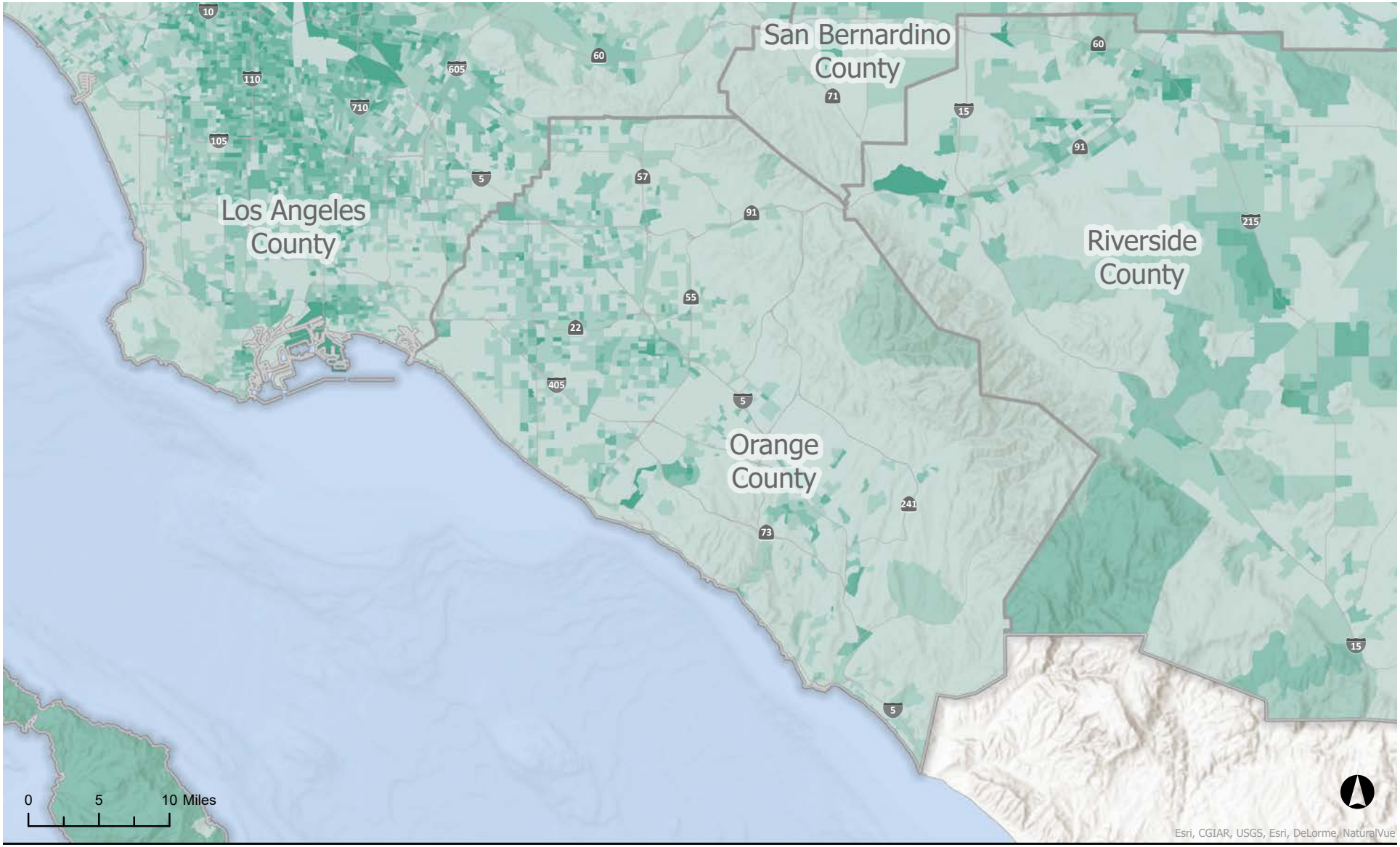


Percent Low Income Households

- 0% - 4.8%
- 4.9% - 11.9%
- 12.0% - 20.3%
- 20.4% - 32.5%
- 32.6% - 100%

Source: SCAG 2022, FCC Open Data 2022

APPENDIX B – FIGURE 9 Low Income Households Without Broadband: Orange County

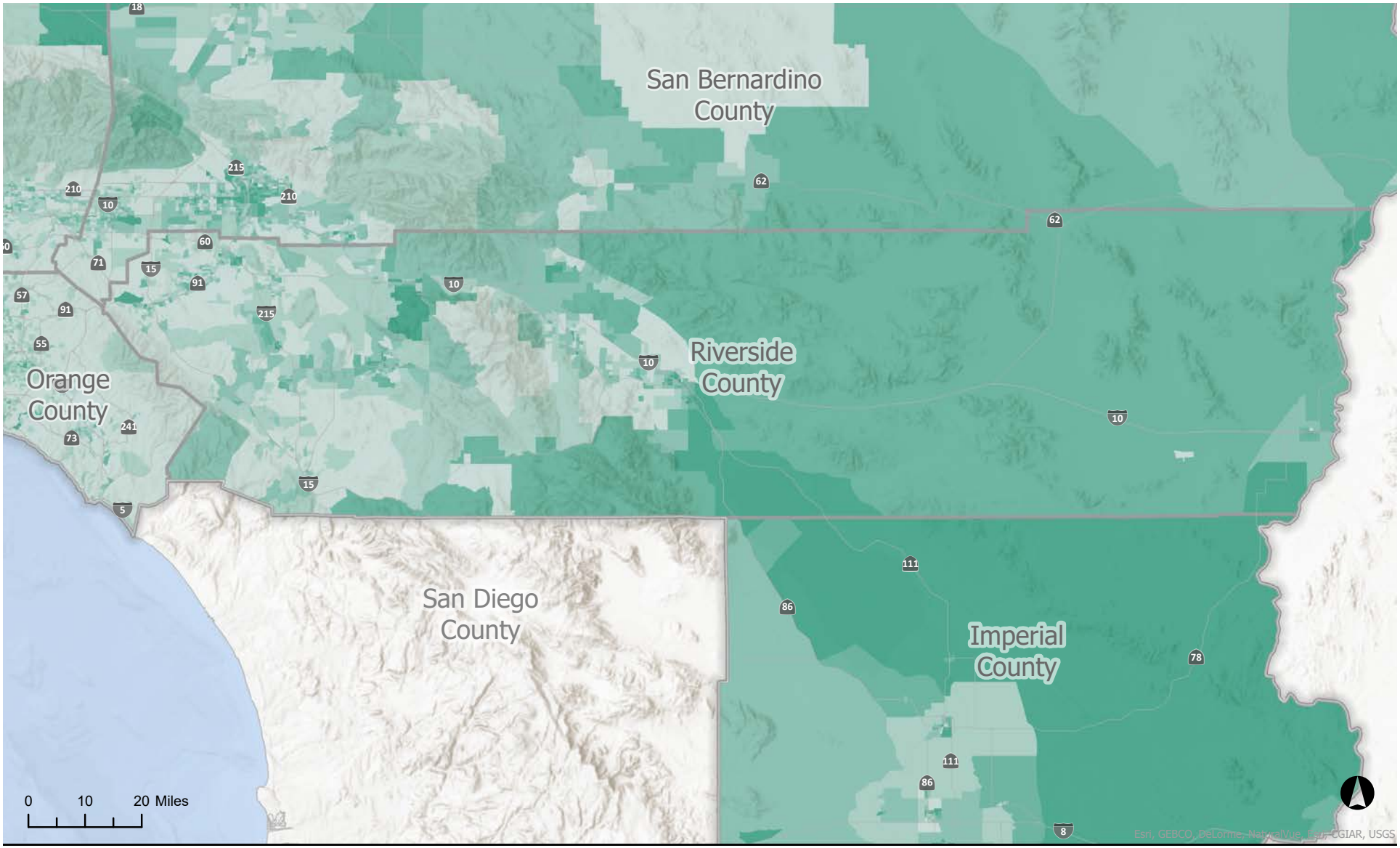


Percent Low Income Households

- 0% - 4.8%
- 4.9% - 11.9%
- 12.0% - 20.3%
- 20.4% - 32.5%
- 32.6% - 100%

Source: SCAG 2022, ACS 2016-2020 5-Year Summary File, 2021 Middle-Mile Broadband Initiative

APPENDIX B – FIGURE 10 Low Income Households Without Broadband: Riverside County

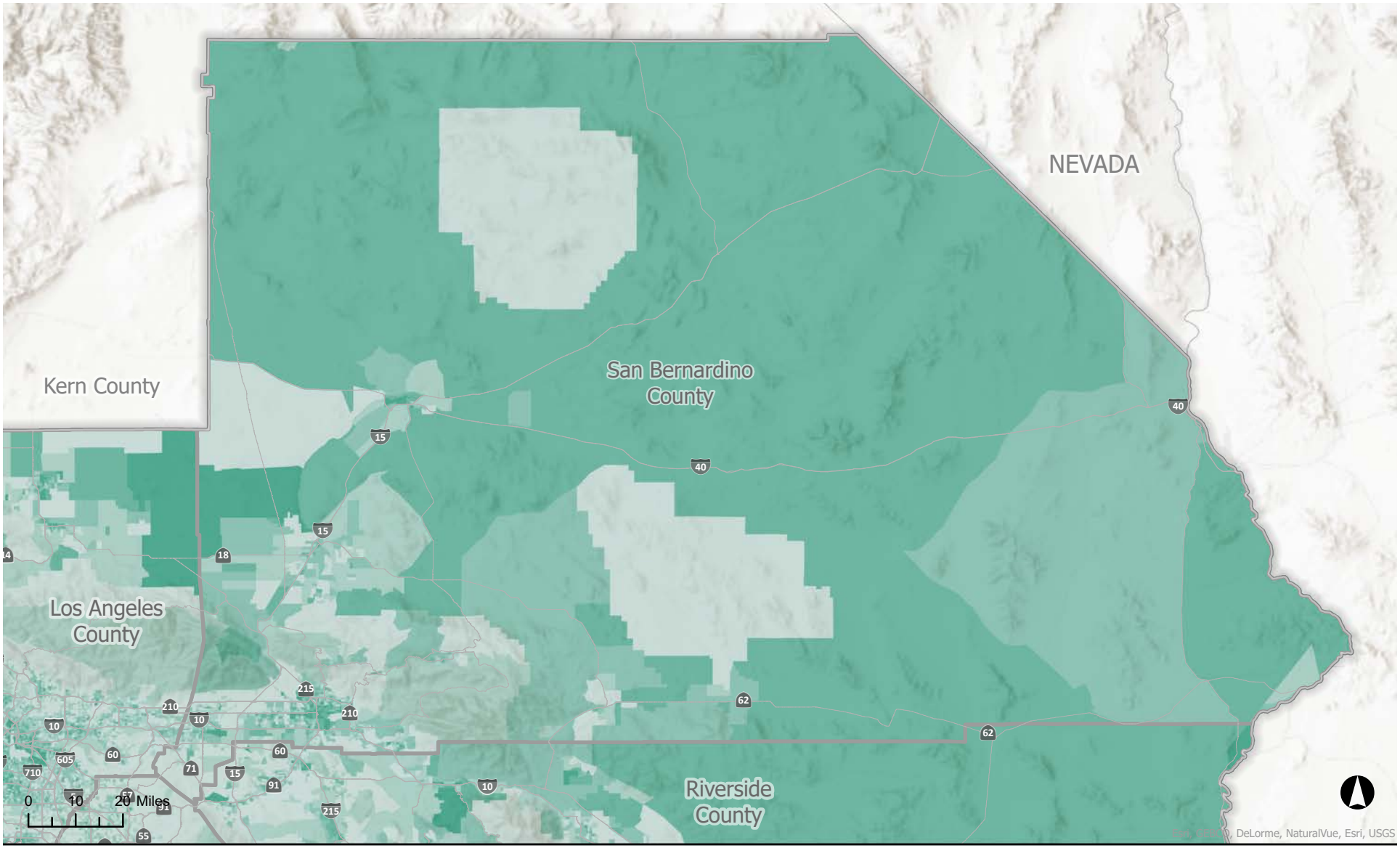


Percent Low Income Households

- 0% - 4.8%
- 4.9% - 11.9%
- 12.0% - 20.3%
- 20.4% - 32.5%
- 32.6% - 100%

Source: SCAG 2022, ACS 2016-2020 5-Year Summary File, 2021 Middle-Mile Broadband Initiative

APPENDIX B – FIGURE 11 Low Income Households Without Broadband: San Bernardino County

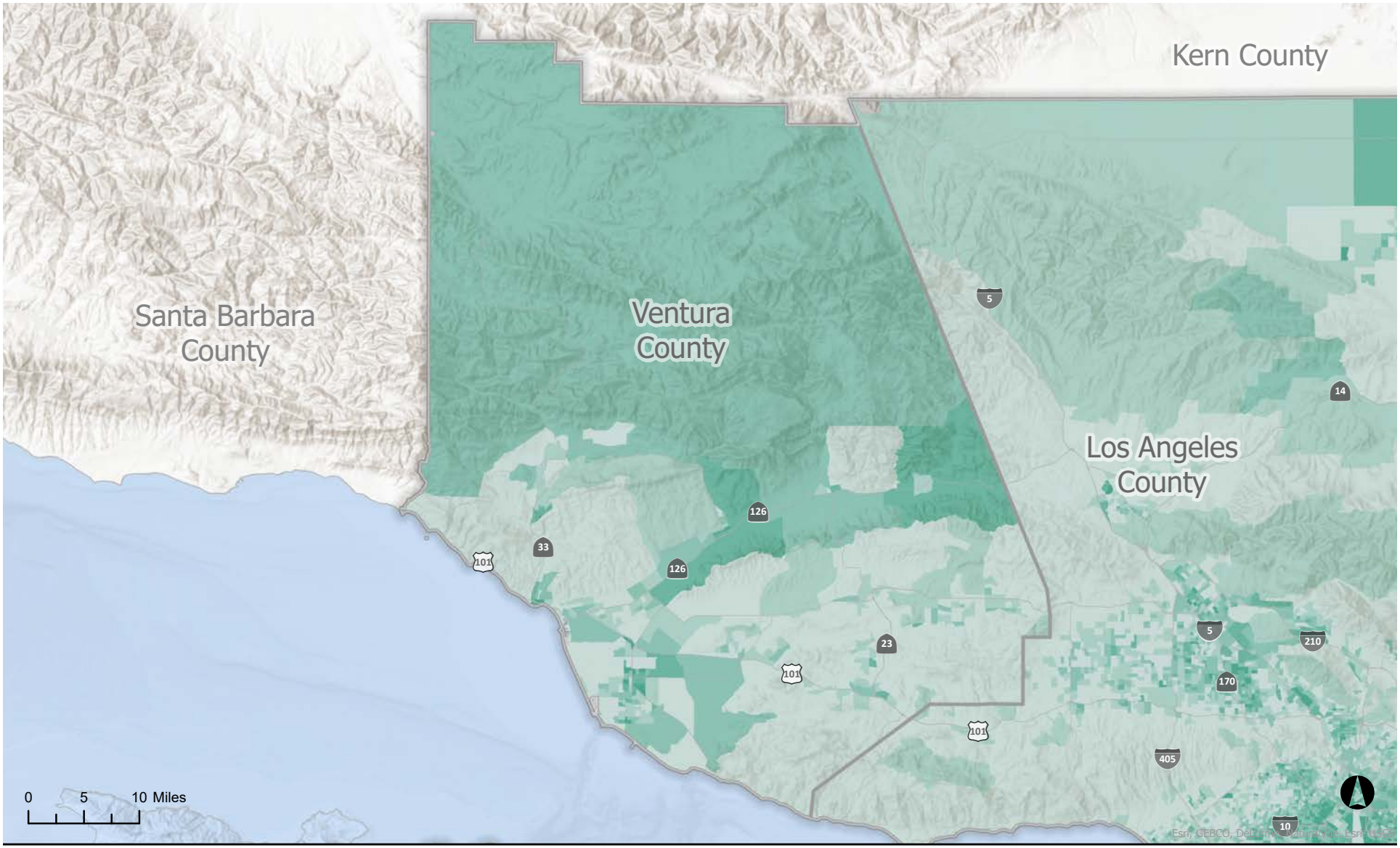


Percent Low Income Households

- 0% - 4.8%
- 4.9% - 11.9%
- 12.0% - 20.3%
- 20.4% - 32.5%
- 32.6% - 100%

Source: SCAG 2022, ACS 2016-2020 5-Year Summary File, 2021 Middle-Mile Broadband Initiative

APPENDIX B – FIGURE 12 Low Income Households Without Broadband: Ventura County



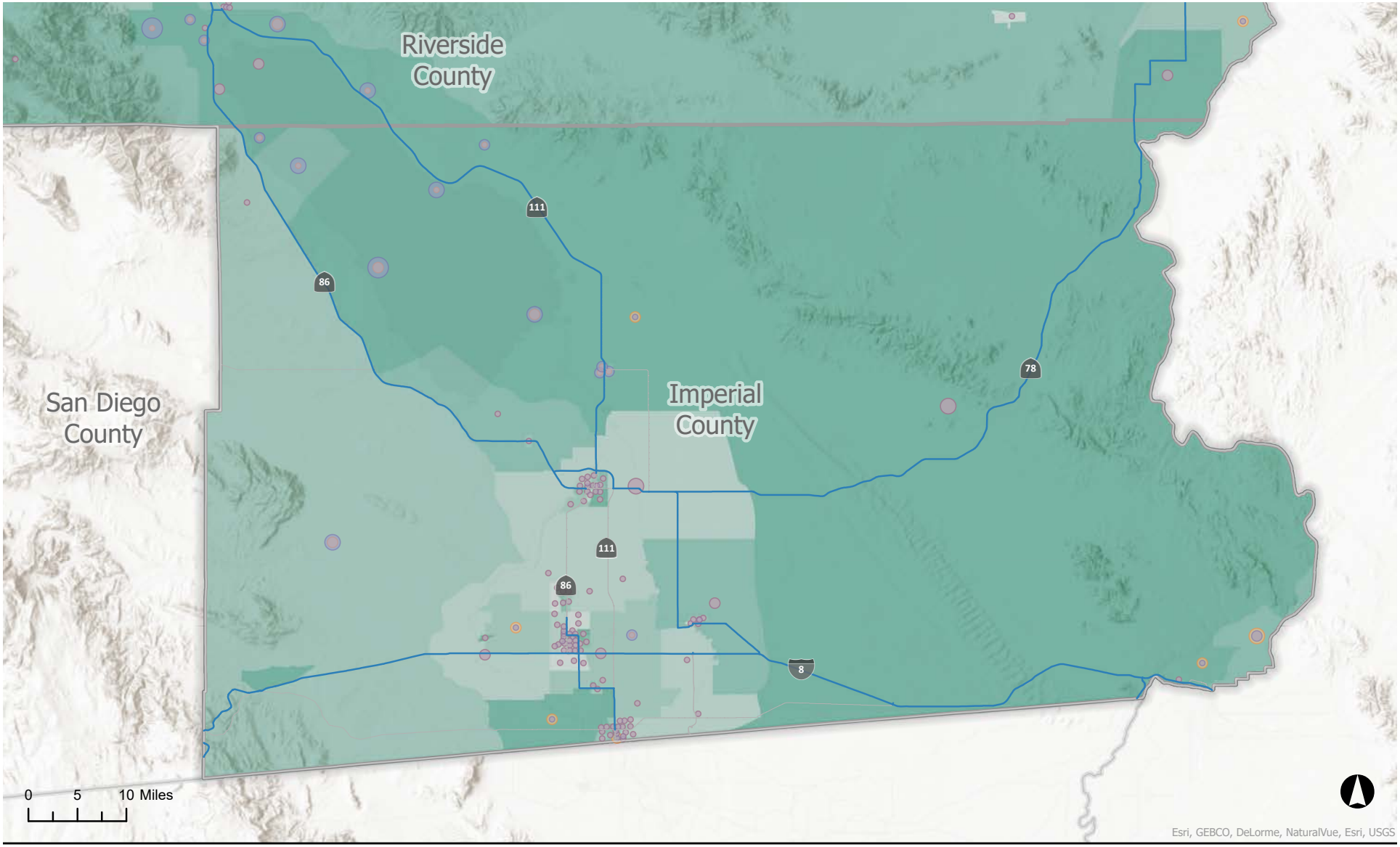
Percent Low Income Households

- 0% - 4.8%
- 4.9% - 11.9%
- 12.0% - 20.3%
- 20.4% - 32.5%
- 32.6% - 100%

Source: SCAG 2022, ACS 2016-2020 5-Year Summary File, 2021 Middle-Mile Broadband Initiative

APPENDIX C
COUNTY-LEVEL MIDDLE-MILE PROJECTS

APPENDIX C – FIGURE 1 Broadband Middle Mile Imperial County



Percent Low Income Households
- 0% - 4.8%
- 4.9% - 11.9%
- 12.0% - 20.3%
- 20.4% - 32.5%
- 32.6% - 100%

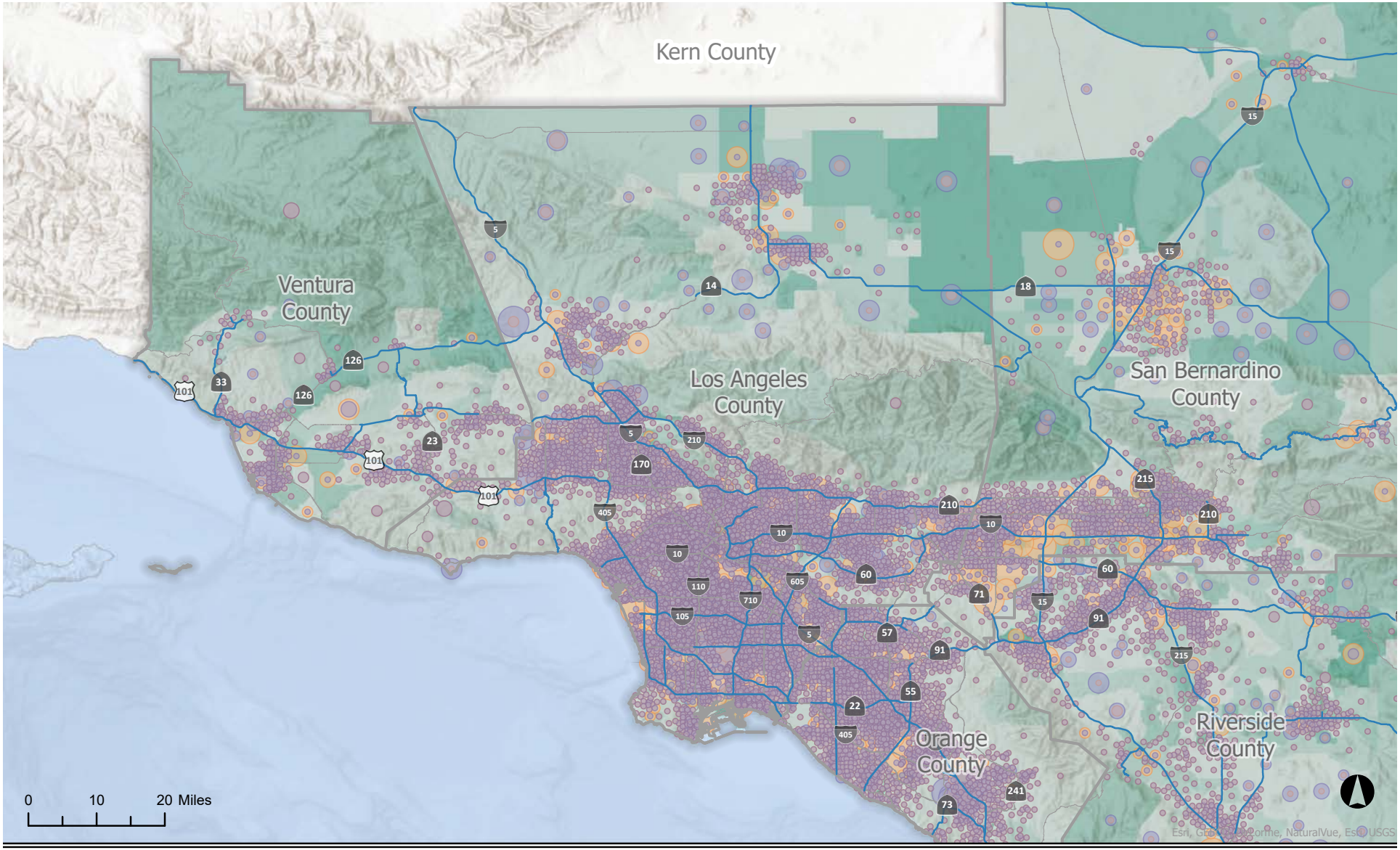
Unserved Non-Residential
- 0 - 100
- 101 - 250
- 251 - 500
- 501 - 1000
- 1001 - 3876

Unserved Residential
- 0 - 100
- 101 - 250
- 251 - 500
- 501 - 1000
- 1001 - 1973

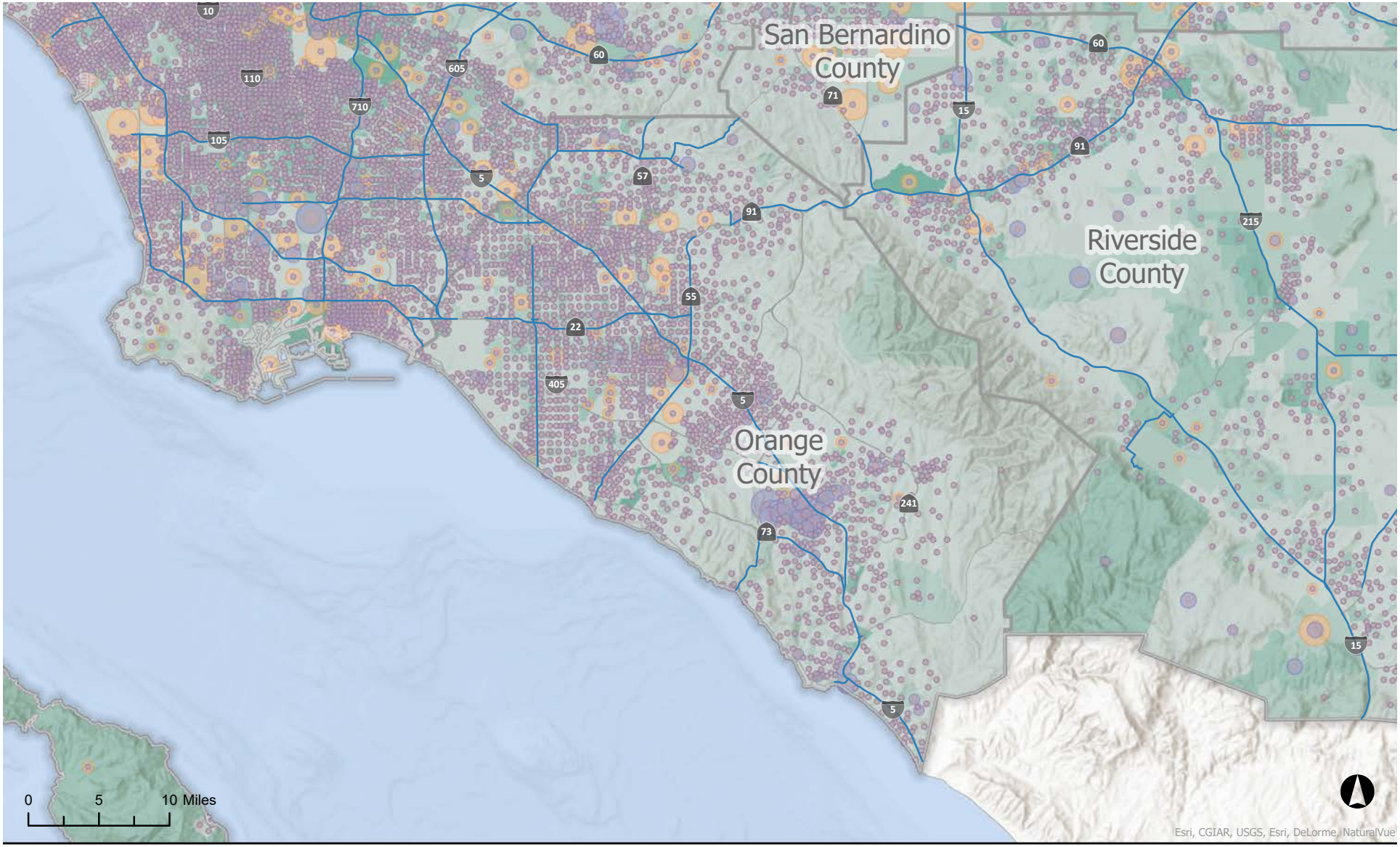
CPUC Anchor Build Fiber Highways

Source: SCAG 2022, ACS 2016-2020 5-Year Summary File, 2021 Middle-Mile Broadband Initiative

APPENDIX C – FIGURE 2 Broadband Middle Mile Los Angeles County



Source: SCAG 2022, ACS 2016-2020 5-Year Summary File, 2021 Middle-Mile Broadband Initiative



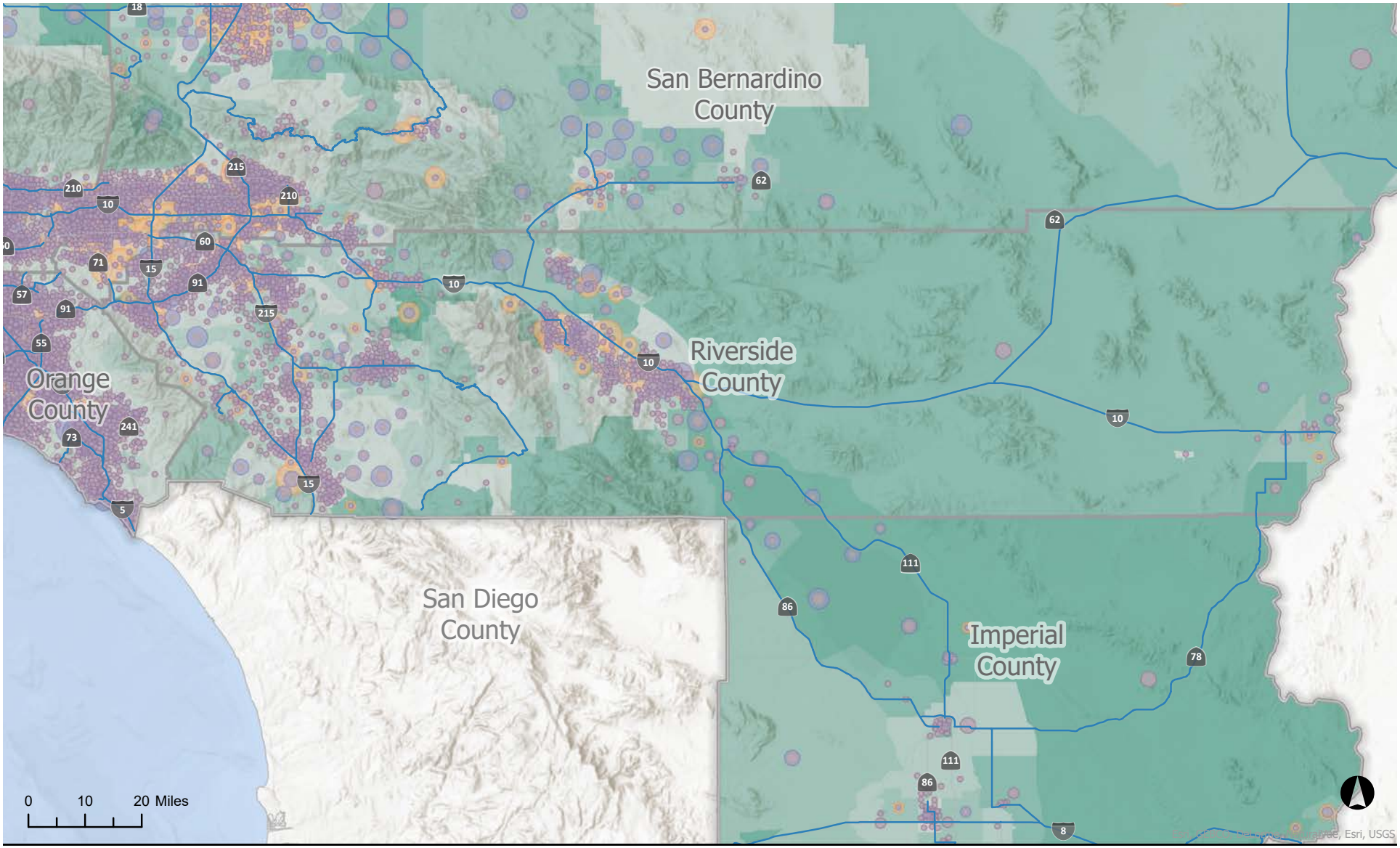
Percent Low Income Households
- 0% - 4.8%
- 4.9% - 11.9%
- 12.0% - 20.3%
- 20.4% - 32.5%
- 32.6% - 100%

Unserved Non-Residential
- 0 - 100
- 101 - 250
- 251 - 500
- 501 - 1000
- 1001 - 3876

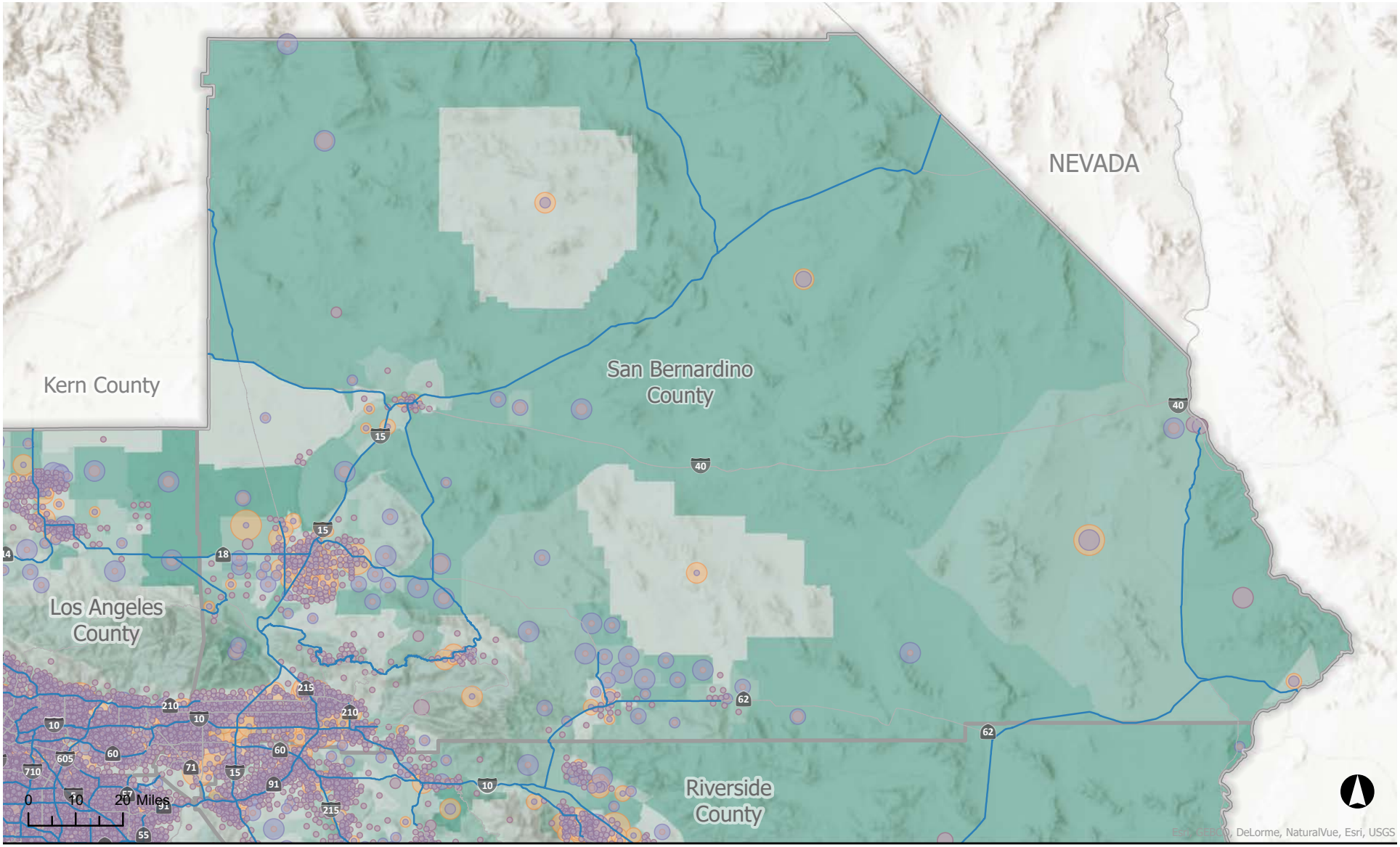
Unserved Residential
- 0 - 100
- 101 - 250
- 251 - 500
- 501 - 1000
- 1001 - 1973

CPUC Anchor Build Fiber Highways

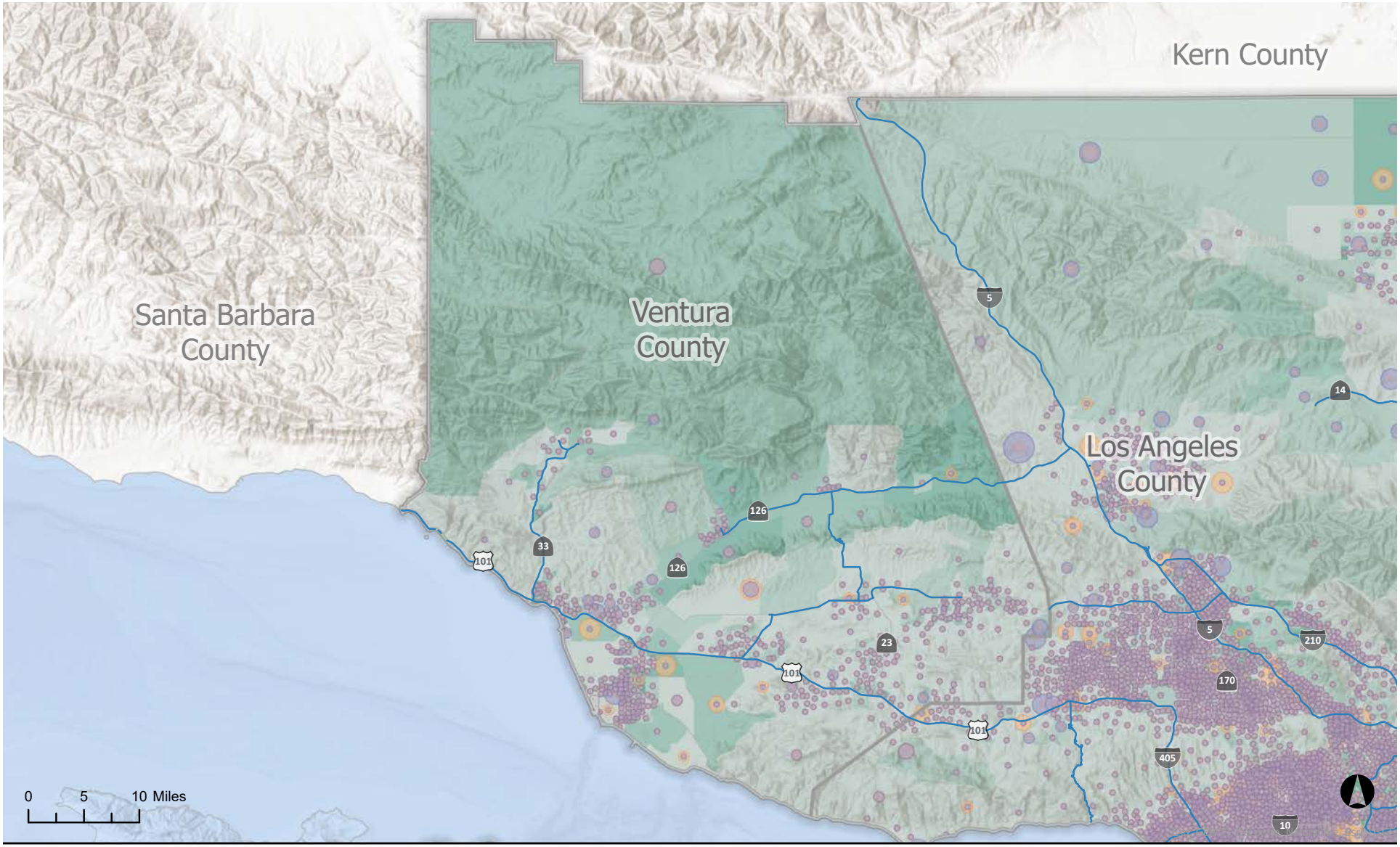
Source: SCAG 2022, ACS 2016-2020 5-Year Summary File, 2021 Middle-Mile Broadband Initiative



Source: SCAG 2022, ACS 2016-2020 5-Year Summary File, 2021 Middle-Mile Broadband Initiative



Source: SCAG 2022, ACS 2016-2020 5-Year Summary File, 2021 Middle-Mile Broadband Initiative



Source: SCAG 2022, ACS 2016-2020 5-Year Summary File, 2021 Middle-Mile Broadband Initiative

SCAG™
INNOVATING FOR A BETTER TOMORROW

MAIN OFFICE
900 Wilshire Blvd., Ste. 1700,
Los Angeles, CA 90017
Tel: (213) 236-1800

REGIONAL OFFICES

IMPERIAL COUNTY
1503 North Imperial Ave., Ste. 104
El Centro, CA 92243
Tel: (213) 236-1967

ORANGE COUNTY
OCTA Building
600 South Main St., Ste. 741
Orange, CA 92868
Tel: (213) 236-1997

RIVERSIDE COUNTY
3403 10th St., Ste. 805
Riverside, CA 92501
Tel: (951) 784-1513

SAN BERNARDINO COUNTY
Santa Fe Depot
1170 West 3rd St., Ste. 140
San Bernardino, CA 92418
Tel: (213) 236-1925

VENTURA COUNTY
4001 Mission Oaks Blvd., Ste. L
Ventura, CA 93012
Tel: (213) 236-1960

LEARN MORE / SCAG.CA.GOV

AGENDA ITEM 6

REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 – Regional Council Room
Los Angeles, CA 90017
November 3, 2022

To: Transportation Committee (TC)
Regional Council (RC)

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

From: Alina Borja, Community Engagement Specialist
(213) 630-1449, borja@scag.ca.gov

Subject: Pedestrian Safety Month: Highlighting Go Human's 2022 Outcomes

RECOMMENDED ACTION FOR TC:
Receive and File

RECOMMENDED ACTION FOR RC:
Information Only – No Action Required

STRATEGIC PLAN:
This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians. 2: Advance Southern California's policy interests and planning priorities through regional, statewide, and national engagement and advocacy. 4: Provide innovative information and value-added services to enhance member agencies' planning and operations and promote regional collaboration. 6: Deploy strategic communications to further agency priorities and foster public understanding of long-range regional planning.

EXECUTIVE SUMMARY:
On May 1, 2014, the General Assembly adopted Resolution No. GA 2014-2 titled "Regional Effort to Promote Pedestrian and Bicycle Safety Initiative." To pursue this effort, SCAG launched Go Human, a Regional Active Transportation Safety and Encouragement Campaign, with funding from the Active Transportation Program (ATP). To extend campaign efforts, SCAG has secured Pedestrian/Bicycle Safety funds from the California Office of Traffic Safety (OTS) annually, to date. SCAG secured a grant in the amount of $1,250,000 to conduct a sixth round of Go Human safety programming and engagement across the region, approved by the Regional Council on October 7, 2021. SCAG, in coordination with its local and regional partners, has since completed and exceeded OTS grant activities and deliverables.

This report provides an update on accomplishments of the **Go Human** ***Campaign over the course of the last completed grant period, ending September 30, 2022, focusing on outcomes from a $1,250,000 grant received from OTS that culminated in a series of traffic safety community engagement events and projects.***

BACKGROUND:

Introduction

The SCAG region, like California and the nation, experienced a period of annual declines in traffic-related fatalities and serious injuries until 2012 when they began to steadily rise. Each year in Southern California, an average of 1,450 people are killed, 5,500 are seriously injured, and 124,000 are injured in traffic collisions. In the past decade, pedestrians and bicyclists constituted approximately 32 percent of all fatal victims, disproportionate to their mode share of just under 3 percent of the daily trips.

Created through a collaboration between SCAG, County Transportation Commissions, and Public Health Departments, SCAG *Go Human* is an award-winning community engagement program with the goals of reducing traffic collisions and encouraging people to walk and bike more in the SCAG region. The program has been funded annually through the California Office of Traffic Safety for the past five years. During the most recent grant period, ending September 30, 2022, with $1,250,000 in funding, *Go Human* implemented multiple strategies to improve the safety of residents walking and biking across the region.

This item is being presented to inform SCAG Policy Members of the highlights and outcomes of *Go Human's* recent grant activities, including the *Go Human* Mini-Grants, temporary safety demonstrations with the Kit of Parts, distribution of co-branded safety advertisements, and the Storytelling Campaign.

Strategies

1) *Go Human Mini-Grants*

In April 2022, SCAG *Go Human* re-launched its Mini-Grants Program. This program funds community-based organizations, non-profits, and social enterprises to implement innovative traffic safety and community engagement projects. The program aims to build street-level community resiliency and increase the safety of people most harmed by traffic injuries and fatalities, including without limitation Black, Indigenous and People of Color; people with disabilities; and frontline workers, particularly those walking and biking.

SCAG *Go Human* awarded $356,505 to 26 projects across the region, in each of SCAG's six counties, through a competitive Call for Projects. Projects included demonstrations of safety infrastructure, public art to encourage safe driving, walk audits, community bike rides, and other outreach events.

Table 1. *Go Human* Mini-Grant Awards by County

County	Number of Awards	Total Amount Distributed
Imperial	1	$14,625.50
Los Angeles	15	$208,044.24
Orange	4	$55,957.51
San Bernardino	3	$37,259.04
Riverside	1	$10,630.11
Ventura	2	$29,979.00
Total	**26**	**$356,505.40**

SCAG provided technical assistance to awardees throughout the project implementation period. Four awardees deployed the Kit of Parts, seven awardees utilized Co-Branded safety messaging material, and 20 awardees received bicycle helmets and fitting guides to distribute to community members.

2) Temporary Safety Demonstrations with the Kit of Parts Lending Library

Go Human's Kit of Parts Lending Library is an engagement tool provided at no-cost to jurisdictions to temporarily demonstrate safety infrastructure. Designed with modular elements, the Kit supports planning efforts by showcasing potential and planned street design treatments that support public space, improve equity, and enhance community resiliency. SCAG supported partners with 13 temporary demonstration projects across the region, supporting five of these partners with in-depth technical assistance in their deployments.

Table 2. Temporary Safety Demonstrations with the Kit of Parts by County

County	Number of Demonstrations	Jurisdictions
Imperial	1	City of Westmorland
Los Angeles	8	City of Azusa, City of Los Angeles, County of Los Angeles, City of Long Beach, City of Pomona, City of Pasadena
Orange	2	City of Santa Ana, City of Laguna Niguel
San Bernardino	1	City of San Bernardino
Riverside	1	City of Cathedral City
Ventura	-	-
Total	**13**	

3) Co-Branding & Traffic Safety Advertising Strategies

SCAG *Go Human* supported local traffic safety advertisement campaigns by providing print and digital material to jurisdictions and community organizations. SCAG designed, co-branded, printed, and shipped advertisements to partners at no cost. SCAG *Go Human* provided more than 11,000 materials to 24 partners across the region.

Table 3. Distribution of Co-Branded Advertisements by County

County	Number of Local Partner Requestors	Number of Materials	Associated Value
Imperial	2	4,450	$8,900
Los Angeles	10	3,275	$13,115.35
Orange	6	2,406	$24,798.78
San Bernardino	3	814	$4,026.23
Riverside	1	549	$1,969.98
Ventura	1	157	$984.65
Total	**24**	**11,642**	**$53,792.55**

Additionally, SCAG developed media plans to support *Go Human* Advertisement Campaigns at Affordable Housing Sustainable Communities projects including Elden Elms (Los Angeles County), Hollywood Arts Collective (Los Angeles County), Ocotillo Springs (Imperial County), PATH Villa Hollywood (Los Angeles County), Ventura Westside (Ventura County), and Weingart Tower (Los Angeles County).

4) Communications and Storytelling Campaign

The Communications and Storytelling Campaign provided resources and funding to *Go Human* partners and their communities to tell their stories about the impacts of traffic violence and their work to make change. The campaign comprised three strategies, including paid social media, a Storytelling Toolkit, and the Safety Pledge Drive.

Strategy	Outcomes
Paid Social Media Campaign *$14,500 social media ad buy in English and Spanish, targeting inland communities*	• 1+ million impressions • 500,000 people reached • 200+ mentions of @GoHumanSoCal
Storytelling Toolkit *Produced social media videos from footage gathered by Go Human Mini-Grant Awardees and provided free helmets for safety education*	• 11 videos produced • 104,000 views • 600+ helmets distributed

Safety Pledge Drive *Outreach to encourage local jurisdictions to sign the pledge, with incentives to support activities during National Pedestrian Safety Month.*	• 8 new jurisdiction signatories • 2 geotargeted social media campaigns provided • Co-branded material provided, including 2 photobooth backdrops, 1 banner, and lawn signs

FISCAL IMPACT:
All costs associated with this item are included in the FY 2022-23 Overall Work Program (OWP) under project number 225.3564.17 and funded by a Pedestrian and Bicycle Safety Program Grant from the California Office of Traffic Safety.

ATTACHMENT(S):
1. PowerPoint Presentation – SCAG Go Human Office of Traffic Safety Grant Outcomes

2022 *Go Human* Office of Traffic Safety Grant: Outcomes

November 3, 2022

WWW.SCAG.CA.GOV

2022 Mini-Grant Awardee Project "How East Los Moves" from Public Matters

Presentation Contents

1 **Program Background**

2 **Safety Strategies**
- **Mini-Grants**
- **Storytelling Campaign**
- **Safety Pledge**
- **Co-Branded Materials**
- **Kit of Parts Demonstrations**

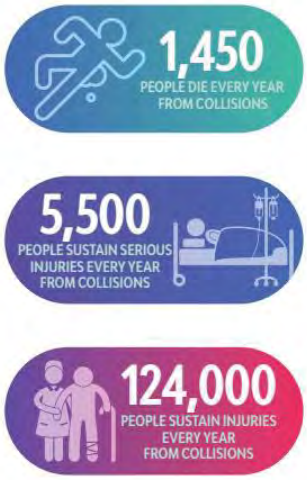
3 **Upcoming Safety Strategies**

Program Background

Pedestrian Safety Month & *Go Human*

- SCAG launched its community engagement and traffic safety program, *Go Human*, in 2015 to reduce traffic collisions and encourage people to walk and bike more.
- During the COVID-19 pandemic, traffic volumes decreased while traffic fatalities increased.
- Pedestrian Safety Month reminds us to center the safety of people walking and recommit to safety strategies to create safer streets for everyone.

Regional Traffic Safety Data Snapshot



People who walk and bike

3%

Daily Trips

32%

Fatalities

**from SCAG's 2021 Transportation Safety Regional Existing Conditions Report*

Safety Strategies – Mini-Grants

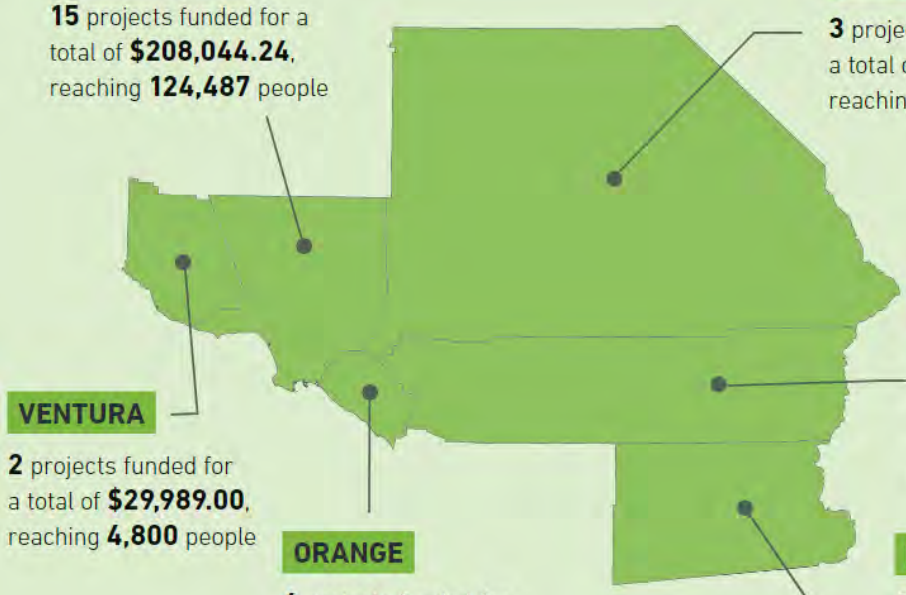
About the Program

- *Go Human* Mini-Grants Program is SCAG's funding opportunity for community organizations to lead traffic safety projects.
- Projects were supported with *Go Human* resources and technical assistance

Eligible Applicants	Community-based organizations, non-profits, social enterprises
Max. Funding Amount	$15,000
Total Awarded	26 projects $350,000+

2022 Mini-Grant Awardee Project "Harvard Park Walking Club" from Urban Peace Institute

Mini-Grant Funding Summary



LOS ANGELES
15 projects funded for a total of **$208,044.24**, reaching **124,487** people

SAN BERNARDINO
3 projects funded for a total of **$37,259.04**, reaching **73,180** people

RIVERSIDE
1 project funded for a total of **$10,630.11**, reaching **2,500** people

VENTURA
2 projects funded for a total of **$29,989.00**, reaching **4,800** people

ORANGE
4 projects funded for a total of **$55,957.51**, reaching **100,393** people

IMPERIAL
1 project funded for a total of **$14,625.50** reaching **956** people

5

2022 Mini-Grant Project Spotlights

Nyeland Promise
"Safe Travels, Viajes Seguros"

Highlanders Boxing Club
"Calles Seguras"

Community Intelligence
"Go Crenshaw Wayfinding Project"

The ArtLands
"Revitalizing Public Transit through Bus Bench Art"

6

Storytelling Campaign

Storytelling campaign provided resources for partners to tell their stories about the impacts of traffic violence and their work to make change.

Included:

- 11 Mini-Grant Awardee-created videos
- 600+ Helmets distributed
- 2 Media campaigns
- Safety Pledge drive

Nyeland Promise,
Safe Travels

Chesterfield Square Community Block Club,
Chesterfield Square Mural Dedication Event

Yolanda Davis Overstreet,
Continuing to Ride: Biking While Black Through Decriminalization, Disenfranchisement, and Gentrification

Connie Rice Institute for Urban Peace,
Harvard Park Walking Club for Safer Streets

Go Human Safety Pledge

Safety Pledge Signatories

8 new agency signatories and 172 total signatories

- City of Santa Ana Public Works Department
- California State Assembly District, 47th District
- Orange County Health Care Association
- City of San Bernardino
- City of South El Monte
- City of Yorba Linda
- City of Alhambra
- City of Indio

- A tool to encourage local jurisdictions to create change.
- People can sign on behalf of a jurisdiction, an organization, or themselves.
- Safety Pledge signatories gain access to benefits.
- This summer, new signatories gained access to paid media campaigns, photobooth backdrops, and Safety Pledge banners.
- Sign the Safety Pledge at https://scag.ca.gov/scag-safety-pledge

Co-branded Safety Messaging Materials

SCAG designs, co-brands, prints, and ships safety advertisements in multiple languages at no cost to partner agencies and CBOs.

Ads include:
- Lawn Signs
- Banners
- Postcards
- Digital Media
- Custom Requests

Safety Strategies – Co-branded Materials

Co-Branded Safety Messaging Materials

Affordable Housing Sustainable Communities (AHSC)

- SCAG provided advertisement plans to support *Go Human* Advertisement Campaigns at Affordable Housing Sustainable Communities projects
  - Elden Elms (Los Angeles County), Hollywood Arts Collective (Los Angeles County)
  - Ocotillo Springs (Imperial County)
  - PATH Villa Hollywood (Los Angeles County)
  - Ventura Westside (Ventura County)
  - Weingart Tower (Los Angeles County).
- Advertisements will run through 2023.

Kit of Parts

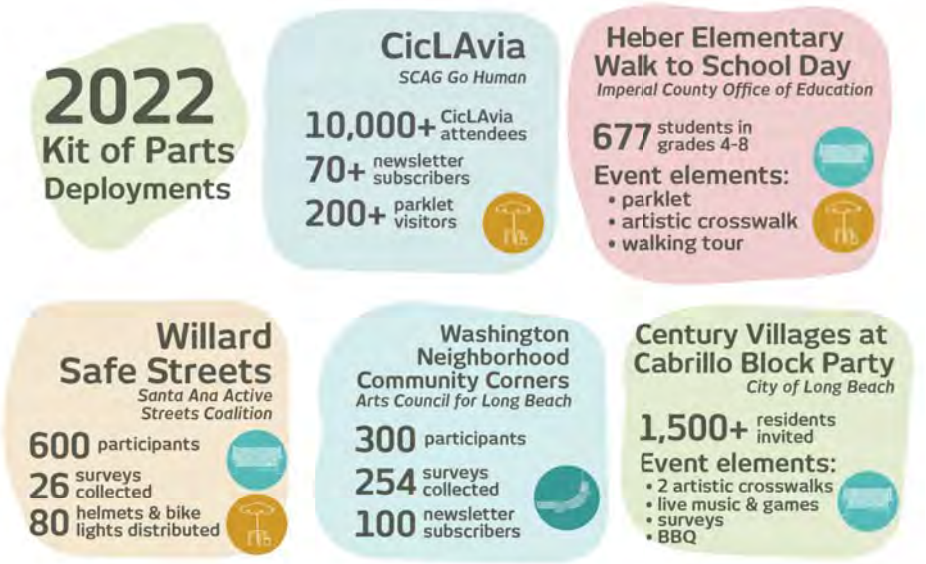
Curb extension demonstration from 2022 Mini-Grant Awardee Arts Council for Long Beach

The **Kit of Parts** is a no-cost engagement tool for jurisdictions to temporarily demonstrate safety infrastructure.

13

Traffic safety demonstrations used the Kit of Parts in 2022

Kit of Parts & Technical Assistance



5

Partners received technical assistance for Kit of Parts demonstrations

Upcoming Safety Strategies

- SCAG will provide technical assistance for Complete Streets demonstrations using the **Kit of Parts**.
- SCAG will pilot the creation of **Go Human Community Hubs** to increase access to safety resources in the region.
- SCAG Go Human will run a **storytelling campaign**, with continued distribution of co-branded advertisements

THANK YOU!

For more information, please visit:

scag.ca.gov/go-human

AGENDA ITEM 7

REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 – Regional Council Room
Los Angeles, CA 90017
November 3, 2022

To: Transportation Committee (TC)

EXECUTIVE DIRECTOR'S APPROVAL

From: Jaimee Lederman, Senior Planner
(213) 236-1948, lederman@scag.ca.gov

Kome Ajise

Subject: Update on Connect SoCal 2024 Financial Plan Development: Operations and Maintenance Policy

RECOMMENDED ACTION:
Receive and File

STRATEGIC PLAN:
This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians. 7: Secure funding to support agency priorities to effectively and efficiently deliver work products.

EXECUTIVE SUMMARY:
A financial plan is a critical element of a Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) that identifies the source of funds from public and private sources that can reasonably be expected to be available to support the region's surface transportation investments. This report will provide an update of the 2024 RTP/SCS (Connect SoCal 2024) financial plan development, specifically addressing development of cost estimates to operate and maintain the regional transportation system.

BACKGROUND:
The 2024 RTP/SCS (Connect SoCal 2024) must include a financial plan that estimates how much funding will be needed to implement recommended improvements, as well as operate and maintain the transportation system as a whole, over the minimum 20-year planning horizon. This includes information on how the region reasonably expects to fund the projects and programs included in Connect SoCal 2024, including anticipated revenues from federal, state, local, and private sources and user charges. The financial plan must demonstrate that there is a balance between the expected revenue sources for transportation investments and the estimated costs of the projects and programs described in Connect SoCal 2024, ensuring that the Plan is fiscally (or financially) constrained.

This item provides an update of Connect SoCal 2024 financial plan development, including the working draft Operations and Maintenance (O&M) forecast. The initial O&M forecast comprises projections of expenditures to operate and maintain the current system over the life of the Connect SoCal 2024. Staff will report back in the near future on the estimated costs of projects and programs under consideration for inclusion (e.g., projects and programs submitted by the County Transportation Commissions) in Connect SoCal 2024 and identification of potential sources of new revenue and innovative financing strategies that may be necessary to address the region's transportation needs.

SCAG's O&M analysis includes forecasts for four categories: transit, passenger rail, the state highway system, and regionally significant local streets and roads. For each of these categories, SCAG forecasts expenditures necessary for maintaining a state of good repair for the existing baseline system based on historical data, key assumptions, and policy changes.

We additionally forecast debt service over the life of the Plan. Local agencies in the SCAG region continue to rely on debt financing to ensure that revenues are available to meet the cash flow requirements of future expenditures. The Los Angeles County Metropolitan Transportation Authority develops a detailed county financial model that includes debt service. Other County Transportation Commissions (CTCs) prepare debt service forecasts for rating agencies and report current debt service in their comprehensive annual financial reports (CAFRs).

Key Assumptions and Policy Issues for O&M Forecasting

Inflation / Cost Escalation

Assumptions about inflation and construction cost escalation are a key issue for the financial plan. SCAG assumes long-term stability for the financial plan while acknowledging current short-term volatility. In the previous presentation at the October TC meeting, SCAG staff discussed how inflation assumptions impact forecasted core revenues. The same concerns about inflation affect the O&M expenditure forecasts. Additionally, the O&M forecast incorporates assumptions about long-term construction and labor costs, which have significantly increased in the short-term. These increases present challenges for local governments and transportation agencies to maintain baseline conditions with historical funding levels. Additionally, short-term financial volatility has increased uncertainty about many of the partner agency short-term cost forecasts relied on as inputs to the RTP/SCS financial plan.

Transit/Passenger Rail Uncertainties

The transit and passenger rail forecast includes O&M expenditures to maintain the existing system, as well as forecasted rehabilitation and replacement needs. Future transit O&M costs depend on a variety of factors, such as future revenue-miles of service, labor contracts, and the age of rolling

stock. Forecasting O&M expenditures in this cycle entails grappling with multiple policy uncertainties.

- Service levels for many transit operators dropped during the COVID pandemic and are still recovering. To forecast the path for transit service recovery and how this impacts long-term service level forecasts from operators is crucial to the financial plan and Connect SoCal 2024. SCAG is working with local agencies and transit planning staff to incorporate appropriate service level assumptions into the financial plan.
- Service level planning is complicated by the significant drop in transit ridership during the pandemic and the slow recovery, particularly as increased levels of telework persist in the region. While transit service level planning is intertwined with ridership, the dependency of forecasts on ridership is part of a larger policy discussion on the role of transit as a backbone service and a tool to increase equity throughout the region by expanding mobility options.
- Transit agencies benefited from large-scale federal operating support during the pandemic from a series of one-time federal stimulus funding bills that partially compensated for increased costs and decreased farebox revenues. The recent surface transportation funding bill (the Infrastructure Investment and Jobs Act (IIJA) increased transit funding over previous legislation but does not rise to the level of support in the stimulus bills. There is additional uncertainty surrounding how much of the increased funding will flow to the SCAG region through competitive grant programs, and whether IIJA funding levels will continue after Fiscal Year 2026 when the current authorization expires.
- Our forecast for transit O&M also includes estimated expenditures for rehabilitation and replacement of rolling stock. Adopted in December 2018 by the California Air Resources Board (CARB), the Innovative Clean Transit Rule mandates the purchase of zero-emission buses (ZEBs) by transit agencies. Beginning in 2029, 100 percent of new purchases by transit agencies must be ZEBs, with a goal for full transition by 2040. Based on current costs for ZEB, this will likely increase rehabilitation and replacement costs compared to historical growth, and the rate of growth is uncertain and will likely differ across agencies depending on the current vehicle fleet mix and age.
- SCAG is also federally required to coordinate with transit agencies and CTCs across the SCAG region to set performance measures/targets for Transit Asset Management (TAM) that focus on the maintenance of our regional transit system in a state of good repair. For Connect SoCal 2020, the targets reflected a desire to maintain 2019 conditions through the Connect SoCal horizon period of 2045. This is an aspirational target, as it is unlikely the region would meet all of these targets unless substantial additional funding is identified, or cuts are made in other areas such as operations. As part of the Connect SoCal 2024 development, SCAG will work with the CTCs and region's transit operators to review and refine the methodology, conduct data collection and analysis, and identify reasonable assumptions for future years based on the Connect SoCal 2024 planning horizon, including engaging in a regional discussion about state of good repair and needed additional funding.

Regionally Significant Streets and Roads

Our forecast for O&M of regionally significant streets and roads includes necessary expenditures to preserve road conditions, a broad category that not only includes road pavement conditions but traffic signals, streetlights, sidewalks, ramps as required by the American Disabilities Act (ADA), curb & gutter management, and additional active transportation investments. The forecast is based on historical expenditures and the most recently available statewide local streets and roads needs assessment.

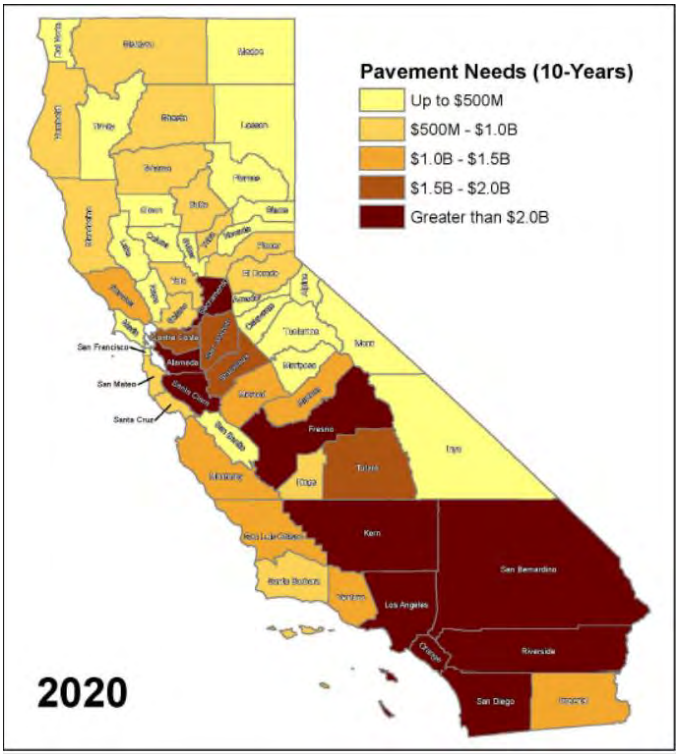


Figure 1: Ten-Year Pavement Needs by County
Source: California Statewide Local Streets and Roads Needs Assessment, August 2021

The forecast is sensitive to system preservation policies, as well as other policies that impact future spending on local streets and roads. For example, SCAG is working to support regional implementation of a complete streets policy to improve conditions for bicyclists and pedestrians. Estimating needs for complete streets implementation is further complicated by the necessity of context sensitive design for complete streets projects, resulting in costs that vary substantially across projects and jurisdictions. SCAG will continue tracking program implementation guidelines as they evolve and revise our forecast accordingly.

Expanding needs to encompass resilience across all aspects of the transportation system

O&M forecasts are also dependent on incorporating the pressing need to encompass resiliency planning and expenditures to address potential vulnerabilities in the system from extreme weather events. SCAG staff are instituting processes to gather data on the magnitude of additional expenditures for system resiliency. These concerns extend to maintenance of all capital assets in the transportation system and could increase operations spending as excessive heat and other factors impact operations.

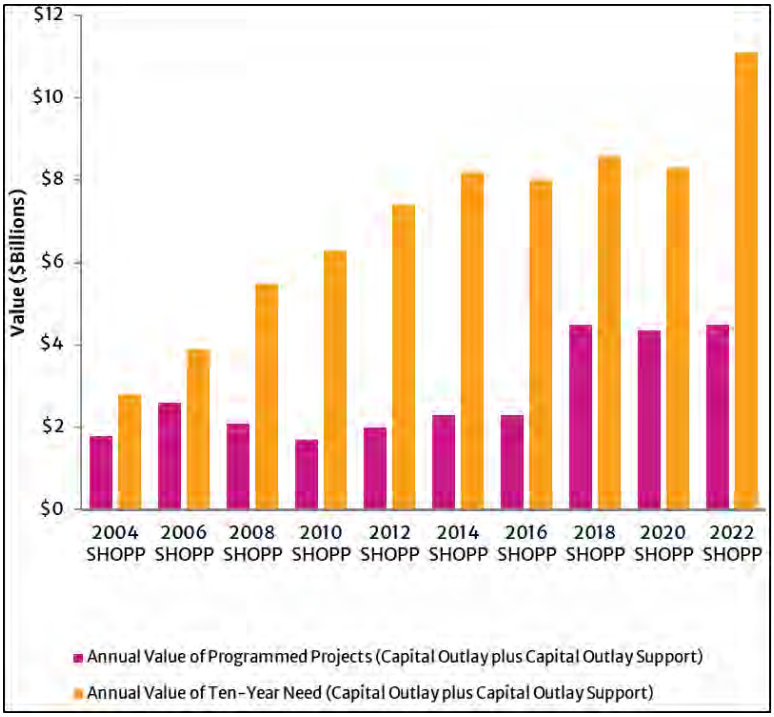


Figure 2: State Highway Needs and Expenditures Comparison
Source: Caltrans State Highway System Management Plan

For example, the Caltrans 2021 State Highway System Management Plan includes "new objectives" for sea level rise and storm surge adaptation, an increase of $23.9 billion in additional funding needs over the next ten years. Resiliency needs are projected to increase the gap between estimated available funding and O&M needs, challenging progress the region has made in addressing outstanding system preservation needs throughout the state and region. New funding sources such as the federal Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) funding and state funding programs under California Senate Bill 198 (SB 198) may help address this gap, but guidelines for these programs are not yet finalized.

Next Steps

Staff will continue to update and revise the O&M forecast according to new data and evaluate the impact of policy scenarios as discussed above. Staff will continue to coordinate with CTCs and update local data, and tracking expanded federal and state sources that could increase O&M funding. We will continue internal coordination to ensure consistency with Transportation Asset Management target setting and other SCAG planning activities. SCAG staff will continue to provide additional financial plan updates at future Transportation Committee meetings.

FISCAL IMPACT:

Work associated with this item is included in the Fiscal Year 2022-2023 Overall Work Program (015.0159.01: RTP Financial Planning).

AGENDA ITEM 8

REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 – Regional Council Room
Los Angeles, CA 90017
November 3, 2022

To: Community Economic & Human Development Committee (CEHD)
Energy & Environment Committee (EEC)
Transportation Committee (TC)
Regional Council (RC)

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

From: Tom Vo, Program Manager I
(213) 236-1930, vo@scag.ca.gov

Subject: Local Information Services Team (LIST) Status Update for Connect SoCal 2024 Local Data Exchange (LDX) Process

RECOMMENDED ACTION FOR CEHD AND EEC:
Information Only - No Action Required

RECOMMENDED ACTION FOR TC AND RC:
Receive and File

STRATEGIC PLAN:
This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians. 3: Be the foremost data information hub for the region. 4: Provide innovative information and value-added services to enhance member agencies' planning and operations and promote regional collaboration.

EXECUTIVE SUMMARY:
On May 23, 2022, SCAG officially launched the Local Data Exchange (LDX) process, which is a local jurisdiction's opportunity to provide input related to the future growth of employment, household, and land use to help the development of Connect SoCal 2024 (i.e., Regional Transportation Plan/Sustainable Communities Strategy or RTP/SCS). The LDX process aims to gather the most updated land use, growth, and related information from local jurisdictions to link and align local planning with regional plan vision, goals, and objectives—namely, SCAG's climate, mobility, economy, and sustainability goals. Throughout 2022, SCAG's Local Information Services Team (LIST) has continued to schedule and meet virtually one-on-one with all 197 jurisdictions to (1) provide background on the development of Connect SoCal 2024, (2) discuss the maps in their local context, and (3) provide training on available tools in the Regional Data Platform (RDP). To date, LIST has met and scheduled one-on-one LDX meetings with 131 (66%) jurisdictions. LIST is currently collaborating with SCAG Regional Affairs Officers (RAOs) and subregional Council of Governments (COGs) to outreach to local jurisdictions on the list in Appendix 1. To participate in the LDX process, please contact LIST email at LIST@scag.ca.gov. Staff will also communicate and

remind local jurisdictions to provide LDX data and survey comments by the deadline on December 2, 2022.

BACKGROUND:

Introduction of Connect SoCal and the Local Data Exchange Process

A principal requirement of RTP is to meet various transportation conformity requirements. In addition, Senate Bill 375 mandates the integration of land use, housing planning, and transportation, known as the Sustainable Communities Strategy (SCS) as part of RTP. Under SB 375, the California Air Resources Board (CARB) issues a greenhouse gas (GHG) emissions reduction target for the region and requires metropolitan planning organizations (MPO), SCAG, to develop a SCS that demonstrates target achievement in alignment with RTP and housing planning. SCAG region's GHG target in 2035 is unchanged from the last planning cycle, which is a 19 percent per capita reduction in GHG emissions from light and medium-duty vehicles below 2005 levels.

SCAG relies on input and collaboration from regional partners and local jurisdictions in developing Connect SoCal—namely, the projects list provided by County Transportation Commissions (CTCs) and local land use and growth data from each of the 191 cities and 6 counties. SCAG also engages with other major stakeholders through working groups, technical advisory committees, and direct engagement throughout the development of the plan.

To develop a sound regional plan—Connect SoCal 2024— that can meet both federal and state requirements, the region's vision, goals, and objectives, and prepare for the engagement of local jurisdictions through the LDX process, staff produced a set of growth forecasts of households and employment and GIS maps for each of the region's 197 local jurisdictions to review (available at https://scag.ca.gov/local-data-exchange). In addition, staff designed and provided an interactive RDP-LDX web (https://hub.scag.ca.gov/pages/ldx) to communicate the goals and objectives with information and trainings required to facilitate local jurisdictions' participation and engagement in the LDX process. The key LDX datasets in these maps fall into three categories: data on which SCAG is requesting local updates and revisions, data that is provided to local jurisdictions as an optional editing opportunity, and third-party data which are related to plan development requirements and are provided by SCAG for informational purposes as a consideration during LDX.

Throughout 2022, SCAG's LIST has scheduled and met virtually one-on-one with almost 120 SCAG region jurisdictions to provide background on the development of Connect SoCal 2024, discuss the maps in their local context, and provide training on available tools in the RDP-LDX web. Maps are available in the data/map book and digital versions are available to local jurisdictions through the portal. However, staff has to address two challenges: first, outreach to those jurisdictions who have yet to schedule 1-1 meetings with LIST (Appendix 1); second, communicate and remind all jurisdictions to provide their LDX input and comments by December 2, 2022. As such, staff planning

team can move forward to next steps in Connect SoCal 2024 development, including modeling, scenarios, and workshops preparations.

Introduction of the Regional Data Platform and Local Data Exchange Portal

The Regional Data Platform (https://scag.ca.gov/RDP) is a collaborative data-sharing and planning system designed to facilitate better planning for cities and counties of all levels across the region. RDP is intended:

- To strengthen local planning practices through the provision of modern planning tools and the sharing of best practices to support the local General Plan update process
- To enhance the regional planning process by streamlining the collection and integration of data between local agencies and SCAG
- To promote transparency and interagency collaboration to foster a more inclusive, equitable, and sustainable regional planning practice

RDP has been designed with three major components—*Accessible Data and Information*, *Planning and Engagement Tools*, and *Data Sharing Tools and Workflows*. Tools and resources have been produced in each of these categories with the assistance of ten pilot jurisdictions.

Under *Accessible Data and Information*, the RDP's Regional Hub is a one-stop location for data, tools, reports, and collaboration. SoCal Atlas is a web-based application providing the ability to explore commonly used data, statistics, and maps across topics (e.g., demographics, employment, housing, etc.) and geographies (e.g., county, city, census tracts, etc.). *Planning and Engagement Tools* include the Housing Element Parcel Tool (HELPR) and Parcel Locator applications for public use. Additionally, local jurisdictions have access to several pieces of off-the-shelf Environmental System Research Institute (Esri) software (i.e., ArcGIS Pro, Urban, Community Analyst, Online, Hub) and a local General Plan update site template to easily create a website to facilitate and engage residents during a General Plan update.

The *Data Sharing Tools and Workflows* component has been centered around the LDX process. The LDX web (https://hub.scag.ca.gov/pages/ldx) was designed to enable secured two-way data exchange between local jurisdictions and SCAG using Esri's latest technology. The LDX portal allows local jurisdiction users who have requested access to view, provide feedback, or directly edit the Connect SoCal-related data and maps described above in three ways:

- Accessing & Inputting LDX Data – A space dedicated to tools and resources for local jurisdictions and key stakeholders to exchange data shared by and with SCAG in the LDX process (https://youtu.be/MsRVyPGIOXI)

- LDX Editor – A web application that allows for viewing and direct editing of data without any GIS knowledge or software required (https://youtu.be/15aHogCHfrI)

- LDX Upload Portal – A secured uploading system for jurisdictions to upload GIS files that they have developed or processed (https://youtu.be/O78ur9sp1MU)

- LDX Backend – Provides local jurisdictions with an optional 2-step process which includes a staff contributor and a manager-level review prior to submitting to SCAG (https://youtu.be/FY2If3Jkd4M)

In addition, a brief planning survey has been developed for local jurisdictions to collect additional qualitative input to Connect SoCal's implementation, challenges, opportunities, and others. The survey is available at https://www.surveymonkey.com/r/LDX24 and can be found on the RDP-LDX web.

Introduction of the Local Information Services Team

Responding to jurisdictions' requests for further technical assistance on the available tools and resources, SCAG launched the Local Information Services Team (LIST) comprised of technical staff able to provide customized one-on-one technical and information services and tool demos. LIST aims to (1) link SCAG's available information products (e.g., data, applications, model policies and best practices, topical white papers, etc.) to help address local needs, (2) provide local jurisdiction staff an opportunity to offer feedback on how SCAG can improve its products to facilitate better collaboration, and (3) coordinate one-on-one meetings with local jurisdictions during the LDX process. LIST is currently focusing on delivering technical assistance on the LDX process and RDP to support the development of Connect SoCal 2024. Additional information and requests can be submitted through list@scag.ca.gov.

Local Data Exchange Timeline and Status Update

By Fall 2022, LIST plans to virtually meet one-on-one, up to 90 minutes, with all 197 jurisdictions. The soft launch of LDX took place on February 23 and made land use, priority development, transportation, environmental, and boundary data available to and reviewable by local jurisdictions. On May 23, the complete version of LDX was released, which added preliminary growth forecast data (also known as socioeconomic dataset, SED) at the jurisdiction and transportation analysis zone (TAZ) levels, the LDX Survey, and cartographic improvements to the environmental data in response to feedback received from SCAG's Technical Working Group (TWG).

LIST has met with more than half of the local jurisdictions in Imperial, Los Angeles, and Ventura counties. For jurisdictions in Riverside and San Bernardino counties, LIST has been coordinating with their subregional COG representatives (i.e., SBCTA, WRCOG, and CVAG) to schedule the one-on-one

meetings since August 2022. **The deadline to provide inputs back to SCAG is December 2**; this timeline provides adequate time for SCAG to proceed to the next step of Connect SoCal 2024 development process. The table below provides a detailed timeline of the LDX process:

LOCAL DATA EXCHANGE (LDX) TIMELINE	DATE
LDX Soft Launch. Non-growth data available for local review.	February 23, 2022
Outreach and trainings. Local Information Services Team (LIST) available for questions and consultation.	February – May 2022
LDX Complete Launch including preliminary growth forecast data and LDX Survey.	May 23, 2022
One-on-one meetings with local jurisdictions to review the data and review opportunity.	May – October 2022
Deadline for local jurisdictions to provide feedback for possible inclusion in Connect SoCal 2024.	December 2, 2022
Continued development of Connect SoCal 2024 strategies with stakeholders, working groups, and the general public.	Early 2023
Draft Connect SoCal 2024 release.	Fall 2023

SCAG, in collaboration with subregional COGs and key stakeholders, has been reaching out and meeting with local jurisdictions since the launch of the LDX process and RDP since February 2022. In addition to the one-on-one meetings, SCAG has also been making presentations at various subregional Planning Directors and Technical Advisory Committee meetings on RDP and the LDX process.

The table below provides a summary of key statistics regarding RDP and the LDX process in terms of the number of jurisdictions that received a set of complementary ArcGIS licenses, have access to the LDX portal, and scheduled one-on-one LDX meetings. As of October 2022, LIST has scheduled and met with 131 (66%) jurisdictions.

County	Jurisdictions	RDP License	RDP-LDX Account	Scheduled 1:1 LDX	Completed 1:1 LDX	Completed 1:1 LDX (%)
Imperial	8	5	1	6	6	75%
Los Angeles	89	61	20	63	63	71%
Orange	35	27	14	35	35	100%
Riverside*	29	19	4	0	0	0%

San Bernardino*	25	17	5	18	18	72%
Ventura	11	10	3	9	9	82%
TOTAL	**197**	**139**	**47**	**131**	**131**	**66%**

**SCAG is coordinating with subregional COGs to schedule one-on-one LDX meetings with their local jurisdictions. We are collaborating with WRCOG and waiting for their go-ahead to schedule meetings.*

Notes:

- Jurisdictions – the total number of jurisdictions in each county
- RDP License – the number of jurisdictions that received ArcGIS licenses from RDP
- RDP-LDX Account – the number of jurisdictions that received access to the RDP-LDX web
- Scheduled 1:1 LDX – the number of jurisdictions that scheduled 1-on-1 LDX meetings
- Completed 1:1 LDX – the number of jurisdictions that completed 1-on-1 LDX meetings

Appendix 1 shows a list of local jurisdictions (66) that have not scheduled to meet one-on-one with SCAG to discuss the Connect SoCal 2024 LDX process regarding the background on the development of Connect SoCal 2024, the maps in their local context, and the training on available tools in the RDP. The table is categorized by counties and subregions for better navigation. Please also note that SCAG is coordinating with subregional COGs (i.e., SBCTA, WRCOG, and CVAG) to schedule one-on-one LDX meetings with their local jurisdictions. We are collaborating with WRCOG and waiting for their go-ahead to schedule meetings.

FISCAL IMPACT:
Work associated with this item is included in the current Fiscal Year 2020.21 Overall Work Program (LIST—General Plan, RDP, or LDX Technical Assistance): 235.4900.01.

ATTACHMENT(S):

1. PowerPoint Presentation - LIST_LDX_Status_CEHD_Nov2022
2. Appendix 1 - List of local jurisdictions that have not scheduled 1:1 LDX meetings as of 10/31/2022

Connect SoCal 2024
Local Data Exchange
Status Update

November 3, 2022

Tom Vo, Program Manager – Local Information Services
Planning Division, Southern California Association of Governments

WWW.SCAG.CA.GOV

Presentation Outline

- Connect SoCal 2024 Local Data Exchange Process
- Regional Data Platform Tools and Resources
- Local Information Services Team
- Local Data Exchange Meetings Status Update
- Next Steps

What is Connect SoCal?

REGIONAL TRANSPORTATION PLAN/ SUSTAINABLE COMMUNITIES STRATEGY

Connect SoCal is a 20+ year plan with 6,000+ transportation projects, a regional development pattern and many supportive programs and strategies.

What is Connect SoCal?

What does the plan do?

MOBILITY

- Reduce congestion and travel times
- Increase opportunities to walk, bike or take transit

ENVIRONMENT

- Reduce greenhouse gas emissions and other pollutants
- Conserve open space and farmland

COMMUNITIES

- Improve access to transit and jobs
- Integrate a regional development pattern with the transportation network
- Meet regional housing needs

ECONOMY

- Support new jobs through transportation investments and increased competitiveness
- Support efficient and resilient goods movement

Connect SoCal 2020

County Transportation Commissions
Project List

Local Jurisdictions
Land use data through **Local Data Exchange Process**

CORE VISION
Land use & transportation strategies established over several plan cycles to increase mobility options and achieve a more sustainable growth pattern

KEY CONNECTIONS
Strategies and initiatives that augment the Core Vision

Connect SoCal 2020

County Transportation Commissions
Project List

Local Jurisdictions
Land use data through **Local Data Exchange Process**

CORE VISION
Land use & transportation strategies established over several plan cycles to increase mobility options and achieve a more sustainable growth pattern

KEY CONNECTIONS
Strategies and initiatives that augment the Core Vision

Local Data Exchange (LDX) Process

Present and review about 30 data layers related to Connect SoCal development in their local context

Solicit updates and corrections to:

1. Local land use data
2. Preliminary forecast of households and employment growth

Feedback and editing opportunity on:

Additional growth and transportation data

Opportunity to align local and regional visions

SCAG Data/Map Book and RDP-LDX Web Contents

- RDP-LDX Web (interactive) - https://hub.scag.ca.gov/pages/ldx
- Data/Map Book (static)- https://scag.ca.gov/local-data-exchange
  - Land Use (e.g., General Plan, Zoning, Existing Land Use, etc.)
  - Priority Development (e.g., Neighborhood Mobility Areas, Job Centers, etc.)
  - Transportation (e.g., High Quality Transit Ares, Transit Priority Areas, etc.)
  - Green Region Resource Areas (e.g., Flood Areas, Wildfire Risks, etc.)
  - Geographical Boundaries (e.g., City Boundary, Sphere of Influence, etc.)
  - Preliminary Growth Forecasts (e.g., Households, Employment, etc.)
- LDX Planning Survey

Connect SoCal 2024/LDX Timeline

Foundations & Frameworks → **Data Collection & Policy Development** → Outreach & Analysis → Draft Plan & Adoption

COMPLETED

- ✓ Regional & County Forecast
- ✓ Relaunched Working Groups
- ✓ Regional Data Platform (RDP)

LDX MILESTONES

- ✓ Soft Launch – February 23
- ✓ Complete Launch – May 23
- • **Input Deadline – December 2**

RDP – LDX Web

https://hub.scag.ca.gov/pages/ldx

Planning & Engagement Tools

HELPR

Parcel Explorer

General Plan Update

General Plan Update Initiative Templates

Accessible Data and Information

Regional Hub

SoCal Atlas

Data Sharing Tools & Workflows

Local Data Exchange (LDX) Web

LDX Data Upload

LDX Editor

LDX Workflow Management

SCAG Regional Data Platform (RDP)

Local Information Services Team (LIST) Introduction

- Purpose – Coordinate, plan, and develop a system to
  1) Link SCAG's value-added products (e.g., RDP, HELPR, LDX web, etc.) to help address local information needs,
  2) Deliver technical assistance, and
  3) Provide local staff an opportunity to offer feedback on how SCAG can improve our products to facilitate better collaboration, regionally and locally
- Focusing on the RDP and Local Data Exchange (LDX) process to obtain inputs from local jurisdictions
- Contact us at list@scag.ca.gov for any questions/suggestions!

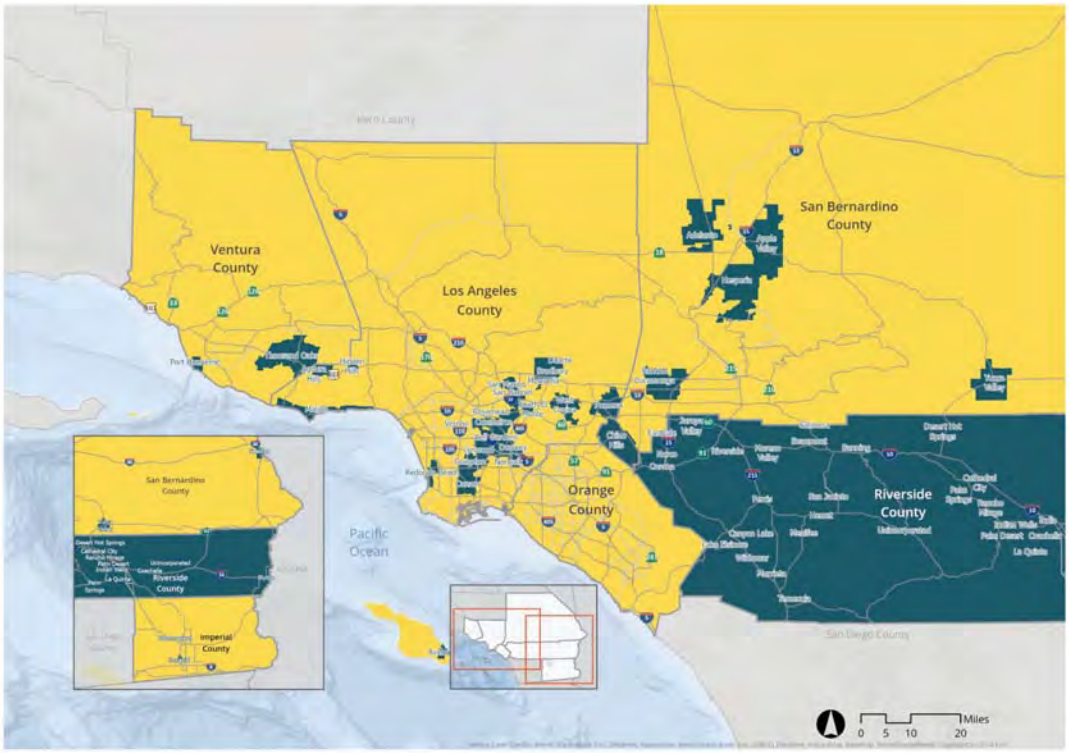
LDX Current Status (as of 10/31/2022)

- Completed LDX 1:1 meetings with **131 (66%)** jurisdictions

County	Jurisdictions	RDP License	RDP-LDX Account	Scheduled 1:1 Formal LDX	Completed 1:1 LDX	Completed 1:1 LDX (%)
Imperial	8	5	1	6	6	75%
Los Angeles	89	61	20	63	63	71%
Orange	35	27	14	35	35	100%
Riverside*	29	19	4	0	0	0%
San Bernardino*	25	17	5	18	18	72%
Ventura	11	10	3	9	9	82%
TOTAL	**197**	**139**	**47**	**131**	**131**	**66%**

**SCAG is coordinating with subregional COGs to schedule one-on-one LDX meetings with their local jurisdictions. We are collaborating with WRCOG and waiting for their go-ahead to schedule meetings.*

- Jurisdictions – the total number of jurisdictions in each county
- RDP License – the number of jurisdictions that received ArcGIS licenses from RDP
- RDP-LDX Account – the number of jurisdictions that received access to the RDP-LDX web
- Scheduled 1:1 Formal LDX – the number of jurisdictions that scheduled 1-on-1 LDX meetings
- Completed 1:1 Formal LDX – the number and percentage of jurisdictions that completed 1-on-1 LDX meetings



Jurisdictions have not scheduled LDX meetings
Jurisdictions have scheduled LDX meetings

A list of jurisdictions that have not scheduled 1:1 LDX meetings is in the staff report.

Source: SCAG

Map Title: Map_of_LDX_Meetings_10_31_2022

M:\Brice\Map of LDX Meetings 2\Map_of_LDX_Meetings_10_31_2022.aprx

LDX Schedule

[Feb. 2022]	[May 2022]	[May 2022]	[Dec. 2, 2022]
RDP + LDX Soft Launch	RDP + LDX Full Launch	1:1 LDX Meetings	LDX Input Deadline

What's Next?

- Sign-up for 1-on-1 LDX meeting at https://form.jotform.com/SCAGweb/rdp-ldx-meetings
- Sign-up for LDX Web at https://hub.scag.ca.gov/pages/ldx
- Sign-up for ArcGIS licenses at https://hub.scag.ca.gov/pages/planners-corner#licenses
- Provide inputs by **December 2, 2022**

scag.ca.gov/**connect-socal**
scag.ca.gov/**local-data-exchange**
scag.ca.gov/**RDP**

Local Info Services Team (LIST)
LIST@scag.ca.gov
Vo@scag.ca.gov

Appendix 1 – List of local jurisdictions that have not scheduled 1:1 LDX meetings as of 10/31/2022

**SCAG is coordinating with subregional COGs (i.e., SBCTA, WRCOG, and VCAG) to schedule one-on-one LDX meetings with their local jurisdictions. We are collaborating with WRCOG and waiting for their go-ahead to schedule meetings.*

COUNTY	SUBREGION	JURISDICTION	NOTES
Imperial	ICTC	Imperial	Need help with scheduling 1:1 LDX meeting
Imperial	ICTC	Westmorland	Need help with scheduling 1:1 LDX meeting
Los Angeles	GCCOG	Avalon	Need help with scheduling 1:1 LDX meeting
Los Angeles	GCCOG	Bell	Need help with scheduling 1:1 LDX meeting
Los Angeles	GCCOG	Bell Gardens	Need help with scheduling 1:1 LDX meeting
Los Angeles	GCCOG	Commerce	Need help with scheduling 1:1 LDX meeting
Los Angeles	GCCOG	Compton	Need help with scheduling 1:1 LDX meeting
Los Angeles	GCCOG	Cudahy	Need help with scheduling 1:1 LDX meeting
Los Angeles	GCCOG	Downey	Need help with scheduling 1:1 LDX meeting
Los Angeles	GCCOG	Lynwood	Need help with scheduling 1:1 LDX meeting
Los Angeles	GCCOG	Norwalk	Need help with scheduling 1:1 LDX meeting
Los Angeles	GCCOG	South Gate	Need help with scheduling 1:1 LDX meeting
Los Angeles	GCCOG	Vernon	Need help with scheduling 1:1 LDX meeting
Los Angeles	Las Virgenes Malibu COG	Agoura Hills	Need help with scheduling 1:1 LDX meeting
Los Angeles	Las Virgenes Malibu COG	Hidden Hills	Need help with scheduling 1:1 LDX meeting
Los Angeles	Las Virgenes Malibu COG	Malibu	Need help with scheduling 1:1 LDX meeting
Los Angeles	SBCCOG	Carson	Need help with scheduling 1:1 LDX meeting
Los Angeles	SBCCOG	Redondo Beach	Need help with scheduling 1:1 LDX meeting
Los Angeles	SGVCOG	Bradbury	Need help with scheduling 1:1 LDX meeting
Los Angeles	SGVCOG	Duarte	Need help with scheduling 1:1 LDX meeting
Los Angeles	SGVCOG	Monrovia	Need help with scheduling 1:1 LDX meeting
Los Angeles	SGVCOG	Montebello	Need help with scheduling 1:1 LDX meeting
Los Angeles	SGVCOG	Pomona	Need help with scheduling 1:1 LDX meeting
Los Angeles	SGVCOG	Rosemead	Need help with scheduling 1:1 LDX meeting
Los Angeles	SGVCOG	San Gabriel	Need help with scheduling 1:1 LDX meeting
Los Angeles	SGVCOG	San Marino	Need help with scheduling 1:1 LDX meeting
Los Angeles	SGVCOG	South El Monte	Need help with scheduling 1:1 LDX meeting
Los Angeles	SGVCOG	West Covina	Need help with scheduling 1:1 LDX meeting
Ventura	VCOG	Port Hueneme	Need help with scheduling 1:1 LDX meeting
Ventura	VCOG	Thousand Oaks	Need help with scheduling 1:1 LDX meeting
Riverside	CVAG	Blythe	Working with CVAG
Riverside	CVAG	Cathedral City	Working with CVAG
Riverside	CVAG	Coachella	Working with CVAG
Riverside	CVAG	Desert Hot Springs	Working with CVAG
Riverside	CVAG	Indian Wells	Working with CVAG
Riverside	CVAG	Indio	Working with CVAG
Riverside	CVAG	La Quinta	Working with CVAG
Riverside	CVAG	Palm Desert	Working with CVAG
Riverside	CVAG	Palm Springs	Working with CVAG
Riverside	CVAG	Rancho Mirage	Working with CVAG
Riverside	WRCOG	Banning	Working with WRCOG
Riverside	WRCOG	Beaumont	Working with WRCOG
Riverside	WRCOG	Calimesa	Working with WRCOG

COUNTY	SUBREGION	JURISDICTION	NOTES
Riverside	WRCOG	Canyon Lake	Working with WRCOG
Riverside	WRCOG	Corona	Working with WRCOG
Riverside	WRCOG	Eastvale	Working with WRCOG
Riverside	WRCOG	Hemet	Working with WRCOG
Riverside	WRCOG	Jurupa Valley	Working with WRCOG
Riverside	WRCOG	Lake Elsinore	Working with WRCOG
Riverside	WRCOG	Menifee	Working with WRCOG
Riverside	WRCOG	Moreno Valley	Working with WRCOG
Riverside	WRCOG	Murrieta	Working with WRCOG
Riverside	WRCOG	Norco	Working with WRCOG
Riverside	WRCOG	Perris	Working with WRCOG
Riverside	WRCOG	Riverside	Working with WRCOG
Riverside	WRCOG	San Jacinto	Working with WRCOG
Riverside	WRCOG	Temecula	Working with WRCOG
Riverside	WRCOG	Unincorporated	Working with WRCOG
Riverside	WRCOG	Wildomar	Working with WRCOG
San Bernardino	SBCTA	Adelanto	Working with SBCTA
San Bernardino	SBCTA	Apple Valley	Working with SBCTA
San Bernardino	SBCTA	Chino Hills	Working with SBCTA
San Bernardino	SBCTA	Hesperia	Working with SBCTA
San Bernardino	SBCTA	Needles	Working with SBCTA
San Bernardino	SBCTA	Rancho Cucamonga	Working with SBCTA
San Bernardino	SBCTA	Yucca Valley	Working with SBCTA

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 – Regional Council Room
Los Angeles, CA 90017
November 3, 2022

To: Community Economic & Human Development Committee (CEHD)
Energy & Environment Committee (EEC)
Transportation Committee (TC)
Regional Council (RC)

From: Anita Au, Senior Planner
(213) 236-1874, au@scag.ca.gov

Subject: 2022 Racial Equity Baseline Conditions Report Release

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

RECOMMENDED ACTION FOR EEC:
For Information Only - No Action Required

RECOMMENDED ACTION FOR CEHD, TC and RC:
Receive and File

STRATEGIC PLAN:
This item supports the following Strategic Plan Goal 2: Advance Southern California's policy interests and planning priorities through regional, statewide, and national engagement and advocacy.

EXECUTIVE SUMMARY:
In July 2020, SCAG's Regional Council adopted Resolution 20-623-2, affirming its commitment to advancing justice, equity, diversity, and inclusion throughout Southern California and subsequently adopted the Racial Equity Early Action Plan (EAP) in May 2021, outlining goals, strategies, and actions to advance equity. The EAP included a Racial Equity Baseline Conditions Report that highlighted past transportation and housing policies and provided a preliminary baseline assessment of racial equity in the region. Staff updated the Racial Equity Baseline Conditions Report to include 2020 data, new equity indicators, and county narratives. The 2022 Racial Equity Baseline Conditions Report is attached.

BACKGROUND:
In July 2020, SCAG's Regional Council adopted Resolution 20-623-2, affirming its commitment to advancing justice, equity, diversity, and inclusion throughout Southern California and subsequently adopted the Racial Equity Early Action Plan (EAP) in May 2021, outlining goals, strategies, and actions to advance its commitments. The EAP included a Racial Equity Baseline Conditions Report (Baseline Conditions Report), released in March 2021, that highlighted past transportation and

housing policies and provided a preliminary baseline assessment of racial equity in the region. The regional baseline is meant to be updated regularly and motivate equitable decision-making. Staff published the original report with an understanding that stakeholder outreach and engagement would continue to occur to ensure future updates of the report would capture the right metrics for the region.

The Baseline Conditions Report is an overarching look at inequities based on commonly used equity indicators. When developing the 2021 Baseline Conditions Report, equity indicators were selected after considering Connect SoCal's vision to chart a path towards a more mobile, sustainable, and prosperous region, and they were grouped into categories aligned with Connect SoCal goals: Economic Vitality, Healthy and Complete Communities, Mobility, and Environment. Connect SoCal's performance measures were also considered, especially those included in the Environmental Justice Technical Report. Staff completed a comprehensive review of inequity baselines or equity indices developed throughout California and across the nation and created an extensive list of 54 potential indicators. The list of indicators was further refined based on the following criteria: alignment with SCAG's work, availability of data consistently over time to produce a trend, supporting data produced by a trusted source, commonly used by multiple public agencies, and could be disaggregated or broken down by geography, race, and ethnicity. The resulting list of equity indicators was not intended to be exhaustive but rather it was meant to reflect a broad series of intersecting inequities that could and should lead to further study, expansion and/or refinement.

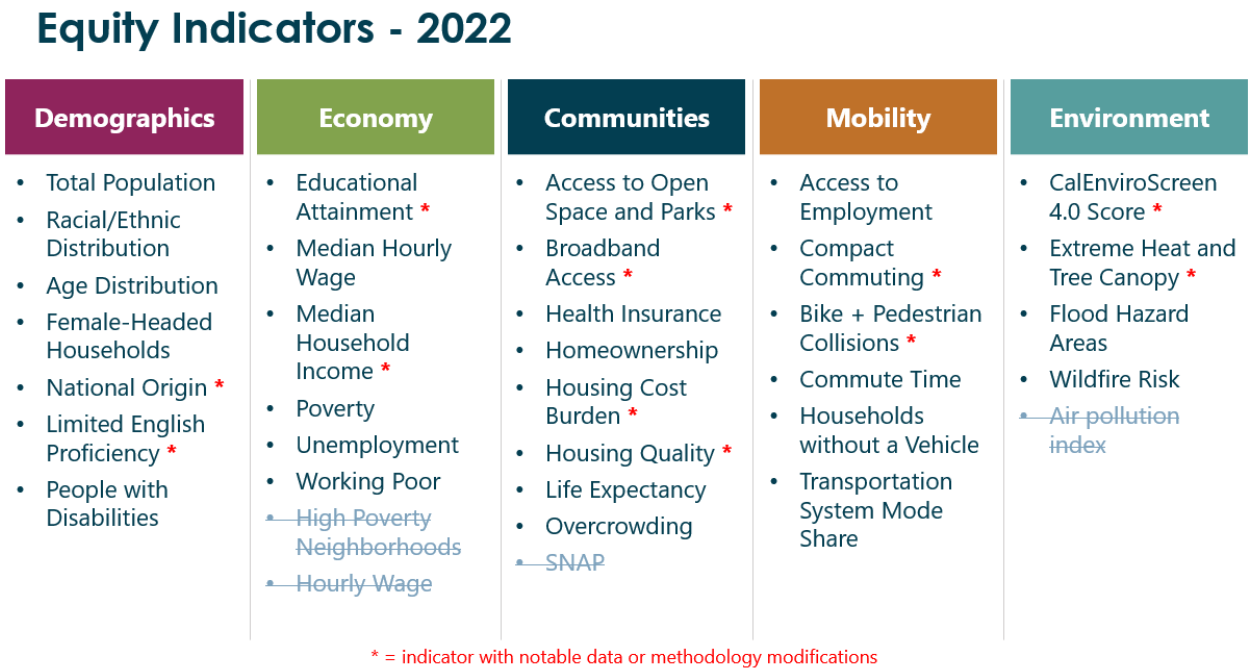
Findings from the 2021 Racial Equity Baseline Conditions Report showed that people of color tended be more burdened by various impacts compared to their white counterparts. For example, considering economic factors, Black, Hispanic (Latino), and Indigenous residents are nearly two times more likely to live in poverty than white residents and full-time workers of color were three times more likely to live in poverty than their white counterparts. Similarly for mobility impacts, Black residents are two times more likely of not owning a car than white residents. People of color also face greater exposure to air toxics for environmental pollution than white residents.

The 2022 update includes 2020 data and feature narratives to evaluate existing conditions at the county level. Several equity indicators have updated methodologies or datasets to align with preliminary development of the Connect SoCal 2024 Equity Analysis.

2022 EQUITY INDICATORS

Staff proposed a few updates to the Baseline Conditions equity indicators and presented to various stakeholder groups including the Technical Working Group and Equity Working Group and consulted with internal subject matter experts for feedback. The list of indicators was refined and finalized and is reflected in Figure 1, Equity Indicators – 2022. The definitions and methodologies for each indicator are provided in Attachment 1, SCAG Baseline Conditions Equity Indicator Descriptions.

Figure 1: Equity Indicators - 2022



Demographics indicators provided an overview of existing conditions for the region's current demographics to set the stage for the report. National origin was added, and linguistic isolation was renamed to Limited English Proficiency to align with SCAG's Connect SoCal 2020 Environmental Justice Technical Analysis. The remaining five indicators remained the same. As a result, the equity indicators under the Demographics section include total population, racial/ethnic distribution, age distribution, female-headed households, national origin, limited English proficiency, and people with disabilities.

Economy indicators examine whether all people regardless of race or ethnicity can access high quality jobs, living wages, economic opportunity, and financial security. Educational attainment was added as an indicator to better understand economic opportunity. The $15/hour indicator was eliminated because wages fluctuate over time, and the neighborhood poverty indicator was also eliminated to reduce redundancy from the poverty indicator. Median household income, previously under the Communities category, was moved to the Economy category. As a result, the equity indicators under the Economy category include median hourly wage, median household income, poverty, unemployment, working poor, and educational attainment.

Communities indicators assess existing public health and housing conditions in the region and how they vary between different communities. SNAP (or food stamps) was eliminated because SCAG has

no direct influence on SNAP and the indicator does not accurately portray food insecurity among the undocumented or immigrants. Median household income was previously under Communities but has been moved to Economy. Access to open space and parks was previously under Mobility and has been moved to Communities. The methodology used in the broadband access indicator was revised to measure access as opposed to lack of access and the housing quality methodology was also updated to examine lack of plumbing and kitchen facilities in housing units as opposed to lack of plumbing or kitchen facilities in housing units. Housing burden was also renamed to housing cost burden. As a result, the equity indicators under the Communities category include home ownership, housing burden, housing quality, overcrowding, broadband access, health insurance, and life expectancy.

Mobility indicators measure who can access job opportunities, transportation, parks, and other essential services. Compact commuting was added to help understand current active commuting trends and encourage active transportation and transit over vehicle use. The methodologies for access to open spaces and parks and pedestrian and bicyclist collisions have been updated to align with the Connect SoCal 2024 Equity Analysis. And access to open space and parks, previously under Mobility, has been moved to Communities. As a result, the equity indicators under the Mobility category include access to employment, compact commuting, commute time, households without a vehicle, transportation system share, and pedestrian and bicycle collisions.

Environment indicators evaluate climate vulnerability and pollution exposure, representing a subset of issues negatively impacting low-income communities and communities of color. Extreme heat and tree canopy were added to align with the Connect SoCal 2024 Equity Analysis and are measures that SCAG can help influence. The air pollution index was eliminated to reduce redundancy with the CalEnviroScreen score. The CalEnviroScreen score was updated with new data available from CalEnviroScreen 4.0. As a result, the equity indicators under the Environment category include extreme heat and tree canopy, flood hazard areas, wildfire risk, and CalEnviroScreen 4.0 score.

COUNTY NARRATIVES

The County Narratives provide a snapshot of existing conditions in 2020 for each of the six counties in the SCAG region. A subset of equity indicators was selected to measure opportunity, economic vitality, access, housing affordability and quality, transportation safety, environmental health, and climate vulnerability. While not all equity indicators were available in the narratives, data for all equity indicators at the county level are available upon request.

The full report is attached and also available on SCAG's IDEA webpage. The report will also be shared with stakeholders through various SCAG hosted meetings including the next Regional Equity Working Group meeting in December 2022. Staff will conduct an equity focused Toolbox Tuesday

session on baseline condition analyses and include a presentation of the 2022 Racial Equity Baseline Conditions Report.

FISCAL IMPACT:
Work associated with this item is included in the Fiscal Year 2022-2023 Overall Work Program (020.0161.06: Environmental Justice Outreach and Policy Coordination).

ATTACHMENT(S):
1. SCAG Baseline Conditions Indicator Descriptions
2. PowerPoint Presentation - 2022 Racial Equity Baseline Conditions Report_EEC Nov2022
3. 2022 Racial Equity Baseline Conditions Report_Final

SCAG's Racial Equity Baseline Conditions Report

2022 Equity Indicators

Category	Indicator	Description	2021 Indicators	2022 *Potential NEW Indicators
Demographics	Age Distribution (Youth, Older Adults)	The length of time in completed years that a person has lived. For the most recent decennial census, age was the length of time in completed years that a person had lived as of Census Day--April 1, 2010. The Census Bureau's national surveys compute age as of the interview date. *(U.S. Census Bureau)* Categories: Under 18 years old (Youth), 18-64 years old, 65+ years old (Older Adults)	X	
	Female-Headed Households	A female maintaining a household with no husband of the householder present. (U.S. Census	X	
	Limited English Proficiency	Defined by the U.S. Census Bureau as person above the age of 5 years, who does not speak English at least "well" as their primary language or has a limited ability to read, speak, write, or understand English at least "well" (Limited English Proficiency from S1601: Language Spoken at Home)	X	Renamed from Linguistic Isolation
	National Origin	Nation of which a person originates.		NEW
	People with Disabilities	Defined by the U.S. Census Bureau as person with one or more of six types of difficulties (hearing, vision, cognitive, ambulatory, self-care, and independent living)	X	
	Race/Ethnicity Distribution	Black; Hispanic (Latino); Asian/Pacific Islander; Native American; Mixed/Other; White. People of color refers to people who do not identify as non-Hispanic white, inclusive of the following categories: Black, Hispanic (Latino), Native American, Asian/Pacific Islander, and Mixed/Other.	X	
	Total Population	Total number of people residing in the SCAG region	X	
Economy	Educational Attainment	The highest level of education completed in terms of the highest degree or the highest level of schooling completed for the population ages 25+. This is distinct from the level of schooling that an individual is attending. *(U.S. Census Bureau)* Categories: Less than a high school diploma; High school diploma or GED; Some college; Associate's degree; Bachelor's degree; Master's or higher degree		NEW
	Median Hourly Wage	The estimated 50th percentile of the distribution of wages based on data collected from employers in all industries; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. *(Bureau of Labor Statistics)*	X	
	Median Household Income	Median refers to the midpoint of a set of data (not to be confused with the average). The sum of the income of all people 15 years and older living in the household. A household includes related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit, is also counted as a household. (U.S. Census Bureau)	X	Moved from Communities
	Poverty	Percentage of people living below the 200 percent Federal Poverty Level (FPL). In California, the 200 percent FPL was $52,400 for a family of four (PolicyLink, USC Equity Research Institute n.d.) (Covered California, Medi-Cal 2021).	X	
	Unemployment	The number of unemployed people as a percentage of the labor force (the labor force is the sum of the employed and unemployed). (Bureau of Labor Statistics)	X	
	Working poor	The percentage of people who spent at least 27 weeks in the labor force (that is, working or looking for work) but whose incomes still fell below the official poverty level. (Bureau of Labor Statistics)	X	
Communities	Access to Open Space and Parks	Percentage of people living within a half-mile of a park, beach, or open space (Healthy Places Index 3.0)	X	Methodology updated; move from Mobility
	Broadband Access	The percentage of individuals living in housing units with access to broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in the household. (American Community Survey)	X	Methodology modified

SCAG's Racial Equity Baseline Conditions Report

2022 Equity Indicators

Category	Indicator	Description	2021 Indicators	2022 *Potential NEW Indicators
	Health Insurance	Comprehensive coverage at (private or public insurance) any time during the calendar year for the civilian, noninstitutionalized population of the United States. Comprehensive health insurance covers basic health care needs. This definition excludes single service plans such as accident, disability, dental, vision, or prescription medicine plans *(Current Population Survey Annual Social and Economic Supplement (CPS ASEC); American Community Survey)*	X	
	Homeownership	Percentage of housing units occupied by property owners; computed by dividing the number of owner-occupied housing units by the number of occupied housing units or households. *(American Community Survey)*	X	
	Housing Cost Burden	Those spending upwards of 30 percent of their household income housing- and rent-related costs and severely burdened by housing costs (paying greater than 50 percent of their income for housing costs). *(U.S. Census Bureau)*	X	Renamed from Housing Burden
	Housing Quality	Percentage of households without kitchen and plumbing facilities.	X	Methodology modified
	Life Expectancy	The average number of years of life a person who has attained a given age can expect to live. (National Center for Health Statistics; Centers for Disease Control)	X	
	Overcrowding	Percentage of housing that is considered overcrowded. The U.S. Census Bureau defines an overcrowded unit as one occupied by 1.01 persons or more per room (excluding bathrooms and kitchens). Units with more than 1.5 persons per room are considered severely overcrowded.	X	
Mobility	Access to Employment	Share of regional employment (including retail employment) reachable within 30 minutes by automobile, 45 minutes by transit, and 45 minutes by local bus during evening peak periods (6 - 9 a.m.) (SCAG Regional Demand Model)	X	
	Bike and Pedestrian Collisions	Share of residents in areas designated as highest concentrations of bike and pedestrian collisions (Transportation Injury Mapping System)	X	Dataset updated
	Compact Commuting	Percentage of workers (16 years and older) commuting by walking, bicycling, or transit (excluding working from home).		NEW
	Commute Time	Average travel time to work (minutes) via different travel modes (bike, walk or other; bus, rail, taxi or ferry; car or motorcycle; any form of transportation)	X	
	Households without a Vehicle	Percentage of households without access to an automobile.	X	
	Transportation System Mode Share	Share of transportation system usage broken down by mode- auto, bus, commuter rail, urban rail, non-motorized, and other.	X	
Environment	CalEnviroScreen 4.0 Score	CalEnviroScreen is a mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects. CalEnviroScreen uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. The scores are mapped so that different communities can be compared. An area with a high score is one that experiences a much higher pollution burden than areas with low scores.	X	Dataset updated
	Extreme Heat and Tree Canopy (Climate Vulnerability)	The term "extreme heat" refers to the weather being hotter than 98% of historic temperatures at a given location. Percentage of population living in conditions of extreme heat.		NEW

SCAG's Racial Equity Baseline Conditions Report

2022 Equity Indicators

Category	Indicator	Description	2021 Indicators	2022 *Potential NEW Indicators
	Flood Hazard Area (Climate Vulnerability)	Percentage of regional population and population living in 100-year Flood Hazard Zone. According to the Federal Emergency Management Agency, a 1-percent annual chance flood is also referred to as the base flood or 100-year flood.	X	
	Wildfire Risk (Climate Vulnerability)	Percentage of regional population and population living in high-fire threat districts (California Public Utilities Commission Tier 2 [Elevated] and Tier 3 [Extreme])	X	

2022 Racial Equity Baseline Conditions Update

November 3, 2022

Energy and Environment Committee

WWW.SCAG.CA.GOV

Overview

- Released in March 2021
- Provides a preliminary baseline assessment of racial equity in region with stratified data
- Motivate more equitable decision-making for the future




Updates

Data

Indicators

County Narratives

Equity Indicator

KEY THEMES

- Economy
- Communities
- Mobility
- Environment

24 Equity Indicators

7 Disadvantaged Factors

- People of color
- Low income (<200% FPL)
- Seniors (65+ years)
- Youth (<5 years)
- Female-headed households
- Limited English proficiency
- People with disability

SELECTION CRITERIA

- Alignment
- Consistency
- Trusted
- Regularity
- 7 Disadvantaged Factors
- Disaggregate

Equity Indicators - 2022

Demographics	Economy	Communities	Mobility	Environment
• Total Population	• Educational Attainment *	• Access to Open Space and Parks *	• Access to Employment	• CalEnviroScreen 4.0 Score *
• Racial/Ethnic Distribution	• Median Hourly Wage	• Broadband Access *	• Compact Commuting *	• Extreme Heat and Tree Canopy *
• Age Distribution	• Median Household Income *	• Health Insurance	• Bike + Pedestrian Collisions *	• Flood Hazard Areas
• Female-Headed Households	• Poverty	• Homeownership	• Commute Time	• Wildfire Risk
• National Origin *	• Unemployment	• Housing Cost Burden *	• Households without a Vehicle	~~• Air pollution index~~
• Limited English Proficiency *	• Working Poor	• Housing Quality *	• Transportation System Mode Share	
• People with Disabilities	~~• High Poverty Neighborhoods~~	• Life Expectancy		
	~~• Hourly Wage~~	• Overcrowding		
		~~• SNAP~~		

* = indicator with notable data or methodology modifications

Demographics

- Total Population
- Racial/Ethnic Distribution
- Age Distribution
- Female-Headed Households
- National Origin *
- Limited English Proficiency *
- People with Disabilities

Economy

- Educational Attainment *
- Median Hourly Wage
- Median Household Income *
- Poverty
- Unemployment
- Working Poor
- ~~High Poverty Neighborhoods~~
- ~~Hourly Wage~~

Communities

- Access to Open Space and Parks *
- Broadband Access *
- Health Insurance
- Homeownership
- Housing Cost Burden *
- Housing Quality *
- Life Expectancy
- Overcrowding
- ~~SNAP~~

Mobility

- Access to Employment
- Compact Commuting *
- Bike + Pedestrian Collisions *
- Commute Time
- Households without a Vehicle
- Transportation System Mode Share

Environment

- CalEnviroScreen 4.0 Score *
- Extreme Heat and Tree Canopy *
- Flood Hazard Areas
- Wildfire Risk
- ~~Air pollution index~~

County Narratives

- Snapshot of existing conditions with a subset of equity indicators
- County factsheets/infographics also included

Demographics	Economy	Communities	Mobility	Environment
• Total Population • Race/Ethnicity Distribution • Female-Headed Households • Limited English Proficiency • People with Disabilities	• Educational Attainment • Median Household Income • Working Poor	• Broadband Access • Housing Cost Burden • Housing Quality	• Access to Employment • Bike + Pedestrian Collisions • Commute Time	• CalEnviroScreen 4.0 Score • Extreme Heat an Tree Canopy • Wildfire Risk

2022 Highlights – Educational Attainment

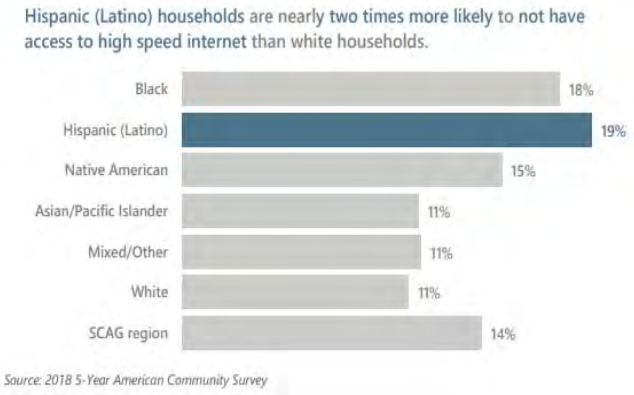
Indicator 1: Educational Attainment

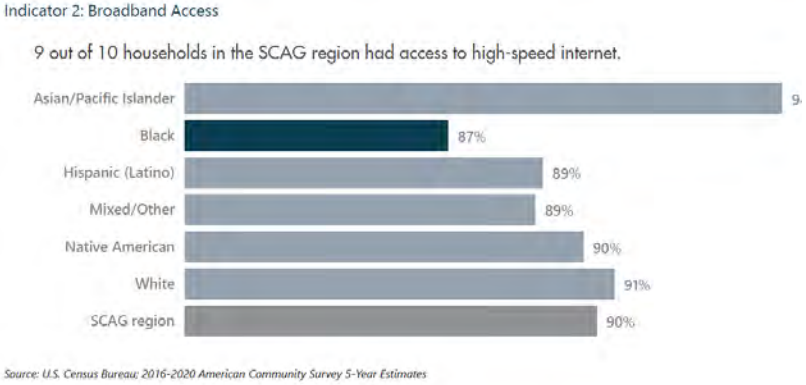
RACE/ETHNICITY	LESS THAN HS DIPLOMA	HS DIPLOMA	SOME COLLEGE	AA DEGREE	BA DEGREE	MA DEGREE
Asian/Pacific Islander	11%	14%	14%	8%	36%	17%
Black	10%	24%	29%	10%	18%	10%
Hispanic (Latino)	35%	27%	19%	6%	10%	4%
Mixed/Other	6%	16%	24%	9%	29%	16%
Native American	15%	30%	26%	10%	14%	6%
White	5%	18%	23%	9%	27%	17%
People of color	26%	23%	19%	7%	17%	8%
SCAG region	19%	22%	20%	8%	21%	11%

Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

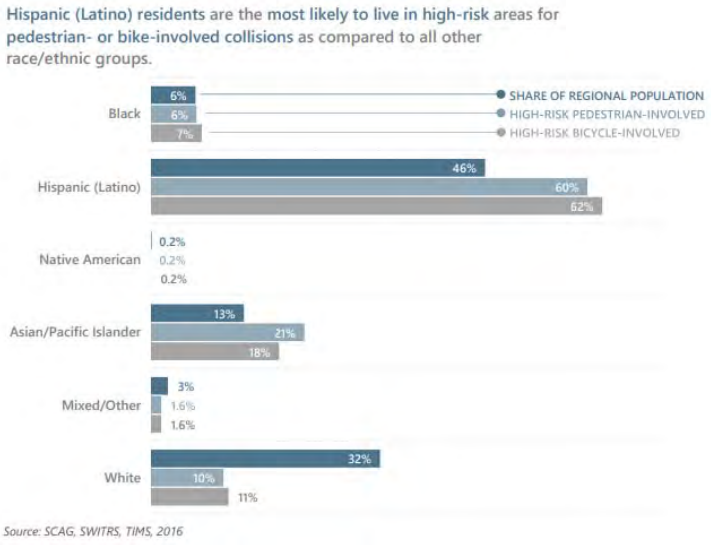
2022 Highlights – Broadband Access

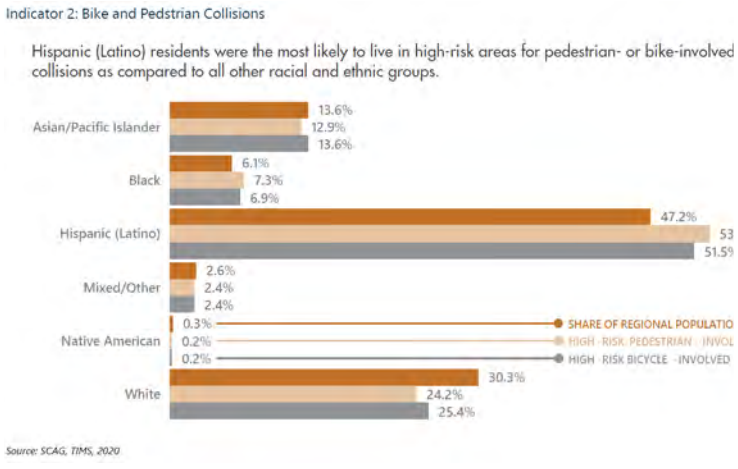
Broadband access was 86 percent in 2018 and 90 percent in 2020





2022 Highlights – Bike and Pedestrian Collisions

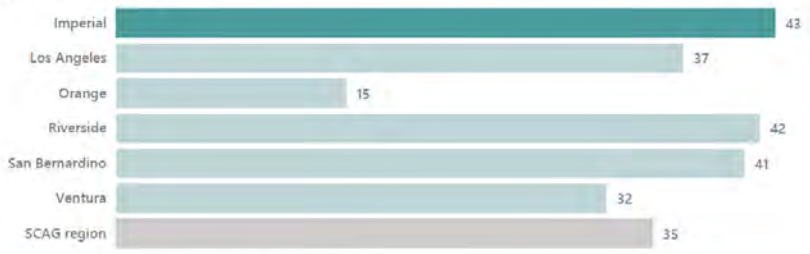




2022 Highlights – Extreme Heat and Tree Canopy

Indicator 2: Extreme Heat and Tree Canopy

Imperial, Riverside, and San Bernardino counties are projected to have over 40 extreme heat days per year from 2040 - 2060.



Source: Healthy Places Index 2.0, SCAG Extreme Heat and Public Health Report

	PERCENTAGE OF TREE CANOPY COVER
Census tracts with majority people of color	2.40%
Census tracts with majority White residents	6.90%
All census tracts in SCAG region	1.60%

Source: Southern California Association of Governments (SCAG), 2020

THANK YOU!

For more information, please visit:

https://scag.ca.gov/IDEA

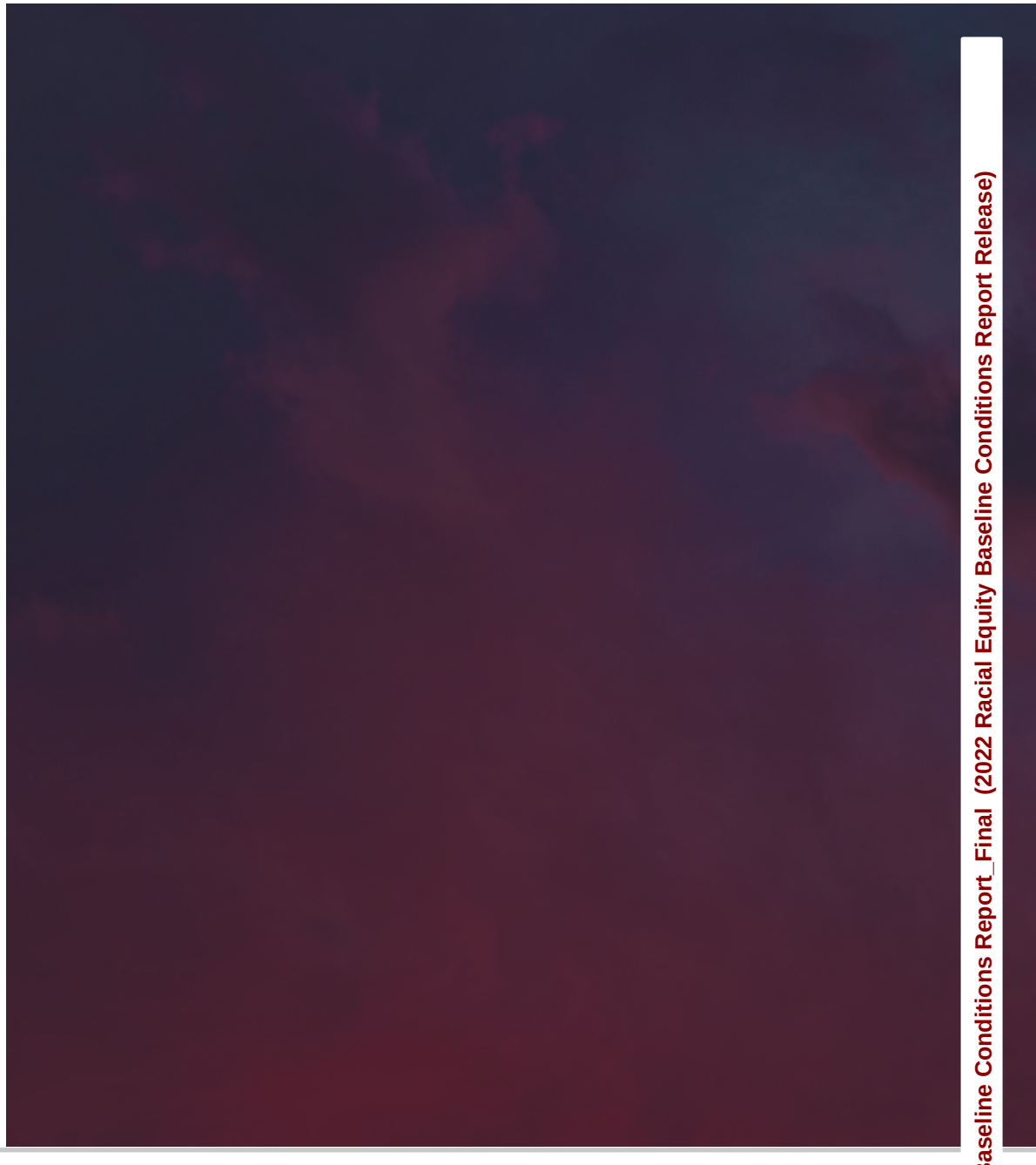
Anita Au, Program Manager
au@scag.ca.gov

RACIAL EQUITY BASELINE CONDITIONS REPORT

A Preliminary Baseline Assessment of Racial Equity in Southern California

NOVEMBER 2022

SCAG™
INNOVATING FOR A BETTER TOMORROW



ABOUT SCAG

SCAG is the nation's largest metropolitan planning organization (MPO), representing six counties, 191 cities and more than 19 million residents. SCAG undertakes a variety of planning and policy initiatives to encourage a more sustainable Southern California now and in the future.

SCAG™
INNOVATING FOR A BETTER TOMORROW

VISION

Southern California's Catalyst for a Brighter Future

MISSION

To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.

RACIAL EQUITY BASELINE CONDITIONS REPORT

PUBLISH DATE: NOVEMBER 2022

TABLE OF CONTENTS

INTRODUCTION

In July 2020, SCAG's Regional Council made a commitment to advancing justice, equity, diversity, and inclusion throughout Southern California. For the region to become healthy, livable, sustainable, and economically resilient, SCAG needs to dramatically improve outcomes for low-income families and people of color. To that end, SCAG's core function, its planning work, must directly address the long-standing systemic and institutional barriers that have fostered inequities in health, wealth, and opportunities. SCAG adopted its Racial Early Action Plan in May 2021 to help facilitate the consistent integration of equity into its planning work. The Racial Equity Baseline Conditions Report, first released in March 2021, and subsequent updates will continue to help stakeholders develop a deeper understanding of disparities and monitor progress toward addressing them by highlighting past transportation and housing policies and practices and providing a snapshot of current existing inequitable conditions. These inequitable conditions fall into categories aligned with the goals of SCAG's long-range plan, Connect SoCal: economy, communities, mobility, and environment.

The 2022 Racial Equity Baseline Conditions Update includes updated data from the U.S. Census Bureau, American Community Survey 5-Year Public Use Microdata from 2016-2020, which will be referred to as 2020 data throughout the report, an updated list of indicators to reflect internal and external stakeholder input and ensure alignment with SCAG's current and future EJ and equity efforts, and new county level narratives. The county level narratives include a subset of equity indicators to provide an overview of baseline conditions for each county. Not all county level data are published in the report but are available upon request. Differences from the 2021 Racial Equity Baseline Conditions Report, with 2018 data, and this update are also provided in the summary bullet points throughout the report.

BRIEF HISTORY AND BACKGROUND

People of color currently comprise seventy percent (69.7 percent) of the region's population and are expected to make up an even larger share by 2050, when people of color are expected to comprise 77 percent of the population (2020 U.S. Decennial Census and SCAG Preliminary 2024 RTP/SCS Projection). A range of economic and social impacts such as health outcomes, education, employment, housing conditions, rates of incarceration, and life expectancy, vary vastly in this region based on race, income, and census tract. For example, according to the 2020 Census, there is a disproportionate burden of poverty on people of color compared to their White counterparts: the highest rates of poverty are experienced by Hispanic (Latino) (40 percent), Native American (39 percent), and Black (38 percent) communities, compared to 20 percent of the White population and 26 percent of an aggregated Asian population. It should be noted that larger Census groupings conceal income inequalities within categories, depending on a variety of factors such as ethnic origin, experience (e.g., education), immigration status, length of time individuals and their families have lived in the US, and gender. For example, although Asians overall rank as the highest earning racial and ethnic group in the US, it is not a status shared by all Asians: nearly one in four Asians in California are working but struggling with poverty. The 2019 Asian American and Pacific Islander Workers Survey revealed that when split into individual communities, certain Asian communities experience a disproportionate burden of poverty. Institutional and systemic racism experienced by these communities continues to impact their access to more mobile, sustainable, and prosperous futures in Southern California. The history of both the United States of America and California shows how race has played a role in the disparities and inequities that people of color face today.

HOW TRANSPORTATION AND HOUSING POLICIES IN THE 20TH CENTURY EXACERBATED INEQUITY

While the 14th Amendment, ratified in 1868, provided equal protection under the law, and the 15th and 19th Amendments, ratified in 1870 and 1920 respectively, guaranteed citizens the right to vote, people of color, as well as low-income individuals, have not consistently seen the full benefits of these rights. In 1896, the United States Supreme Court upheld the constitutionality of "separate but equal" laws in the case of Plessy v. Ferguson, ushering in the Jim Crow Era of racial segregation and disenfranchisement.

During this era, federal funding in California stimulated major expansions in transportation infrastructure. In 1911, the newly established California Highway Commission, under federal policy direction, created the Interstate Highway System, which included the 1921 and 1944 Federal Aid Highway Acts. The Commission determined

project locations, and both state and local officials routed new freeways through existing communities of color, displacing thousands of households through eminent domain. Much of this freeway construction was in service of a suburban housing boom that was explicitly segregationist. Racist policies and decisions also influenced the siting of other types of transportation infrastructure, such as commuter railways, and the delivery of transit services.

In 1934, the Federal Housing Administration (FHA) was established to facilitate numerous tasks, including home financing, improving housing standards, making housing and mortgages more affordable, and increasing employment in the home construction industry in the wake of the Great Depression. However, while its core function was to insure home mortgage loans by banks and private lenders, encouraging them to make more loans to prospective home buyers, the FHA refused to insure mortgages in Black neighborhoods, often forcing them to move into urban housing projects, and leaving them unable to build wealth typically associated with home ownership. This FHA home-valuation system was known as "redlining" because maps created by Home Owners Loan Corp. and the FHA used red to color code neighborhoods where people of color lived to indicate these areas were too risky to insure mortgages. The FHA also tacitly endorsed the use of restrictive covenants, which were private agreements attached to property deeds to prevent the purchase of homes by Black, Mexican, and Asian Americans and Indigenous people.

Though the FHA announced that it would not insure mortgages with restrictive covenants in 1950, redlining lasted until the mid-1960s. In addition to redlining, people of color still faced many challenges, such as negligent landlords and chronic disinvestment, which intersected with an influx of Black Americans seeking homes as a part of the "Second Great Migration," when major populations of Black Americans migrated West during World War II. People of color had few choices on where to live, and neighborhoods where they were allowed became overcrowded and unhealthy. In Los Angeles County, this included neighborhoods such as South Central Los Angeles and the San Fernando Valley. Many of these neighborhoods were located next to polluting industrial infrastructure, such as the burgeoning industrial factories in the defense, garment, and automobile industries. Many of the highway infrastructure projects not only made existing neighborhoods less desirable to live in, but also contributed to heavy air pollution that has led to ongoing asthma and other chronic health conditions among remaining residents.

Even in neighborhoods where people of color found housing, they were threatened by violence and urban renewal policies. The Federal Housing Acts of 1949 and 1954 led to the demolition of neighborhoods inhabited by people of color. The Acts enabled the clearing of blighted areas and destroyed affordable housing units in urban areas. A core example of the impacts of the 1954 Federal Housing Act is the clearance of Chavez Ravine, a self-sufficient Mexican American community that for generations ran their own schools and churches and grew their own food. The City of Los Angeles approved the construction of thousands of housing units in Chavez Ravine (which was deemed blighted), and residents were forced out through various means. While residents were told that they would have first choice for homes in the proposed new development, public housing was never built, and the remains of Chavez Ravine instead became the site of Dodgers Stadium.

ADDRESSING PAST POLICIES AND PRACTICES

Attempts have been made through various federal and state laws and regulations to identify and rectify inequities, including the Civil Rights Act of 1964, Title VI, Consideration of Environmental Justice, which discloses the benefits and burdens of proposed projects on minority populations and bars discrimination that is intentional and has unjustified disparate impact (policies that are, at face value, neutral, but discriminate against protected groups). Other examples include Senate Bill 115 (1999) which calls for "the fair treatment of people of all races, cultures and income with respect to development, adoption and implementation of environmental laws, regulations and policies" to be included in the development of General Plans.

Most recently, Executive Order 14008 (2021) established the first ever White House Environmental Justice Advisory Council to fulfill President Biden's and Vice President Harris's commitment to confronting longstanding environmental injustices. Executive Order 14008 directs that marginalized, underserved, and overburdened communities have greater input on Federal policies, and establishes the Justice40 Initiative, which commits to delivering 40 percent of the overall benefits of Federal climate, clean energy, affordable and sustainable housing, clean water, and other investments to disadvantaged communities that have been historically marginalized, underserved, and overburdened by pollution. This

executive order revises Executive Order 12898 (1994), which requires that every federal agency make environmental justice a part of its mission by identifying and addressing effects of all programs, policies and activities on underrepresented groups and low-income populations.

As a regional planning organization, understanding the disparities and inequities resulting from geography and the built environment is central to SCAG's work to plan for a more racially just, equitable future. Connect SoCal 2020 included an extensive Environmental Justice (EJ) Technical Report with detailed analyses on current conditions and the consequences of the region's transportation projects on low-income communities and people of color. Connect SoCal 2020 also included a robust, data-driven Public Health Technical Report which is grounded in the Social Determinants of Health, a public health framework which is centered on the built environment and conditions in which we live, work, play and age. Connect SoCal 2024 will continue to focus on EJ and equity within its goals and policies and shift to a robust equity analysis aims to meaningfully evaluate inequities in the region.

As a government agency focused on planning, SCAG has the opportunity, and in some cases the legal obligation, to analyze and address the inequities that government and the planning profession have created by systemically driving and perpetuating societal differences along racial lines that have resulted in vastly different living and social conditions and access to opportunities. While SCAG considers impacts on low-income families and people of color in our regional growth, transportation, and economic development planning and analysis, SCAG recognizes that more affirmative approaches that seek to counter the effects of historic practices, like those being pursued through state housing law to overcome patterns of segregation and foster inclusive communities, are needed to advance equity and social justice across the region.

A NOTE ON TERMINOLOGY

Language and terms are intricately connected to equity and representation and are continually evolving. The names of indicators used in this report are drawn from the terminology used in the data source they are taken from like the Census Bureau. They do not always represent current best practice, and may in fact be offensive, triggering or erasing to some communities. The list below includes the U.S. Census demographic categories that are used in the following sections regarding the region's existing conditions.

- Asian/Pacific Islander includes the categories Asian (not Hispanic or Latino) and Native Hawaiian and Other Pacific Islander (not Hispanic or Latino). Select analyses only address the category Asian (not Hispanic or Latino) and will be noted as such.
- Black includes the category, Black or African American (not Hispanic or Latino), as defined by the U.S. Census.
- Hispanic (Latino) includes all populations that identify as Hispanic or Latino.
- Mixed/Other includes the categories Some Other Race (nor Hispanic or Latino) and Two or More Races (not Hispanic or Latino).
- Native American includes the U.S. Census category, American Indian and Alaskan Native, not Hispanic or Latino.
- White includes the Census category White (not Hispanic or Latino).
- The designation "people of color" indicates the percentage of the population that does not identify as non-Hispanic White, inclusive of the following categories: Black, Hispanic (Latino), Asian/Pacific Islander, and Mixed/Other. People of color is both a helpful and unhelpful term: people of color puts anyone besides non-Hispanic white into one group, hiding the unique disparities that differ greatly among various populations. Yet at the same time, the term people of color recognize the significant disparities that have endured over time as a result of historical discrimination and racism and highlights these inequities against non-white populations. This report uses this term to highlight the stark inequities in the region, while also further breaking down each indicator by race/ethnicity.

DEMOGRAPHICS

WHO CONSIDERS THE SCAG REGION HOME?

The six county SCAG region was home to roughly 19 million people, about half the entire state's population. One of the region's greatest assets is its diversity, not just in its geography, but in its people. People of color represented about seventy percent (69.7 percent) of the region's population and by 2045 are expected to grow to nearly eighty percent (77 percent). In reviewing our current demographics, SCAG relied on data provided through the U.S. Census Bureau and American Community Survey Five-Year Public Use Microdata (PUMS).

TOTAL POPULATION

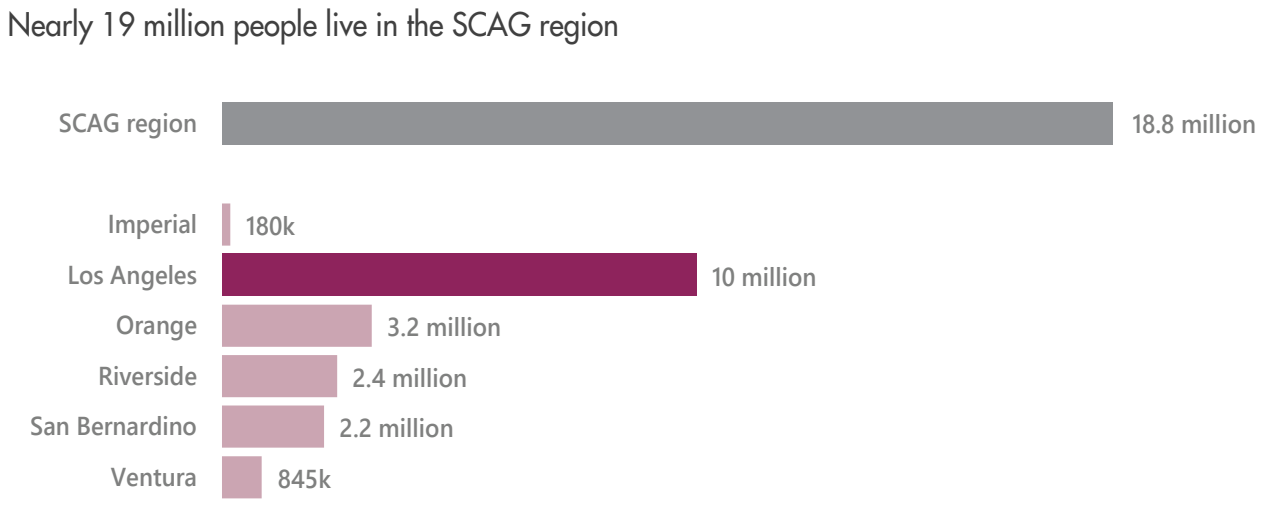
With about 10 million residents, 53.5 percent of the SCAG region population live in Los Angeles County. Orange County, with a population of 3.2 million, had the region's second highest population. The Inland Empire counties of Riverside (2.4 million) and San Bernardino (2.2 million) combined for a total of about 25 percent (24.3 percent) of the regional population. The counties of Ventura (845,000) and Imperial (180,000) were the least populated of the six counties that comprise the SCAG region.

RACIAL/ETHNIC DISTRIBUTION

People of color made up 70 percent of the region's population compared to 40 percent of the national population. The table below provides the race/ethnicity population breakdown by county in the region. As indicated in the table, persons of Hispanic/Latino decent comprise the highest regional population share (46.7 percent) among the six ethnic categories reported in this analysis, with White (30.3 percent) and Asian/ Pacific Islander (13.5 percent) populations representing the second and third highest shares, respectively. Black populations comprise 6.2 percent of the SCAG regional population.

Among the six counties, Imperial had the highest proportion of Hispanic/Latino population at 84.6 percent, with Orange County reporting the lowest share of Latinos at 33.8 percent. Los Angeles County reported the highest share of Black population at 7.8 percent, with San Bernardino following closely at 7.7 percent. Orange County had the highest proportion of persons of Asian/Pacific Islander decent at 21.1 percent, while Imperial County reported the lowest share at 1.4 percent. Combined, non-White populations in the SCAG region represented a significant majority of nearly 70 percent (69.7 percent) of the total regional population. With its predominantly Hispanic/Latino population, Imperial County featured the highest share of people of color among the six counties of the SCAG region at nearly 90 percent (89.8 percent). Los Angeles County had the second highest share of non-White population at 74.1 percent. Ventura County reported the lowest

Total Population



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

proportion of persons of color at 55 percent, although still comprising a majority of the county's population.

AGE DISTRIBUTION

The majority of SCAG region residents (63 percent) were between the ages of 18 and 64, with 23 percent under 18 years, and the remaining 14 percent over 65 years of age. Among the counties, Imperial (29 percent) and San Bernardino (26 percent) had the highest shares of younger (under 18) residents, while Ventura (16 percent) and Orange (15 percent) reported the highest proportions of older (over 65) residents.

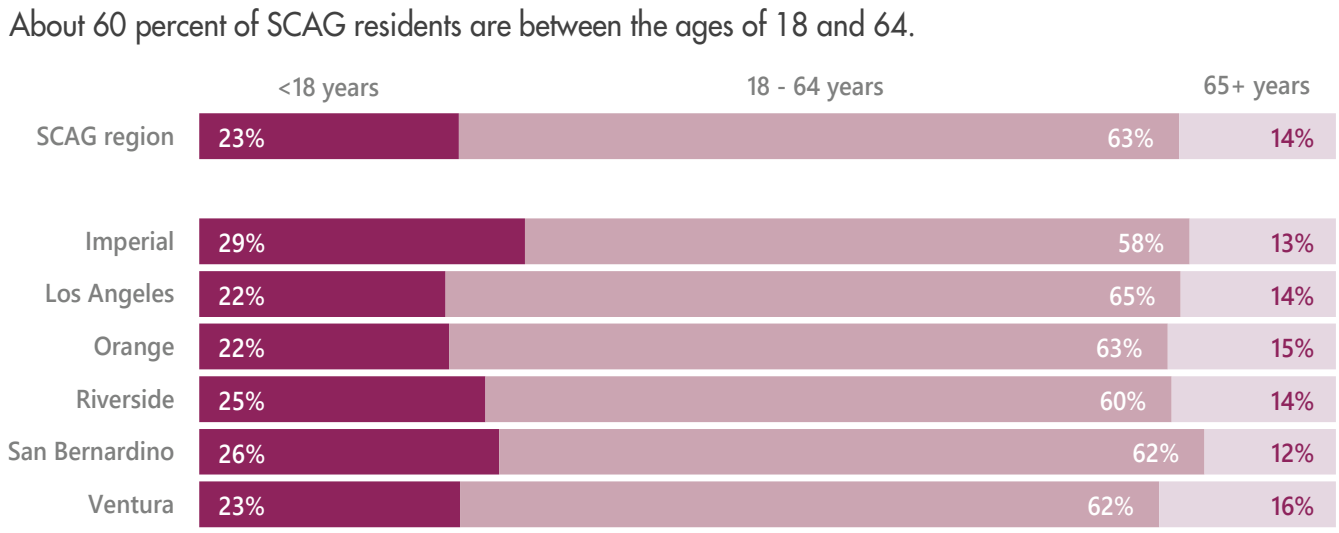
When considering age distribution by race and ethnicity, Mixed/Other and Hispanic (Latino) residents had the highest shares of younger residents (37 percent and 29 percent, respectively) and lowest shares older residents (seven percent and eight percent, respectively) while White residents had the highest proportion of older residents (22 percent). As the region's population ages, enhanced accessibility to essential services will be needed to ensure equitable access to opportunity and resources among older residents.

Racial/Ethnic Distribution

RACE/ETHNICITY	IMPERIAL	LOS ANGELES	ORANGE	RIVERSIDE	SAN BERNARDINO	VENTURA	SCAG REGION
Asian/Pacific Islander	1.4%	14.8%	21.1%	6.8%	7.4%	7.3%	13.5%
Black	2.3%	7.8%	1.5%	6.1%	7.7%	1.7%	6.2%
Hispanic (Latino)	84.6%	48.3%	33.8%	49.4%	53.8%	42.7%	46.7%
Mixed/Other	0.9%	2.9%	3.6%	3.0%	3.2%	3.0%	3.1%
Native American	0.6%	0.2%	0.2%	0.4%	0.3%	0.3%	0.2%
White	10.2%	25.9%	39.8%	34.4%	27.6%	45.0%	30.3%
People of color	89.8%	74.1%	60.2%	65.6%	72.4%	55.0%	69.7%

Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

Age Distribution



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

FEMALE-HEADED HOUSEHOLDS

Households headed by females typically indicate single parent families with a single income and therefore are often vulnerable to poverty and other burdens associated with limited income. This is particularly relevant in communities of color, where nearly 50 percent of Black households in the region are female headed. Native American communities also have a disproportionate share of female-headed households at 36 percent, as compared to the composite regional share of 30 percent.

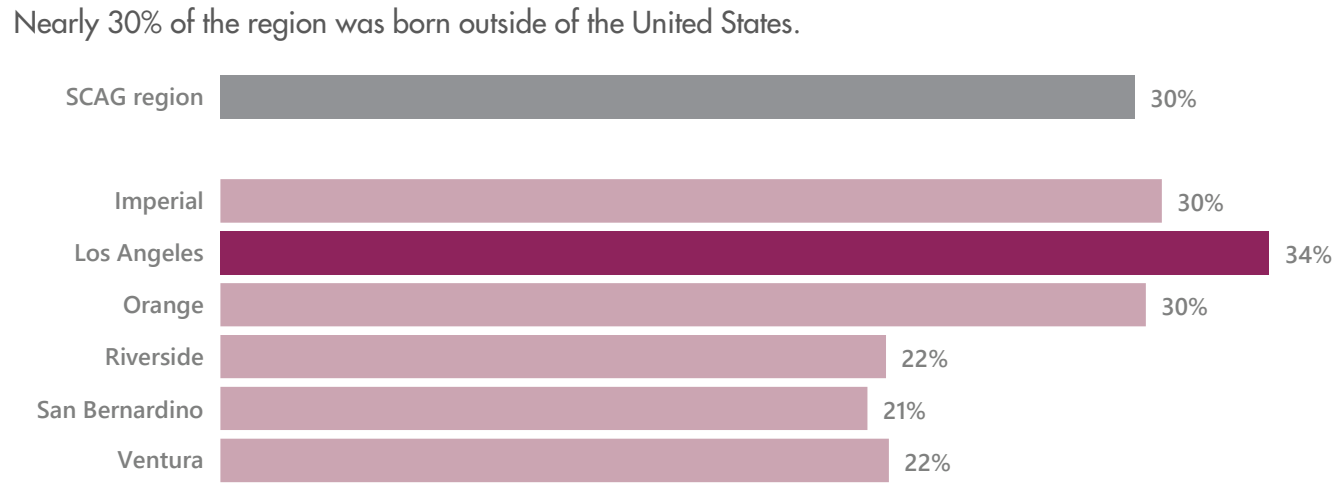
NATIONAL ORIGIN

People who identify as foreign-born are more likely to experience greater disparities in access to opportunities due to cultural and institutional barriers. 30 percent of SCAG residents are foreign-born, much higher compared to 13 percent of U.S. residents. Of the six counties, Los Angeles County reported the highest share of population born in another country, at 34 percent. The counties of Riverside, San Bernardino, and Ventura each reported foreign-born population shares of just over 20 percent.

Female-Headed Households

Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

National Origin



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

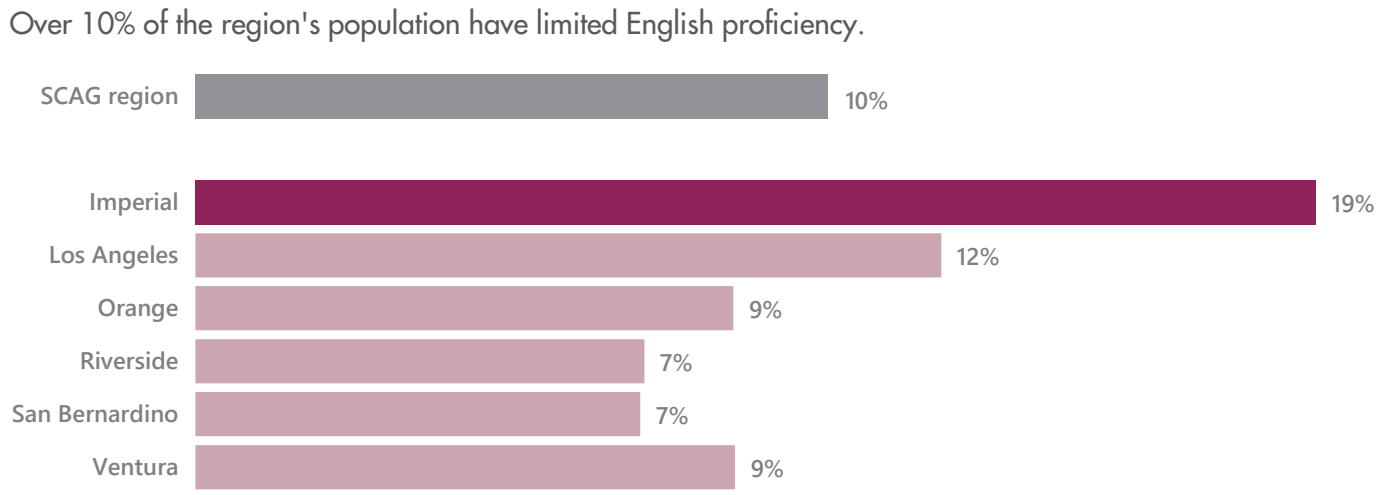
LIMITED ENGLISH PROFICIENCY

People with limited English proficiency (age 5 and above) are more likely to experience greater disparities in opportunity as it can be more difficult to access resources, employment, healthcare, and other needs, furthering inequitable outcomes. Among the SCAG region counties, Imperial County has the highest proportion of persons with limited English language proficiency at 19 percent, which is nearly twice the share for the SCAG region overall (10 percent) and much lower than the national average of 8.2 percent.

PEOPLE WITH DISABILITIES

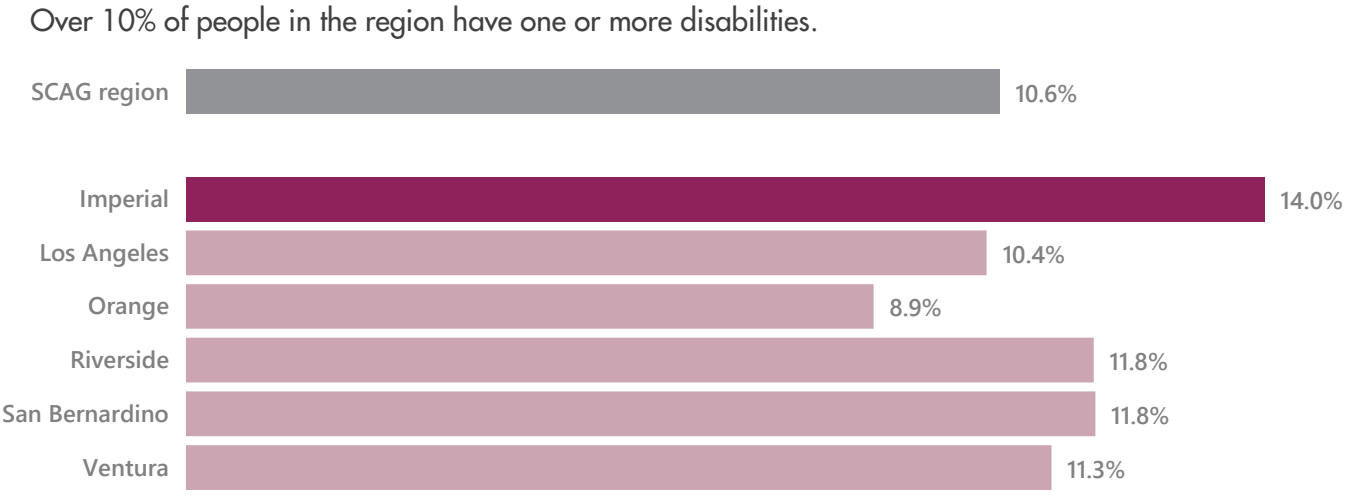
The Center for Disease Control and Prevention (CDC) has reported that people with disabilities often face increased systemic barriers to resources and opportunities. These barriers might be compounded when people with disabilities also experience racism and/or live in poverty. Regionally, nearly one in ten residents in the SCAG region identify as having a disability (11 percent).

Limited English Proficiency



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

People with Disabilities



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

SUMMARY

In summary, an assessment of the demographic context occurring in the SCAG region and at the county level serves to identify existing and emergent trends in population growth, cultural transition, and brings focus to the future needs of an aging population.

The data provided in this report may be used to help better inform policy makers, community advocacy organizations, and members of the public of current demographic trends occurring in the SCAG region and provide a data-based foundation for proactive regional decision-making to effectively plan for the region's future as the needs and desires of a changing demographic environment and an evolving cultural context become prominent.

ECONOMY

Impacts from the COVID-19 pandemic brought increased recognition that improving economic health and achieving equity will require new approaches and strategies that address the various social and environmental factors that influence the economy. The pandemic continues to disproportionately impact the least advantaged and most at-risk residents in the SCAG region, and lower-resourced jurisdictions experience greater impacts. Lower-income segments of the regional population have experienced dramatically higher job losses and economic disruptions related to the pandemic, frequently among people who were already experiencing significant economic difficulties before the pandemic. As the region moves forward in building an inclusive economic recovery strategy, efforts must be made to ensure that the region's most economically vulnerable and disadvantaged populations are provided unimpeded access to economic opportunities.

Economy indicators examine whether all people regardless of race, gender, or nativity have access to high-quality jobs, economic security, increased incomes, and entrepreneurship opportunities. They also measure income inequality and job and wage growth in relation to overall economic growth. In the following section, economy indicators are highlighted to provide a current regional economic snapshot, with data provided by race and ethnicity. Indicators disaggregated at the county level are available in the County Narratives section of the report. To identify and better understand existing regional economic disparities, SCAG utilized the U.S. Census Bureau and American Community Survey Five-Year Public Use Microdata Sample (PUMS) for these indicators.

A note for interpreting the figures that follow: the designation "people of color" indicates the percentage of population that does not identify as non-Hispanic White, inclusive of the following categories, Black, Hispanic (Latino), Asian/Pacific Islander, Native American, and Mixed/Other.

INDICATOR 1: EDUCATIONAL ATTAINMENT

DO WORKERS HAVE THE EDUCATION NEEDED FOR THE JOBS OF THE FUTURE?

When considering economic impacts on vulnerable populations, educational attainment may be viewed as a primary factor in securing high-paying jobs which may lead to homeownership and, ultimately, economic prosperity. This indicator was added to help better

Indicator 1: Educational Attainment

RACE/ETHNICITY	LESS THAN HS DIPLOMA	HS DIPLOMA	SOME COLLEGE	AA DEGREE	BA DEGREE	MA DEGREE
Asian/Pacific Islander	11%	14%	14%	8%	36%	17%
Black	10%	24%	29%	10%	18%	10%
Hispanic (Latino)	35%	27%	19%	6%	10%	4%
Mixed/Other	6%	16%	24%	9%	29%	16%
Native American	15%	30%	26%	10%	14%	6%
White	5%	18%	23%	9%	27%	17%
People of color	26%	23%	19%	7%	17%	8%
SCAG region	19%	22%	20%	8%	21%	11%

Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

understand access to economic opportunity for low-income residents and for people of color. For this indicator, educational attainment is defined as the highest level of education completed for individuals 25 years or older.

- Overall, the percentage of people of color with an associate degree or higher (32 percent) was significantly lower than the regional average (40 percent) and for White residents (53 percent).
- Hispanic (Latino) (62 percent), Native American (45 percent), and Black (34 percent) populations were most likely to have no college experience compared to all other racial and ethnic groups in the region.
- In Imperial County, people of color were significantly less likely to obtain higher education compared to the region overall. This trend was particularly pronounced for Black residents: only five percent of Black residents held an associate degree or higher, compared to 19 percent for all people of color in Imperial County, and 40 percent regionally.

INDICATOR 2: MEDIAN HOURLY WAGE

DO ALL WORKERS EARN A LIVING WAGE?

Higher wages improve living standards, provide greater workforce stability, reduce reliance on social safety-net services, and increase the tax base. Unsurprisingly, low wages and pay gaps by race and gender challenge workers and their communities, while also reducing local spending and tax revenue. Increased wages for low-wage workers will boost disposable incomes, resulting in more consumer spending that supports regional business growth and job creation. For this indicator, median hourly wage was measured as the distribution of wages based on data collected from employers in all industries for civilian wage and salary workers between the ages of 25 and 64.

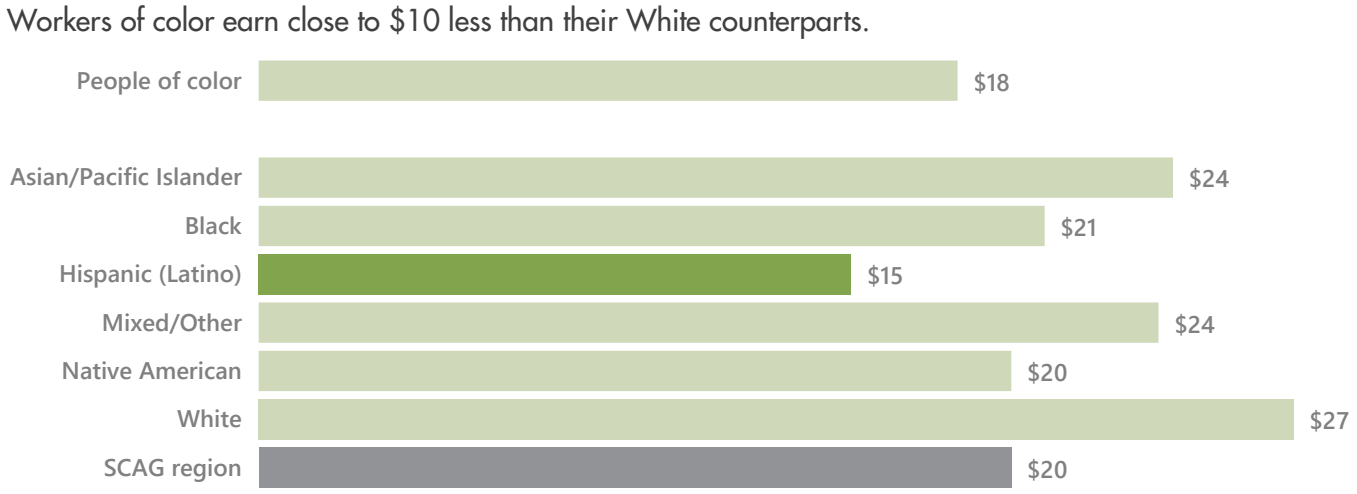
- Within the SCAG region, workers of color earned $9 less in median hourly wage ($18) than their White counterparts ($27). Assuming a 40-hour workweek, this equated to a nearly $19,000 deficit of pre-tax annual income.
- When looking at median hourly wages, Hispanic (Latino) workers continued to make the lowest median hourly wage at $15 in 2020.
- Compared to the previous Baseline Conditions Report with 2018 data, median hourly wages increased slightly across the region and for all racial and ethnic groups in 2020 except for Hispanic (Latino) workers, who remained the same, and for Native American workers which decreased by $1.

INDICATOR 3: MEDIAN HOUSEHOLD INCOME

DO HOUSEHOLDS EARN ENOUGH TO SUPPORT THEIR FAMILIES?

The income of a household is significantly impacted by housing costs in the SCAG region, which may divert income from other important obligations and necessities

Indicator 2: Median Hourly Wage



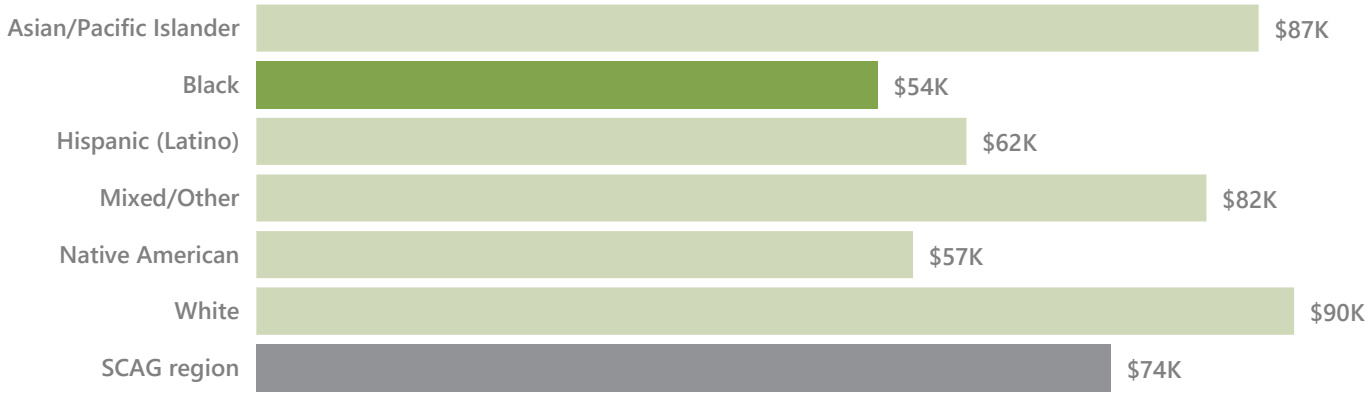
Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

such as healthcare and education. While Asian/Pacific Islander households had higher incomes across the region (though not as high as White households), other communities of color such as Black, Hispanic (Latino), and Native American households tended to earn much less. That remains to be a significant concern because household income is a primary determinant of the ability to purchase a home. For this indicator, median household income is defined as the sum of the annual income of all people 15 years or older living in a household.

- The median household income for White households ($90,021) was the highest across the region, followed closely by Asian/Pacific Islander households at nearly $87K. This was nearly $40,000 more than the median income for Black households, the lowest of all racial or ethnic groups in the region.
- While Orange County had the highest median household income ($93,990) compared to all other counties, Black, Hispanic (Latino) and Native Americans still earned less than their White counterparts, a difference of $20,084 for Hispanic (Latino) households, $13,563 for Black households, and $13,472 for Native American households.

Indicator 3: Median Household Income

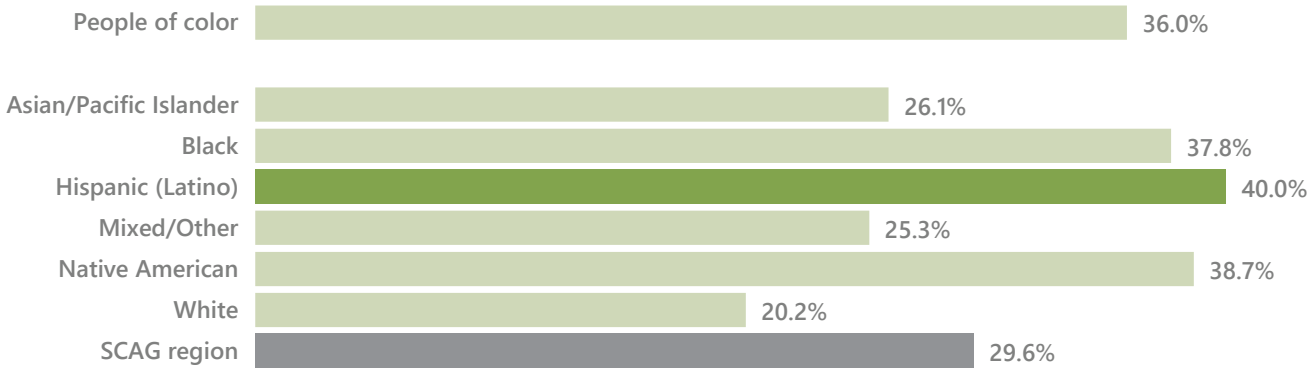
The median household income for Black households is less than 60 percent than that of the median household income for white households.



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

Indicator 4: Poverty

40 percent of Hispanic (Latino) households lived below 200 percent of the poverty line in 2020.



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

- Black households had the lowest median household income ($53,908) compared to all other racial and ethnic groups.

INDICATOR 4: POVERTY

WHO IS MOST LIKELY TO LIVE IN POVERTY?

Lack of sufficient income has multiple negative consequences on health, well-being, and economic opportunity. Children who experience poverty are at greater risk of starting school behind their peers academically, scoring lower on achievement tests, being unemployed and earning less as adults, and having poor health outcomes throughout life. For this indicator, poverty is defined as the percentage of people with incomes below 200 percent of the Federal Poverty Level (FPL).

The Federal Poverty Level (FPL) is a measurement of the minimum amount of annual income needed for individuals and families to pay for essentials, such as shelter, food, clothing, and transportation. The FPL accounts for the number of people in a household, their income, and the state in which they live. The percentage of the population living below the indicated federal poverty threshold is based on family income, size, and composition. The federal poverty threshold in 2017 for a family of four with two children was about $25,000 per year (thus, 200 percent of the federal poverty threshold was about $50,000). In California, 200 percent of the FPL was $52,400 for a family of four.

- People of color bore a disproportionate burden of poverty relative to their White counterparts: regionally, 36 percent of people of color lived in poverty.
- Overall, the percentage of residents that fall under 200 percent of the Federal Poverty Line was significantly higher in every county for people of color than for the White population.
- Hispanic (Latino) (40 percent) and Native American (39 percent) populations experienced the highest rates of poverty compared to all other racial and ethnic groups in the region in 2020.
- Imperial County had the highest rates of poverty, with over 68 percent of Black residents and 51 percent of Hispanic (Latino) residents living below the poverty line, compared to all other counties while Ventura County had the lowest rates of poverty, with 16 percent of Asian/Pacific Islander and White residents living below the poverty line.
- From 2018 to 2020, rates of poverty have slightly decreased for all race and ethnic groups, but Hispanic (Latino) and Native American residents still experienced the highest levels of poverty compared to all other racial and ethnic groups.

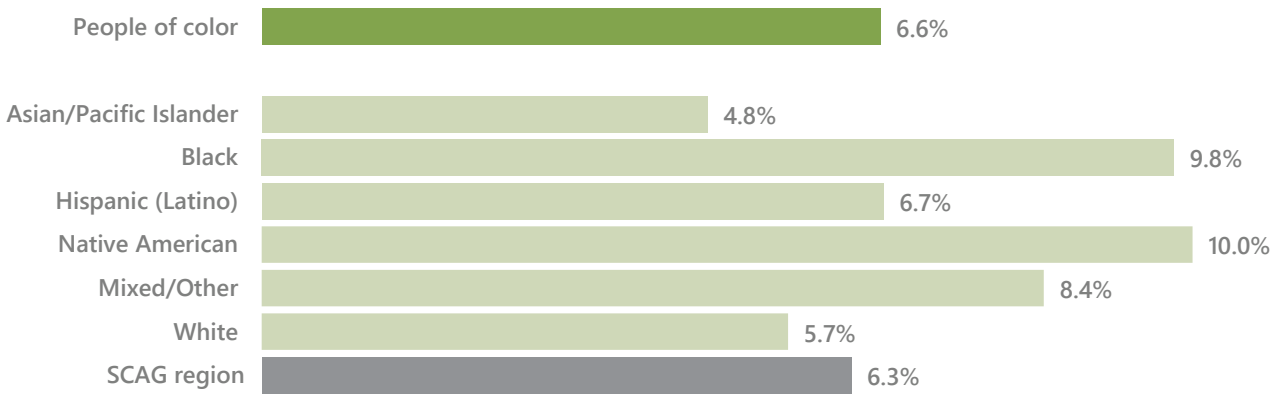
INDICATOR 5: UNEMPLOYMENT

DO ALL RESIDENTS HAVE ACCESS TO EMPLOYMENT?

Employment is the predominant source of income for the vast majority of working-age people, and unemployment

Indicator 5: Unemployment

Black and Native American residents experienced higher rates of unemployment, almost twice that of White residents.



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

is strongly associated with poverty as well as physical and mental illness, drug addiction, and suicide. A reduced unemployment rate would help reduce racial inequities and create a stronger regional economy. For this indicator, unemployment is defined as the number of unemployed people as a percentage of the labor force (the labor force is the sum of the employed and unemployed).

- In 2020, the unemployment rate people of color was seven percent, slightly higher than the regional average of 6.3 percent. However, it should be noted that rates of unemployment have been in flux due to the COVID-19 pandemic.
- Unemployment rates for Black and Native American residents were significantly higher than the rate for their White counterparts: 10 percent compared to six percent.
- This disparity was particularly exemplified in Ventura County where Native Americans experienced a 14 percent unemployment rate, nearly three times that of White residents (five percent).
- Unemployment declined from seven percent to six percent from 2018 to 2020, and Native American unemployment was reduced from 15 percent to 10 percent in the region. However, unemployment for Black residents grew from eight percent to 10 percent over that two-year timeframe.

INDICATOR 6: WORKING POOR

DO ALL JOBS PROVIDE LIVING WAGES?

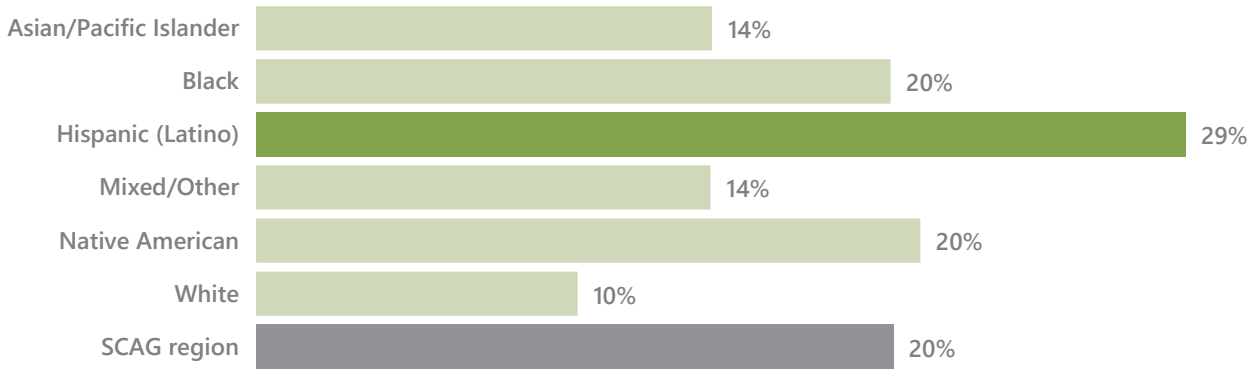
Many full-time jobs do not pay enough to keep workers out of poverty, leaving them struggling to pay bills and unable to invest in their future. Low-wage workers face the challenge of finding affordable childcare and experience greater family instability and worse health outcomes than higher-wage workers. For this indicator, working poor is defined as full-time workers living below the Federal Poverty Level.

The Federal Poverty Level (FPL) is a measurement of the minimum amount of annual income needed for individuals and families to pay for essentials, such as shelter, food, clothing, and transportation. The FPL accounts for the number of people in a household, their income, and the state in which they live. The percentage of the population living below the indicated federal poverty threshold is based on family income, size, and composition. The federal poverty threshold in 2017 for a family of four with two children was about $25,000 per year (thus, 200% of the federal poverty threshold was about $50,000). In California, 200 percent of the FPL was $52,400 for a family of four.

- Regionally, people of color (29 percent) were nearly three times more likely to be considered working poor than that of the White population (10 percent) in 2020.

Indicator 6: Working Poor

Hispanic (Latino) full time workers were three times more likely to be living in poverty than White full time workers.



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

- In 2020, across all race/ethnicity groups, Hispanic (Latino) workers were most likely to be considered working poor, with over 29 percent of full-time workers still living below 200 percent of the FPL. Hispanic (Latino) workers were most likely to be identified as working poor in Los Angeles County (30 percent), Orange County (26 percent), Riverside County (27 percent), and Ventura County (26 percent) as compared to other races/ethnicities.
- In Imperial County, Native American populations were significantly more likely than any other race or ethnic group to be identified as working poor at 50 percent, 30 percent higher than the regional average of working poor. Black populations followed closely behind at 43 percent.
- Orange County had the lowest percentage of working poor (nearly 15 percent), followed by Ventura County (over 15 percent), for all residents as compared to the rest of the region.
- The percentage of full-time workers categorized as working poor for the entire region had nearly doubled from 2018 (11 percent) to 2020 (20 percent). Still, Hispanic (Latino) workers continued to have the highest percentage categorized as working poor while White workers had the lowest percentage categorized as working poor.

SUMMARY

In summary, the economic indicators evaluated accessibility to high-quality jobs, economic security, increased incomes, and entrepreneurship opportunities, from household income, educational attainment, unemployment rates and other indicators, for all people regardless of race, gender, or nativity. Findings in this section showed that people of color were more likely to have lower levels of educational attainment, wages, and median household income while also experiencing higher rates of poverty and unemployment. While there have been slight improvements when comparing the economic indicators from 2018 to 2020, this report should function as an overview of existing conditions to enable reviewers to use these statistics to better inform policy development and promote advocacy to support improvements in regional economic outcomes, particularly among communities of color.

COMMUNITIES

SCAG's long-range plan, Connect SoCal, charts a path toward a more mobile, sustainable, and prosperous region, and includes the goal of developing more healthy and complete communities. Analysis of regional conditions reinforce the fact that where a person lives matters. A range of economic and social impacts such as public health, educational attainment, employment opportunity, housing condition, the likelihood of incarceration, and life expectancy, vary significantly in the region based on race, income, and location (census tract). A significant link has been established between public health outcomes and characteristics of the built environment such as housing quality. Communities (one of Connect SoCal's core goals) indicators assess existing public health and housing conditions in the region, with a specific focus on how these outcomes vary between different communities. It should also be noted that many of these disparities were further exacerbated during the COVID-19 pandemic.

In the following section, Communities indicators, which focus on public health and housing, are highlighted, providing a regional snapshot of current conditions disaggregated by race and ethnicity. Indicators disaggregated at the county level are available in the County Narratives section of this report. To identify and better understand existing regional housing and public health disparities, SCAG consulted data from the U.S. Census and American Community Survey Five-Year Public Microdata and the Heathy Places Index.

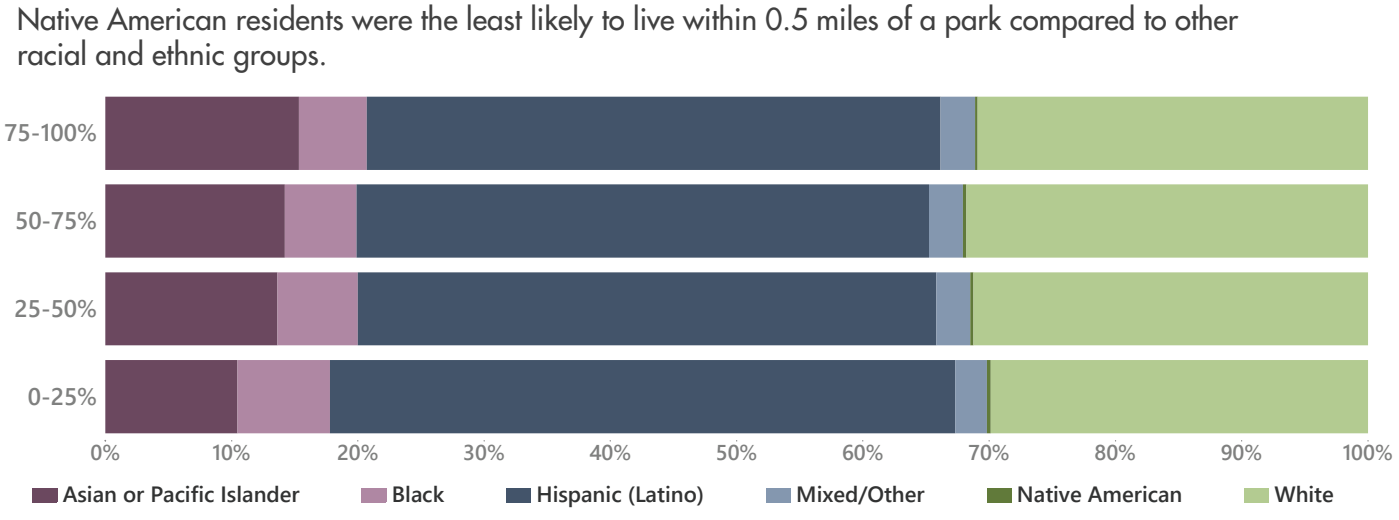
INDICATOR 1: ACCESS TO OPEN SPACE AND PARKS

DO ALL RESIDENTS HAVE ACCESS TO OPEN SPACE AND PARKS?

Local parks and other natural lands are important amenities for residents' quality of life. Residents who live near parks have easier access to recreation and other outdoor activities (e.g. walking, biking, hiking, etc.), providing numerous physical, mental, and social benefits. The SCAG region is diverse in its open space resources and offers a wide variety of public parks as well as national parks, state parks, and numerous county parks. Not all parks are created equal, however, and many neighborhoods do not have access to a variety of public resources. For instance, some neighborhoods have more natural lands, some parks are better maintained, some are equipped so that persons with disabilities can enjoy them, and some parks are safer. In addition, there is a greater need for urban green spaces and trees to cool and offset warming temperatures from the impacts of climate change which are known to disproportionately impact communities of color and low-income populations.

For this indicator, access to open space and parks refers to the percentage of people living within a half-mile of a park, beach, or open space, as defined by the Healthy Places Index (HPI), broken down by quantile.

Indicator 1: Access to Open Space and Parks



Source: Healthy Places Index 3.0

- HPI measured the percentage of people living within a half mile of a park by census tract, then broken down by racial and ethnic groups. Overall, Native American residents and Mixed/Other residents had the least access to a park within a half mile walk.
- When considering census tracts that had between zero to 25 percent of its population living within a half mile to a park, Hispanic (Latino) residents represented half of the population (49 percent), followed by White residents at 31 percent. Other racial and ethnic groups were at 10 percent or below.
- When considering the highest park accessibility, between 75 to 100 percent, Hispanic (Latino) residents still represented close to half at 45 percent and White residents remained at 31 percent. There was a slight increase in representation for Asian/Pacific Islanders at 15 percent, but other racial and ethnic group representation were minimal.
- Throughout the six counties, the demographic distribution for park access was similar to the region; Hispanic (Latino) and White residents represented over half of the populations living within a half mile of a park at all levels of access while other racial and ethnic groups covered a minimal proportion.

INDICATOR 2: BROADBAND ACCESS

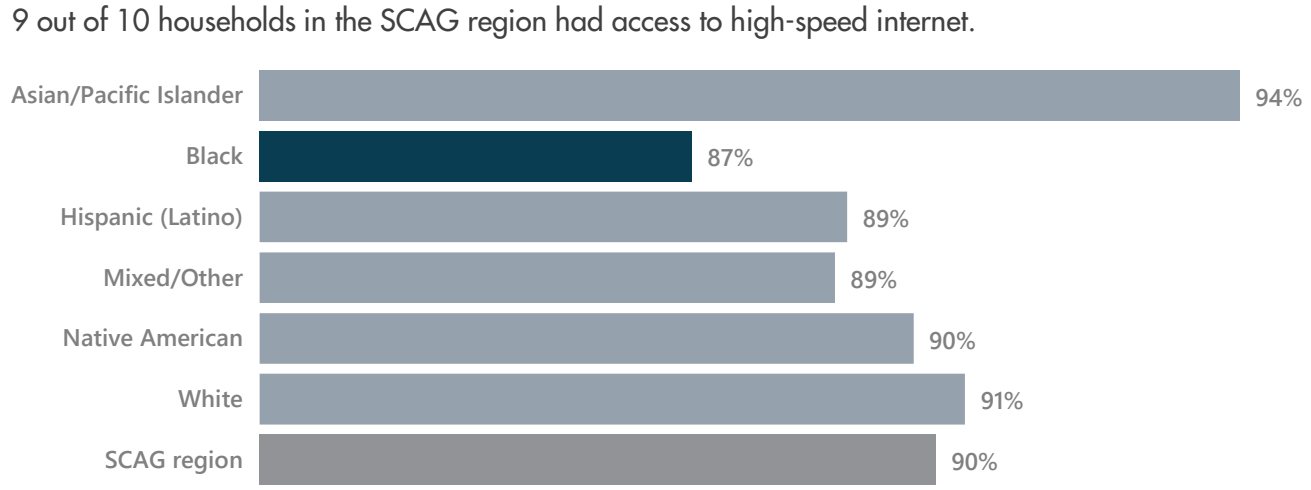
WHO HAS ACCESS TO HIGH-SPEED INTERNET?

High speed internet access, referred to generically as "broadband", is currently defined by the Federal Communications Commission (FCC) as access with minimum speeds of 25/3 Mbps. Broadband includes both wired and wireless technologies and has become as essential to daily life as electricity during the pandemic. Schooling, jobs, government services, medical care, grocery shopping, and many other activities that were previously performed in-person are now increasingly conducted through the internet. This growing dependence on the internet for core daily functions has exposed a digital divide. Though internet usage and broadband access are at all-time highs, according to the Public Policy Institution of California, only 74 percent of households in California have access to broadband at home – the type of internet speed people need to effectively engage in online activities such as school or work.

Gaps in access to broadband persist among low-income, less educated, rural, Black, and Hispanic (Latino) households because it is expensive, there inadequate infrastructure investments or infrastructure in certain areas are expensive to maintain. For example, cost of service in Imperial County or rural communities are more expensive than compared to Los Angeles County yet have lower speeds. Based on SCAG's Broadband Data Analysis, Imperial County and San Bernardino County have the highest cost of broadband plan. It is becoming clear that after the pandemic, access to high-speed internet will remain crucial for daily life, and households without broadband access will be greatly disadvantaged.

As of July 2022, the FCC is considering revising the speed threshold to access with a minimum speeds of 100/20 Mbps. Should this proposed revision be implemented,

Indicator 2: Broadband Access



Source: U.S. Census Bureau; 2016-2020 American Community Survey 5-Year Estimates

the digital divide metrics will significantly widen as the thresholds have increased. However, for the purpose of this report, broadband access refers to the percentage of individuals living in housing units with access to broadband (high speed) internet service (wired or wireless) within minimum speeds of at least 25/3 Mbps.

- Across the region, in 2020, nine out of ten households (90 percent) had access to high-speed internet, a slight increase from the regional average of 86 percent in 2018 as presented in the 2020 Racial Equity Baseline Conditions Report.
- Access to broadband varied slightly across racial and ethnic groups; Black (87 percent) and Hispanic (Latino) (88 percent) households had the lowest rates of access to high-speed internet.
- Residents in Imperial County experienced particularly low broadband access, with 88 percent of households with access to high-speed internet at home compared to the 90 percent regionally. Orange County residents had the highest percentage of broadband access at 94 percent.

INDICATOR 3: HEALTH INSURANCE

DO ALL RESIDENTS HAVE ACCESS TO HEALTHCARE?

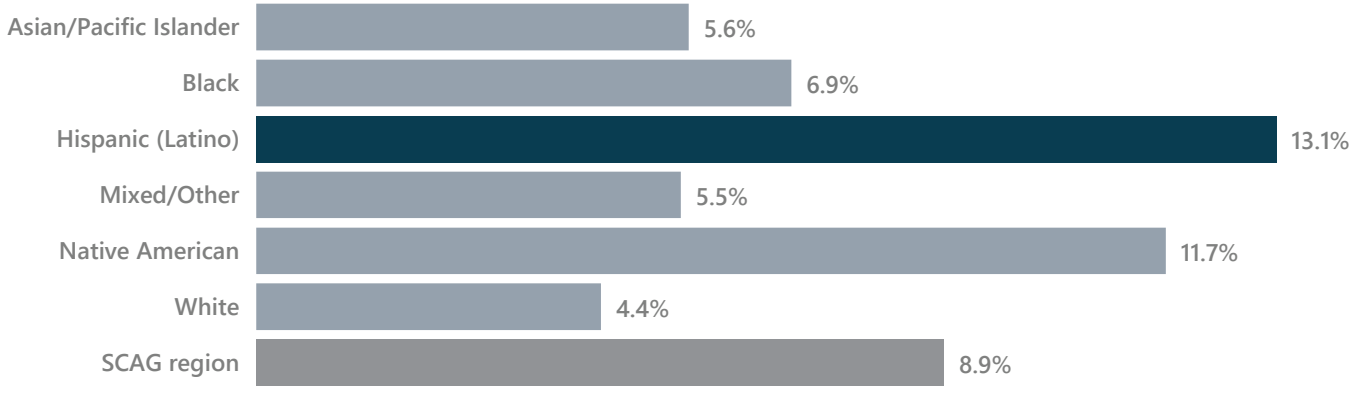
Unsurprisingly, insured individuals have better health outcomes as they have more access to health services and a greater variety of health services available to them. Insured individuals are less likely to use emergency services for routine procedures or conditions. Without access to primary care services, uninsured individuals are more likely to utilize emergency services for routine procedures, and the overutilization of emergency services can lead to an increase in overall health care spending.

For this indicator, health insurance is measured as having comprehensive coverage (private or public insurance) at any time during the calendar year for the civilian, noninstitutionalized population. Comprehensive health insurance covers basic healthcare needs. This definition excludes single service plans such as accident, disability, dental, vision, or prescription medicine plans.

- Almost a quarter (24 percent) of Native Americans in Riverside County did not have health insurance coverage—the highest percentage of any group, in any county.
- Los Angeles County and San Bernardino County experienced the highest rates of missing health insurance coverage at nearly ten percent each (9.3 percent and 9.5 percent respectively).
- The Hispanic (Latino) population was the most uninsured in four of the region's six counties (Los Angeles, Orange, San Bernardino, and Ventura Counties), yet continued to work essential jobs with high COVID-19 exposure rates and continued to be disproportionately represented in the state's COVID-19 positive cases and deaths.

Indicator 3: Health Insurance

Across the region, a larger percentage of the Hispanic (Latino) and Native American populations do not have health insurance when compared to the White population.



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

- While the proportion of uninsured individuals slightly decreased from 2018 to 2020, there are still significant disparities between those who have insurance and those who do not, especially for people of color, specifically Hispanics (Latinos) and Native Americans.

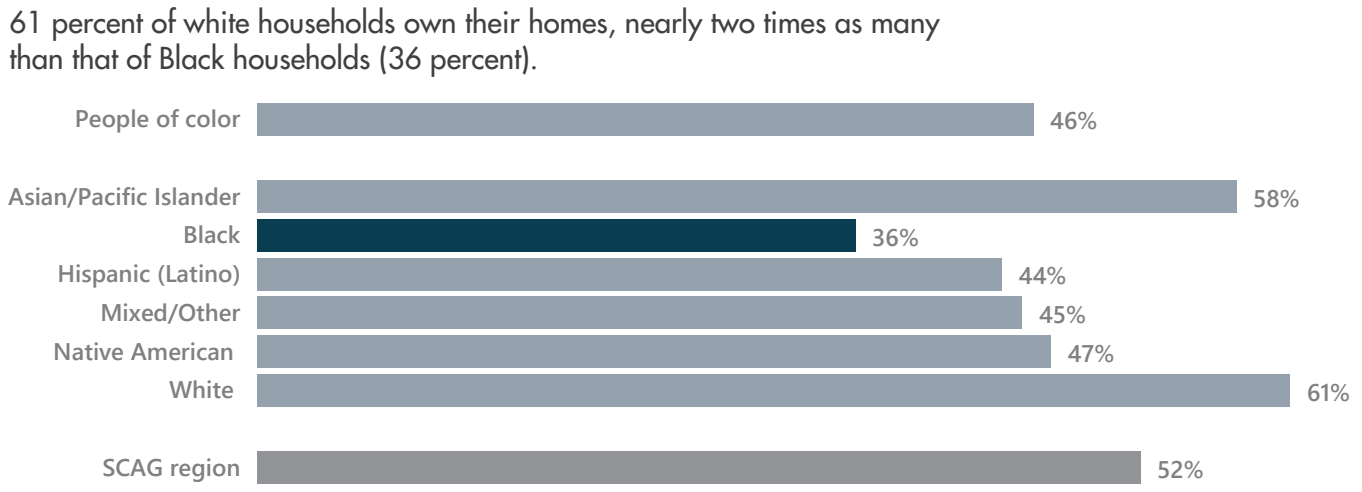
INDICATOR 4: HOMEOWNERSHIP

WHO IS MOST LIKELY TO OWN THEIR HOME?

Homeownership is a significant contributor to wealth building. Due to a history of restrictive covenants and discriminatory lending practices, many households of color have been locked out of owning a home and thus an opportunity to maintain and increase wealth between generations. The Great Recession of 2008 exacerbated many existing inequities and set back communities of color in both homeownership rates and household wealth. For this indicator, homeownership is defined as the percentage of owner-occupied households as opposed to rented households and is computed by dividing the number of owner-occupied housing units by the total number of occupied housing units or households.

- Overall, there were more homeowners than renters in the region: 52 percent of households were owner-occupied in 2020.
- White households continued to lead the proportion of owner-occupied households (61 percent), while less than half of people of color were homeowners (46 percent). Asian/Pacific Islander households were similarly likely to own their own home at 58 percent.
- 36 percent of Black households owned their own home, followed by 44 percent of Hispanic (Latino) households, 45 percent of Mixed/Other households, and 47 percent of Native American households.
- The only county that had more renters than homeowners was Los Angeles County (45 percent homeowners). In Los Angeles County, where only 45 percent of households are owner-occupied, Black households experience the lowest rates of homeownership at 33 percent, followed closely by Hispanic (Latino) households at 38 percent, Mixed/Other households at 38 percent, and Native American households at 40 percent.
- Compared to 2018, the rate of homeownership held constant across the region; White households continued to experience the highest rates of homeownership while Black households were still the least likely to own a home.

Indicator 4: Homeownership



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

INDICATOR 5: HOUSING COST BURDEN

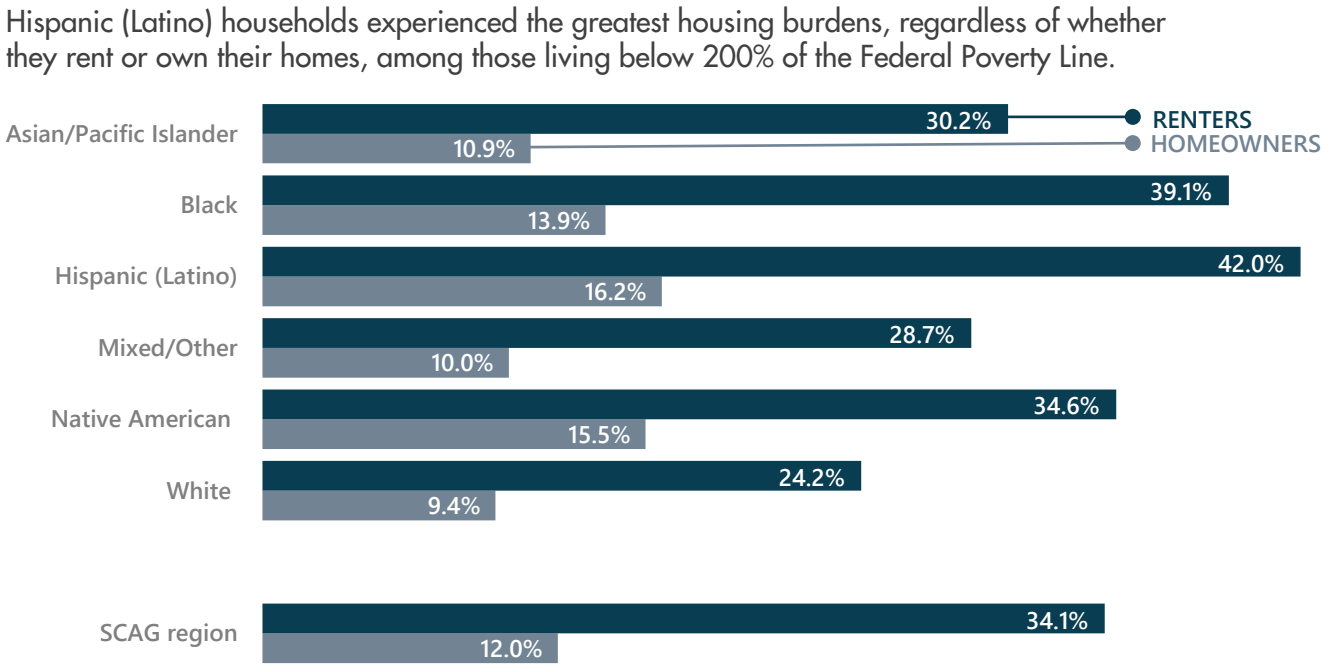
WHO IS SHOULDERING A DISPROPORTIONATE AMOUNT OF HOUSING COST?

The U.S. Census Bureau defines housing cost burden as households spending more than 30 percent of their household income to housing- and rent-related costs and severe cost burdened households spend over 50 percent of their household income to housing- and rent-related costs. Low-income households that are housing cost burdened often spend less on food and healthcare costs, which can result in increased negative health outcomes. Cost burdened households also tend to choose housing in areas that may be lower cost but have longer commute times to jobs and urban centers with job opportunities.

As highlighted in SCAG's Connect SoCal 2020 Public Health Technical Report, this causes increased expenditures in transportation-related costs, resulting in households having less to spend on healthcare and food related costs. For this indicator, housing cost burden is referred to as households that spend 30 percent or more of their household income on housing- and rent-related costs and make less than 200 percent of the Federal Poverty Line.

- Across the region, Black, Hispanic (Latino), and Native American households, regardless of whether they own or rent their homes, experienced the greatest housing cost burdens among households below 200 percent of the Federal Poverty Line: 42 percent of renting Hispanic (Latino) households, 39 percent of renting Black households, and 35 percent of renting Native American households spent over 30 percent of their incomes on housing costs as compared to 24 percent of renting White households in 2020.
- The high burden of housing costs carried over to households that own their homes: 16 percent of Hispanic (Latino) home-owning households, 14 percent of Black home-owning households, and 16 percent of Native American home-owning households spent over 30 percent of their incomes on housing among households below 200 percent of the Federal Poverty Line as compared to nine percent of White home-owning households.
- In Imperial County, where 84 percent of the population is Hispanic (Latino), almost 50 percent of households spent over 30 percent of their income on housing costs.

Indicator 5: Housing Cost Burden



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

- From 2018 to 2020, housing burdens for homeowners and renters remained similar but Hispanic (Latino) residents, both homeowners and renters, experienced the highest housing cost burden compared to all other racial and ethnic groups.

INDICATOR 6: HOUSING QUALITY

WHO HAS ACCESS TO ESSENTIAL KITCHEN FACILITIES AND SAFE SANITATION?

In addition to the affordability of housing, the essential amenities offered by a housing unit matters greatly in being able to maintain sanitation and quality of life. The availability of plumbing facilities provides insight on who has access to necessary sanitation that helps keep residents safe and healthy. This is a particularly critical issue considering the pandemic. In addition, families living without proper kitchen facilities, which include a sink with running water, a stove or range, and a refrigerator, are less likely to prepare nutritious food and maintain adequate sanitation, which may lead to increased food insecurity and poorer health outcomes. For this indicator, housing quality refers to the percentage of households without complete kitchen and plumbing facilities.

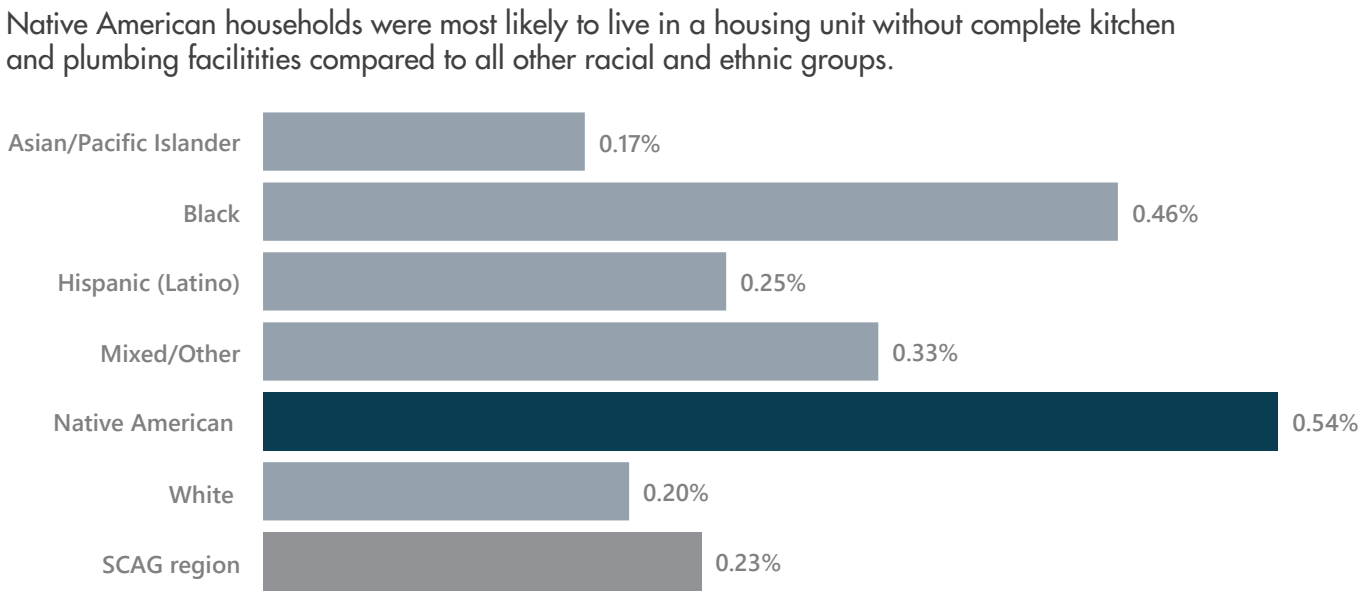
- In the SCAG region, greater proportions of Native American residents (0.54 percent) and Black residents (0.46 percent) live in housing units without complete facilities, compared to 0.2 percent of White residents.
- In Riverside County, 1.4 percent of Native Americans lived in housing without complete plumbing and kitchen facilities (by comparison, every other group was below 0.32 precent).
- In San Bernardino County, White households were the most likely to be living in a housing unit without a kitchen or complete plumbing facilities at 0.27 percent compared to other racial and ethnic groups.

INDICATOR 7: LIFE EXPECTANCY

WHO HAS ACCESS TO GREATER OPPORTUNITY AND RESOURCES FOR LONGER LIFE?

While life expectancy is represented by a number, and a number cannot provide the full context of unequal access to opportunities, life expectancy may be used to highlight how health outcomes vary between different communities of people. While the gap between the life expectancies of Black, Hispanic (Latino), and Native Americans generally narrowed over the years reported, it is likely that COVID-19 has disrupted these gains as Black, Hispanic (Latino), and Native Americans across the country were approximately three times more likely to die of COVID-19 than Whites (as of December 2020). For

Indicator 6: Housing Quality



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

this indicator, life expectancy is defined as the average number of years of life a person can expect to live.

- In 2019, White individuals had an average life expectancy of 79 years in the SCAG region, compared to Asian/Pacific Islanders, who had an average life expectancy of 84 years—the highest in the region.
- Native Americans in the SCAG region experienced consistent decreases in average life expectancy, from 78.7 in 2005, to 78.2 in 2010, and 78.0 in 2015. Native Americans experienced a significant drop in life expectancy from 2015 to 2019 (75.3 years).
- Black residents were the only racial and ethnic group that experienced increases in life expectancy while all other groups saw a decrease in 2019.

INDICATOR 8: OVERCROWDING

WHO HAS ENOUGH ROOM AT HOME?

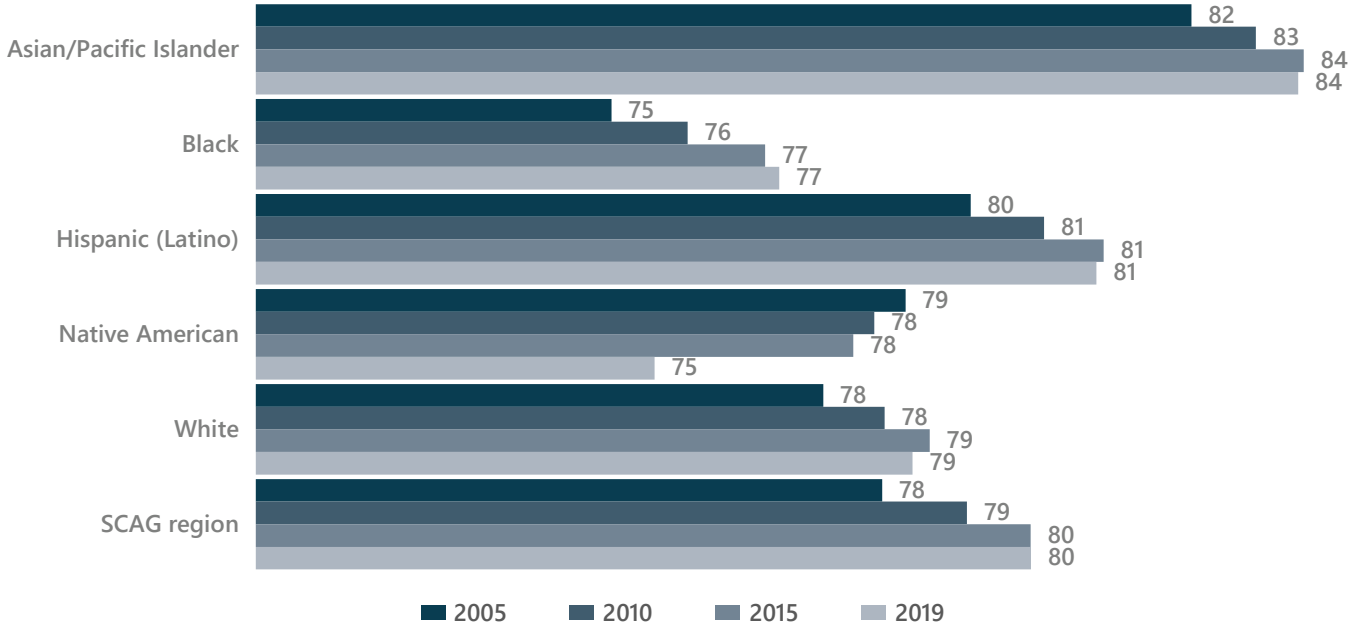
Households that are housing cost burdened are also at an increased risk of living in poor quality housing, overcrowded housing and living in housing located near high–volume roadways, as these options are typically less expensive. All these situations increase the risk of negative health outcomes. The cost of housing can lead to choices to live in unsafe or poor-quality housing that can expose residents to toxins and other conditions that may be harmful to public health.

Overcrowded housing can also lead to unsafe living conditions. Housing is considered overcrowded when there is more than one person per room in a household (PPR). Severe overcrowding is defined as having more than 1.5 PPR in a household. The Census Bureau notes that persons-per-room is a common measure for assessment of overcrowding in housing and 1.5 is a widely accepted threshold above which there are impacts on health and personal safety. Overcrowded housing is a dangerous public health issue, as it increases risk of infection from communicable diseases, prevalence of respiratory issues, and vulnerability to homelessness. For this indicator, overcrowding is measured as the percentage of housing units that are considered overcrowded or have more than 1.01 persons per room (excluding bathrooms and kitchens).

- Hispanic (Latino) residents (20 percent) were 10 times more likely to be living in overcrowded housing compared to White residents (two percent) in the region.

Indicator 7: Life Expectancy

In 2019, the average life expectancy for Native Americans was 75 years, which was the lowest of any racial and ethnic group in the SCAG region.



Source: National Equity Atlas, 2019

- Los Angeles County had the highest rates of overcrowding (11 percent) compared to all other counties and was the only county to have a higher rate of overcrowding than the regional average of 10 percent.
- Hispanic (Latino) households had the highest rates of overcrowding in all counties.
- The rate of overcrowding remained relatively the same from 2018 to 2020. However, Hispanic (Latino) households were still the most likely to live in overcrowded conditions by a significant margin as compared to all racial and ethnic groups, in all counties.

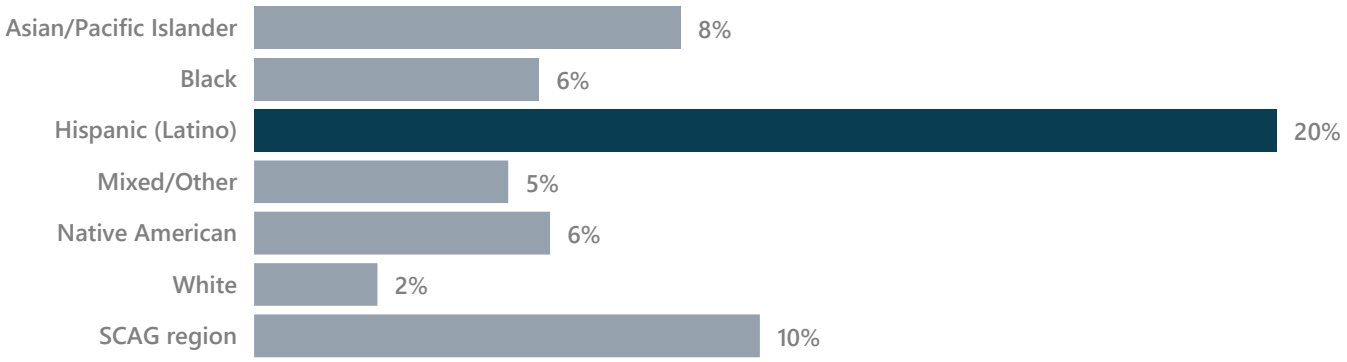
SUMMARY

The Communities indicators were used to examine existing conditions for public health and housing in the SCAG region and how various communities were differentially impacted, particularly during the COVID-19 pandemic. Findings showed that people of color continued to have the least access to broadband and health insurance, are less likely to own a home and are more likely to live in a housing unit without adequate kitchen and plumbing facilities. Persons of color in the SCAG region are also more likely to live in overcrowded housing, and to experience higher housing cost burdens.

The data presented in this report is intended to promote the development of local and regional policies and strategies to improve the housing and public health conditions currently experienced by many communities of color in the SCAG region, and to enhance living conditions for all residents of the region, regardless of race, gender, or nativity.

Indicator 8: Overcrowding

Hispanic (Latino) residents were twice as likely to experience overcrowding compared to other racial and ethnic groups in the region.



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

MOBILITY

It is widely understood that transportation and land use decisions determine access to opportunities and have far-reaching effects on equity and social justice. Transportation links people to places, allowing them to move between home, work, play, and community services. A community's land use pattern determines the distribution of these activities and destinations which, when combined with transportation options, impacts the ability of a household to meet their daily needs. Historically, patterns such as racial segregation, gentrification, and displacement have limited communities of color accessibility to essential services and overall mobility.

Mobility indicators measure access to job opportunities, transportation, parks, and more. In the following section, mobility indicators are highlighted, providing a regional snapshot disaggregated by race and ethnicity. Indicators disaggregated at the county level are available in the County Narratives section this report. To understand existing regional mobility disparities, SCAG analyzed data from the Transportation Injury Mapping System (TIMS), Statewide Integrated Traffic Records System (SWITRS), U.S. Census and American Community Survey Five-Year Public Use Microdata, and the SCAG Regional Travel Demand Model, Socioeconomic Growth Forecast and Regional Household Travel Survey.

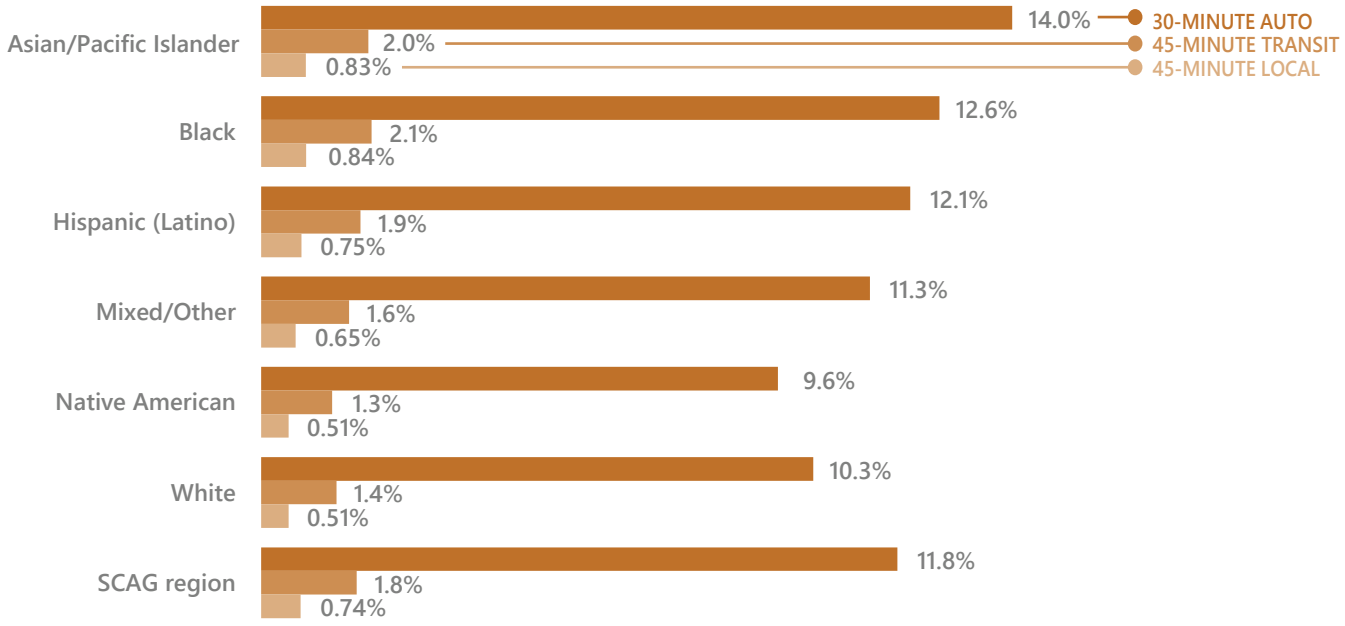
INDICATOR 1: ACCESS TO EMPLOYMENT

DO ALL RESIDENTS HAVE ACCESS TO EMPLOYMENT?

Accessibility to various destinations, specifically employment opportunities, is foundational for maintaining the social and economic interactions required to meet basic needs. Accessibility is measured by the spatial distribution of potential destinations, the ease of reaching each destination, and the magnitude, quality, and character of activities available at destination sites. The number of destination choices that people have is equally crucial: the more destinations and the more varied the destinations, the higher the level of accessibility. While not included in the data provided below, travel cost is also an important element of accessibility. This methodology also does not differentiate between high versus low wage employment; according to a 2015 study by Kneebone and Holmes, individuals are more likely to commute farther for higher wage jobs. For this indicator, access to employment refers to the share of regional

Indicator 1: Access to Employment

Native Americans can reach the lowest percent of employment opportunities in the region via all transportation modes compared to all other racial/ethnic groups.



Source: SCAG Regional Travel Model and Socioeconomic Growth Forecast

employment, including retail employment, reachable from home within 30 minutes by automobile, 45 minutes by transit, and 45 minutes by local bus during morning peak periods (6 - 9 a.m.).

- Across the region, within a 30-minute drive, Native Americans had the lowest accessibility to employment compared to other racial and ethnic groups, with 9.6 percent of employment opportunities within reach. Within a 45-minute transit commute, only 1.3 percent of employment was accessible within the region for Native Americans, and by local bus, ths share dropped to only 0.51 percent.
- Residents faced the least accessibility to jobs in the region by a 30-minute car ride in Imperial County (0.7 percent of all employment), followed by Ventura County (3.3 percent), and Riverside County (four percent).
- Imperial County had the lowest accessibility to jobs via a 45-minute bus/transit ride (0 percent). However, regionally, all employment within a 45-minute commute by transit is marginal, with less than three percent (2.7 percent) of all employment within reach for any demographic group.
- Regionally, Asian/Pacific Islanders had the greatest accessibility to employment, accessing 14 percent of all employment sites via a 30-minute drive, followed by Black residents at 13 percent.
- Employment accessibility remained relatively constant from 2018 to 2020: Asian/Pacific Islanders experienced the greatest accessibility to employment via all modes, while Native Americans had the least accessibility to employment opportunities.
- Orange County provided the greatest employment accessibility within a 30-minute drive to the largest number of jobs in the region. Overall, nearly 17 percent of the regional share of all employment can be reached.

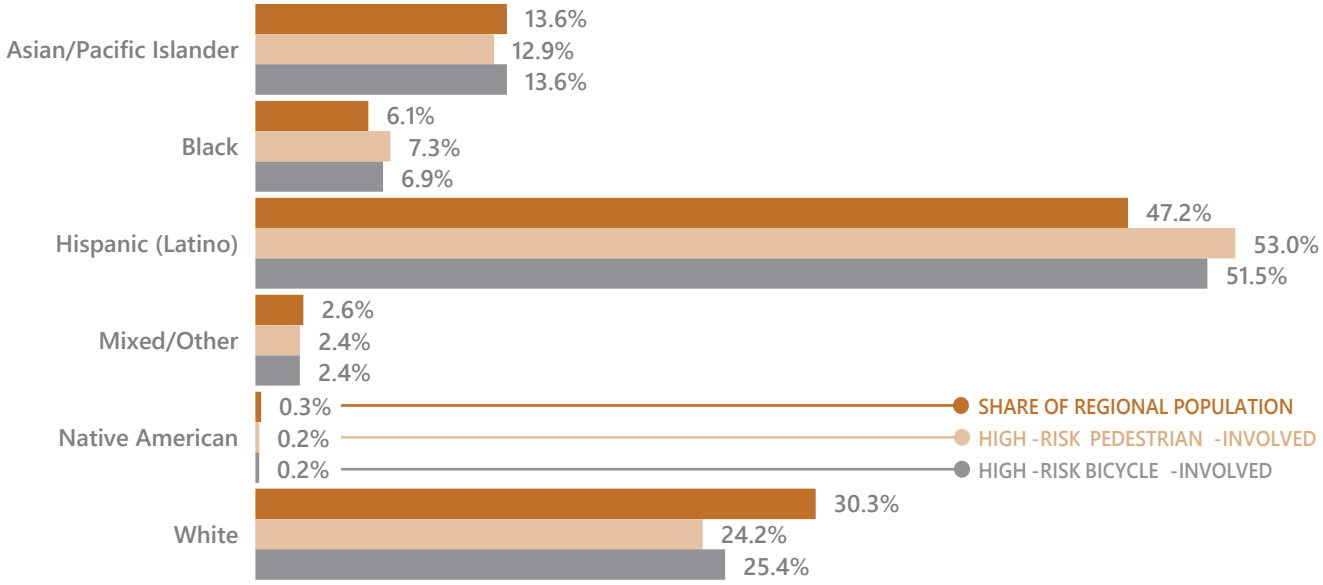
INDICATOR 2: BIKE AND PEDESTRIAN COLLISIONS

WHO IS AT THE HIGHEST RISK FOR A COLLISION?

Making walking and bicycling safer and providing more convenient transportation options is key to encouraging more people to choose healthy and more sustainable travel alternatives. Bicycling or walking along roadways near motor vehicles is often perceived as dangerous and reducing hazards in the pedestrian and bicycling

Indicator 2: Bike and Pedstrian Collisions

Hispanic (Latino) residents were the most likely to live in high-risk areas for pedestrian- or bike-involved collisions as compared to all other racial and ethnic groups.



Source: SCAG, TIMS, 2020

environment is a primary strategy toward achieving the region's goal of promoting healthier, more active communities. This indicator is used to identify patterns of active transportation hazards and potential risk disparities among various communities in the region through evaluating incidences of motor vehicle collisions involving bicyclists and pedestrians.

To identify where most of the collisions are occurring, SCAG created a High Injury Network at a regional scale. High Injury Networks identify stretches of roadways where the highest concentrations of collisions occur on the transportation network. Currently, the majority of the High Injury Network is in areas identified as being disadvantaged communities, with approximately 66 percent of auto-pedestrian and auto-bicycle fatal and serious injury collisions occurring in these areas. Improving transportation safety in these areas is particularly critical when considering the higher non-motorized mode share of people of color.

- Hispanic (Latino) residents were at a significantly higher risk for a pedestrian-involved (53 percent) or bicyclist-involved (51.5 percent) collision than any other racial/ethnic group in the region, disproportionately higher than their share of the overall population (47.2 percent).
- Native American residents had the lowest risk for a pedestrian-involved (0.2 percent) or bicyclist-involved (0.2 percent) collision than any other racial/ethnic group in the region.
- Compared to 2018, the percentage of Hispanic (Latino) residents living in areas for high-risk pedestrian- and bicyclist-involved collisions decreased by about 10 percent (60 percent to 53 percent for pedestrian-involved and 62 percent to 52 percent for bicyclist-involved), they were still disproportionately located in transportation hazard areas. Percentages for White residents living in areas for high-risk pedestrian- and bicyclist-involved collisions more than doubled (from 10 percent to 24 percent for pedestrian-involved and from 11 percent to 25 percent for bicyclist-involved).

INDICATOR 3: COMPACT COMMUTING

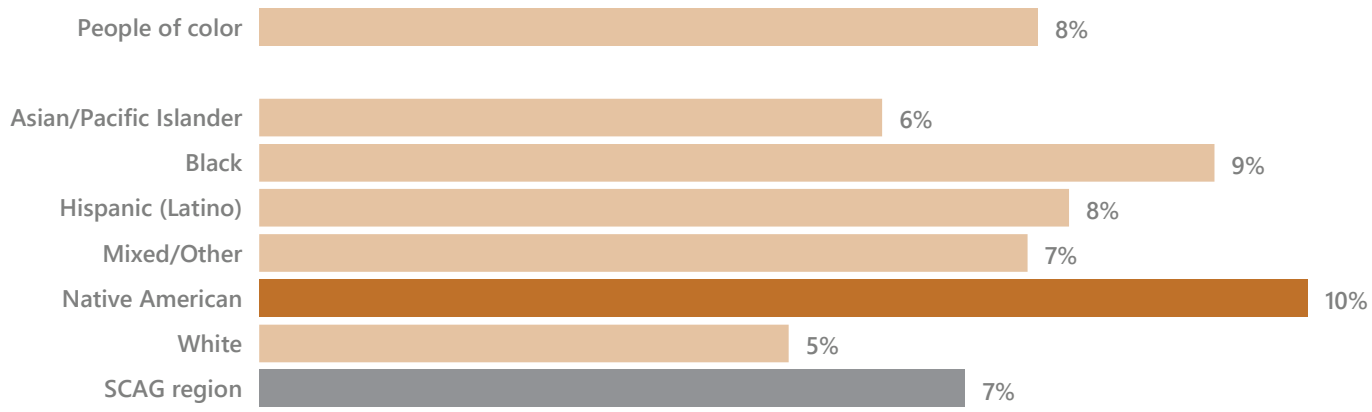
WHO IS ACTIVELY COMMUTING TO WORK?

Compact commuting, or actively commuting by transit, walking, and biking, was coined by Professor Dowell Myers of the University of Southern California who studied commuting and housing opportunities for Hispanic (Latino) communities. Dr. Meyer's study demonstrated that Hispanic (Latino) residents have bigger families, live closer together and frequently use public transportation and suggests planning and urban design should implement higher density and multi-family housing located near public transportation.

For this indicator, compact commuting is defined as the percentage of workers (16 years and older) that commute to work by walking, bicycling, or taking transit (excluding working from home). The Southern California region has long been known for its expansive highway network and the accompanying heavy traffic volumes moving

Indicator 3: Compact Commuting

Native American commuters were twice as likely to actively commute to work than their White counterparts.



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

along those roadways to get from one place to another. In a region as large as SCAG, commute distances from home to the workplace are often excessive, resulting in a spatial mismatch commonly referred to as jobs/housing imbalance. Because of the long commute distances and travel times that are engendered by conditions of jobs/housing imbalance that have become prevalent in many areas of the SCAG region, a significant majority of commuters are necessarily dependent on driving alone in a motor vehicle over a long distance to get to work and back each day. The results of this land use and transportation disparity include high levels of air pollution and greenhouse gas (GHG) emissions contributing to the climate crisis, congested highways, reduced quality of life for commuters, and dependency on single occupancy vehicle (SOV) travel.

For these reasons, it is imperative that commuters in the region are provided feasible alternatives to SOV travel, specifically bicycle, pedestrian, and transit options. This new indicator was added to help identify disparities experienced among the various racial and ethnic communities that comprise the SCAG region and provides some comparative insights into existing active or compact commuting patterns in the region, in specific regard to historically underserved communities. This indicator is similar to the Transportation System Mode Share (Indicator 6) but only examines active transportation and transit.

- In the SCAG region overall, 6.8 percent of commuters actively commuted (transit, bicycling, or walking) to work. Los Angeles County (9.4 percent) had the highest share of active commuters among the six SCAG region counties, as compared to 2.6 percent in Riverside County which reported the lowest percentage.
- Among the racial and ethnic groups, Native American and Black commuters had the highest shares of compact commuters in the region, at 10.1 and 9.2 percent, respectively. White commuters were the least likely to use transit, walk or bike, at 5.1 percent.
- Looking only at transit mode share, Black commuters reported the highest transit use, at 6.8 percent, compared to the overall regional transit mode share of 3.9 percent. By comparison, only 1.9 percent of White commuters used transit.
- For combined bicycle and walking modes, Native Americans had the highest commute share at 5.3 percent, as compared to 2.9 percent for the SCAG region overall. Black commuters reported the lowest bicycle/walk mode share at 2.4 percent, although Hispanic (2.7 percent) and Asian/Pacific Islanders (2.8 percent) commuters also reported bicycle/pedestrian mode shares below the regional share.

INDICATOR 4: COMMUTE TIME

DO WORKERS HAVE SHORT COMMUTES TO THEIR JOBS?

All workers should have reasonable commutes. Studies have shown that long commutes are linked with worse physical and mental health, including higher rates of obesity, stress, and depression. Employers also suffer from high turnover and employee dissatisfaction, and the public is affected by more air pollution, congestion, and climate impacts. People of color experience longer travel times and distances using public transportation than by auto, specifically for Hispanic (Latino) and Black populations; the opposite pattern is shown for White and Asian/Pacific Islander populations. For this indicator, commute times are calculated as the average travel time to work (in minutes) by various travel modes (bike, walk or other; bus, rail, taxi, or ferry; car or motorcycle; any other form of transportation).

- Regionally, the average commute time was 29 minutes for all transportation modes, with only slight variations between racial and ethnic groups. Black residents experienced the highest commute time of 32 minutes while their White counterparts had the lowest commute time of 28 minutes.
- Black residents had the longest commute times across the region across modes except for bus, rail, taxi, or ferry. However, compared to the previous update, Black residents experienced a dramatic decrease in commute times on public transit (bus, rail, taxi, and ferry) from over one hour (61.7 minutes) to 44 minutes. This represents the lowest commute time for public transit compared to all other racial and ethnic groups.
- Interestingly, commute times vary widely by racial and ethnic groups within each county; in Riverside County, it took an average of 71 minutes for Native American residents and an hour for Black residents to travel to work by transit, while only taking 45 minutes for Hispanic (Latino) residents.

- On average, Hispanic (Latino) residents tended to have shorter commutes than other racial and ethnic groups, by biking, walking or other (18 minutes), car or motorcycle (29 minutes), bus, rail, taxi, or ferry (48 minutes), and overall, any form of transportation (29 minutes).

INDICATOR 5: HOUSEHOLDS WITHOUT A VEHICLE

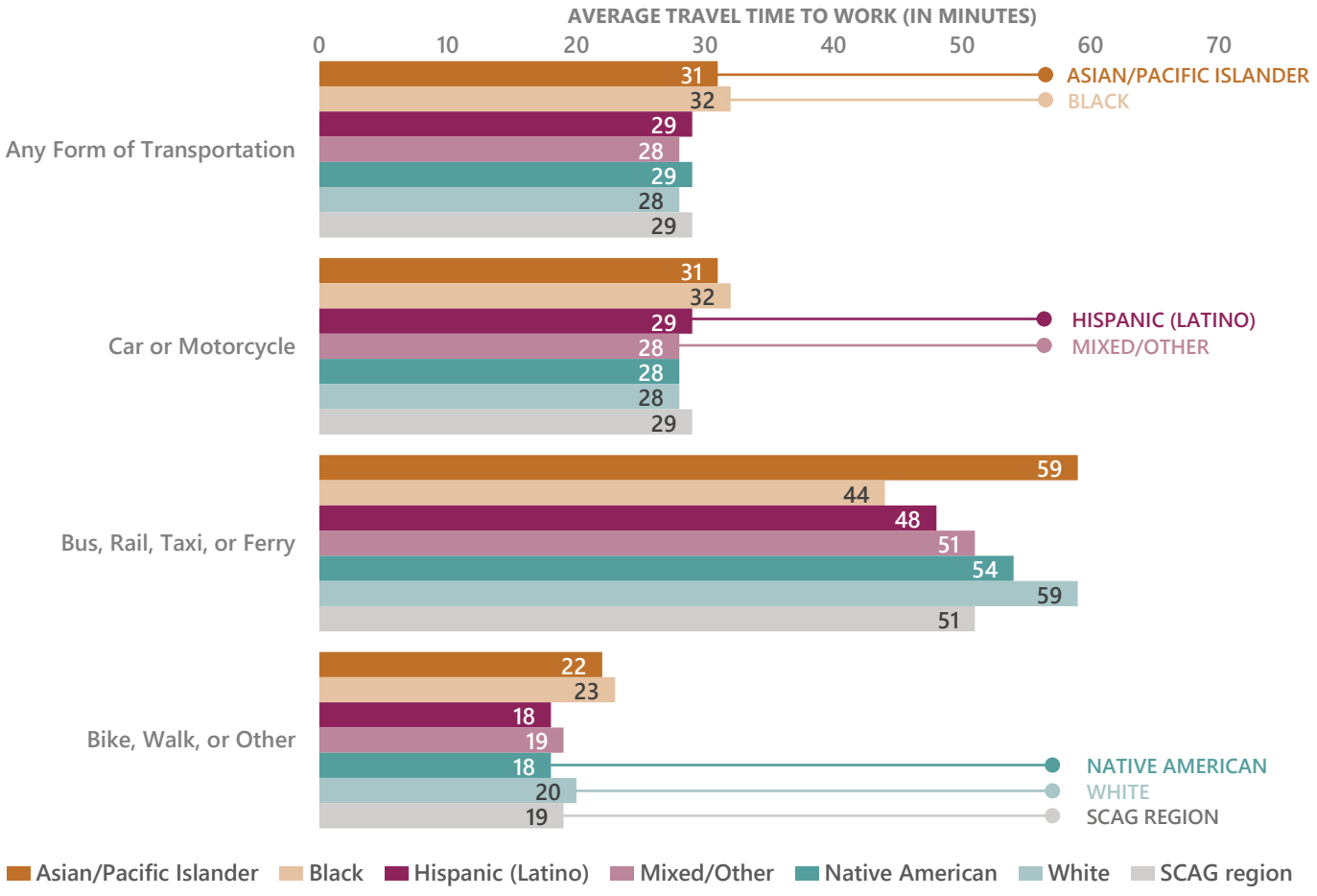
DO ALL HOUSEHOLDS HAVE RELIABLE TRANSPORTATION?

Everyone needs reliable transportation access and in most American communities that means having a car. Reliable and affordable transportation is critical for meeting daily needs and accessing educational and employment opportunities located throughout the region. Throughout the region, the share of households without a vehicle has gone down substantially since 2000, from 10 percent to seven percent. For households in regions without robust transit systems, access to a car is critical, but lower-income people and people of color are more likely to be carless.

Although a private vehicle should not be a requirement for full participation in social, civic, and economic life, until alternative travel modes become more viable, all households still need to have access to reliable and affordable transportation to strengthen equitable outcomes for all race/ethnicity groups. Vehicle ownership is one reliable transportation option, although it must be recognized that this is not an affordable option for many and in many cases is not environmentally friendly. For this indicator, households without a vehicle is defined as the percentage of households without access to an automobile.

Indicator 4: Commute Time

Asian/Pacific Islander and White residents who took the bus, rail, taxi, or ferry to work experienced the longest commute at just under an hour compared to all other racial and ethnic groups and transportation types.



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

- Across the region seven percent of households do not own a vehicle, with households of color at a slightly higher percentage of 10 percent. This represents an increase of four percent of households of color from 2018 to 2020.
- Black households are more than twice as likely to not own a vehicle compared to their White counter parts; 14 percent compared to six percent. This trend remains for Native American households, 13 percent of households did not own a vehicle.
- Vehicle ownership varied across the region; in Los Angeles County, 18 percent of Native American households and 16 percent of Hispanic households did not own a vehicle while a majority of White households did. Only about eight percent of White households did not own a vehicle.
- Imperial County had vastly different outcomes than the rest of the region; 21 percent of Black households did not own a vehicle compared to one percent of Asian households and six percent of White households, despite the fact that 89 percent of county residents use car or motorcycle to commute.

INDICATOR 6: TRANSPORTATION SYSTEM MODE SHARE

WHO USES DIFFERENT TRANSPORTATION MODES?

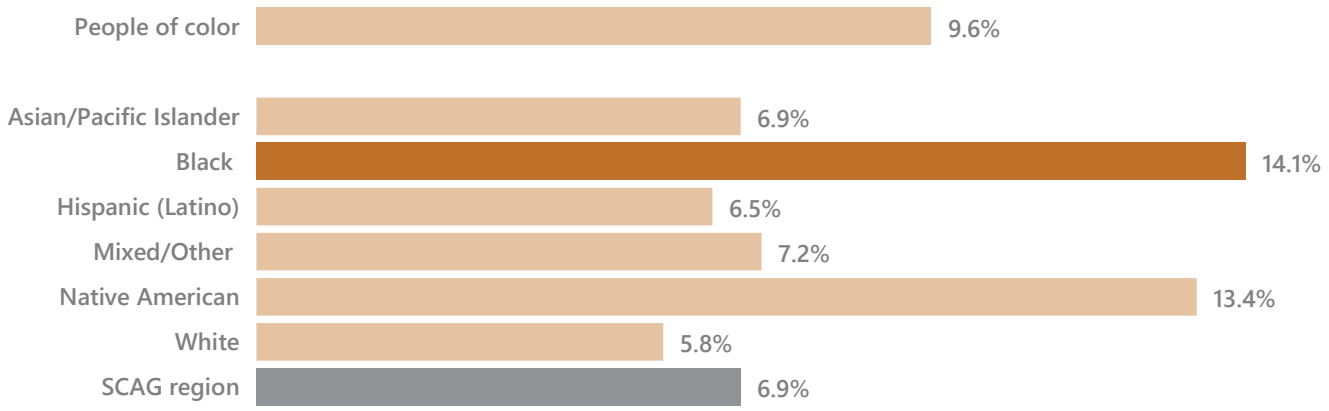
Similar to the previous discussion on active commuting, the assessment of transportation system mode share provides a more complete depiction of trends occurring in the SCAG region toward improving access to alternative travel options to the use of a SOV. While the earlier section focused specifically on active commuting, this assessment will look at all transportation mode options to discern the relative availability and feasibility of various travel options among various racial and ethnic communities in the SCAG region.

Overall, people of color are more likely to use transit and active transportation modes to reach destinations as compared to White residents. As indicated previously, communities of color and low-income households have been shown to have higher rates of walking and bicycling, yet also experience higher rates of transportation related fatalities and collisions. For this indicator, transportation system mode share examines the share of transportation system use by mode, including automobile, transit (bus, commuter rail, and urban rail), non-motorized (bicycle and pedestrian), and other modes (including home-based/non-commuting mode share).

- The private automobile is the predominant travel mode (by a significant margin) in all six counties of the SCAG region with a 92 percent mode share. Relatively minimal variation is observed among the counties for automobile travel mode share, with Riverside County (96 percent) and San Bernardino County (96 percent) reporting the highest shares; and Los Angeles County (89 percent) and Orange County (94 percent) having the lowest shares.

Indicator 5: Households Without a Vehicle

Black households were more than twice as likely not to own a vehicle in the SCAG region.



Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

- Among the various ethnic groups, White commuters had the highest automobile mode share in the SCAG region at 94 percent, with Asian/Pacific Islanders having the second highest share at 93 percent. The lowest automobile mode shares were reported for Black commuters (89 percent) and Native American commuters (89 percent).
- Black and Native American commuters had the highest share of transit use (all modes minus automobile mode) at 11 percent each. White and Asian/Pacific Islander commuters reported the lowest transit mode share among ethnic groups at seven percent each.
- Native Americans commuters reported the highest share for active transportation modes (bicycle and pedestrian) in the SCAG region at five percent. Mixed/Other residents had the second highest active transportation commute mode share at four percent. The lowest active transportation mode share among the various ethnic groups was for Black residents at two percent. Asian/Pacific Islanders, Hispanic (Latino), and White commuters were tied for having the second lowest active transportation mode share at three percent.
- Home-based employment represents a growing share of the workforce in the SCAG region, which should be expected to increase in the post-pandemic work environment. Regionally, 7.9 percent of the workforce worked from home in 2020, with Orange County reporting the highest share at 9.1 percent, and Imperial County having the smallest share of home-based workers at six percent, reflective of the predominantly agricultural economic environment in that county.
- Among racial and ethnic groups in the SCAG region, 12.4 percent of White workers were home-based, in contrast to only 7.3 percent among Black workers and 4.6 percent for Hispanics. This significant disparity represents differential access among these groups to jobs that offer opportunities to work from home, while also highlighting the critical need for improved equity in accessibility to the high-quality broadband infrastructure required to make home-based work a feasible option.

Indicator 6: Transportation System Mode Share

RACE/ETHNICITY	AUTO MODE	BUS	COMMUTER RAIL	URBAN RAIL	NON-MOTORIZED	OTHER	TOTAL USAGE
Asian/Pacific Islander	93%	2%	0%	0%	3%	1%	14%
Black	89%	5%	1%	1%	2%	2%	6%
Hispanic (Latino)	91%	4%	0%	0%	3%	1%	47%
Mixed/Other	91%	2%	0%	1%	4%	2%	3%
Native American	89%	4%	1%	0%	5%	1%	0%
White	94%	1%	0%	0%	3%	1%	13%
People of color	91%	4%	0%	0%	3%	2%	35%
SCAG region	92%	3%	0%	0%	3%	1%	43%

Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

SUMMARY

In summary, mobility indicators help identify trends in accessibility to essential services, commute patterns and travel times, and transportation safety for all residents. This report demonstrates that people of color tend to have the least access to employment and parks and are also most reliant on public transit and are least likely to own a car. It is essential to plan for a region that provides equitable mobility opportunities to all residents regardless of race, gender, income, or national origin.

The data provided in this report may be used to help better inform policy makers, community advocacy organizations, and members of the public of mobility disparities that currently exist in the SCAG region and provide a foundation for effective regional decision-making to help improve this outcome as we move forward toward creating a more inclusive, equitable, and sustainable region.

ENVIRONMENT

Historically, people of color have been provided less protection from poor environmental conditions, and have lived in closer proximity to highways, highly traveled roads, industrial plants, and other sources of pollutants. The most disadvantaged bear the consequences of environmental degradation, even if many contribute little to the underlying causes.

Environment indicators evaluate climate vulnerability and pollution exposure, representing a subset of issues negatively impacting communities of color. In the following section, environment indicators are highlighted, providing a regional snapshot, disaggregated by race and ethnicity. Indicators disaggregated at the county level are available in the County Narratives section of this report. To understand existing environmental disparities, SCAG consulted data from the California Department of Forestry and Fire Protection (CALFIRE), California Communities Environmental Health Screening Tool (CalEnviroScreen 4.0), U.S. Environmental Protection Agency, and the U.S. Census and American Community Survey Five-Year Public Microdata.

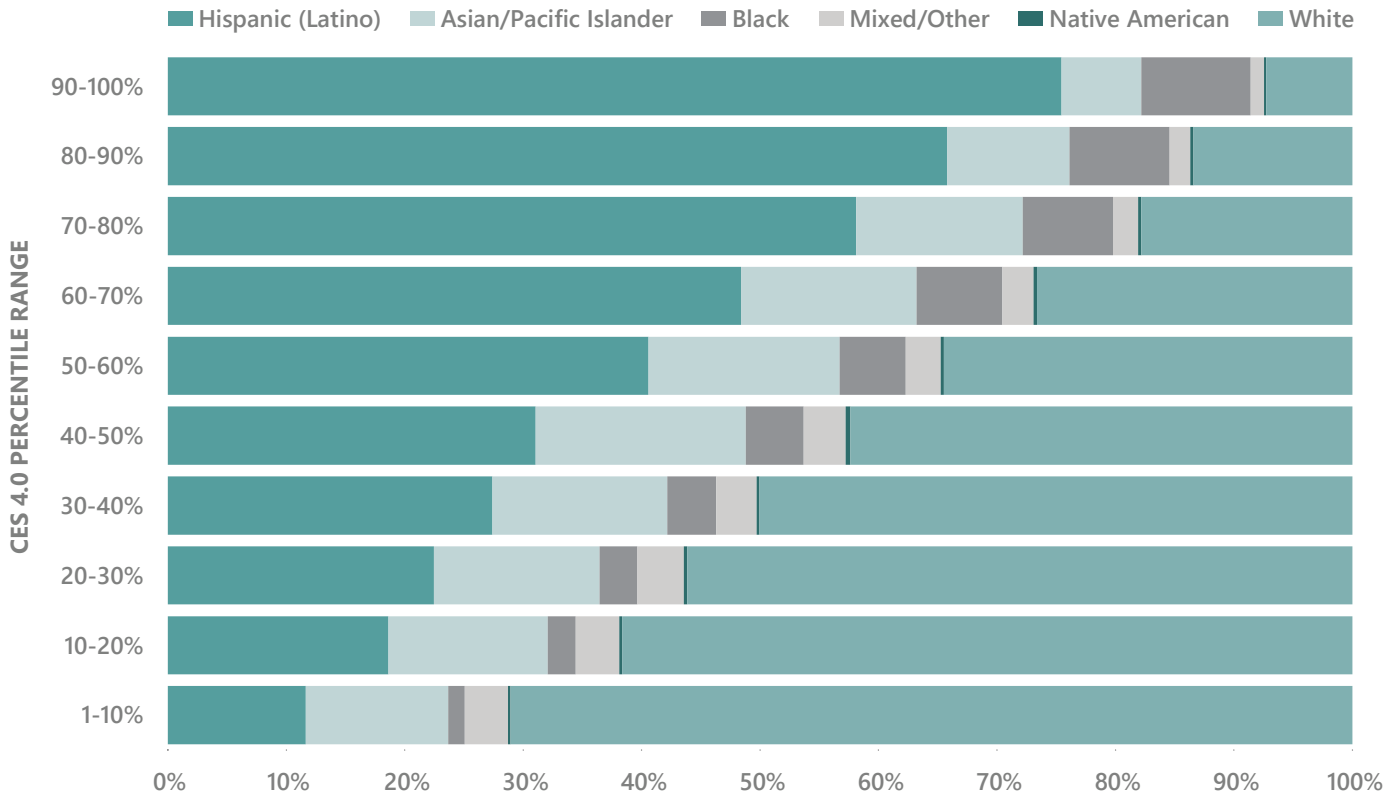
INDICATOR 1: CALENVIROSCREEN 4.0 SCORE

WHO IS MOST BURDENED BY POLLUTION?

Pollution continues to be a major public health concern in the region, as air pollutants exacerbate chronic conditions and disproportionately affect people of color and other vulnerable populations (children, pregnant women, older adults, outdoor workers, and populations with a disability). In general, rates of chronic diseases related to air quality in the region have been on the rise or remained constant for at least the past five years. In addition, impacts from climate change further exacerbate air quality issues and affect the well-being of residents. Assessment of relative pollution burden aims to capture the disproportionate impacts on disadvantaged communities, measuring a combined score that includes

Indicator 1: CalEnviroScreen 4.0 Score

Across the region, Hispanic (Latino) residents make up the largest percentage of residents in census tract with the highest CalEnviroScreen scores.



Source: CalEnviroScreen 4.0, SCAG

indicators of potential exposure to pollutants and environmental conditions (e.g. ozone, pesticides, toxic releases, traffic, hazardous waste).

The California Communities Environmental Health Screening Tool, also known as the CalEnviroScreen 4.0 (CES) score, provides a weighted value that considers a series of pollution burden indicators and population characteristics to calculate a score based on the average of exposures and environmental effects and of sensitive populations and socioeconomic factors. Higher percentile values (95 – 100th percentile as the highest) represent a greater pollution burden and a higher vulnerability to pollution burden due to sensitive populations and socioeconomic factors. The overall percentile score, PM2.5 percentile and pollution burden percentile were considered for this indicator.

- Across the region, Hispanic (Latino) residents made up the largest percentage of residents in census tracts with CES scores in the highest percentiles, exposing the inequitable distribution of pollution burden across race and ethnicity groups. Hispanic (Latino) residents made up nearly eighty percent (76 percent) of residents in the top 90 - 100th percentile, despite comprising only 47 percent of the overall population.
- White residents disproportionately lived in the census tracts with the lowest CES scores in 1 – 10th percentile. Census tracts with the lowest scores were comprised of 71 percent White residents, despite White residents making up only 30.3 percent of the overall population. This pattern of people of color in the census tracts with the greatest pollution burden reaffirmed the historical environmental risks experienced by communities of color.
- Overall, Imperial County had the highest CES score of the counties at just over forty (40.4), in the 73.2 percentile. Over eighty percent (84.6 percentile) of residents in Imperial County are Hispanic (Latino), burdened with the greatest pollution of all racial/ethnic groups in the region.
- Ventura County had the lowest CES score across the region at the 37.5 percentile.

CLIMATE VULNERABILITY INDICATORS

Existing conditions show that people of color and low-income populations are at a greater risk for experiencing adverse impacts from climate change, such as extreme heat, flood, and other events. These populations have fewer resources to respond or adapt to climate-related issues, and often have higher rates of chronic diseases, which increases their susceptibility to climate threats. For example, lack of air conditioning and transportation options may exacerbate vulnerability in heat prone areas, and access to cooling centers may be limited. The ability to adapt to climate change is critical to prevent further heightened disparities in health outcomes across different communities. The climate vulnerability indicators examine populations most vulnerable to the adverse impacts of climate change as related to extreme heat and tree canopy, flood hazard risks, and wildfire risk.

INDICATOR 2: EXTREME HEAT AND TREE CANOPY

WHO IS MOST VULNERBLE TO EXTREME HEAT AND INADEQUATE TREE CANOPY?

Extreme heat conditions—defined as weather that is substantially hotter than average for a specific time and place—is considered a public health problem exacerbated by global warming, urbanization, and an aging population. Extreme heat events, or heat waves, have been increasing at an alarming rate. Based on SCAG's Extreme Heat and Public Health Report (2020), California is expected to have an increase in annual average temperatures of five degrees Fahrenheit by 2030 and 10 degrees Fahrenheit by the end of the century. The SCAG region is projected to experience an average increase of 35 annual extreme heat days from 2040 to 2060 and extreme heat days are expected to more than double by 2085 across the entire region. As a result, many health consequences caused by extreme heat exposure, such as heat exhaustion, heat stroke, respiratory illnesses, and even death, are impacting the most vulnerable populations like young children, older adults, low-income communities, and people of color.

According to the U.S. Environmental Protection Agency, one of the most useful ways to mitigate extreme heat conditions is through increasing tree and vegetation coverage to lower surface and air temperatures by providing shade and evapotranspiration. However, many areas may not have adequate tree canopy or vegetation coverage. For this section of the report, the number of projected extreme heat days are reported by county and the percentage of tree canopy coverage is analyzed by census tracts.

- The SCAG region is projected to experience an average increase of 35 annual extreme heat days from 2040-2060; with the counties of Imperial (43 extreme heat days), Riverside (42 extreme heat days), and San Bernardino (41 extreme heat days) having the highest projections, followed by Los Angeles County at 37 extreme heat days and Ventura County at 32 extreme heat days; Orange County has the lowest projection of 15 extreme heat days.
- Counties with the largest proportions of persons of color (e.g., Imperial and San Bernardino) are projected to have more extreme heat days, whereas counties with the smallest proportions of persons of color (e.g., Orange and Ventura) are projected to have fewer extreme heat days.
- When considering tree canopy coverage, on average, census tracts with majority people of color (2.4 percent) were almost 2.5 times less likely to have tree canopy coverage compared to census tracts with majority non-Hispanic White residents (6.9 percent).

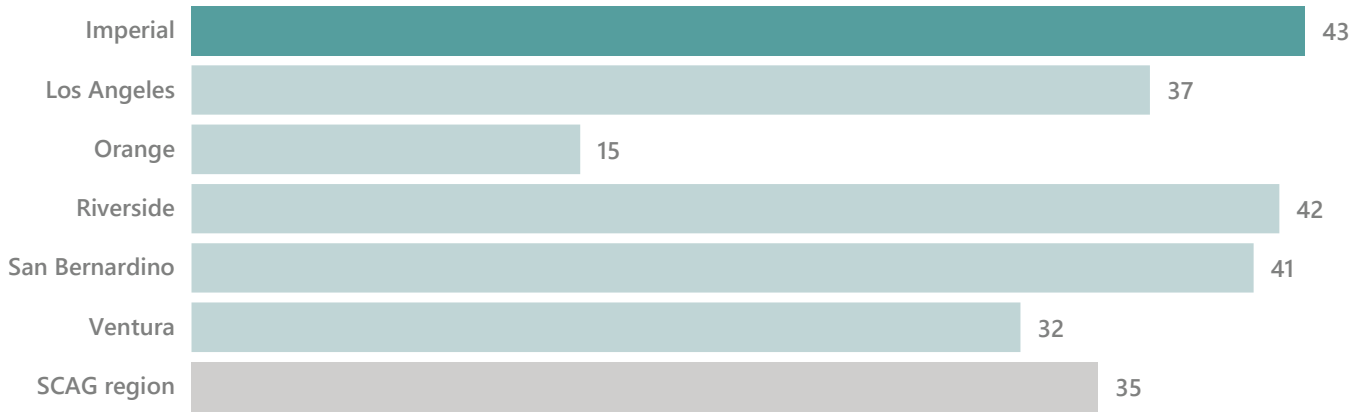
INDICATOR 3: FLOOD HAZARD AREAS

WHO LIVES IN A FLOOD HAZARD AREA?

Climate change is projected to alter precipitation patterns, increase the intensity of major storm events, and increase risk of flooding throughout the region. Consequently, many communities are at risk for devastation from floods, especially people of color and low-income communities. Flooding may cause serious health impacts and risks that include death and injury, contaminated drinking water, hazardous material spills, and increases in the populations of disease-carrying insects and rodents. Other negative impacts can include damage to critical infrastructure, as well as community disruption and displacement. For this indicator, flood hazard areas refer to the percentage of population living within a 100-year flood plain.

Indicator 2: Extreme Heat and Tree Canopy

Imperial, Riverside, and San Bernardino counties are projected to have over 40 extreme heat days per year from 2040 - 2060.



Source: Healthy Places Index 2.0, SCAG Extreme Heat and Public Health Report

	PERCENTAGE OF TREE CANOPY COVER
Census tracts with majority people of color	2.40%
Census tracts with majority White residents	6.90%
All census tracts in SCAG region	1.60%

Source: Southern California Association of Governments (SCAG), 2020

- People of color, representing about 70 percent of the regional population, had the highest percentage of population living in a 100-year flood hazard area at 64 percent. When considering racial and ethnic groups, Hispanic (Latino) communities were the most likely to reside in a 100-year flood hazard zone, making up 43 percent of residents at high risk while making up 47 percent of the overall population.
- White residents, while making up 30 percent of the overall population, were the second most likely to live in a 100-year flood hazard area compared to other racial and ethnic groups. 36 percent of those in a flood hazard area were White residents.
- Compared to 2018, the percentage of residents of color living in flood hazard areas had slightly decreased and the percentage of White residents living in flood hazard areas slightly increased.

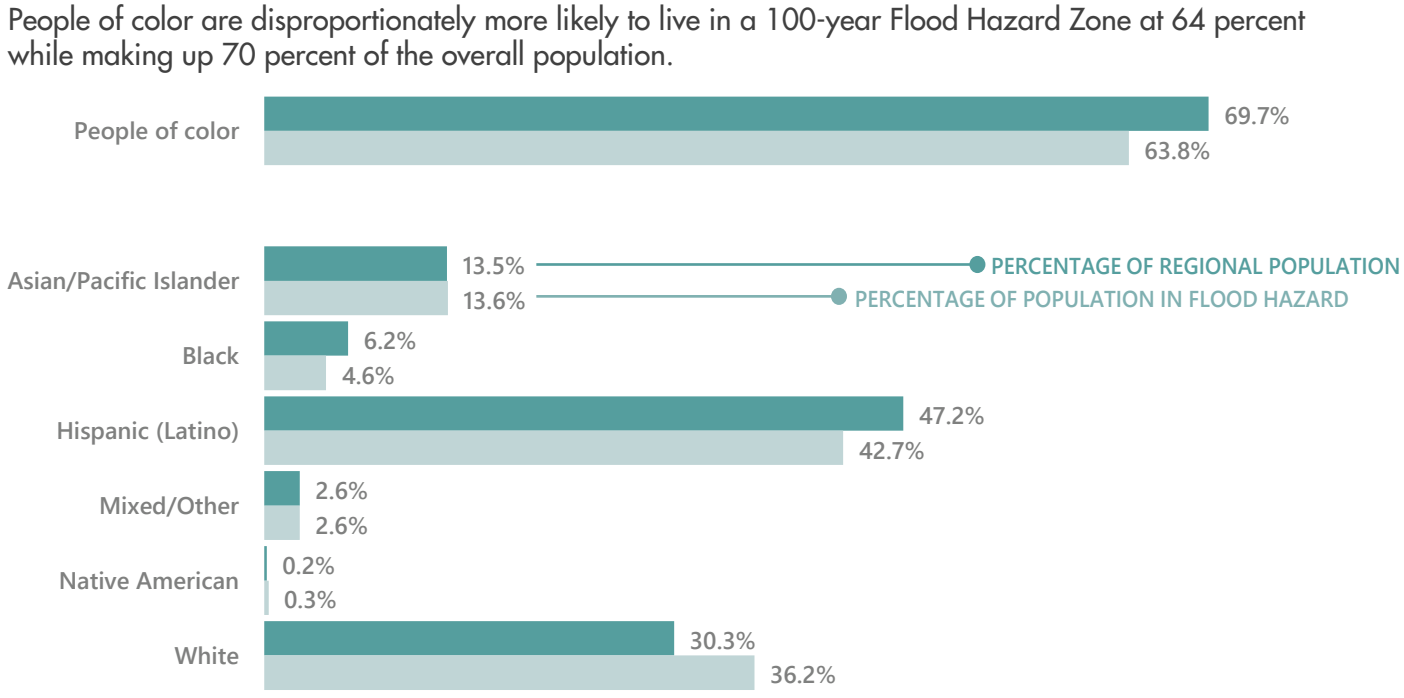
INDICATOR 4: WILDFIRE RISK

WHO IS AT RISK FOR A WILDFIRE?

Warmer temperatures combined with longer dry seasons have resulted in more wildfires in recent years. Large fires statewide are anticipated to increase from roughly 58 percent to 128 percent over the next several years. As a result, air quality, water quality and even food production and energy pricing will be affected. These extra costs are expected to impact low-income communities more severely, in turn disproportionately impacting people of color.

The climate in Southern California continues to be increasingly susceptible to wildfires. Smoke from wildfires can contain over 10,000 substances (particulate matter and gaseous products of combustion) and expose the population to PM2.5 for months at a time. PM2.5 from wildfires increases the amount of hospital visits and the risk of mortality. Air pollution from wildfires is estimated to cause 339,000 deaths per year worldwide. According to the California Department of Public Health, there are around 1.5 million people who live in fire hazard zones who are at a higher risk of being exposed to the effects of PM2.5.

Indicator 3: Flood Hazard Areas



Source: Southern California Association of Governments (SCAG); FEMA Effective: 100-Year Floodplains, 2017, FEMA

- Across the region, 25 percent of SCAG residents were exposed to wildfire risk, representing over 4.9 million people. 3.8 million Los Angeles County residents and 450,000 San Bernardino County residents lived in high wildfire risk areas.
- Hispanic (Latino) residents were more likely exposed to wildfire risk as nearly half (47 percent) of them lived in wildfire risk areas. This is proportional to the regional racial ethnic demographics but is still a significant increase from 2018.
- Almost nine out of 10 residents in Imperial County living in wildfire hazard areas were people of color, with 84 percent of them being Hispanic (Latino) residents.
- White residents in Orange County (42 percent) and Ventura County (47 percent) were the most likely to live in wildfire hazard areas compared to all other racial and ethnic groups and other counties.

SUMMARY

In summary, environmental indicators identify climate vulnerability and pollution exposure impacts in vulnerable communities. This report demonstrates that people of color, particularly Hispanics (Latinos), tend to be the most vulnerable and live in areas with highest environmental pollution, flood risk, and wildfire hazards. It is essential to plan for a region that provides equitable opportunities and environmental protections to all residents regardless of race, gender, income, or national origin.

The data presented in this report is intended to inform policy makers, community advocacy organization, and members of the public on those that are most impacted by the consequences of environmental degradation and to provide a foundation for effective regional decision-making to help improve this outcome as we move forward toward creating a more inclusive, equitable, and sustainable region.

Indicator 4: Wildfire Risk

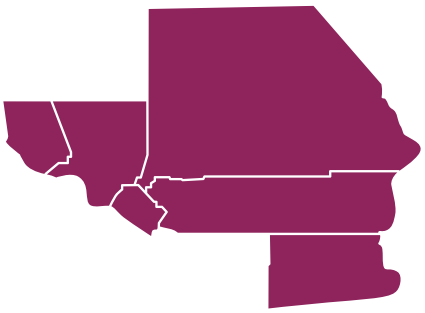
RACE/ETHNICITY	IMPERIAL	LOS ANGELES	ORANGE	RIVERSIDE	SAN BERNARDINO	VENTURA	SCAG REGION
People of color	89%	76%	58%	73%	69%	53%	73%
Asian/Pacific Islander	2%	18%	22%	5%	7%	8%	16%
Black	2%	7%	2%	4%	9%	1%	7%
Hispanic (Latino)	84%	48%	31%	61%	51%	40%	47%
Mixed/Other	1%	3%	3%	2%	3%	3%	3%
Native American	1%	0.20%	0.20%	0.30%	0.30%	0.20%	0.20%
White	11%	24%	42%	27%	31%	47%	27%
Total Population Exposure	7%	37%	12%	5%	20%	17%	25%

Source: Southern California Association of Governments (SCAG); Fire Hazard Severity Zones Local Responsibility Areas Maps, 2008, CAL FIRE; Fire Hazard Severity Zones State Responsibility Areas Maps, 2007, CAL FIRE; Wildland Urban Interface, 2020, CAL FIRE

COUNTY NARRATIVES

The County Narratives section provide a snapshot of existing conditions in 2020 for each of the six counties in the SCAG region. A subset of equity indicators was selected for each county narrative to measure opportunity, economic vitality, access, housing affordability and quality, transportation safety, environmental health, and climate vulnerability. Data for all equity indicators at the county level are available upon request.

The figures in this two-page spread provide a snapshot of existing conditions in 2020 for the SCAG region using the same subset of equity indicators in the county narratives.



NEARLY 19 MILLION
residents lived in the SCAG region.

DEMOGRAPHICS (2020)

People of color made up almost **70%** of the region's population.

1 IN 10 residents experienced linguistic isolation.

30% of households were female-headed households.

OVER 10% of people in the region had **ONE OR MORE DISABILITIES.**

ECONOMY

Only a **THIRD** of residents of color had an associate degree or above, while over **HALF** of White residents had an associate degree or above.

HISPANIC (LATINO) FULL-TIME WORKERS were **THREE TIMES MORE LIKELY TO BE LIVING IN POVERTY** than White full-time workers.

The median household income for **BLACK HOUSEHOLDS** was **LESS THAN 60 PERCENT** than that of White households.

MOBILITY

NATIVE AMERICANS had the least access to employment opportunities via all transportation modes compared to all other racial and ethnic groups.

HISPANIC (LATINO) residents were most likely to live in high-risk areas for pedestrian- or bicyclist-involved collisions.

ASIAN/PACIFIC ISLANDER and **WHITE** residents who took the bus, rail, taxi, or ferry to work experienced the longest commute at just under an hour compared to all other race/ethnic groups and transportation types.

ENVIRONMENT

HISPANIC (LATINO) residents had the highest exposure to environmental hazards according to CalEnviroScreen.

The region is projected to have **35** extreme heat days per year from 2040-2060.

HISPANIC (LATINO) residents were more likely to live in wildfire risk areas.

COMMUNITIES

BLACK households were the least likely to have broadband access compared to other racial and ethnic groups.

Nearly 40% of **HISPANIC (LATINO)** and Black renters were overburdened with housing costs.

NATIVE AMERICANS were twice as likely to live in housing units without complete plumbing or kitchen facilities than the rest of the region.

IMPERIAL COUNTY

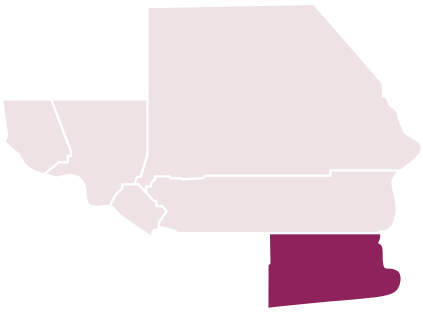
Imperial County is located in the southeastern corner of California and borders Riverside County to the north, San Diego County to the west, Yuma County, Arizona, to the east, and Mexico to the south. With 4,284 square miles of land, it is slightly larger than Los Angeles County (4,057), but has a much smaller population, at just over 180,000 residents. There are seven cities and eight unincorporated communities within the county.

DEMOGRAPHICS

Total Population & Racial/Ethnic Distribution: Imperial County had a population of 180,714 residents in 2020, making up about one percent of SCAG's total population. People of color made up nearly 90 percent of the county's population, significantly higher than the region at just under 70 percent people of color. The county also had the highest percentage of Hispanic (Latino) residents (84.6 percent) compared to all other counties in the region. The table below provides the racial/ethnic breakdown for the county compared to the region.

Limited English Proficiency: The percentage of residents with limited English proficiency (18.6 percent) in Imperial County was almost two times the regional average (10 percent) with nearly one in five residents experiencing limited English proficiency. Asian/Pacific Islander (24 percent) and Hispanic (Latino) (21.4 percent) residents were more likely to experience a language barrier compared to other racial and ethnic groups.

Female-Headed Households: Within the county, one in three households (33 percent) were headed by females, similar to the regional average of 30 percent. Most notably, over half of Native American households were female-headed households (56 percent) while just 10 percent of Mixed/Other households were female-headed



180,714 residents lived in Imperial County, or **1%** of SCAG's total population.

DEMOGRAPHICS (2020)

People of color made up almost **90%** of the County's population.

1 IN 5 residents in the county had limited English Proficiency.

Within Imperial County, **1 IN 3** households were female-headed households.

14% of people in the County had **ONE OR MORE DISABILITIES.**

Total Population & Racial/Ethnic Distribution

RACE/ETHNICITY	ASIAN/ PACIFIC ISLANDER	BLACK	HISPANIC (LATINO)	MIXED/ OTHER	NATIVE AMERICAN	WHITE	PEOPLE OF COLOR
Imperial County	1.4%	2.3%	84.6%	0.9%	0.6%	10.2%	89.8%
SCAG region	13.5%	6.2%	46.7%	3.1%	0.2%	30.3%	69.7%

Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

households. Other racial and ethnic groups had similar distributions to the county average, ranging from 24 percent to 33 percent.

Persons with Disabilities: Fourteen percent of residents in the county identified as having one or more disabilities, slightly higher than the regional average of 11 percent. Approximately one in four Native American residents, one in five White residents, and one in five Black residents identified as having one or more disabilities.

ECONOMY

Economic indicators seek to evaluate whether all people have access to high-quality jobs, economic security, higher incomes, and entrepreneurship opportunities. This section examined educational attainment, the percentage of full-time workers experiencing poverty, and median household income in Imperial County.

Educational Attainment: Educational attainment is a primary factor in determining lifetime economic opportunities, including access to high-paying employment which may lead to homeownership and wealth accumulation. Educational attainment is defined as the highest level of education completed for individuals 25 years of age and older.

In 2020, 70 percent of Imperial County residents had a high school diploma or higher, significantly lower than the regional average of 81 percent. Across all racial/ethnic groups, Hispanic (Latino) residents had the lowest proportion of adults with at least a high school diploma (66 percent), followed by Black residents (73 percent), and Native American residents (74 percent). The percentage of residents with higher education (associate degree or higher) dropped to 22 percent, compared to the regional average of 40 percent. People of color, especially Black residents, were significantly less likely to obtain higher education; only five percent of Black residents in Imperial County had an associate degree or higher, compared to 19 percent of people of color in Imperial County.

Working Poor: Holding a full-time job does not ensure that workers do not live in poverty if it does not pay sufficiently to support a family. Low-wage workers face the challenge of obtaining affordable, high-quality childcare and experience other income related obstacles to accessing opportunities and daily life necessities.

ECONOMY

1 OUT OF 5 residents of color had an associate degree or above while **1 IN 3** White residents had an associate degree or above.

HISPANIC (LATINO) FULL-TIME WORKERS were **THREE TIMES MORE LIKELY TO BE LIVING IN POVERTY** than White full-time workers.

The median household income for **BLACK HOUSEHOLDS** was **LESS THAN 40 PERCENT** than that of the median household income for White households.

In Imperial County, 30 percent of full-time workers experienced poverty, significantly higher than the regional average of 19 percent. Most notably, workers of color experienced much higher rates of poverty than their White counterparts (13.5 percent) in the county: Native American workers (50.3 percent), Black workers (42.6 percent), Hispanic (Latino) workers (31.7 percent), and Asian/Pacific Islander workers (29.9 percent) experienced poverty despite working full time.

Median Household Income: Household income in the SCAG region is significantly impacted by high housing costs, which divert income from other obligations and necessities, including healthcare, quality food, and education. In Imperial County, the median household income in 2020 was $46,448, significantly lower than the region's median household income of $74,147. Within the county, Asian/Pacific Islander households had the highest median income of $78,116, while Black households had the lowest median income of $24,559. Notably, the median income Black households ($24,559) was less than 40 percent than that of the median income for White households ($65,406).

COMMUNITIES

Communities' indicators are used to assess existing public health and housing conditions and how they vary between different communities. This section examined broadband access, housing cost burden, and housing quality in Imperial County.

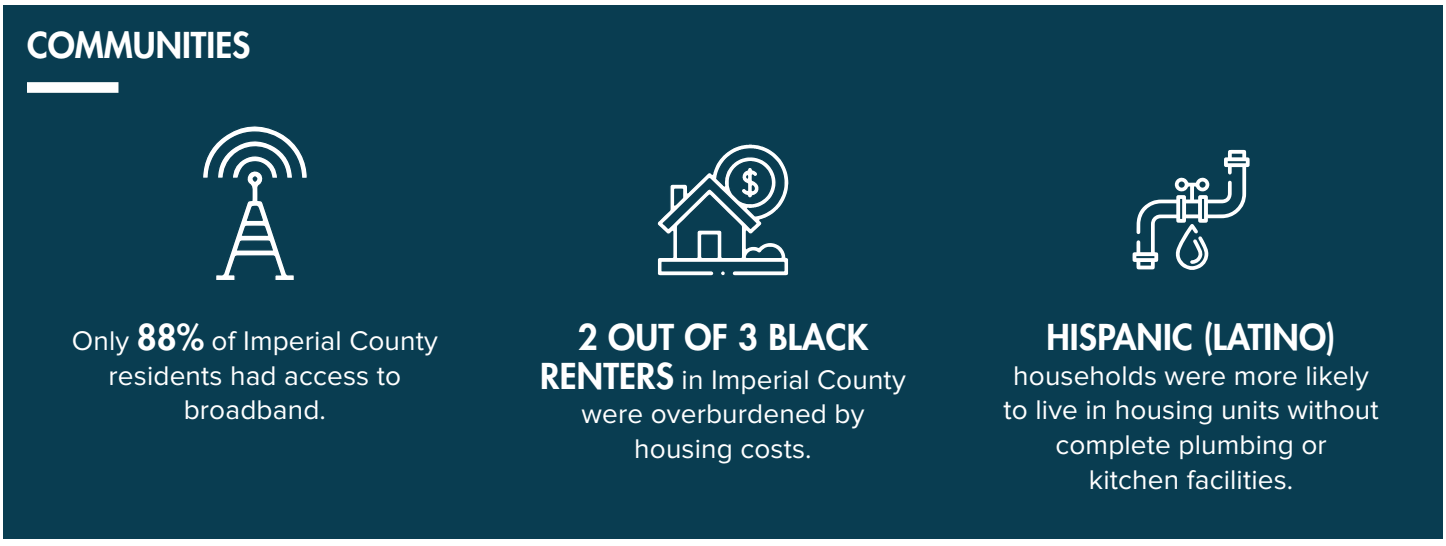
Broadband Access: Broadband, or high-speed internet, access is now considered just as essential to a household as electricity for the conduct daily activities, including work, education, shopping, and healthcare among many other activities. Broadband access became even more critical during the pandemic when many essential daily activities were no longer able to be conducted in-person. For this report, broadband access refers to the percentage of individuals living in housing units that have access to broadband internet service, including wired and wireless technologies.

In Imperial County, 88 percent of all households had access to broadband service in 2020, the lowest compared to all other counties in the region. Asian/Pacific Islander households (91 percent), Mixed/Other households (89 percent) and Hispanic (Latino) households (88 percent) were at or above the county average. Native American households (76 percent) and Black households (83 percent) were below the county average and had the least access compared to all racial and ethnic groups in all counties. White households with high-speed internet access within the county were slightly below the county average at 87 percent.

Housing Cost Burden: Households experiencing housing burden are defined as those that spend 30 percent or more of total household income on housing and/or rent-related expenses. Allocating an excessive amount of income on housing costs leaves less money available for essential food, healthcare, education, and daycare expenditures. Households burdened by housing costs are often forced to choose lower cost housing in more distant areas that require longer commute times to jobs and other opportunities located in urban centers.

Forty-seven percent of renters and 18 percent of homeowners in Imperial County were burdened by housing costs in 2020, significantly more than the regional averages of 34 percent of renters and 12 percent of homeowners. When looking at renters, nearly two-thirds of Black renters were overburdened with housing costs (61 percent), followed by 49 percent of Hispanic (Latino) renters paying more than 30 percent of their income to housing costs. Homeowners had similar patterns: nearly 33 percent of Black homeowners and 20 percent of Hispanic (Latino) homeowners were spending more than 30 percent of their income on housing costs. Native American households experienced the lowest rates of housing burden in the county: 16 percent of Native American renters and four percent of homeowners spent more than 30 percent of their income on housing.

Housing Quality: Adequate plumbing facilities are necessary for clean water and sanitation in housing units and are considered essential for the health and safety of residents. Families living without proper kitchen facilities - a sink with running water, a stove or range, and a refrigerator - may be less likely to maintain sanitation or prepare nutritious meals, which can increase risk for hunger and vulnerability to illness. For this indicator, housing quality refers to the percentage of households without complete plumbing and kitchen facilities.



In Imperial County, 0.05 percent of households were living in housing units without complete plumbing and kitchen facilities, significantly lower than the regional average of 0.23 percent. However, the 0.05 percentage was exclusively represented by Hispanic (Latino) households suggesting all households that do not have plumbing and kitchen facilities in the county were Hispanic (Latino).

MOBILITY

Mobility indicators examine accessibility to employment opportunities, transportation, parks, and other essential services. This section of the report analyzed access to employment, commute time, and high risk areas for bicyclist- and pedestrian-involved collisions in Imperial County.

Access to Employment: Access to employment opportunities is foundational for social and economic interactions to meet basic needs. Overall, in the SCAG region, residents could access an average of 12 percent of employment opportunities within a 30-minute drive and an average of 3 percent within a 45-minute transit or local bus ride. In Imperial County, these values were much lower with residents accessing 0.7 percent of employment opportunities within a 30-minute drive and zero percent of employment opportunities within a 45-minute transit or local bus ride.

Imperial County had the lowest percentage of jobs accessible by automobile, transit or local bus compared to other counties. Asian/Pacific Islander and Hispanic (Latino) residents could access 0.8 percent of employment opportunities via a 30-minute car ride, while Black residents could access 0.5 percent of employment opportunities. Zero percent of jobs were accessible within a 45-minute transit or local bus ride for any racial or ethnic groups within Imperial County.

Bike and Pedestrian Collisions: Making walking and bicycling safer and providing more convenient transportation options is key to encouraging more people to choose healthy and more sustainable travel alternatives. Bicycling or walking along roadways near motor vehicles is often perceived as dangerous and reducing hazards in the pedestrian and bicycling environment is a primary strategy toward achieving the region's goal of promoting healthier, more active communities. This indicator is used to identify patterns of active transportation hazards and potential risk disparities among various communities.

MOBILITY

BLACK residents had the lowest job accessibility by automobile compared to other racial and ethnic groups.

Within Imperial County, **HISPANIC (LATINO)** residents were most likely to live in high-risk areas for pedestrian- or bicyclist-involved collisions.

HISPANIC (LATINO) RESIDENTS had the longest commute of 30 minutes by public transit and **ASIAN/PACIFIC ISLANDER RESIDENTS** had the longest commute by car or motorcycle at 30 minutes as well.

Within Imperial County, while Hispanic (Latino) residents represented 83 percent of the county population, they were still at higher risk for pedestrian- (88.3 percent) and bicyclist-involved (85 percent) collisions compared to all other racial and ethnic groups. All other racial and ethnic groups had a proportionate share of risk for pedestrian- and bicyclist-involved collisions.

Commute Time: The time required for a person to travel from home to the workplace impacts a wide range of lifestyle and opportunity costs. Time spent travelling to work and back means less time available to spend with family or engaging in other activities that are important to a maintaining a healthy lifestyle including physical exercise and community interaction. Southern California has earned a reputation for its traffic congestion, urban sprawl, and the resultant extended commute times. For the SCAG region overall the average travel time to work, including all travel modes, was 29.1 minutes in 2020. For public transit, the average commute time increased to 51.2 minutes.

In Imperial County, the average commute time was at 22.8 minutes for all travel modes, 23.1 minutes by car or motorcycle, and 29.2 minutes by public transit. All commute times were significantly less than the

region's average. When looking at commutes by car or motorcycle, Asian/Pacific Islander residents had the longest commutes at 29.6 minutes compared to other racial/ethnic groups. In contrast, Mixed/Other residents had the shortest average commute for all travel modes at only 13.2 minutes and just 14.1 minutes by car or motorcycle.

ENVIRONMENT

Environment indicators evaluate climate vulnerability and pollution exposure, representing a subset of issues negatively impacting communities of color. This section of the county narrative explored CalEnviroScreen (CES) scores to measure environmental health and extreme heat, tree canopy, and wildfire risk to measure climate vulnerability.

CES 4.0 Score: The California Environmental Protection Agency (Cal EPA) developed CES, a tool that analyzes a combination of several pollution burden indicators and population characteristics to calculate a score to assess environmental risk for disadvantaged communities within a particular area. Higher CES scores represent higher pollution burden and a higher vulnerability to pollution burden due to sensitive populations and socioeconomic factors. In the SCAG region, Hispanic (Latino) residents made up the largest percentage of residents in census tracts with the highest CES scores while White residents disproportionately lived in census tracts with the lowest CES scores. The average CES score for Imperial County census tracts was 40.4, significantly higher than the regional average score of 33.4 and the highest compared to all counties in the region. The average score in the county was higher than 73 percent of census tracts in the state of California.

Extreme Heat and Tree Canopy: Extreme heat is increasingly becoming a significant public health issue that causes or exacerbates many serious illnesses and disproporiately impacts the most vulnerable populations like young children, old adults, low-income communities, and people of color. The SCAG region is projected to have an average increase of 35 extreme heat days from 2040 to 2060 and extreme heat days are expected to more than double by 2085 across the entire region. As a result, many serious illnesses caused by extreme heat exposure, such as heat exhaustion, heat stroke, respiratory illnesses, and even death, are impacting the most vulnerable populations like young children, older adults, low-income communities, and people of color. One way to mitigate extreme heat conditions is to increase tree canopy and vegetation coverage but communities of color often do not have adequate tree canopy coverage. This indicator examines the number of projected extreme heat days per county and the percentage of tree canopy coverage by census tract.

Imperial County is projected to have 43 extreme heat days per year from 2040-2060. The county is also projected to have 194.2 days above 90-degrees Fahrenheit from 2035-2064 while the average projected average annual number of days above 90-degrees for California is 78.8. When considering tree canopy coverage, census tracts with majority people of color (2.4 percent) were almost 2.5 times less likely to have tree canopy coverage compared to census tracts with majority White residents (6.9 percent).

ENVIRONMENT

The average CES score for Imperial County census tracts was **40.4**, much higher than the regional average and highest compared to all counties in the region.

The County is projected to have **43** extreme heat days per year from 2040-2060; the highest projection compared to all other counties.

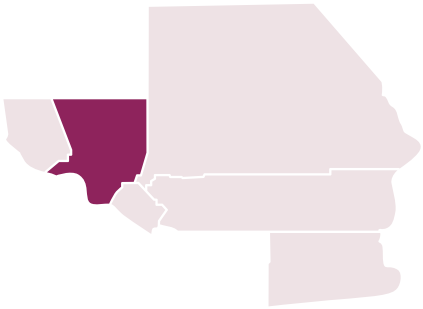
PEOPLE OF COLOR were more likely to live in high-risk wildfire areas within the county.

Wildfire Risk: As Southern California continues to become drier and warmer, the region is increasingly vulnerable to wildfire risk. In addition to the immediate risk to life and property generated by the fire itself, wildfire smoke contains large volumes of unhealthful particulate matter (PM) and other harmful air pollutants that expose the population to unhealthy air quality and dangerous levels of PM over significant periods of time. In the SCAG region, one in four residents live in a wildfire hazard area.

In Imperial County, seven percent of residents lived in a wildfire hazard area, significantly less than the regional average of 25 percent. Residents that lived in high-risk wildfire areas were 89 percent people of color similar to their population share in the county at nearly 90 percent.

LOS ANGELES COUNTY

Los Angeles County borders the counties of Kern to the north, Orange to the southeast, San Bernardino to the east and Ventura to the northwest. To the west, Los Angeles borders 70 miles of the Pacific Ocean. As the most populous county in the United States, Los Angeles County covers 4,058 square miles of land and is home to 88 incorporated cities and many unincorporated communities.



DEMOGRAPHICS

Total Population & Racial/Ethnic Distribution: As the most populous county in the region, Los Angeles County had a total population of over 10 million in 2020 (10,041,094 residents), making up a little over half of the region's population. People of color made up 74 percent of the county's population, slightly higher than the region at just under 70 percent. Los Angeles County also had the highest percentage of Black residents (7.8 percent) of all counties in the region. The table below provides the racial/ethnic breakdown for the county compared to the region.

Limited English Proficiency: The percentage of residents in Los Angeles County that experienced limited English proficiency was 12.4 percent in 2020, slightly higher than the region at 10 percent. Hispanic (Latino) (18.2 percent) and Asian/Pacific Islander (17.6 percent) residents were more likely to experience a language barrier compared to other racial and ethnic groups.

Female-Headed Households: One in three households (32 percent) were headed by females in the county, similar to the regional average of 30 percent. Most notably, 50 percent of Black households and 40 percent of Native American households were headed by a female. Other racial and ethnic groups had similar distributions to the

10,041,094 residents lived in Los Angeles County, or **53%** of SCAG's total population.

DEMOGRAPHICS (2020)

People of color made up **74%** of the County's population.

12.4% of residents in the county had limited English Proficiency.

Within Los Angeles County, **1 IN 3** households were female-headed households.

10% of people in the County had **ONE OR MORE DISABILITIES.**

Total Population & Racial/Ethnic Distribution

RACE/ETHNICITY	ASIAN/ PACIFIC ISLANDER	BLACK	HISPANIC (LATINO)	MIXED/ OTHER	NATIVE AMERICAN	WHITE	PEOPLE OF COLOR
Los Angeles County	14.80%	7.80%	48.30%	2.90%	0.20%	25.90%	74.10%
SCAG region	13.50%	6.20%	46.70%	3.10%	0.20%	30.30%	69.70%

Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

county average, ranging from 28 percent to 35 percent.

People with Disabilities: In Los Angeles County, one in 10 residents identified as having one or more disabilities, similar to the regional average of 11 percent. Black residents had the highest percentage of individuals who identified as having one or more disabilities at 15.8 percent.

ECONOMY

Economic indicators seek to evaluate whether all people have access to high-quality jobs, economic security, higher incomes, and entrepreneurship opportunities. This section examined educational attainment, the percentage of full-time workers experiencing poverty, and median household income in Los Angeles County.

Educational Attainment: Educational attainment is a primary factor in determining lifetime economic opportunities, including access to high-paying employment which may lead to homeownership and wealth accumulation. Educational attainment is defined as the highest level of education completed for individuals 25 years of age and older.

In 2020, 80 percent of Los Angeles County residents had a high school diploma or higher, similar to the regional average of 81 percent. Across all racial/ethnic groups, Hispanic (Latino) residents had the lowest percentage of adults with a high school diploma or higher (63 percent) while White residents had the highest percentage of 95 percent. When considering higher education, 41 percent of all residents had an associate degree or higher but only a third (33percent) of residents of color had an associate degree or higher.

Working Poor: Holding a full-time job does not ensure that workers do not live in poverty if it does not pay sufficiently to support a family. Low-wage workers also face the challenge of obtaining affordable, high-quality childcare and experience other income related obstacles to accessing opportunities and daily life necessities. In the SCAG region, about 20 percent of full-time workers experience poverty, with Hispanic communities experiencing the highest working poor rate among all reported ethnic groups at nearly 29 percent, compared to only ten percent for White workers.

In Los Angeles County, 21 percent of all full-time workers were living in poverty in 2020, slightly higher than the regional average of 19.4 percent. However, the

ECONOMY

HISPANIC (LATINO) residents had the lowest percentage with high school diploma or higher while **WHITE** residents had the highest percentage.

HISPANIC (LATINO) FULL-TIME WORKERS were **THREE TIMES MORE LIKELY TO BE LIVING IN POVERTY** than White full-time workers.

BLACK households had the lowest median household income compared to other racial and ethnic groups.

percentage of Hispanic (Latino) workers living in poverty were much higher compared to all other racial and ethnic groups within the county at 30.1 percent. White workers were the least likely to be living in poverty at 10.4 percent. And almost one in five Black workers (19.5 percent) were living in poverty.

Median Household Income: Household income in the SCAG region is significantly impacted by high housing costs, which divert income from other obligations and necessities, including healthcare, quality food, and education. In Los Angeles County, the median household income in 2020 was $70,645, which was slightly lower compared to the SCAG regional median of $74,147. White households had the highest median household income of $90,761 while Black households had the lowest median household income of $51,138, almost a $40,000 difference.

COMMUNITIES

The 'Communities' indicators provided in this report are used to assess existing public health and housing conditions and how they vary between different communities. This section specifically evaluated broadband (internet) availability as a measure of access to essential services, and housing cost burden and housing quality as measures of housing affordability and housing adequacy in Los Angeles County.

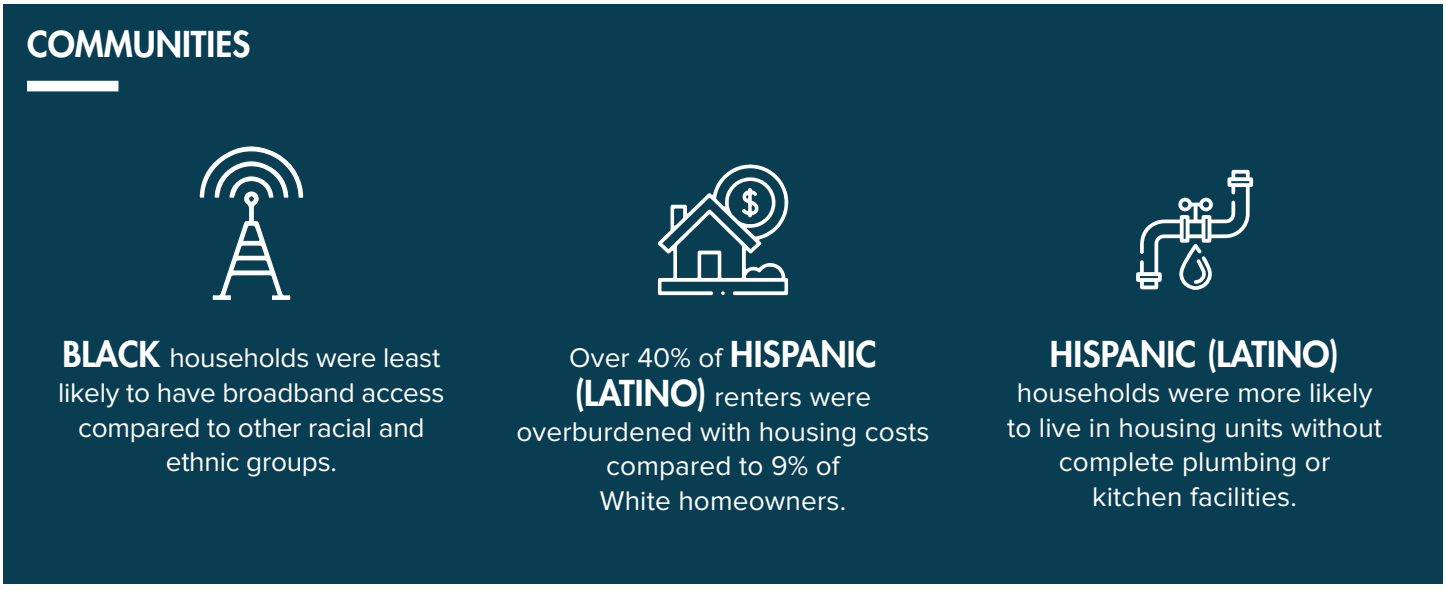
Broadband Access: Broadband access is now considered just as essential to a household as electricity for the conduct daily activities, including work, education, shopping, and healthcare among many other activities. Broadband access became even more critical during the pandemic when many essential daily activities were no longer able to be conducted in-person. For this report, broadband access refers to the percentage of individuals living in housing units that lack access to broadband internet service, including wired and wireless technologies.

89 percent of all households in Los Angeles County had access to broadband service in 2020, slightly lower than the 90 percent reported for the SCAG region overall. Asian/Pacific Islander households (93 percent), Native American households (89 precent), and Mixed/Other households (88 percent) were at or above the county average. Hispanic (Latino) households (87 percent) and Black households (85 percent) were least likely to have internet access. White households with high-speed internet access within the county were slightly above the county average at 91 percent.

Housing Cost Burden: Households considered excessively burdened by housing costs are those that spend 30 percent or more of total household income on housing and/or rent-related expenses. Allocating an excessive amount of income on housing costs leaves less money available for essential food, healthcare, education, and daycare expenditures. Households burdened by housing costs are often forced to choose lower cost housing in more distant areas that require longer commute times to jobs and other opportunities located in urban centers.

12 percent of Los Angeles County homeowners and 34 percent of renters experienced an excessive housing cost burden in 2020, which was the same as regional percentages. When considering renters, Hispanic (Latino) residents experienced the highest levels of housing burden at 42 percent. Black renters (38 percent) and Native American renters (37 percent) were also experiencing excessive housing cost burdens compared to the county average. When considering homeowners, Hispanic (Latino) residents (16percent), Black residents (15percent), and Native American residents (13percent) were more likely to experience housing cost burdens compared to other racial and ethnic groups in the county. White homeowners and renters experienced the least housing burdens at nine percent and 24 percent.

Housing Quality: The provision of basic amenities in a housing unit is of significant relevance to the discussion of equity and the assessment of disparities experienced among communities of color. The availability of adequate plumbing facilities is necessary for the maintenance of sanitation and clean water for a housing unit and is



essential to the safety and health of residents. In addition, families living without proper kitchen facilities, which include a sink with running water, a stove or range, and a refrigerator, are less likely to prepare nutritious food and maintain adequate sanitation, which may lead to increased food insecurity and poorer health outcomes. For this indicator, housing quality refers to the percentage of households without complete plumbing and kitchen facilities.

In Los Angeles County, 0.29 percent of households were living in housing units without complete plumbing and kitchen facilitates, higher than the regional average of 0.23 percent. Black residents and Native American residents were more likely to live in housing units without any plumbing and kitchen facilities, at 0.56 percent for both. Asian/Pacific Islander residents were least likely to experience these housing quality conditions compared to all other racial and ethnic groups in the county at 0.21 percent.

MOBILITY

Mobility indicators seek to assess accessibility to employment opportunities, transportation, parks, and other essential services. This section of the report evaluated access to employment and commute time to measure accessibility to essential services, and bike and pedestrian collisions to measure safety in Los Angeles County.

Access to Employment: Access to employment opportunities is foundational for social and economic interactions to meet basic needs. Overall, in the SCAG region, residents could access an average of 12 percent of employment opportunities within a 30-minute car ride and an average of 2.7 percent within a 45-minute transit or local bus ride. In Los Angeles County, this value was slightly higher at 14.2 percent within a 30-minute car ride and slightly lower at 2.6 percent within a 45-minute transit or local bus ride.

Job accessibility by automobile for all racial and ethnic groups were very similar, ranging from 12.2 percent for White residents to 16 percent for Black residents. Job accessibility by transit or local bus for all racial and ethnic groups were also very similar in Los Angeles County, ranging from 2.3 percent for White and Native American residents to three percent for Black residents.

Bike and Pedestrian Collisions: Making walking and bicycling safer and providing more convenient transportation options is key to encouraging more people to choose healthy and more sustainable travel alternatives. Bicycling or walking along roadways near motor vehicles is often perceived as dangerous and reducing hazards in the pedestrian and bicycling environment is a primary strategy toward achieving the region's goal of promoting healthier, more active communities. This indicator is used to identify patterns of active transportation hazards and potential risk disparities among various communities.

Within Los Angeles County, while Hispanic (Latino) residents represented 48.7 percent of the county population, they were still at higher risk for pedestrian- (52.4 percent) and bicyclist-involved (53.8 percent) collisions compared to all other racial and ethnic groups. Black residents were also at a higher risk for pedestrian- (8.9 percent) and bicyclist-involved (8.6 percent) collisions despite representing only 7.3 percent of the county population. All other racial and ethnic groups had a proportionate share of risk for pedestrian- and bicyclist-involved collisions.

Commute Time: The time required for a person to travel from home to the workplace impacts a wide range of lifestyle and opportunity costs. Time spent travelling to work and back means less time available to spend with family or engaging in other activities that are important

MOBILITY

WHITE residents had the lowest job accessibility by automobile and transit compared to other racial and ethnic groups.

Within Los Angeles County, **HISPANIC (LATINO)** residents were most likely to live in high-risk areas for pedestrian- or bicyclist-involved collisions.

BLACK commuters had the longest overall travel times compared to other racial and ethnic groups at nearly 34 minutes and had the longest public transit travel time at 56 minutes.

to a maintaining a healthy lifestyle including physical exercise and community interaction. Southern California has earned a reputation for its traffic congestion, urban sprawl, and the resultant extended commute times. For the SCAG region overall the average travel time to work, including all travel modes, was 29.1 minutes in 2020. For public transit, the average commute time increased to 51.2 minutes.

In Los Angeles County, the average travel time to work for all travel modes was 31.7 minutes and 51.1 minutes for public transit trips only. Black residents had the highest overall travel times for all modes and public transit at 33.8 minutes and 56.3 minutes, respectively, compared to all other racial and ethnic groups. White residents (30.8 minutes for all modes and 49.9 minutes for transit) and Mixed/Other residents (31.3 minutes for all modes and 49.3 minutes for transit) experienced the lowest commute times compared to all other racial and ethnic groups.

ENVIRONMENT

Environment indicators evaluate climate vulnerability and pollution exposure, representing a subset of issues negatively impacting communities of color. This section of the county narrative explored CalEnviroScreen (CES) 4.0 scores to measure environmental health and extreme heat and wildfire risk to measure climate vulnerability.

CES 4.0 Score: The California Environmental Protection Agency (Cal EPA) developed CES, a tool that analyzes a combination of several pollution burden indicators and population characteristics to calculate a score to assess environmental risk for disadvantaged communities within a particular area. Higher CESscores represent higher pollution burden and a higher vulnerability to pollution burden due to sensitive populations and socioeconomic factors. In the SCAG region, Hispanic (Latino) residents made up the largest percentage of residents in census tracts with the highest CES scores while White residents disproportionately lived in census tracts with the lowest CES scores. The average CES score for Los Angeles County census tracts was 38, which was higher than the regional average score of 33.4 and the second highest compared to all counties in the region.

Extreme Heat and Tree Canopy: Extreme heat is becoming a public health issue that causes or exacerbates many serious illnesses and disproportionately impacts the most vulnerable populations like young children, old adults, low-income communities, and people of color. The SCAG region is projected to have an average increase of 35 extreme heat days from 2040 to 2060 and extreme heat days are expected to more than double by 2085 across the entire region. As a result, many serious illnesses caused by extreme heat exposure, such as heat exhaustion, heat stroke, respiratory illnesses, and even death, are impacting the most vulnerable populations like young children, older adults, low-income communities, and people of color. One way to mitigate extreme heat conditions is to increase tree canopy and vegetation coverage but communities of color tend to not have adequate tree canopy coverage. This indicator examines the number of projected extreme heat days per county and percentage of tree canopy coverage by census tract.

Los Angeles County is projected to have 37 extreme heat days per year from 2040-2060. The county is also projected to have 73.6 days each year above 90-degrees Fahrenheit from 2035-2064 which is slightly lower than

ENVIRONMENT

The average CES score for Los Angeles County census tracts was **38**, higher than the regional average and the second highest compared to all counties in the region.

The County is projected to have **37** extreme heat days per year from 2040-2060; higher than the projection for the region.

ASIAN/PACIFIC ISLANDER residents were more likely to live in a high-risk wildfire area in Los Angeles County.

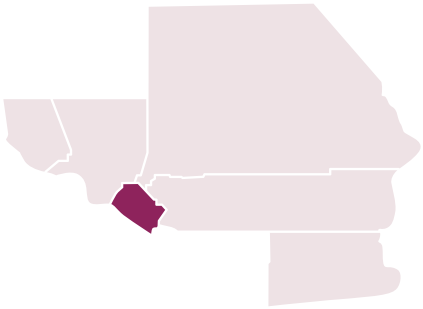
the California average projected annual number of days above 90-degrees of 78.8. When considering tree canopy coverage, census tracts with majority people of color (2.4 percent) were almost 2.5 times less likely to have tree canopy coverage compared to census tracts with majority White residents (6.9 percent).

Wildfire Risk: As Southern California continues to become drier and warmer, the region becomes increasingly vulnerable to wildfire risk. In addition to the immediate risk to life and property generated by the fire itself, wildfire smoke contains large volumes of unhealthful particulate matter (PM) and other harmful air pollutants that expose the population to unhealthy air quality and dangerous levels of PM over significant periods of time. In the SCAG region, 1 in 4 residents live in a wildfire hazard area while nearly 3 in 4 residents of color reside in wildfire hazard areas.

In Los Angeles County, 37 percent of its residents lived in a wildfire hazard area which was higher than the regional average of 25 percent. People of color were more likely to live in high-risk wildfire areas within the county at 76 percent. Nearly half (48 percent) of residents that lived in wildfire hazard areas were Hispanic (Latino) residents, which is significantly higher than their White counterparts (24 percent).

ORANGE COUNTY

Orange County borders the counties of Los Angeles in the northwest, Riverside in the east, San Bernardino in the northeast, and San Diego in the south. To the west, Orange County borders 42 miles of the Pacific Ocean. Orange County is the third most populous county in California and includes 34 incorporated cities within its 799 square mile boundary.



3,170,158 residents lived in Orange County, or **17%** of SCAG's total population.

DEMOGRAPHICS

Total Population & Racial/Ethnic Distribution: Orange County had a total population of nearly 3.2 million (3,170,158 residents), making up 16.8 percent of the region's population. Approximately 60 percent of the county's population were people of color, significantly lower than the region at 70 percent. Orange County also had the highest percentage of Asian/Pacific Islander residents (21.2 percent) compared to all other counties in the region. The table below provides the racial/ethnic breakdown for the county compared to the region.

Limited English Proficiency: Nearly one in 10 residents in Orange County experienced limited English proficiency (8.9 percent), slightly lower than the region at 10 percent. Asian/Pacific Islander residents (16.4 percent) and Hispanic (Latino) residents (14.8 percent) were more like to experience a language barrier compared to other racial and ethnic groups in the county.

Female-Headed Households: Within the county, 27 percent of households were headed by females, slightly lower than the regional average of 30 percent. Black households had the highest percentage of female-headed households at 37 percent. Other racial and ethnic groups had similar distributions to the county average, ranging from 24 percent to 28 percent.

People with Disabilities: Nearly nine percent of

DEMOGRAPHICS (2020)

People of color made up almost **60%** of the County's population.

Nearly **1 IN 10** residents in the county had limited English Proficiency.

Within Orange County, **27%** of households were female-headed households.

9% of people in the County had **ONE OR MORE DISABILITIES.**

Total Population & Racial/Ethnic Distribution

RACE/ETHNICITY	ASIAN/ PACIFIC ISLANDER	BLACK	HISPANIC (LATINO)	MIXED/ OTHER	NATIVE AMERICAN	WHITE	PEOPLE OF COLOR
Orange County	21.10%	1.50%	33.80%	3.60%	0.20%	39.80%	60.20%
SCAG region	13.50%	6.20%	46.70%	3.10%	0.20%	30.30%	69.70%

Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

Orange County residents had one or more disabilities (8.9 percent), slightly lower than the regional average of 11 percent. Native American residents had the highest percentage of individuals who identified as having one or more disabilities at 14.6 percent compared to all other racial and ethnic groups in the county.

ECONOMY

Economic indicators seek to evaluate whether all people have access to high-quality jobs, economic security, higher incomes, and entrepreneurship opportunities. This section examined educational attainment, the percentage of full-time workers experiencing poverty, and median household income in Orange County.

Educational Attainment: Educational attainment is a primary factor in determining lifetime economic opportunities, including access to high-paying employment which may lead to homeownership and wealth accumulation. Educational attainment is defined as the highest level of education completed for individuals 25 years of age and older.

In 2020, 86 percent of Orange County residents had a high school diploma or higher, which was slightly higher compared to the regionally reported 81 percent. People of color were less likely to obtain a high school diploma or higher compared to their White counterparts, at 78 percent and 97 percent, respectively. When considering higher education, people of color continued to underperform compared to White residents in the county. 41 percent of residents of color had an associate degree or higher and 59 percent of White residents had an associate degree or higher.

Working Poor: Holding a full-time job does not ensure that workers do not live in poverty if it does not pay sufficiently to support a family. Low-wage workers also face the challenge of obtaining affordable, high-quality childcare and experience other income related obstacles to accessing opportunities and daily life necessities. In the SCAG region, about 20 percent of full-time workers experience poverty, with Hispanic communities experiencing the highest working poor rate among all reported ethnic groups at nearly 29 percent, compared to only ten percent for White workers.

In Orange County, about 15 percent (14.8 percent) of all full-time workers were living in poverty in 2020, slightly lower than the regional average of 19.4 percent. Hispanic (Latino) workers were more likely to be living in poverty at 25.9 percent while White workers were the least likely to be living in poverty at 7.5 percent. Almost one in five Black workers (17.8 percent) were living in poverty.

Median Household Income: Household income in the SCAG region is significantly impacted by high housing costs, which divert income from other obligations and necessities, including healthcare quality food, and education. In Orange County, the median household income in 2020 was $93,990, which was the highest compared to all counties in the SCAG region ($74,147). White households ($104,433) and Mixed/Other households ($102,164) had the highest median household incomes while Hispanic (Latino) households ($73,906) had the lowest median household income, nearly a $30,000 difference.

ECONOMY

41% of residents of color had an associate degree or above while **59%** of White residents had an associate degree or above.

HISPANIC (LATINO) FULL-TIME WORKERS were **THREE TIMES MORE LIKELY TO BE LIVING IN POVERTY** than **WHITE** full-time workers.

HISPANIC (LATINO) households had the lowest median household income compared to other racial and ethnic groups.

COMMUNITIES

The 'Communities' indicators provided in this report are used to assess existing public health and housing conditions and how they vary between different communities. This section specifically evaluated broadband (internet) availability as a measure of access to essential services, and housing cost burden and housing quality as measures of housing affordability and housing adequacy in Orange County.

Broadband Access: Broadband access is now considered just as essential to a household as electricity for the conduct daily activities, including work, education, shopping, and healthcare among many other activities. Broadband access became even more critical during the pandemic when many essential daily activities were no longer able to be conducted in-person. For this report, broadband access refers to the percentage of individuals living in housing units that lack access to broadband internet service, including wired and wireless technologies.

In Orange County, 94 percent of households had access to broadband service in 2020, the highest compared to all other counties. Asian/Pacific Islander households (95 percent) and White households (94 percent) were at or above the county average while other racial and ethnic groups, Native American (93 percent), Black (92 percent), Hispanic (Latino) (91 percent), and Mixed/Other (91 percent) were below the county average but above the regional average of 90 percent.

Housing Cost Burden: Households considered excessively burdened by housing costs are those that spend 30 percent or more of total household income on housing and/or rent-related expenses. Allocating an excessive amount of income on housing costs leaves less money available for essential food, healthcare, education, and daycare expenditures. Households burdened by housing costs are often forced to choose lower cost housing in more distant areas that require longer commute times to jobs and other opportunities located in urban centers.

Nine percent of Orange County homeowners and 28 percent of renters experienced an excessive housing cost burden in 2020, which was lower compared to 12 percent regionally for homeowners and 34 percent regionally for renters. Specifically, Hispanic (Latino) renters (38 percent), Asian/Pacific Islander renters (31 percent), and Native American renters (29 percent) were more likely to experience housing cost burdens than other racial and ethnic group within the county. For homeowners, Hispanic (Latino) residents (11percent) and Black residents (10 percent) had the highest housing cost burdens in the county. Native American homeowners (5 percent) and White renters (19 percent) were less likely to experience housing cost burdens.

Housing Quality: The provision of basic amenities in a housing unit is of significant relevance to the discussion of equity and the assessment of disparities experienced among communities of color. The availability of adequate plumbing facilities is necessary for the maintenance of sanitation and clean water for a housing unit and is essential to the safety and health of residents. In addition, families living without proper kitchen facilities, which

include a sink with running water, a stove or range, and a refrigerator, are less likely to prepare nutritious food and maintain adequate sanitation, which may lead to increased food insecurity and poorer health outcomes. For this indicator, housing quality refers to the percentage of households without complete plumbing and kitchen facilities.

In Orange County, 0.12 percent of households are living in housing units without complete plumbing and kitchen facilitates, lower than the regional average of 0.23 percent. Mixed/Other households were the most likely to be living in housing units with any plumbing and kitchen facilities at 0.52 percent while Native American residents (0 percent), White residents (0.08 percent) and Black residents (0.08 percent) experienced relatively low rates of inadequate housing conditions.

MOBILITY

Mobility indicators seek to assess accessibility to employment opportunities, transportation, parks, and other essential services. This section of the report evaluated access to employment and commute time to measure accessibility to essential services, and bike and pedestrian collisions to measure safety in Orange County.

Access to Employment: Access to employment opportunities is foundational for social and economic interactions to meet basic needs. Overall, in the SCAG region, residents could access an average of 12 percent of employment opportunities within a 30-minute car ride and an average of 2.7 percent within a 45-minute transit or local bus ride. In Orange County, these values were slightly higher at 16.9 percent within a 30-minute car ride and slightly lower at 1.7 percent within a 45-minute transit or local bus ride.

Orange County had the highest job accessibility by automobile compared to all other counties. Job accessibility by automobile for all racial and ethnic groups were very similar, ranging from 15.5 percent for White residents to 18.2 percent for Hispanic (Latino) residents. Job accessibility by transit or local bus for all racial and ethnic groups were also very similar, ranging from 1.4 percent for White residents to 2.1 percent for Hispanic (Latino) residents.

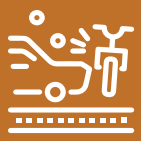
Bike and Pedestrian Collisions: Making walking and bicycling safer and providing more convenient transportation options is key to encouraging more people to choose healthy and more sustainable travel alternatives. Bicycling or walking along roadways near motor vehicles is often perceived as dangerous and reducing hazards in the pedestrian and cycling environment is a primary strategy toward achieving the region's goal of promoting healthier, more active communities. This indicator is used to identify patterns of active transportation hazards and potential risk disparities among various communities.

Within Orange County, Hispanic (Latino) residents were at higher risk for pedestrian- (45.1 percent) and bicyclist-involved (41 percent) collisions compared to all other racial and ethnic groups despite only having a county population share of 34.3 percent. All other racial and ethnic groups had a proportionate share of risk for pedestrian- and bicyclist-involved collisions.

Commute Time: The time required for a person to travel from home to the workplace impacts a wide range of lifestyle and opportunity costs. Time spent travelling to work and back means less time available to spend with family or engaging in other activities that are important to a maintaining a healthy lifestyle including physical exercise and community interaction. Southern California has earned a reputation for its traffic congestion, urban sprawl, and the resultant extended commute times. For the SCAG region overall the average travel time to work, including all travel modes, was 29.1 minutes in 2020. For public transit, the average commute time increased

MOBILITY

WHITE residents had the lowest job accessibility by automobile and transit compared to other racial and ethnic groups.



Within Orange County, **HISPANIC (LATINO)** residents were most likely to live in high-risk areas for pedestrian- or bicyclist-involved collisions.

WHITE and **ASIAN/PACIFIC ISLANDERS** had the longest public transit commute of nearly an hour, almost twice the average county commute time.

to 51.2 minutes.

In Orange County, the average travel time to work for all travel modes was 27.8 minutes and 51.1 minutes for public transit trips only. When considering public transit commute times only, White residents (57.8 minutes), Asian/Pacific Islander residents (56.9 minutes), and Native American residents (54.9 minutes) had the longest commute times compared to all other racial and ethnic groups within the county. Hispanic (Latino) residents had the lowest commute times for all modes at 26.6 minutes compared to all other racial and ethnic groups in the county.

ENVIRONMENT

Environment indicators evaluate climate vulnerability and pollution exposure, representing a subset of issues negatively impacting communities of color. This section of the county narrative explored CalEnviroScreen (CES) scores to measure environmental health and extreme heat and wildfire risk to measure climate vulnerability.

CES 4.0 Score: The California Environmental Protection Agency (Cal EPA) developed, CES, a tool that analyzes a combination of several pollution burden indicators and population characteristics to calculate a score to assess environmental risk for disadvantaged communities within a particular area. Higher CESscores represent higher pollution burden and a higher vulnerability to pollution burden due to sensitive populations and socioeconomic factors. In the SCAG region, Hispanic (Latino) residents made up the largest percentage of residents in census tracts with the highest CES scores while White residents disproportionately lived in census tracts with the lowest CES scores. The average CES score for Orange County census tracts was 23.6, which is lower than the regional average score of 33.4.

Extreme Heat and Tree Canopy: Extreme heat is becoming a public health issue that causes or exacerbates many serious illnesses and disproportionately impacts the most vulnerable populations like young children, old adults, low-income communities, and people of color. The SCAG region is projected to have an average increase of 35 extreme heat days from 2040 to 2060 and extreme heat days are expected to more than double by 2085 across the entire region. As a result, many serious illnesses caused by extreme heat exposure, such as heat exhaustion, heat stroke, respiratory illnesses, and even death, are impacting the most vulnerable populations like young children, older adults, low-income communities,

ENVIRONMENT

The average CES score for Orange County census tracts was **23.6**, lower than the regional average.

The County is projected to have **15** extreme heat days per year from 2040-2060; the lowest projection and significantly less compared to all other counties.

2 OUT OF 5 WHITE residents in Orange County were living in a high-risk wildfire area, the highest percentage of any racial/ethnic group in the county.

and people of color. One way to mitigate extreme heat conditions is to increase tree canopy and vegetation coverage but communities of color tend to not have adequate tree canopy coverage. This indicator examines the number of projected extreme heat days per county and percentage of tree canopy coverage by census tract.

Orange County is projected to have 15 extreme heat days per year from 2040-2060, the lowest compared to all other counties. The county is also projected to have 46.6 annual days above 90-degrees Fahrenheit from 2035-2064 which is significantly lower than the California average projected annual number of days above 90-degrees of 78.8. When considering tree canopy coverage, census tracts with majority people of color (2.4 percent) were almost 2.5 times less likely to have tree canopy coverage compared to census tracts with majority

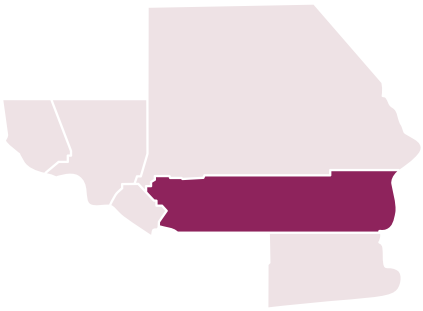
White residents (6.9 percent).

Wildfire Risk: As Southern California continues to become drier and warmer, the region becomes increasingly vulnerable to wildfire risk. In addition to the immediate risk to life and property generated by the fire itself, wildfire smoke contains large volumes of unhealthful particulate matter (PM) and other harmful air pollutants that expose the population to unhealthy air quality and dangerous levels of PM over significant periods of time. In the SCAG region, 1 in 4 residents live in a wildfire hazard area while nearly 3 in 4 residents of color reside in wildfire hazard areas.

In Orange County, 12 percent of its residents lived in a wildfire hazard area which was significantly less than the regional average of 25 percent. Hispanic (Latino) residents (31 percent), White residents (42 percent), and Asian/ Pacific Islander residents (22 percent) were more likely to be living in wildfire hazard areas compared to all other racial and ethnic groups in the county. Native American residents were the least likely to be living in wildfire hazard areas at 0.2 percent.

RIVERSIDE COUNTY

Riverside County is located in southeastern California and borders San Bernadino County to the north, San Diego County to the south, La Paz County, Arizona, to the east and Orange County to the west. With 7,303 square miles of land, it is the second largest county in the SCAG region, second only to San Bernadino County.



2,437,849 residents lived in Riverside County, or **13%** of SCAG's total population.

DEMOGRAPHICS

Total Population & Racial/Ethnic Distribution: Riverside County was home to over 2.4 million residents (2,437,849), making up 13 percent of the region's total population. People of color made up 66 percent of the county's population, slightly lower than the regional average of nearly 70 percent. Almost half of the county's population was Hispanic (Latino) (49 percent), slightly higher than the regional average of 46.7 percent. The table below provides the racial/ethnic demographic breakdown of the county compared to the region.

Limited English Proficiency: Approximately seven percent of residents in the county experienced limited English proficiency in 2020, significantly lower than the regional average of 10 percent. However, Hispanic (Latino) and Asian/Pacific Islander residents were more likely to experience limited English proficiency at 13 percent and 11 percent, respectively, while just 0.4 percent of White and Black residents experienced limited English proficiency.

Female-Headed Households: Within the county, 27 percent of households were headed by females, slightly lower than the regional average of 30 percent. Black households had the highest percentage of female-headed households at 40 percent compared to other racial/ethnic groups, followed by Native American households at 37 percent.

DEMOGRAPHICS (2020)

People of color made up almost **65%** of the County's population.

7% of residents in the county had limited English Proficiency.

Within Riverside County, **27%** of households were female-headed households.

12% of people in the County had **ONE OR MORE DISABILITIES.**

Total Population & Racial/Ethnic Distribution

RACE/ETHNICITY	ASIAN/ PACIFIC ISLANDER	BLACK	HISPANIC (LATINO)	MIXED/ OTHER	NATIVE AMERICAN	WHITE	PEOPLE OF COLOR
Riverside County	6.80%	6.10%	49.40%	3.00%	0.40%	34.40%	65.6%
SCAG region	13.5%	6.2%	46.7%	3.1%	0.2%	30.3%	69.7%

Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

People with Disabilities: In Riverside County, 12 percent of residents identified as having one or more disabilities, similar to the regional average of 11 percent. White residents had the highest percentage of individuals who identified as having one or more disabilities at 16.6 percent compared to all other racial and ethnic groups in the county.

ECONOMY

Economic indicators seek to evaluate whether all people have access to high-quality jobs, economic security, higher incomes, and entrepreneurship opportunities. This section examined educational attainment, the percentage of full-time workers experiencing poverty, and median household income in Riverside County.

Educational Attainment: Educational attainment is a primary factor in determining lifetime economic opportunities, including access to high-paying employment which may lead to homeownership and wealth accumulation. Educational attainment is defined as the highest level of education completed for individuals 25 years of age and older.

In 2020, 83 percent of Riverside County residents had a high school diploma or higher compared the regionally reported 81 percent. Residents of color in Riverside County were less likely to have a higher education, 18 percent of people of color had a bachelor's degree or higher compared to the county average of 23 percent and the regional average of 33 percent. Educational outcomes within the county were inequitably distributed; 31 percent of Hispanic (Latino) residents had less than a high school diploma compared to their White and Black counterparts, in which only seven percent of either community had less than a high school diploma.

Working Poor: Holding a full-time job does not ensure that workers do not live in poverty if it does not pay sufficiently to support a family. Low-wage workers also face the challenge of obtaining affordable, high-quality childcare and experience other income related obstacles to accessing opportunities and daily life necessities. In the SCAG region, about 20 percent of full-time workers experience poverty, with Hispanic communities experiencing the highest working poor rate among all reported ethnic groups at nearly 29 percent, compared to only ten percent for White workers.

ECONOMY

31% OF HISPANIC (LATINO) residents had less than a high school diploma which is much higher compared other racial and ethnic groups.

HISPANIC (LATINO) FULL-TIME WORKERS were almost **THREE TIMES MORE LIKELY TO BE LIVING IN POVERTY** than White full-time workers.

NATIVE AMERICAN residents had the lowest median household income of **$45,914** which was **35%** less than the county average.

In Riverside County, 20 percent of full-time workers fell under the working poor category, the same as the regional average. Riverside County had similar racial/ethnic breakdowns as the rest of the regional averages. Hispanic (Latino) residents made up the majority of the working poor within the county with about one in four or 27 percent of full-time Hispanic workers living in poverty. Native American workers, in which a little over one in five or 23 percent, also tended to live in poverty. By contrast, only 11 percent of full-time White workers were living in poverty.

Median Household Income: Household income in the SCAG region is significantly impacted by high housing costs, which divert income from other obligations and necessities, including healthcare quality food, and education. In Riverside County, the median household income in 2020 was $70,430, compared to the SCAG regional median household income of $74,147. Within the county, Asian/Pacific Islander residents had the highest median household income of $92,666 while Native American residents had the lowest median household income of $45,914 which was 35 percent less than the county average.

COMMUNITIES

The 'Communities' indicators provided in this report are used to assess existing public health and housing conditions and how they vary between different communities. This section specifically evaluated broadband (internet) availability as a measure of access to essential services, and housing cost burden and housing quality as measures of housing affordability and housing adequacy in Riverside County.

Broadband Access: Broadband access is now considered just as essential to a household as electricity for the conduct daily activities, including work, education, shopping, and healthcare among many other activities. Broadband access became even more critical during the pandemic when many essential daily activities were no longer able to be conducted in-person. For this report, broadband access refers to the percentage of individuals living in housing units that have access to broadband internet service, including wired and wireless technologies.

In Riverside County, 92 percent of households had access to high-speed internet access, the second highest compared to other counties in the region. Native American communities had the lowest access to broadband at 90 percent followed by Black households, Hispanic (Latino) households, and Mixed/Other households all at 91 percent. Asian/Pacific Islander households (96 percent) and White households (92 percent) were above the county and regional average.

Housing Cost Burden: Households considered excessively burdened by housing costs are those that spend 30 percent or more of total household income on housing and/or rent-related expenses. Allocating an excessive amount of income on housing costs leaves less money available for essential food, healthcare, education, and daycare expenditures. Households burdened by housing costs are often forced to choose lower cost housing in more distant areas that require longer commute times to jobs and other opportunities located in urban centers.

In 2020, 38 percent of renters in Riverside County were overburdened by housing costs compared to the region's 34 percent. Riverside homeowners had similar rates to the rest of the region at 14 and 12 percent, respectively. Native American (45 percent), Hispanic (Latino) (44 percent), and Black (40 percent) renters were particularly strained by housing costs while White residents were less likely to be overburdened with housing costs at 30 percent. While homeowners were less burdened by housing cost, Native American and Hispanic (Latino) residents had a higher burden of cost than the rest of the county average at 20 percent and 19 percent, respectively. Black homeowners experienced the lowest housing cost burden in Riverside County at 11 percent.

Housing Quality: Households considered excessively burdened by housing costs are those that spend 30 percent or more of total household income on housing and/or rent-related expenses. Allocating an excessive amount of income on housing costs leaves less money available for essential food, healthcare, education, and daycare expenditures. Households burdened by housing costs are often forced to choose lower cost housing in more distant areas that require longer commute times to

COMMUNITIES

NATIVE AMERICAN households were least likely to have broadband access compared to other racial and ethnic groups.

45% of **NATIVE AMERICAN** renters and 44% of **HISPANIC (LATINO)** renters were overburdened with housing costs.

NATIVE AMERICAN households were seven times more likely to live in a housing unit without complete plumbing or kitchen facilities compared to the county average.

jobs and other opportunities located in urban centers.

In Riverside County, most housing units had the basic amenities of plumbing and kitchen facilities, only 0.2 percent of Riverside County houses lacking basic needs compared to the regional average of 0.23 percent. However, Native American houses in Riverside County had the highest percentage of housing that lacked basic amenities in the SCAG region at 1.45 percent. While this represents a relatively small number of houses, this percentage is more than six times the county average. Riverside County was home to the second largest population of Native Americans in the region, with 8.7 thousand residents, second only to Los Angele's 20 thousand residents. This disparate outcome was highlighted when compared to other racial ethnic groups; Asian/Pacific Islanders and White residents had the highest access to basic household amenities. Only 0.14 percent of Asian/Pacific Islander and 0.17 percent of White household's lacked these basic amenities.

MOBILITY

Mobility indicators seek to assess accessibility to employment opportunities, transportation, parks, and other essential services. This section of the report evaluated access to employment and commute time to measure accessibility to essential services, and bike and pedestrian collisions to measure safety in Riverside County.

Access to Employment: Access to employment opportunities is foundational for social and economic interactions to meet basic needs. Overall, in the SCAG region, residents could access an average of 12 percent of employment opportunities within a 30-minute car ride and an average of 2.7 percent within a 45-minute transit or local bus ride. In Riverside County, these values were significantly lower at four percent within a 30-minute car ride and 0.2 percent within a 45-minute transit or local bus ride.

Job accessibility by automobile for all racial and ethnic groups were very similar, ranging from 3.6 percent for White residents to 4.5 percent for Asian/Pacific Islander residents. Job accessibility by transit or local bus for all racial and ethnic groups were also very similar, ranging from 0.1 percent for Native American residents to 0.2 percent for all other racial and ethnic groups.

Bike and Pedestrian Collisions: Making walking and bicycling safer and providing more convenient transportation options is key to encouraging more people to choose healthy and more sustainable travel alternatives. Bicycling or walking along roadways near motor vehicles is often perceived as dangerous and reducing hazards in the pedestrian and cycling environment is a primary strategy toward achieving the region's goal of promoting healthier, more active communities. This indicator is used to identify patterns of active transportation hazards and potential risk disparities among various communities.

Within Riverside County, Hispanic (Latino) residents were at higher risk for pedestrian- (55.9 percent) and bicyclist-involved (52.4 percent) collisions compared to all other racial and ethnic groups despite only having a county population share of 49.4 percent. All other racial and ethnic groups had a proportionate share of risk for pedestrian- and bicyclist-involved collisions.

Commute Time: The time required for a person to travel from home to the workplace impacts a wide range of lifestyle and opportunity costs. Time spent travelling to work and back means less time available to spend with family or engaging in other activities that are important to a maintaining a healthy lifestyle including physical exercise and community interaction. Southern California has earned a reputation for its traffic congestion, urban sprawl, and the resultant extended commute times. For

MOBILITY

WHITE residents had the lowest job accessibility by automobile and **NATIVE AMERICAN** residents had the lowest job accessibility by transit compared to other racial and ethnic groups.

Within Riverside County, **HISPANIC (LATINO)** residents were most likely to live in high-risk areas for pedestrian- or bicyclist-involved collisions.

NATIVE AMERICAN residents had the longest commute by public transit, car or motorcycle compared to other racial and ethnic groups.

the SCAG region overall the average travel time to work, including all travel modes, was 29.1 minutes in 2020. For public transit, the average commute time increased to 51.2 minutes.

For Riverside County, the average commute time of all transit types was 34 minutes, 5 minutes longer than the regional average. Residents driving cars or motorcycles similarly took 34 minutes and residents taking bus, rail, streetcar, ferry, or taxi took 54 minutes, 20 minutes longer than the county average, and 25 minutes longer than the regional average. However, White commuters had the lowest overall commute time of 31 minutes while Native American and Black residents had the highest overall commute time of 39 minutes and 38 minutes, respectively. Looking further into these disparities, Native American public transit users had an average commute of 71 minutes, more than twice the county and regional average. Black public transit commuters had an hour-long commute which was twice the regional average.

ENVIRONMENT

Environment indicators evaluate climate vulnerability and pollution exposure, representing a subset of issues negatively impacting communities of color. This section of the county narrative explored CalEnviroScreen (CES) scores to measure environmental health and extreme heat and wildfire risk to measure climate vulnerability.

CES 4.0 Score: The California Environmental Protection Agency (Cal EPA) developed CES, a tool that analyzes a combination of several pollution burden indicators and population characteristics to calculate a score to assess environmental risk for disadvantaged communities within a particular area. Higher CESscores represent higher pollution burden and a higher vulnerability to pollution burden due to sensitive populations and socioeconomic factors. In the SCAG region, Hispanic (Latino) residents made up the largest percentage of residents in census tracts with the highest CES scores while White residents disproportionately lived in census tracts with the lowest CES scores. The average CES score for Riverside County census tracts was 26.8, which is lower than the regional average score of 33.4.

Extreme Heat and Tree Canopy: Extreme heat is increasingly becoming a public health issue that causes or exacerbates many serious illnesses and disproportionately impact the most vulnerable populations like young children, old adults, low-income communities, and people of color. The SCAG region is projected to have an average increase of 35 extreme heat days from 2040 to 2060 and extreme heat days are expected to more than double by 2085 across the entire region. As a result, many serious illnesses caused by extreme heat exposure, such as heat exhaustion, heat stroke, respiratory illnesses, and even death, are impacting the most vulnerable populations like young children, older adults, low-income communities, and people of color. One way to mitigate extreme heat conditions is to increase tree canopy and vegetation coverage but communities of color tend to not have adequate tree canopy coverage. This indicator examines the number of projected extreme heat days per county and percentage of tree canopy coverage by census tract.

Riverside County is projected to have 42 extreme heat days per year from 2040-2060 which is the second

ENVIRONMENT

The average CES score for Riverside County census tracts was **26.8**, lower than the regional average.

The County is projected to have **42** extreme heat days per year from 2040-2060; the second highest projection compared to all other counties.

HISPANIC (LATINO) residents were more likely to live in high-risk wildfire areas within the county.

highest number compared to all counties. The county is also projected to have 154 days above 90-degrees Fahrenheit from 2035-2064 which is almost double the California average projected annual days above 90-degrees of 78.8. When considering tree canopy coverage, census tracts with majority people of color (2.4 percent) were almost 2.5 times less likely to have tree canopy coverage compared to census tracts with majority White residents (6.9 percent).

Wildfire Risk: As Southern California continues to become drier and warmer, the region becomes increasingly vulnerable to wildfire risk. In addition to the immediate risk to life and property generated by the fire itself, wildfire smoke contains large volumes of unhealthful particulate matter (PM) and other harmful air pollutants that expose the population to unhealthy air quality and dangerous levels of PM over significant periods of time. In the SCAG region, 1 in 4 residents live in a wildfire hazard area.

While Riverside County made up 13 percent of the SCAG population, only five percent of the County's population was exposed to wildfire risk, comparatively smaller than the region's 25 percent exposure. However, there were disparate exposure to wildfire risk across races and ethnicities. While Hispanic (Latino) residents made up nearly half of the population, they accounted for 61 percent of the people exposed to wildfire risk which is the highest exposure of any racial ethnic group to wildfire in the county. White residents were also more likely to be exposed to wildfire risk at 37 percent while making up 35 percent of the county population.

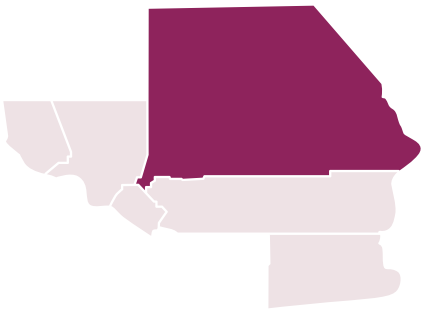
SAN BERNARDINO COUNTY

San Bernardino County is an inland county in Southern California located east of Los Angeles County, sharing borders with Riverside County and Orange County to the south; Kern County to the west; Inyo County to the north; and Mohave County and La Paz County, Arizona to the east. San Bernardino County also shares an approximately 70-mile boundary with Clark County, Nevada to the northeast. With 20,057 square miles of land area, San Bernardino is the largest county in the United States. For perspective, the area of Orange County could fit within its boundaries 25 times! San Bernardino County includes 24 incorporated cities and a total 2020 population of 2,175,424, about 14 percent of which reside in the county's unincorporated areas.

DEMOGRAPHICS

Total Population & Racial/Ethnic Distribution: San Bernardino County had a total population of 2,175,424 in 2020, representing an increase of nearly seven percent (6.9%) since 2010. Persons of Hispanic/Latino ethnic heritage comprised a majority of San Bernardino County's population in 2020 which, at nearly 54 percent, was the second highest share among the six SCAG region counties. People of color represented more than 72 percent of the County's population, slightly higher than the reported regional average of 69.7 percent.

Limited English Proficiency: Seven percent Persons with limited English language proficiency were more likely to experience significant challenges in accessing employment, healthcare, and other essential resources, furthering inequitable outcomes. Seven percent of San Bernardino County residents had limited English language proficiency in 2020, three percentage points lower than for the SCAG region overall (10 percent).



2,175,424 residents lived in San Bernardino County, or **7%** of SCAG's total population.

DEMOGRAPHICS (2020)

People of color made up almost **72%** of the County's population.

Nearly **1 IN 3** residents in the county had limited English Proficiency.

Within Imperial County, **12%** of households were female-headed households.

12% of people in the County had **ONE OR MORE DISABILITIES.**

Total Population & Racial/Ethnic Distribution

RACE/ETHNICITY	ASIAN/ PACIFIC ISLANDER	BLACK	HISPANIC (LATINO)	MIXED/ OTHER	NATIVE AMERICAN	WHITE	PEOPLE OF COLOR
San Bernardino County	7.40%	7.70%	53.80%	3.20%	0.30%	27.60%	72.40%
SCAG region	13.50%	6.20%	46.70%	3.10%	0.20%	30.30%	69.70%

Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

Female-Headed Households: 29 percent of households in San Bernardino County were female-headed in 2020, which was consistent with the SCAG regional share of 30 percent.

Persons with Disabilities: Persons with disabilities frequently experience significant systemic barriers in accessing needed resources and opportunities. These barriers may be further compounded by racial discrimination and conditions of poverty. In San Bernardino County, twelve percent (12%) of residents were living with a disability in 2020, only slightly higher than the eleven percent (11%) share reported for the SCAG region overall.

ECONOMY

Economic indicators seek to evaluate whether all people have access to high-quality jobs, economic security, higher incomes, and entrepreneurship opportunities. This section examined educational attainment, the percentage of full-time workers experiencing poverty, and median household income in San Bernardino County.

Educational Attainment: Educational attainment is a primary factor in determining lifetime economic opportunities, including access to high-paying employment which may lead to homeownership and wealth accumulation. Educational attainment is defined as the highest level of education completed for individuals 25 years of age and older.

In 2020, 79.2 percent of San Bernardino residents had a high school diploma or higher, compared to a 77.5 percent share reported in 2010. Nearly twenty percent (19.8 percent) of county residents held a bachelor's degree or higher in 2020, compared to 18.4 percent reported in 2010. In the SCAG region, people of color had significantly lower rates of educational attainment compared to the White population, with 74 percent of residents of color holding a high school diploma or higher compared to about 95 percent for White residents. Further, about 25 percent of non-White residents in the SCAG region held at least a bachelor's degree in 2020, compared to 44 percent of the White population.

Working Poor: Holding a full-time job does not ensure that workers do not live in poverty if it does not pay sufficiently to support a family. Low-wage workers also face the challenge of obtaining affordable, high-quality childcare and experience other income related obstacles to accessing opportunities and daily life necessities.

ECONOMY

1 IN 3 residents of color had less than a high school diploma while less than **1 IN 10** White residents had a high school diploma.

HISPANIC (LATINO) FULL-TIME WORKERS were **TWO TIMES MORE LIKELY TO BE LIVING IN POVERTY** than White full-time workers.

BLACK households had the lowest median household income compared to other racial and ethnic groups.

In the SCAG region, about 20 percent of full-time workers experience poverty, with Hispanic communities experiencing the highest working poor rate among all reported ethnic groups at nearly 29 percent, compared to only ten percent for White workers.

In San Bernardino County, about 22 percent (21.6 percent) of all full-time workers were living in poverty in 2020, however, the figures were considerably higher for communities of color. 26.6 percent of Latino full-time workers and 24.5 percent of Black full-time workers experienced poverty in 2020, compared to 13.2 percent for White full-time workers.

Median Household Income: Household income in the SCAG region is significantly impacted by high housing costs, which divert income from other obligations and necessities, including healthcare quality food, and education. In San Bernardino County, the median household income in 2020 was $65,134, compared to the SCAG regional median of $74,147. Household income disparities for communities of color were evident in the county, with Black households producing a median annual income of $49,995, and $52,321 for Native Americans. As a comparison, White households reported an annual median income of $70,645, while Asian/Pacific Islanders had the highest median household income in San Bernardino County at $81,820.

COMMUNITIES

The 'Communities' indicators provided in this report are used to assess existing public health and housing conditions and how they vary between different communities. This section specifically evaluated broadband (internet) availability as a measure of access to essential services, and housing cost burden and housing quality as measures of housing affordability and housing adequacy in San Bernardino County.

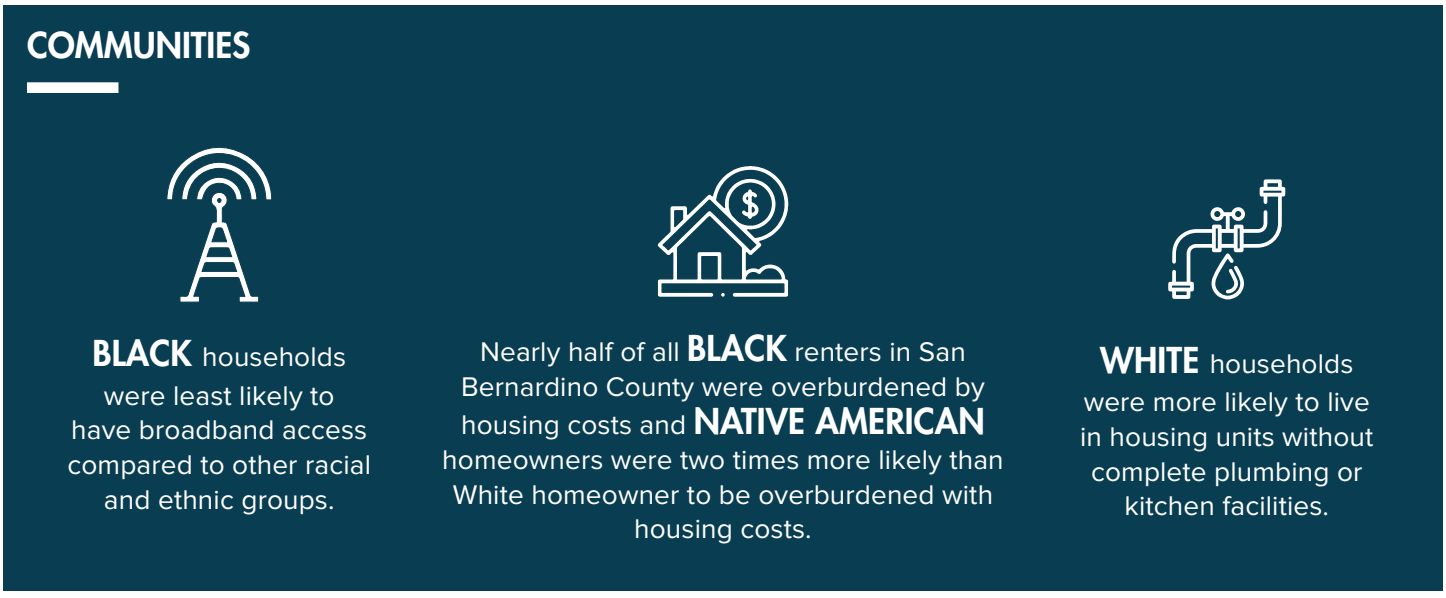
Broadband Access: Broadband access is now considered just as essential to a household as electricity for the conduct daily activities, including work, education, shopping, and healthcare among many other activities. Broadband access became even more critical during the pandemic when many essential daily activities were no longer able to be conducted in-person. For this report, broadband access refers to the percentage of individuals living in housing units that have access to broadband internet service, including wired and wireless technologies.

90 percent of all households in San Bernardino County had access to broadband service in 2020, similar to the SCAG regional average. Black households (88 percent), Hispanic (Latino) households (89 percent), Mixed/ Other households (89 percent), and Native American households (89 percent) were at or below the county average. Asian/Pacific Islander (95 percent) and White households (91 percent) were above the county average.

Housing Cost Burden: Households considered excessively burdened by housing costs are those that spend 30 percent or more of total household income on housing and/or rent-related expenses. Allocating an excessive amount of income on housing costs leaves less money available for essential food, healthcare, education, and daycare expenditures. Households burdened by housing costs are often forced to choose lower cost housing in more distant areas that require longer commute times to jobs and other opportunities located in urban centers.

40.1 percent of San Bernardino County renters experienced an excessive housing cost burden in 2020, compared to 14.2 percent of homeowners. For the SCAG region overall, these figures were 34.1 percent and 12.0 percent, respectively. Among San Bernardino County communities of color, 43.1 percent of Hispanic (Latino) renters experienced excessive housing burden, compared to 16.8 percent of Hispanic (Latino) homeowners. Among Black renters, the housing burden was 48.5 percent, and 13.9 percent for Black homeowners. These values indicate a substantial disparity in comparison with White households, where the rate of housing burden among White renters is 32.2 percent and 11.6 percent for White homeowners. For Asian/Pacific Islander households in San Bernardino County, the renter housing burden share was 33.8 percent, and 15.2 percent for homeowners.

Housing Quality: The provision of basic amenities in a housing unit is of significant relevance to the discussion of equity and the assessment of disparities experienced among communities of color. The availability of adequate plumbing facilities is necessary for the maintenance of sanitation and clean water for a housing unit and is essential to the safety and health of residents. In addition,



families living without proper kitchen facilities, which include a sink with running water, a stove or range, and a refrigerator, are less likely to prepare nutritious food and maintain adequate sanitation, which may lead to increased food insecurity and poorer health outcomes. For this indicator, housing quality refers to the percentage of households without complete plumbing and kitchen facilities.

In San Bernardino County, 0.16 percent of housing units were of inadequate quality in accordance with this metric. For the SCAG region overall, the share of low-quality housing was slightly higher at 0.19 percent. By the various ethnic groups in San Bernardino County, Black households experienced the highest share of inadequate housing at 0.21 percent, followed by White households at 0.20 percent, and Latino households at 0.16 percent. The lowest shares of inadequate housing quality in the county were reported for Native Americans at zero percent, and for Asian/Pacific Islanders at 0.01 percent.

MOBILITY

Mobility indicators seek to assess accessibility to employment opportunities, transportation, parks, and other essential services. This section of the report evaluated access to employment and commute time to measure accessibility to essential services, and bike and pedestrian collisions to measure safety in San Bernardino County.

Access to Employment: Access to employment opportunities is foundational for social and economic interactions to meet basic needs. Overall, in the SCAG region, residents could access an average of 12 percent of employment opportunities within a 30-minute car ride and an average of 2.7 percent within a 45-minute transit or local bus ride. In San Bernardino County, these values were significantly lower at 6.6 percent within a 30-minute car ride and 0.4 percent within a 45-minute transit or local bus ride.

Job accessibility by automobile for all racial and ethnic groups were very similar, ranging from three percent for Hispanic (Latino) residents to 3.6 percent for Asian/Pacific Islander residents. Job accessibility by transit or local bus for all racial and ethnic groups were also very similar, ranging from 0.3 percent for White and Native American residents to 0.5 percent for Hispanic (Latino) and Asian/Pacific Islander residents.

Bike and Pedestrian Collisions: Making walking and bicycling safer and providing more convenient transportation options is key to encouraging more people to choose healthy and more sustainable travel alternatives. Bicycling or walking along roadways near motor vehicles is often perceived as dangerous and reducing hazards in the pedestrian and cycling environment is a primary strategy toward achieving the region's goal of promoting healthier, more active communities. This indicator is used to identify patterns of active transportation hazards and potential risk disparities among various communities.

Within San Bernardino County, Hispanic (Latino) residents were at higher risk for pedestrian- (62.7 percent) and bicyclist-involved (56.5 percent) collisions compared to all other racial and ethnic groups while only representing 54 percent of the county population. All other racial and ethnic groups had a proportionate share of risk for pedestrian- and bicyclist-involved collisions.

Commute Time: The time required for a person to travel from home to the workplace impacts a wide range of lifestyle and opportunity costs. Time spent travelling to work and back means less time available to spend with family or engaging in other activities that are important to a maintaining a healthy lifestyle including physical

MOBILITY

HISPANIC (LATINO) residents had the lowest job accessibility by automobile and **NATIVE AMERICAN** residents had the lowest job accessibility by transit compared to other racial and ethnic groups.

Within San Bernardino County, **HISPANIC (LATINO)** residents were most likely to live in high-risk areas for pedestrian- or bicyclist-involved collisions.

NATIVE AMERICAN residents had the longest commute by public transit and **WHITE** residents had the longest commute by car or motorcycle.

exercise and community interaction. Southern California has earned a reputation for its traffic congestion, urban sprawl, and the resultant extended commute times. For the SCAG region overall the average travel time to work, including all travel modes, was 29.1 minutes in 2020. For public transit, the average commute time increased to 51.2 minutes.

As an inland, largely suburban county, San Bernardino County experienced a longer average commute time relative to the region, at 32 minutes, and an average public transit time of 68.1 minutes, which is the longest among the six counties of the SCAG region. Average commute times in the county by all travel modes did not reveal significant disparities among the various ethnic groups, with Black and White commuters having nearly identical average travel times of 34.1 minutes and 34.3 minutes, respectively. Native American commuters had the shortest travel time (25.4 minutes) while White commuters had the longest (34.3 minutes). However, for public transit, the variations become more considerable, with Native Americans (90 minutes), Mixed/Other (87 minutes), and Asian/Pacific Islanders reporting significantly longer commute times than their White (64 minutes), Black (65 minutes), and Latino (69 minutes) counterparts.

ENVIRONMENT

Environment indicators evaluate climate vulnerability and pollution exposure, representing a subset of issues that negatively impact communities of color. This section of the report explored CalEnviroScreen (CES) scores to measure environmental health, and extreme heat and wildfire risk factors to measure climate vulnerability.

CES 4.0 Score: The California Environmental Protection Agency (Cal EPA) developed CES a tool that analyzes a combination of several pollution burden indicators and population characteristics to calculate a score to assess environmental risk for disadvantaged communities within a particular area. Higher CES scores represent higher pollution burden and a higher vulnerability to pollution burden due to sensitive populations and socioeconomic factors. In the SCAG region, Hispanic (Latino) residents made up the largest percentage of residents in census tracts with the highest CES scores while White residents disproportionately lived in census tracts with the lowest CES scores. The average CES score for San Bernardino County census tracts was 33.7, which was slightly higher than the regional average score of 33.4

ENVIRONMENT

The average CES score for San Bernardino County census tracts was **33.7**, slightly higher than the regional average.

The county is projected to have **41** extreme heat days per year from 2040-2060; higher than the projection for the region.

HISPANIC (LATINO) households were more likely to live in high-risk wildfire areas within the county.

Extreme Heat and Tree Canopy: Extreme heat is increasingly becoming a public health issue that causes and exacerbates many serious illnesses and disproportionately impacts the most vulnerable populations like young children, old adults, low-income communities, and people of color. The SCAG region is projected to have an average increase of 35 extreme heat days from 2040 to 2060 and extreme heat days are expected to more than double by 2085 across the entire region. As a result, many serious illnesses caused by extreme heat exposure, such as heat exhaustion, heat stroke, respiratory illnesses, and even death, are impacting the most vulnerable populations like young children, older adults, low-income communities, and people of color. One way to mitigate extreme heat conditions is to increase tree canopy and vegetation coverage but communities of color tend to not have adequate tree canopy coverage. This indicator examines

the number of projected extreme heat days per county and percentage of tree canopy coverage by census tract.

San Bernardino County is projected to have 41 extreme heat days per year from 2040-2060. The county is also projected to experience 131.1 days above 90-degrees Fahrenheit from 2035-2064 which is higher than the California average projected annual days above 90-degrees of 78.8. When considering tree canopy coverage, census tracts with majority people of color (2.4 percent) were almost 2.5 times less likely to have tree canopy coverage compared to census tracts with majority White residents (6.9 percent).

Wildfire Risk: As Southern California continues to become drier and warmer, the region becomes increasingly vulnerable to wildfire risk. In addition to the immediate risk to life and property generated by the fire itself, wildfire smoke contains large volumes of unhealthful particulate matter (PM) and other harmful air pollutants that expose the population to unhealthy air quality and dangerous levels of PM over significant periods of time. In the SCAG region, 1 in 4 residents live in a wildfire hazard area while nearly 3 in 4 residents of color reside in wildfire hazard areas.

In San Bernardino County, 20 percent of residents lived in a wildfire hazard area which is slightly lower than the regional average of 25 percent. Hispanic (Latino) residents (51 percent) and White residents (31 percent) were more likely to be living in wildfire hazard areas compared to all other racial and ethnic groups in the county. Native American residents were the least likely to be living in wildfire hazard areas at 0.3 percent.

VENTURA COUNTY

Ventura County is located on California's central coast, with Santa Barbara County to the north and Los Angeles County to the east and south. Ventura County covers over 1,875 square miles and is home to 10 cities and over 845 thousand people.

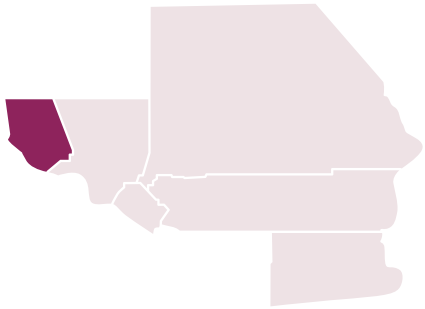
DEMOGRAPHICS

Total Population & Racial/Ethnic Distribution: Ventura County was home to 845,306 residents, making up about four percent of SCAG's total population. People of color made up more than half the county's population (55 percent) which was significantly less compared to the regional SCAG average of 70 percent. The table below provides the racial/ethnic breakdown for the country compared to the region.

Limited English Proficiency: Ventura County had similar rates of limited English proficiency as the rest of the region, 8.9 percent to 10.5 percent, respectively. Both Asian/Pacific Islanders and Hispanic (Latino) residents experienced English language barriers. Nearly 19 percent of Hispanic (Latin) residents had limited English proficiency and 8.7 percent of Asian/Pacific Islander residents had limited English proficiency compared to 0.6 percent of White residents.

Female-Headed Households: The county had similar rates of female-headed households at 27 percent compared to the region's 30 percent. Most notably, Black residents and Mixed/Other residents had slightly higher rates at 35 percent and 33 percent, respectively.

Persons with Disabilities: Both Ventura County and the SCAG region had similar rates of disabled population, with each reporting 11 percent of its population living with one or more disabilities. Native American communities had the highest rate of



845,306 residents lived in Ventura County, or **4%** of SCAG's total population.

DEMOGRAPHICS (2020)

People of color made up almost **55%** of the County's population.

Almost **1 IN 10** residents in the county had limited English Proficiency.

Within Ventura County, **1 IN 3** households were female-headed households.

11% of people in the County had **ONE OR MORE DISABILITIES.**

Total Population & Racial/Ethnic Distribution

RACE/ETHNICITY	ASIAN/ PACIFIC ISLANDER	BLACK	HISPANIC (LATINO)	MIXED/ OTHER	NATIVE AMERICAN	WHITE	PEOPLE OF COLOR
Ventura County	7.30%	1.70%	42.70%	3.00%	0.30%	45.00%	55.00%
SCAG region	13.5%	6.2%	46.7%	3.1%	0.2%	30.3%	69.7%

Source: U.S. Census Bureau; American Community Survey (ACS), Five-Year Public Use Microdata (PUMS), 2016-2020

disability at 26 percent, more than twice the county and regional average.

ECONOMY

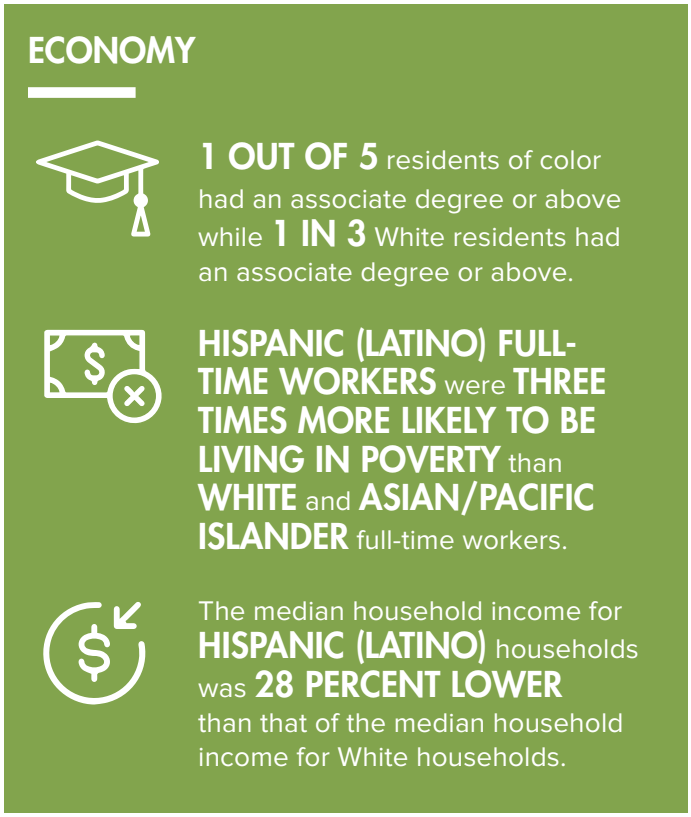
Economic indicators seek to evaluate whether all people have access to high-quality jobs, economic security, higher incomes, and entrepreneurship opportunities. This section examined educational attainment, the percentage of full-time workers experiencing poverty, and median household income in Ventura County.

Educational Attainment: Educational attainment is a primary factor in determining lifetime economic opportunities, including access to high-paying employment which may lead to homeownership and wealth accumulation. Educational attainment is defined as the highest level of education completed for individuals 25 years of age and older.

In 2020, 86 percent of Ventura County residents had a high school diploma or higher, similarly to the regionally reported 81 percent. One in four people of color in the county did not have a high school diplomas; 33 percent of Hispanic (Latino) residents as well as 14 percent of Native American residents did not have a high school diploma. This is comparatively higher than their White counterparts for which only three percent of White residents did not have a high school diploma. These lower rates of educational attainment were congruent with the rest of the SCAG region in which 35 percent of Hispanic (Latino) residents and 15 percent of Native American residents did not have a high school diploma. 43 percent of Ventura County residents had a bachelor's degree or higher, comparatively higher than the 32 percent for the region overall.

Working Poor: Holding a full-time job does not ensure that workers do not live in poverty if it does not pay sufficiently to support a family. Low-wage workers also face the challenge of obtaining affordable, high-quality childcare and experience other income related obstacles to accessing opportunities and daily life necessities. In the SCAG region, about 20 percent of full-time workers experience poverty, with Hispanic communities experiencing the highest working poor rate among all reported ethnic groups at nearly 29 percent, compared to only 10 percent for White workers.

In Ventura County, 15 percent of full-time workers fell under the working poor category, a lower percentage compared to the regional average of 19.4 percent.



Hispanic (Latino) workers were three times more likely to be living in poverty while working full time compared to their White and Asian/Pacific Islander counterparts (eight percent). Mixed/Other workers made up the second largest group of working poor at 12 percent. At two percent, Native American workers were the least likely to be among the working poor in Ventura County.

Median Household Income: Household income in the SCAG region is significantly impacted by high housing costs, which divert income from other obligations and necessities, including healthcare quality food, and education. In Ventura County, the median household income in 2020 was $88,305, compared to the SCAG regional median household income of $74,147. Within the county, Asian/Pacific Islander residents had the highest median household income of $113,931 while Hispanic (Latino) residents had the lowest median household income of $70,645. Most notably, the median household income for Hispanic (Latino) households ($74,147) was 28 percent lower than that of the median household income for White households ($98,555).

COMMUNITIES

The 'Communities' indicators provided in this report are used to assess existing public health and housing conditions and how they vary between different communities. This section specifically evaluated broadband (high speed internet) availability as a measure of access to essential services, and housing cost burden and housing quality as measures of housing affordability and housing adequacy in Ventura County.

Broadband Access: Broadband access is now considered just as essential to a household as electricity for the conduct daily activities, including work, education, shopping, and healthcare among many other activities. Broadband access became even more critical during the pandemic when many essential daily activities were no longer able to be conducted in-person. For this report, broadband access refers to the percentage of individuals living in housing units that lack access to broadband internet service, including wired and wireless technologies.

In Ventura County, 91 percent of all households had access to broadband service in 2020, slightly higher than the regional average. Native American households (77 percent), Hispanic (Latino) households (87 percent) were much lower than the county and regional average. Asian/Pacific Islander households had the highest percentage of access (97 percent) compared to all racial and ethnic groups for all counties.

Housing Cost Burden: Households considered excessively burdened by housing costs are those that spend 30 percent or more of total household income on housing and/or rent-related expenses. Allocating an excessive amount of income on housing costs leaves less money available for essential food, healthcare, education, and daycare expenditures. Households burdened by housing costs are often forced to choose lower cost housing in more distant areas that require longer commute times to jobs and other opportunities located in urban centers.

Nine percent of Ventura County homeowners and 20 percent of renters experienced an excessive housing cost burden in 2020, compared to 12 percent regionally for homeowners and 34 percent regionally for renters. Nearly a third of all Black renters in Ventura County were overburdened with housing costs at 30 percent. Hispanic (Latino) renters had the highest housing burden in the county at 39 percent. Black and Asian/Pacific Islander homeowners had the least housing cost burden in the county at three percent and seven percent, respectively.

Housing Quality: The provision of basic amenities in a housing unit is of significant relevance to the discussion of equity and the assessment of disparities experienced among communities of color. The availability of adequate plumbing facilities is necessary for the maintenance of sanitation and clean water for a housing unit and is essential to the safety and health of residents. In addition, families living without proper kitchen facilities, which include a sink with running water, a stove or range, and a refrigerator, are less likely to prepare nutritious food and maintain adequate sanitation, which may lead to increased food insecurity and poorer health outcomes. For this indicator, housing quality refers to the percentage of households without complete plumbing and kitchen facilities.

In Ventura County, 0.27 percent of households were living

COMMUNITIES

NATIVE AMERICAN households were least likely to have broadband access compared to other racial and ethnic groups.

HISPANIC (LATINO) renters in Ventura County were the most likely to be overburdened by housing costs compared to other racial and ethnic groups.

MIXED/OTHER households were more likely to live in housing units without complete plumbing or kitchen facilities.

in housing units without complete plumbing and kitchen facilities, a slightly higher than the regional average of 0.23 percent. However, Mixed/Other residents nearly had twice the regional average at 0.41 percent, followed by White residents with 0.31 percent. All Black and Native American Ventura County residents reportedly had the basic amenities of plumbing and kitchens.

MOBILITY

Mobility indicators seek to assess accessibility to employment opportunities, transportation, parks, and other essential services. This section of the report evaluated access to employment and commute time to measure accessibility to essential services, and bike and pedestrian collisions to measure safety in Ventura County.

Access to Employment: Access to employment opportunities is foundational for social and economic interactions to meet basic needs. Overall, in the SCAG region, residents could access an average of 12 percent of employment opportunities within a 30-minute car ride and an average of 2.7 percent within a 45-minute transit or local bus ride. In Imperial County, these values were much lower at 3.3 percent within a 30-minute car ride and 0.3 percent within a 45-minute transit or local bus ride.

Job accessibility by automobile for all racial and ethnic groups were very similar, ranging from three percent for Hispanic (Latino) residents to 3.6 percent for Asian/Pacific Islander residents. Job accessibility by transit or local bus for all racial and ethnic groups were the same at 0.3 percent.

Bike and Pedestrian Collisions: Making walking and bicycling safer and providing more convenient transportation options is key to encouraging more people to choose healthy and more sustainable travel alternatives. Bicycling or walking along roadways near motor vehicles is often perceived as dangerous and reducing hazards in the pedestrian and cycling environment is a primary strategy toward achieving the region's goal of promoting healthier, more active communities. This indicator is used to identify patterns of active transportation hazards and potential risk disparities among various communities.

Within Ventura County, Hispanic (Latino) residents were at higher risk for pedestrian- (53.7 percent) and bicyclist-involved (48.4 percent) collisions compared to all other racial and ethnic groups despite having a county population share of 44.1. All other racial and ethnic groups had a proportionate share of risk for pedestrian- and bicyclist-involved collisions.

MOBILITY

HISPANIC (LATINO) residents had the lowest job accessibility by automobile compared to other racial and ethnic groups.

Within Ventura County, **HISPANIC (LATINO)** residents were most likely to live in high-risk areas for pedestrian- or bicyclist-involved collisions.

WHITE residents had the longest commute by public transit at over an hour and **BLACK** residents had the longest commute by car or motorcycle at 28 minutes.

Commute Time: The time required for a person to travel from home to the workplace impacts a wide range of lifestyle and opportunity costs. Time spent travelling to work and back means less time available to spend with family or engaging in other activities that are important to a maintaining a healthy lifestyle including physical exercise and community interaction. Southern California has earned a reputation for its traffic congestion, urban sprawl, and the resultant extended commute times. For the SCAG region overall the average travel time to work, including all travel modes, was 29.1 minutes in 2020. For public transit, the average commute time increased to 51.2 minutes.

For Ventura County, the average commute times in 2020 were 26 minutes for all travel modes, 26 minutes for car or motorcycle, and 53 minutes for public transit. Within the County, White residents had the longest commute by public transit at 65 minutes, twice that of the county average. Asian/Pacific Islander and Black residents had the longest commute by car or motorcycle at 28 minutes. In contrast, Mixed/Other, Hispanic (Latino), and Native American residents had the shortest commute of 25 minutes for all travel modes.

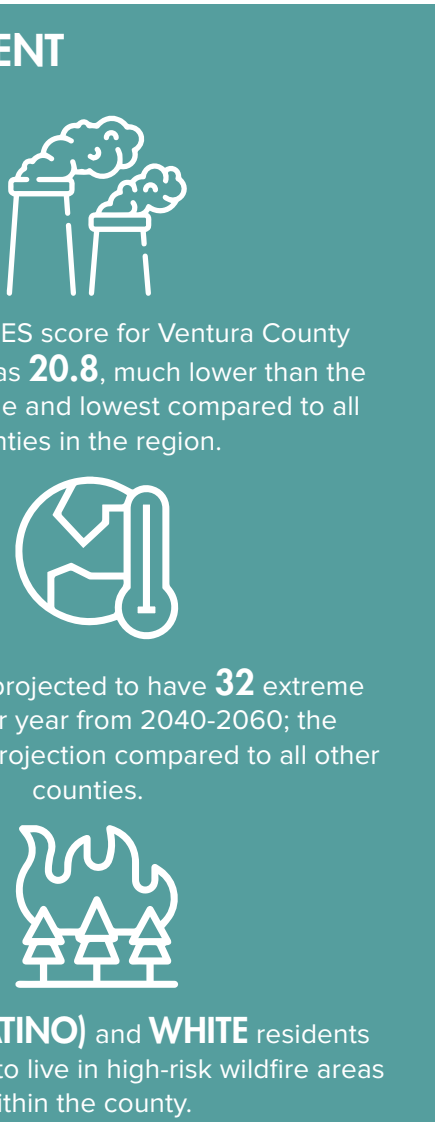
ENVIRONMENT

Environment indicators evaluate climate vulnerability and pollution exposure, representing a subset of issues negatively impacting communities of color. This section of the county narrative explored CalEnviroScreen (CES) scores to measure environmental health and extreme heat and wildfire risk to measure climate vulnerability.

CES 4.0 Score: The California Environmental Protection Agency (Cal EPA) developed CES, a tool that considers a combination of several pollution burden indicators and population characteristics to calculate a score to assess environmental risk for disadvantaged communities within a particular area. Higher CES scores represent higher pollution burden and a higher vulnerability to pollution burden due to sensitive populations and socioeconomic factors. In the SCAG region, Hispanic (Latino) residents made up the largest percentage of residents in census tracts with the highest CES scores while White residents disproportionately lived in census tracts with the lowest CES scores. The average CES score for Ventura County census tracts was 20.8, which was lower than the regional average score of 33.4 and the lowest compared to all counties in the region.

Extreme Heat and Tree Canopy: Extreme heat is increasingly becoming a public health issue that causes or exacerbates many serious illnesses and disproportionately impacts the most vulnerable populations like young children, old adults, low-income communities, and people of color. The SCAG region is projected to have an average increase of 35 extreme heat days from 2040 to 2060 and extreme heat days are expected to more than double by 2085 across the entire region. As a result, many serious illnesses caused by extreme heat exposure, such as heat exhaustion, heat stroke, respiratory illnesses, and even death, are impacting the most vulnerable populations like young children, older adults, low-income communities, and people of color. One way to mitigate extreme heat conditions is to increase tree canopy and vegetation coverage but communities of color tend to not have adequate tree canopy coverage. This indicator examines the number of projected extreme heat days per county and percentage of tree canopy coverage by census tract.

Ventura County is projected to have 32 extreme heat days per year from 2040-2060. The county is also projected to experience 45.6 days above 90degrees Fahrenheit each year from 2035-2064 which is much lower than the California average projected annual days above



90-degrees of 78.8 and the lowest compared to all SCAG region counties. When considering tree canopy coverage, census tracts with majority people of color (2.4 percent) were almost 2.5 times less likely to have tree canopy coverage compared to census tracts with majority White residents (6.9 percent).

Wildfire Risk: As Southern California continues to become drier and warmer, the region becomes increasingly vulnerable to wildfire risk. In addition to the immediate risk to life and property generated by the fire itself, wildfire smoke contains large volumes of unhealthful particulate matter (PM) and other harmful air pollutants that expose the population to unhealthy air quality and dangerous levels of PM over significant periods of time. In the SCAG region, one in four residents live in a wildfire hazard area.

In Ventura County, 17 percent of its residents live in a

wildfire hazard area which was less than the regional average of 25 percent. Hispanic (Latino) and White residents had the highest exposure to wildfire risk at 44 percent and 47 percent, respectively. Native American and Black residents were the least exposed to wildfire risk at 0.2 and one percent, respectively.

EQUITY KEY TERMS & CONCEPTS

By defining key terms and concepts, the quality of dialogue and discourse on equity can be enhanced. Many of these key terms and concepts have evolved over time. The key terms and concepts listed below are intended to reflect current usage. Preferred language is always evolving and each person's identities, life experiences, and understandings will influence the preference for a given term.

DISCRIMINATION

The unequal treatment of members of various groups based on race, gender, social class, sexual orientation, physical ability, religion, and other categories. In the United States the law makes it illegal to discriminate against someone based on race, color, religion, national origin, or sex. The law also makes it illegal to retaliate against a person because the person complained about discrimination, filed a charge of discrimination, or participated in an employment discrimination investigation or lawsuit. (Institute for Democratic Renewal and Project Change Anti-Racism Initiative. A Community Builder's Tool Kit; U.S. Equal Employment Opportunity Commission, "Laws Enforced by EEOC")

DIVERSITY

A multiplicity of races, genders, sexual orientations, classes, ages, countries of origin, educational status, religions, physical, or cognitive abilities, documentation status, etc. within a community, organization or grouping of some kind. Pop wisdom: Achieving diversity is not the same thing as achieving inclusion or equity. (University of Washington Diversity and Social Justice Glossary)

EQUITY

Fairness and justice in policy, practice, and opportunity consciously designed to address the distinct challenges of non-dominant social groups, with an eye to equitable outcomes. See also: Racial equity. (University of Washington Diversity and Social Justice Glossary)

ETHNICITY

A social construct that divides people into smaller social groups based on characteristics such as shared sense of group membership, values, behavioral patterns, language, political and economic interests, history, and ancestral geographical base. (Teaching for Diversity and Social Justice: A Sourcebook. Marianne Adams, Lee Anne Bell, and Pat Griffin, editors. Routledge, 1997)

EXPLICIT BIAS

Explicit biases are negative associations that people knowingly hold. They are expressed with conscious awareness. Example: sign in the window of an apartment building reads: "Whites only." (Government Alliance for Race and Equity)

IMPLICIT BIAS

Also known as unconscious or hidden bias, implicit biases are negative associations that people unknowingly hold. They are expressed automatically, without conscious awareness. Implicit biases have been shown to trump individuals' stated commitments to equality and fairness, thereby producing behavior that diverges from the explicit attitudes that many people profess. (State of the Science Implicit Bias Review 2013, Cheryl Staats, Kirwan Institute, The Ohio State University)

INCLUSION

Authentically bringing traditionally excluded individuals and/or groups into processes, activities, and decision/policy making in a way that shares power. (University of Washington Diversity and Social Justice Glossary)

INSTITUTIONAL RACISM

Institutional racism refers specifically to the ways in which institutional policies and practices create different outcomes for different racial groups. The institutional policies may never mention any racial group, but their effect is to create advantages for Whites and oppression and disadvantage for people of color. (Racial Equity Tools Glossary, 2019)

Examples: Government policies, known as red-lining, that explicitly restricted the ability of people to get loans to buy or improve their homes in neighborhoods with high concentrations of Black people. City sanitation department policies that concentrate trash transfer stations and other environmental hazards disproportionately in communities of color.

INTERSECTIONALITY

A term created by Black lawyer and scholar Kimberlé Williams Crenshaw to describe how race, class, gender, age, and other aspects of identity intersect and inform the experience of individuals or groups of people. For example, a Black woman in America does not experience gender inequalities in the same way as a White woman, nor racial oppression in the same way as does a Black man. Each intersection produces a distinct life experience. (Intergroup Resources, 2012, Kimberlé Williams Crenshaw)

PEOPLE OF COLOR

Often the preferred collective term for referring to non-White racial groups. Racial justice advocates have been using the term "people of color" (not to be confused with the pejorative "colored people") since the late 1970s as a unifying frame across different racial groups that are not White, to address racial inequities. While "people of color" can be a politically useful term, it is also important whenever possible to identify people through their own racial/ethnic group, as each has its own distinct experience and meaning and may be more appropriate. (Racial Equity Tools Glossary, 2019)

POWER

Power is unequally distributed globally and in U.S. society; some individuals or groups wield greater power than others, thereby allowing them greater access to and control over resources. Wealth, whiteness, citizenship, patriarchy, heterosexism, and education are a few key social mechanisms through which power operates. (University of Washington Diversity and Social Justice Glossary)

PREJUDICE

A pre-judgment or unjustifiable, and usually negative, attitude of one type of individual or groups toward another group and its members. Such negative attitudes are typically based on unsupported generalizations (or stereotypes) that deny the right of individual members of certain groups to be recognized and treated as individuals with individual characteristics. (Institute for Democratic Renewal and Project Change Anti-Racism Initiative, A Community Builder's Tool Kit)

PRIVILEGE

Advantages and benefits systemically accorded, often by default, to a person or group. Privilege is best understood intersectionality because colorism, documentation status, economic class, and education, can all accord distinct privilege within racial and ethnic groups. (Colors of Resistance Archive)

RACE

For many people, it comes as a surprise that racial categorization schemes were invented by scientists to support worldviews that viewed some groups of people as superior and some as inferior. There are three important concepts linked to this fact: Race is a made-up social construct, and not an actual biological fact. Race designations have changed over time. Some groups that are considered "white" in the United States today were considered "nonwhite" in previous eras, in census data and in mass media and popular culture (for example, Irish, Italian, and Jewish people). The way in which racial categorizations are enforced (the shape of racism) has also changed over time. For example, the racial designation of Asian American and Pacific Islander changed four times in the 19th century. That is, they were defined at times as white and at other times as not white. (Racial Equity Tools Glossary, 2019)

RACIAL EQUITY

Racial equity is the condition that would be achieved if one's racial identity no longer predicted, in a statistical sense, how one fares. Racial equity describes the actions, policies, and practices that eliminate bias and barriers that have historically and systemically marginalized communities of color, to ensure all people can be healthy, prosperous, and participate fully in civic life. (Source: Center for Assessment and Policy Development)

RACISM

Racism is different from racial prejudice, hatred, or discrimination. Racism involves one group having the power to carry out systematic discrimination through the institutional policies and practices of the society and by shaping the cultural beliefs and values that support those racist policies and practices. Other ways to consider racism include: Racism = race prejudice + social and institutional power; Racism = a system of advantage based on race; Racism = a system of oppression based on race; Racism = a White supremacy system. (Racial Equity Tools Glossary, 2019)

RACIAL JUSTICE

The systematic and proactive fair treatment of people of all races, resulting in equitable opportunities and outcomes for all. Racial justice—or racial equity—goes beyond anti-racism. It is not just the absence of discrimination and inequities, but also the presence of deliberate systems and supports to achieve and sustain racial equity. (Racial Equity Tools Glossary, 2019)

SOCIAL JUSTICE

Justice in terms of distribution of wealth, opportunities, and privileges within a society for all social identity groups. (Racial Equity Tools Glossary, 2019)

STRUCTURAL RACISM

The normalization and legitimization of processes and dynamics that provide advantage to White people while producing cumulative and chronic adverse outcomes for people of color. Structural racism may be difficult to locate in an institution because it involves the reinforcing effects of multiple institutions and cultural norms. (Racial Equity Tools Glossary, 2019)

Examples: We can see structural racism in the many institutional, cultural, and structural factors that contribute to lower life expectancy for Black and Native American men, compared to White men. These include higher exposure to environmental toxins, dangerous jobs, and unhealthy housing stock; higher exposure to and more lethal consequences for reacting to violence, stress, and racism; lower rates of health care coverage, access, and quality of care; and systematic refusal by the nation to fix these things.

REFERENCES

Anderson, M. (2016, April 7). "Who relies on public transit in the U.S." Pew Research Center. https://www.pewresearch.org/fact-tank/2016/04/07/who-relies-on-public-transit-in-the-u-s/

Artiles, A. J. (2013). "Untangling the Racialization of Disabilities: An Intersectionality Critique Across Disability Models." Du Bois Review: Social Science Research on Race, 10 (2). https://doi.org/10.1017/S1742058X13000271

Bailey, Stephanie. Energy Equity Indicators Tracking Progress. California Energy Commission, 2018. https://www.energy.ca.gov/sites/default/files/2019-12/energy_equity_indicators_ada.pdf

HPI. (2022). "Active Commuting." The California Healthy Places Index. https://healthyplacesindex.org/policy-actions/active-commuting/

CARB. (2021) "Protecting Yourself from Wildfire Smoke." California Air Resources Board. https://ww2.arb.ca.gov/protecting-yourself-wildfire-smoke

CARB. (2022). "Asthma and Air Pollution." California Air Resources Board. https://ww2.arb.ca.gov/resources/asthma-and-air-pollution

CDC. (2021). "Disability Barriers to Inclusion." Center for Disease Control and Prevention: Disability and Health Promotion. https://www.cdc.gov/ncbddd/disabilityandhealth/disability-barriers.html

CDPH. (2019, August 2). "Office of Health Equity - Healthy Communities Data and Indicators: Percent of household overcrowding." California Department of Public Health. https://data.chhs.ca.gov/dataset/housing-crowding/resource/9cf0037a-62cd-48fc-8646-18086a1b5e53

Center for Social Solutions. (2020). "Case Study: Floods and Socioeconomic Inequality." University of Michigan. https://lsa.umich.edu/social-solutions/news-events/news/insights-and-solutions/case-studies/case-study--floods-and-socioeconomic-inequality.html.

Civil Law Self-Help Center. (2022). "Habitability and Essential Services." Civil Law Self-Help Center. https://www.civillawselfhelpcenter.org/self-help/evictions-housing/196-habitability-and-essential-services

Covered California Medi-Cal. (2022). "Program Eligibility by Federal Poverty Line for 2022." Covered California, Medi-Cal. https://www.coveredca.com/pdfs/FPL-chart.pdf

DIR. (2021). "Minimum Wage." State of California Department of Industrial Relations. https://www.dir.ca.gov/dlse/faq_minimumwage.htm

FEMA. (2020, July 8). "Flood Zones." Federal Emergency Management Agency. https://www.fema.gov/glossary/flood-zones

Gies, E. (2006). "The Health Benefits of Parks: How Parks Help Keep Americans and Their Communities Fit and Healthy." San Francisco: The Trust for Public Land. http://cloud.tpl.org/pubs/benefits_HealthBenefitsReport.pdf

Greenlining Institute. (2022). "Equitable Housing and Homeownership." Greenlining Institute. https://greenlining.org/our-work/economic-equity/homeownership/

Grinspan, D., Pool, J., Trivedi, A., Anderson J., Bouye, M. (2020, September 29) "Green Space: An Underestimated Tool to Create More Equal Cities, " World Resources Institute. https://www.wri.org/blog/2020/09/green-space-social-equity-cities

Gross, T. (2017, May 3). "A 'Forgotten History' Of How the U.S. Government Segregated America." NPR. https://www.npr.org/2017/05/03/526655831/a-forgotten-history-of-how-the-u-s-government-segregated-america#:~:text=He%20notes%20that%20the%20Federal,were%20mass%2Dproducing%20entire%20subdivisions

Hajat, A., Hsia, C., O'Neill, M. (2015). "Socioeconomic Disparities and Air Pollution Exposure: A Global Review." Current Environmental Health Reports 2 (pp. 440-450). doi: https://doi.org/10.1007/s40572-015-0069-5.

Hayes J., Gao N., Starr D. (2021) "California's Digital Divide." Public Policy Institute of California. https://www.ppic.org/publication/californias-digital-divide/

Hayes-Bautista, D. E., Hsu, P. (2020). "Uninsured Working Latinos and COVID-19: Essential Businesses at Risk." UCLA Health Center for the Study of Latino Health and Culture. https://www.uclahealth.org/ceslac/workfiles/Research/Uninsured-Working-Latinos-andCOVID19-Apr-23.pdf

Johnston, F.H., Henderson, S.B., Chen Y., Randerson, J.T., Marlier, M. (2012) "Estimated global mortality attributable to smoke from landscape fires." Environmental Health Perspective 120 no. 5, 695-701. doi:10.1289/ehp.1104422.

Ramakrishnan, K., et al. (2019) "The Working Lives and Struggles of Asian Americans and Pacific Islanders in California." PRRI. https://www.prri.org/research/the-working-lives-and-struggles-of-asian-americans-and-pacific-islanders-in-california/

Kelly, S. (2012, February 12). "A Southern California Dream Deferred: Racial Covenants in Los Angeles." KCET. https://www.kcet.org/history-society/a-southern-california-dream-deferred-racial-covenants-in-los-angeles

Kneebone, E., Holmes, N. (2015) "The growing distance between people and jobs in metropolitan America". Metropolitan Policy Program (Brookings Institute). https://www.brookings.edu/wp-content/uploads/2016/07/srvy_jobsproximity.pdf

Liao, Y., Gil, J., Pereira, R.H.M., Yeh, S., Verendel, V. (2020). "Disparities in travel times between car and transit: Spatiotemporal patterns in cities." Scientific Reports 10: 4056. doi: https://doi.org/10.1038/s41598-020-61077-0.

Love, H., Thrash-Ntuk, T., Vey, J.S. (2020, August 3). "No more status quo: A community-led action plan for addressing structural inequity during COVID-19 recovery."

National Equity Atlas. (2022). "National Equity Atlas." PolicyLink, USC Equity Research Institute. www.nationalequityatlas.org

Newsom, G., "Governor's Proposed 2021-22 Budget Summary." State Budget, State of California. http://www.ebudget.ca.gov/2021-22/pdf/BudgetSummary/FullBudgetSummary.pdf

ODPHP. (2022). "Preventive Care." Healthy People 2030. https://health.gov/healthypeople/objectives-and-data/browse-objectives/preventive-care

ODPHP. (2022, February 6). "Quality of Housing." Office of Disease Prevention and Health Promotion. https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/quality-of-housing/

Pucher, J., Dijkstra, L. (2003). "Promoting Safe Walking and Cycling to Improve Public Health: Lessons From The Netherlands and Germany." American Journal of Public Health Vol. 93 No. 9:1509-1516 doi: 10.2105/ajph.93.9.1509.

PHA of Southern California. (2022). "No Kitchens: What does this indicator measure?" Public Health Alliance of Southern California. https://phasocal.org/hdi-indicator-no-kitchen/

Ramos-Yamamoto, A. (2020). "Not Enough to Eat: California Black and Latinx Children Need Policymakers to Act." California Budget & Policy Center. https://calbudgetcenter.org/resources/snap-calfresh-california-black-and-latinx-children-need-policymakers-to-act/

Rodriquez, M., Zeise, L. (2017). "CalEnviroScreen 3.0." California Environmental Protection Agency, Office of Environmental Health Hazard Assessment.
https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3report.pdf

Sacks J. (2021). Health Effects. In S.S. "Wildfire Smoke: A Guide for Public Health Officials" (pp. 4-9). California: California Air Resources Board, California Department of Public Health.
https://www.airnow.gov/publications/wildfire-smoke-guide/wildfire-smoke-a-guide-for-public-health-officials/

SCAG. (2020). "Economic Summit Regional Briefing Book: December 2020." Southern California Association of Governments.
https://scag.ca.gov/sites/main/files/file-attachments/economic-briefing-book-2020.pdf

SCAG. (2022). "Regional High Injury Network." Southern California Association of Governments.
https://scag.ca.gov/regional-high-injury-network

Sandt, L., Combs, T., Cohn, J. (2016). "Pursuing Equity in Pedestrian and Bicycle Planning. U.S." Department of Transportation Federal Highway Administration, Pedestrian and Bicycle Information Center.
https://www.pedbikeinfo.org/cms/downloads/PBIC_WhitePaper_Equity.pdf

Scope Admin. (2021, November 21). "Between the 110 and the 405: Environmental Injustice in South Los Angeles." SCOPE, last modified November 27, 2017.
https://scopela.org/between-the-110-and-the-405-environmental-injustice-in-south-los-angeles/

Shatkin, E. (2018, October 17). "The Ugly, Violent Clearing of Chavez Ravine Before It Was Home to the Dodgers." LAist.
https://laist.com/2018/10/17/dodger_stadium_chavez_ravine_battle.php

Shonkoff, S. B., Morello-Frosch, R., Pastor, M. (2011) "The climate gap: environmental health and equity implications of climate change and mitigation policies in California—a review of the literature." Climatic Change 109 (pp. 485-503). Doi: https://doi.org/10.1007/s10584-011-0310-7.

Simpson, K. (2012, February 15). "The Great Migration: Creating a Black New Identity in Los Angeles." KCET.
https://www.kcet.org/history-society/the-great-migration-creating-a-new-black-identity-in-los-angeles

The Stoop. (2020, April 10). "COVID-19 Cases in New York City, a Neighborhood-Level Analysis." The Stoop: NYU Furman Center Blog.
https://furmancenter.org/thestoop/entry/covid-19-cases-in-new-york-city-a-neighborhood-level-analysis

Trounstine, J. (2020). "The Geography of Inequality: How Land Use Regulation Produces." American Political Science Review (University of California, Merced) Vol. 114 No. 2. doi:10.1017/S0003055419000844.

Turner, A. (2018). "The Business Case for Racial Equity, A Strategy for Growth." East Battle Creek: W.K. Kellogg Foundation, Altarum Institute.

U.S. Census Bureau. (2021). "American Community Survey 2016-2020, 5-Year Estimates." United State Census Bureau The Census Bureau's American Community Survey (ACS) Public Use Microdata Sample (PUMS).

Villarreal, A. (2021, January 11). "'Everywhere you look, people are infected': Covid's toll on California Latinos." The Guardian.
https://www.theguardian.com/world/2021/jan/11/covid-california-latino-cases-inequality

WHO. (2021). "Flooding and communicable diseases fact sheet." World Health Organization.
https://www.who.int/hac/techguidance/ems/flood_cds/en/

Wilson, S., Hutson, M., Mujahid, M. (2008). "How Planning and Zoning Contribute to Inequitable Development, Neighborhood Health, and Environmental Injustice." Environmental Justice Vol. 1 No. 4. doi:10.1089/env.2008.0506.

Yong, E. (2020, December 29). “Where Year Two of the Pandemic Will Take Us.” The Atlantic. https://www.theatlantic.com/health/archive/2020/12/pandemic-year-two/617528/

SCAG™
INNOVATING FOR A BETTER TOMORROW

MAIN OFFICE
900 Wilshire Blvd., Ste. 1700,
Los Angeles, CA 90017
Tel: (213) 236-1800

REGIONAL OFFICES

IMPERIAL COUNTY
1503 North Imperial Ave., Ste. 104
El Centro, CA 92243
Tel: (213) 236-1967

ORANGE COUNTY
OCTA Building
600 South Main St., Ste. 741
Orange, CA 92868
Tel: (213) 236-1997

RIVERSIDE COUNTY
3403 10th St., Ste. 805
Riverside, CA 92501
Tel: (951) 784-1513

SAN BERNARDINO COUNTY
Santa Fe Depot
1170 West 3rd St., Ste. 140
San Bernardino, CA 92418
Tel: (213) 236-1925

VENTURA COUNTY
4001 Mission Oaks Blvd., Ste. L
Ventura, CA 93012
Tel: (213) 236-1960

LEARN MORE SCAG.CA.GOV

AGENDA ITEM 10

REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 – Regional Council Room
Los Angeles, CA 90017
November 3, 2022

To: Transportation Committee (TC)
Regional Council (RC)

From: Scott Strelecki, Program Manager II
(213) 236-1893, strelecki@scag.ca.gov

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

Subject: Trade Corridor Enhancement Program SCAG Region Project Nominations

RECOMMENDED ACTION FOR TC:
Recommend that the Regional Council: 1) approve the SCAG region project nominations seeking Trade Corridor Enhancement Program (TCEP) funding; and 2) authorize SCAG staff to proceed with a TCEP grant application in coordination with Caltrans and TravelCenters of America, upon staff determining (in collaboration with Caltrans) that risk and liability to SCAG can be appropriately mitigated should the grant be awarded.

RECOMMENDED ACTION FOR RC:
Approve 1) the SCAG region project nominations seeking Trade Corridor Enhancement Program (TCEP) funding; and 2) authorize SCAG to proceed with a TCEP grant application in coordination with Caltrans and TravelCenters of America, upon staff determining (in collaboration with Caltrans that risk and liability to SCAG can be appropriately mitigated should the grant be awarded.

STRATEGIC PLAN:
This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians.

EXECUTIVE SUMMARY:
The objective of the Trade Corridor Enhancement Program (TCEP) is to fund freight infrastructure improvements on federally designated Trade Corridors of National and Regional Significance, on California's portion of the National Highway Freight Network, as identified in the California Freight Mobility Plan, and along other corridors that have a high volume of freight movement as determined by the California Transportation Commission (CTC), including Senate Bill 671 Corridors. The TCEP supports the goals of the National Highway Freight Program, the California Freight Mobility Plan, and the guiding principles in the California Sustainable Freight Action Plan. In accordance with state law, 40 percent of the funds are made available for the state to nominate projects, and 60 percent available for the regional and other public agencies to nominate projects.

The SCAG region is eligible for TCEP as SCAG has an adopted regional transportation plan and sustainable communities strategy (2020 Connect SoCal) determined by the California State Air Resources Board (CARB) to achieve the region's greenhouse gas emissions reduction targets. SCAG, as the region's Metropolitan Planning Organization (MPO), is tasked with compiling project nominations from its respective agencies to the CTC. This includes a cover letter to be submitted by the MPO with a list of all nominations, and confirmation of consistency or the lack of consistency with an adopted Regional Transportation Plan and if applicable, Sustainable Communities Strategy and adopted regional freight plan.

As part of this process, SCAG has received 16 project nominations for the SCAG region, with a total TCEP funding request for this cycle of $675,393,370. To summarize, the cumulative budget and funding ask in the region includes:

- ***Total Projects Cost - $2,207,929,140***
- ***Future Eligible Cost - $2,086,500,827***
- ***TCEP Request - $675,393,370***

Additionally, the California Department of Transportation (Caltrans) has proposed that SCAG partner on a Caltrans led TravelCenters of America TCEP application for the state's 40 percent share. This application includes approximately $23 million in eligible project cost, including a 30% match amount of $6.9 million from TravelCenters of America, and a $16.1 million anticipated TCEP funding request. Should this application be awarded, SCAG staff will return to the Transportation Committee (TC) and Regional Council (RC) seeking authorization to accept the grant.

The TCEP nominations are due November 18, 2022, with CTC staff recommendations and program adoption expected to occur in June 2023.

Staff is seeking TC recommendation for RC approval and approval from the RC at the November 3, 2022, meetings.

BACKGROUND:

The objective of the Trade Corridor Enhancement Program (TCEP) is to fund freight infrastructure improvements on federally designated Trade Corridors of National and Regional Significance, on California's portion of the National Highway Freight Network, as identified in the California Freight Mobility Plan, and along other corridors that have a high volume of freight movement as determined by the Commission, including Senate Bill 671 Corridors. Senate Bill 671 corridors are corridors that were identified by the Senate Bill 671 workgroup as freight corridors that are priority candidates for zero-emission freight.

The Trade Corridor Enhancement Program will also support the goals of the National Highway Freight Program, the California Freight Mobility Plan, and the guiding principles in the California Sustainable Freight Action Plan. Per eligibility requirements, SCAG's adopted final 2020 Connect SoCal plan serves as the region's adopted regional transportation plan that includes a sustainable communities strategy determined by the California State Air Resources Board to achieve the region's greenhouse gas emissions reduction targets.

The following schedule lists the major milestones for the development and adoption of the TCEP:

Milestone	**Date**
Draft Guidelines presented to the Commission	June 29-30, 2022
Adoption of the Guidelines and Call for Projects	August 17-18, 2022
Project Nominations Due	November 18, 2022
Release staff recommendations	June 8, 2023
Program adoption	June 28-29, 2023

As reported to the Transportation Committee at its October 6, 2022 meeting, the 2022 TCEP will provide two years of programming in fiscal years 2023-24 and 2024-25 for an estimated total of $1.051 billion ($1,051,000,000) of TCEP funds. Similar to the last cycle, the CTC has determined that the following corridors (a.k.a. freight regions) are eligible for funding under this program:

- **Bay Area** (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties)
- **Central Valley** (El Dorado, Placer, Fresno, Kern, Kings, Madera, Merced, Sacramento, San Joaquin, Stanislaus, Sutter, Tulare, and Yolo counties)
- **Central Coast** (Monterey, San Benito, San Luis Obispo, Santa Barbara, and Santa Cruz counties)
- **Los Angeles/Inland Empire** (Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties)
- **San Diego/Border** (Imperial and San Diego counties)
- **Other** (Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, Glenn, Humboldt, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tahoe Basin Counties, Tehama, Trinity, Tuolumne, and Yuba counties)

Pursuant to Streets and Hiqhways Code, Section 2192, 40 percent of identified program funding shall be available for projects nominated by the California Department of Transportation (Caltrans), in consultation with regional transportation agencies, and 60 percent of identified program funding shall be available for projects nominated by regional transportation agencies and other public agencies, including counties, cities, and port authorities, in consultation with the department.

The CTC has developed targets for distribution of the 60 percent of regional funds to the general freight regions identified below. The regional corridor targets are based on key freight indicators. In considering geographic balance for the overall program, the CTC may program below the targets in a region or regions to account for projects programmed from the statewide target.

As stated by the CTC:

"The targets are neither minimums, maximums, nor guarantees. They do not constrain what any agency may propose or what the Commission may approve for programming and allocation within any particular corridor."

Programming Targets *(This table will be completed once the fund estimate is finalized.)*		
Statewide Target (40 percent of total funds)		
Caltrans		**$420,400,000**
Regional Corridor Targets (60 percent of total funds)		**$630,600,000**
	Percentage	Target
Bay Area/Central Valley	29 percent	**$182,874,000**
Central Coast	2.5 percent	**$15,765,000**
Los Angeles/Inland Empire	56 percent	**$353,136,000**
San Diego/Border	10 percent	**$63,060,000**
Other	2.5 percent	**$15,765,000**

Source: CTC, 2022 TCEP Guidelines

SCAG has continued to play a central role in the TCEP process by working directly with key member and partner agencies, and their project teams including county transportation commissions, cities, the ports (Los Angeles, Long Beach, and Hueneme), and private companies. This has included convening and representing the region through the development of program guidelines, as well as direct program processes throughout application steps. As part of the application process and through all program cycles, SCAG regularly provides collaboration, coordination, and support for the TCEP, including reviewing documents, eligibility, coordination, and final compilation. SCAG tracks the nominated projects for FTIP purposes to ensure the eligibility and consistency of information for a successful application. SCAG also supports member and partner agency project nominations by coordinating with the CTC on multiple items to ensure transparency across the region, with recent efforts for the 2022 third cycle including substantial coordination with the Senate Bill 671 development process. To align with the key deadlines from the CTC's TCEP schedule, SCAG has developed the following process and schedule:

- September 30, 2022: Project applicants submitted TCEP Project Summary to SCAG

- October 12, 2022: SCAG created project-specific cloud-based folders and shared links with project sponsors
- November 3, 2022: SCAG staff provides project nomination recommendations for the Transportation Committee and Regional Council approval
- November 4, 2022: Project applicants will upload near-final application to project-specific cloud-based folders
- November 18, 2022: Project applicants submit project applications directly to the CTC while SCAG submits a letter to the CTC including the list of project nominations with consistency verification.

SCAG as the region's Metropolitan Planning Organization (MPO) is tasked with compiling project nominations from its respective agencies to the CTC. This includes a cover letter to be submitted by the MPO with a list of all nominations, and confirmation of consistency or the lack of consistency with an adopted Regional Transportation Plan and if applicable, Sustainable Communities Strategy and adopted regional freight plan.

Through this process, multiple agencies across the SCAG region have nominated 16 projects for TCEP consideration. Additionally, Caltrans has proposed that SCAG partner on a Caltrans led TravelCenters of America TCEP application. The TravelCenters of America project is seeking to deploy microgrid-enabled, electric charging equipment for heavy-duty trucks at existing TravelCenters of America and Petro travel centers in the SCAG region.

The regional project nominations are listed in Attachment 1 and are all consistent with the currently adopted final 2020 Connect SoCal. They are all crucial in contributing to the needs of the region's robust multimodal freight system supporting essential local jobs and serving domestic consumption for Southern California. These projects also serve to balance passenger and freight travel throughout the region, while facilitating goods to critical export markets across the world and are a vital component to sustain the region's economic competitiveness.

The total TCEP funding request for this cycle is $675,393,370. To summarize the cumulative budget and funding ask in the region:

- Total Projects Cost - $2,207,929,140
- Future Eligible Cost - $2,086,500,827
- TCEP Request - $675,393,370

The Caltrans led TravelCenters of America TCEP application includes $23 million eligible project cost, including a 30% match amount of $6.9 million, and $16.1 million anticipated TCEP funding request. The project will support the transition to zero emission vehicles by deploying electric charging equipment for heavy-duty trucks at existing TravelCenters and Petro locations. Staff

recommends SCAG's participation in making this application, which is being led by Caltrans, and as part of the application process, staff will review risk and liability issues that may result from participating in the grant project and work with Caltrans to ensure that they can be appropriately mitigated should the grant be awarded. Should this grant application be awarded, SCAG staff will return to the Transportation Committee and Regional Council seeking authorization to accept the grant.

FISCAL IMPACT:
Work associated with this item is included in the FY 2022-23 Overall Work Program (OWP) budget under project number 130.0162.02, Regional Partner Agency Collaboration.

ATTACHMENT(S):
1. Attachment 1_TCEP SCAG Region Project Nomination List
2. PowerPoint Presentation_TCEP SCAG Project Nominations

Trade Corridor Enhancement Program SCAG Region and Travelcenters of America Project Nomination Lists

Table 1: Trade Corridor Enhancement Program SCAG Region Project Nomination List

County	Lead Agency	Project Title	Joint Nomination	Included in RTP/FTIP
Los Angeles	Port of Long Beach	America's Green Port Gateway Phase 1: Pier B Early Rail Enhancements	Caltrans	LA0C8094
Los Angeles	LA Metro	I-710 Integrated Corridor Management (ICM) Project	Caltrans	LA9918941
Los Angeles	LA Metro	I-605 at Valley Blvd. Interchange Project	San Gabriel Valley Council of Governments Caltrans (pending)	11635009/ LA0G1457
Los Angeles	Port of Los Angeles	Maritime Support Facility Access/TI Rail System Grade Separation Project	Caltrans	1163O003/ No
Los Angeles	Port of Los Angeles	SR47-Seaside Avenue/Navy Way Interchange Improvement Project	Caltrans	1M0430/ No
Orange	OCTA	State Route 91 (SR-91) Operational and Multimodal Improvements Project	Caltrans	2M0736/ ORA150110
Riverside	City of Beaumont	SR-60/Potrero Boulevard Interchange Phase II	N/A	RIV050535
Riverside	City of Coachella	SR-86 / Avenue 50 New Interchange, Coachella, CA	The following agencies support this project submission: 1 - RCTC 2 - Caltrans District 8 3 - Coachella Valley Association of Governments	RIV061159
Riverside	City of Lake Elsinore	I-15 / SR-74 Interchange Improvement Project	N/A	RIV060109
Riverside	City of Moreno Valley	Capital Projects Principal Engineer	Caltrans District 8	RIV080904
Riverside	City of Moreno Valley	Capital Projects Principal Engineer	Caltrans District 8	RIV080902
Riverside	City of Riverside	Third Street Grade Separation Project	N/A	RIV111121
Riverside/Orange	Metrolink	SoCal Freight & Passenger Rail Capacity Expansion	N/A	720001/ No
San Bernardino	City of Rialto	I-10 / Riverside Avenue Freight Improvement Project	N/A	200603

County	Lead Agency	Project Title	Joint Nomination	Included in RTP/FTIP
San Bernardino	SBCTA	Interstate 10 Corridor Freight and Managed Lanes Project, I-15 to Pepper Avenue	Potential partners: Caltrans. Private sector vendor.	4122005/ 20191301
San Bernardino	SBCTA	US 395 Freight Mobility and Safety Project	Potential partners: Caltrans. Private sector vendor.	200453/ SBD990211

Table 2: Trade Corridor Enhancement Program Caltrans Proposed Travelcenters of America Project Nomination

County	Lead Agency	Project Title	Joint Nomination	Included in RTP/FTIP
Riverside/ San Bernardino	Caltrans	TravelCenters of America EV Oasis South	SCAG	7160003/ No

Trade Corridor Enhancement Program SCAG Region Project Nominations

November 3, 2022

Scott Strelecki - Mobility Planning & Goods Movement

WWW.SCAG.CA.GOV

Trade Corridor Enhancement Program (TCEP)

- The objective of the TCEP is to fund freight infrastructure improvements on federally designated Trade Corridors of National and Regional Significance, on California's portion of the NHFS, as identified in the CFMP, and along other corridors that have a high volume of freight movement as determined by the CTC, including Senate Bill 671 Corridors.
- The 2022 TCEP cycle represents the third cycle since the program's inception in 2018.
- The 2022 Program will provide two years of programming in fiscal years 2023-24 and 2024-25 for an estimated total of $1.051 billion of TCEP funds.

Milestone	Dat
Draft Guidelines presented to the Commission	June 29-30, 202
Adoption of the Guidelines and Call for Projects	August 17-18, 202
Project Nominations Due	November 18, 202
Release staff recommendations	June 8, 202
Program adoption	June 28-29, 202

Programming Targets *(This table will be completed once the fund estimate is finalized.)*		
Statewide Target (40 percent of total funds)		
Caltrans		**$420,400,000**
Regional Corridor Targets (60 percent of total funds)		**$630,600,000**
	Percentage	Target
Bay Area/Central Valley	29 percent	**$182,874,000**
Central Coast	2.5 percent	**$15,765,000**
Los Angeles/Inland Empire	56 percent	**$353,136,000**
San Diego/Border	10 percent	**$63,060,000**
Other	2.5 percent	**$15,765,000**

SCAG's MPO Role with TCEP

- Compiling project nominations from SCAG region to the CTC.
- Prepare a cover letter to be submitted
  - List of all project nominations
  - Confirmation of consistency or the lack of consistency with and adopted RTP/SCS and adopted regional freight plan.
- SCAG's process and schedule key dates:
  - **September 30, 2022**: Project applicants submit TCEP Project Summary to SCAG
  - **November 3, 2022**: SCAG staff provides project nomination recommendations for the Transportation Committee and Regional Council to approve
  - **November 18, 2022**: Project applicants submit project applications directly to the Commission while SCAG submits a letter to the Commission including the list of project nominations with consistency verification

SCAG Region TCEP Project Nominations

- As part of this process, SCAG has received 16 project nominations for the SCAG region, with a total TCEP funding request for this cycle of **$675,393,370**. To summarize, the cumulative budget and funding ask in the region includes:
  - Total Project Cost - $2,207,929,140
  - Future Eligible Cost - $2,086,500,827
  - TCEP Request - $675,393,370
  - Regional Match Portion – 68%

Caltrans Proposed TravelCenters of America TCEP Project Nomination

- The California Department of Transportation has proposed that SCAG partner on a Caltrans led TravelCenters of America TCEP application.
  - Future Eligible Cost - $23 million (approximation)
  - TCEP Request – $16.1 million (approximation)
  - TravelCenters of America Contribution – $6.9 million (approximation)

THANK YOU!

For more information, please visit:

https://scag.ca.gov/

AGENDA ITEM 11

REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 – Regional Council Room
Los Angeles, CA 90017
November 3, 2022

To: Transportation Committee (TC)
Regional Council (RC)

From: Kate Kigongo, Manager of Partnerships for Innovative Deployment
(213) 236-1808, kigongo@scag.ca.gov

Subject: REAP 2021 County Transportation Commission Partnership Program - Guidelines and Call for Projects

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

RECOMMENDED ACTION FOR TC:
Recommend that the Regional Council: 1) approve and adopt the REAP 2.0 County Transportation Commission Guidelines; 2) authorize SCAG staff to open the CTC Partnership Program Call for Projects, pending HCD approval of SCAG's final REAP 2.0 application; and 3) authorize the SCAG Executive Director or his designee to revise the Guidelines as needed for compliance with the state REAP 2.0 program and/or feedback from the REAP 2.0 program team.

RECOMMENDED ACTION FOR RC:
That the Regional Council: 1) approve and adopt the REAP 2.0 County Transportation Commission Guidelines; 2) authorize SCAG staff to open the CTC Partnership Program Call for Projects, pending HCD approval of SCAG's final REAP 2.0 application; and 3) authorize the SCAG Executive Director or his designee to revise the Guidelines as needed for compliance with the state REAP 2.0 program and/or feedback from the REAP 2.0 program team.

STRATEGIC PLAN:
This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians. 4: Provide innovative information and value-added services to enhance member agencies' planning and operations and promote regional collaboration. 7: Secure funding to support agency priorities to effectively and efficiently deliver work products.

EXECUTIVE SUMMARY:
SCAG has developed guidelines for the County Transportation Commission (CTC) Partnership Program, funded by the State's Regional Early Action Planning Grants of 2021 (REAP 2.0). The Guidelines have been developed with input from the CTCs to align with the adopted REAP 2.0 Program Framework and the State's final REAP 2.0 Program Guidelines. The guidelines were open for a three-week public comment period, from September 21, 2022 to October 12, 2022. SCAG is seeking Transportation Committee and Regional Council approval on the program guidelines, and

authorization to open the call for projects in early 2023, pending HCD approval of SCAG's final REAP 2.0 application. The CTC Partnership Program will be adjusted as necessary based on feedback from the SCAG Policy Committees and Regional Council and further stakeholder engagement. After submission of the final REAP 2.0 application to the State, the program may be adjusted to reflect feedback from the State Partners. In the REAP 2.0 Guidelines, the state reserves the right, at their sole discretion, to suspend, amend, or modify the provisions of the REAP 2.0 Guidelines at any time, including, without limitation, the amount of funds available hereunder. If such an action occurs, the Department will notify all interested parties. As such, SCAG reserves the right, at its sole discretion, to suspend or amend the provisions of this Program in collaboration with the State, including but not limited to grant award amounts. The final Program will be updated to reflect any feedback received once SCAG's full REAP 2.0 funding application is approved by the State.

BACKGROUND:

The State's Regional Early Action Planning Grants of 2021 program (REAP 2.0) supports accelerating housing production, reducing greenhouse gas emissions, and aiding historically underserved communities and areas of concentrated poverty through the following program objectives:

1. Accelerating Infill Development that Facilitates Housing Supply, Choice, and Affordability;
2. Affirmatively Furthering Fair Housing; and
3. Reducing Vehicle Miles Traveled.

REAP 2.0 is a grant program established by AB 140 (July 2021) in the mid-year budget revise for the State's FY 21-22 budget. Funding comes from the state general fund, and approximately $600 million is available statewide. The program is available to regional entities, primarily metropolitan planning organizations (MPOs), through a combination of formula and competitive-based programs. The SCAG region formula share is $246,024,084.

The California Housing and Community Development Department (HCD) is the State's administrative lead for the program and worked in collaboration with the Strategic Growth Council (SGC), Governor's Office of Planning and Research (OPR), and State Air Resources Board (CARB) to develop detailed guidelines for implementation. All REAP 2.0 funds are to be obligated by June 30, 2024 and expended with a final closeout report due by June 30, 2026.

On July 7, 2022, the Regional Council approved SCAG's REAP 2.0 Program Development Framework, which outlines the core objectives, guiding principles, programmatic areas, major milestones, and schedule for suballocating funds SCAG will receive through the state REAP 2.0 grant program.

SCAG is committed to a future where we all have the option to live closer to our jobs, services, and daily destinations with transportation options so we can walk our kids to school, ride our bikes to

work, take transit and have access to shared mobility services that reduce the need to drive. Infill housing, combined with transportation network improvements and strategies, results in improved multimodal access to community amenities, lowers average trip length and reduces vehicle miles traveled.

The Partnership to Accelerate Transformative Housing (PATH) Program will support strategies to accelerate infill development leading to increased housing supply, choice, and affordability. The Transportation Partnership Programs (the CTC Partnership Program and Regional Pilot Initiative Program) will connect infill housing to daily services and increase travel options that support multimodal communities to shift travel modes. The Early Program Initiatives tie this work together by building capacity for planning innovation across the region through advancements in community engagement and partnerships, data driven decision making and performance measurement and monitoring. All strategies will reduce VMT and will affirmatively further fair housing by fostering racially equitable and inclusive communities; retaining and increasing affordability, especially in high-resource areas; and protecting existing residents, especially lower- or moderate-income residents from displacement. All programs will support the needs of residents in disadvantaged communities and communities that have been historically left behind including in areas of high segregation and poverty. The strategies funded through SCAGs REAP 2.0 programs will help achieve the state planning goals, implement the 6th Cycle housing elements, meet RHNA goals, and move the region toward achieving the Sustainable Community Strategy in SCAG's Connect SoCal Plan. The strategies will also help reduce greenhouse gas emissions, support the development of more livable communities that provide lower-cost housing choices, conserve natural resources, offer transportation options, and promote a better quality of life.

SCAG has allocated $95 million to REAP 2.0 transportation initiatives and is developing two programs to implement projects. The first is an $80 million CTC Partnership Program, focused on a robust partnership program between SCAG and County Transportation Commissions (CTCs) to fund county-specific pilots and projects. The second is a $15 million Regional Pilot Initiatives Program (RPI Program), which will identify, evaluate, and award funding for regional or local pilots and projects that that achieve regional transportation goals and objectives. SCAG anticipates that this may present further opportunities for CTCs to collaborate with SCAG on potential joint efforts.

The CTC Partnership Program will be adjusted as necessary based on feedback from the SCAG Policy Committees and Regional Council and further stakeholder engagement. After submission of the final REAP 2.0 application to the State, the program may be adjusted to reflect feedback from the State Partners. In the REAP 2.0 Guidelines, the state reserves the right, at their sole discretion, to suspend, amend, or modify the provisions of the REAP 2.0 Guidelines at any time, including, without limitation, the amount of funds available hereunder. If such an action occurs, the Department will notify all interested parties. As such, SCAG reserves the right, at its sole discretion, to suspend or amend the provisions of this Program in collaboration with the State, including but not limited to

grant award amounts. The final Program will be updated to reflect any feedback received once SCAG's full REAP 2.0 funding application is approved by the State.

OUTREACH

The CTC Partnership Program was developed in the SCAG REAP 2.0 Program Framework following feedback from CTCs, as part of a CTC Working Group. The CTC Working Group is comprised of representatives from Imperial County Transportation Commission, LA Metro, Orange County Transportation Authority, Riverside County Transportation Commission, San Bernardino County Transportation Authority, and Ventura County Transportation Commission. A draft of the CTC Partnership Program guidelines was developed and discussed during the June 2022 meeting of the CTC Working Group. Further, SCAG staff met one-on-one with the CTCs in August and September to identify potential projects and to receive input in advance of developing final program guidelines. SCAG will continue to meet with the CTCs monthly until the application opens in early 2023.

Since the approval of the REAP 2.0 Program Framework by the Regional Council in July, staff has continued outreach efforts to develop the CTC Partnership program using SCAG's REAP 2.0 framework as a guiding document. The draft CTC Partnership program guidelines were released on September 20, 2022 and remained open for 22 days, through October 12, 2022. The program was made available on SCAG's REAP 2.0 program website, and encouraged comment from all people who work, live, or have an interest in the SCAG region. SCAG staff shared the opportunity to share public comment through newsletters, targeted email blasts and meeting announcements.

In addition to public outreach, SCAG staff notified the CTCs in the SCAG region of the open comment period, by direct emails. SCAG staff also presented the CTC Partnership program to tribal representatives by virtual workshop on September 28, 2022, as well as presentations to stakeholders and the general public at virtual workshops on October 17, 2022 and October 20, 2022.

Five public comment letters were received during the comment period, from the Los Angeles Department of Transportation, Los Angeles County Department of Public Works, Riverside County Transportation Commission, LA Metro, and Imperial County Transportation Commission. Comments and general feedback received are discussed and summarized below. With these comments in mind, SCAG has provided either a change reflected in the final CTC Partnership Guidelines, or a direct response to the comment.

SCAG received requests for clarification around population numbers and formula share, project eligibility, Connect SoCal priorities, scoring criteria, application forms and stakeholder engagement. These comments have been addressed in the final CTC Partnership Guidelines. A request to expand applicant eligibility was received; agencies who are not eligible for the CTC Partnership Program may be considered as project partners as part of the Regional Pilot Initiatives Program. That

program is in development and stakeholders will be contacted in 2023 with program specific information.

CTC PARTNERSHIP PROGRAM GUIDELINES – OVERVIEW

The CTC Partnership Program will benefit the region by supporting transformative planning activities aligned with Key Connection strategies identified in Connect SoCal, that can be implemented quickly to advance new concepts for reducing VMT while simultaneously achieving other program goals for REAP 2.0. Key Connection strategies focus on innovative policies and/or technologies together with expanded mobility offerings to realize regional planning goals.

SCAG has developed program guidelines, provided as Attachment 1, that outline program requirements, eligible projects and applicants, and the application process. The guidelines also reflect the guiding principles established in the REAP 2.0 Program Development Framework.

Based on the final REAP 2.0 Program Guidelines and in alignment with the upcoming HCD-issued REAP 2.0 notice of funding availability, and reflecting feedback from the CTCs, the CTC Partnership Program guidelines include the following eligible activities and uses that meet REAP 2.0 goals:

1. **Realizing Multimodal Communities:**
    a. Establishing and implementing a vision-zero policy and program, a safety plan, and a slow streets program.
    b. Developing bicycle and pedestrian infrastructure plans and other multimodal plans or policies.
    c. Investing in infrastructure projects and other programs to expand active transportation and implement bicycle or pedestrian plans.
    d. Producing multimodal corridor studies associated with developing specific planning documents or implementation actions.

2. **Shifting travel behavior through reducing driving:**
    a. Studying roadway pricing feasibility and implementing road pricing programs.
    b. Funding the establishment of a local VMT impact fee or catalyzing a regional VMT mitigation bank.
    c. Funding and implementing parking and transportation demand management programs or ordinances.

3. **Increasing transit ridership:**
    a. Funding and implementing actions to establish more seamless regional transit systems between and across communities, including establishing common fares systems, sync transit routing systems and schedules, service design, and wayfinding

to connect residential neighborhoods with employment centers and other key destinations.

b. Developing and implementing multimodal access plans to and from transit facilities
c. Planning for additional Housing near transit.

The CTC Partnership Program is intended to implement Key Connection strategies included in Connect SoCal and support new concepts for reducing VMT. Of critical importance to SCAG is to demonstrate VMT reduction to meet our climate commitments, particularly in ways that advance equity and improve underlying social and health vulnerabilities. SCAG is also prioritizing project concepts that are regionally significant and can be scalable with long-term viability. SCAG specifically seeks applications for the following four categories:

1. **Transit Recovery –** examples include capital improvements to increase bus speed and reliability and improve customer experience.
2. **Mobility Integration & Incentives** – examples include mobility wallets, pricing, universal basic mobility, and fare integration.
3. **Shared Mobility & Mobility Hubs** – examples include micromobility programs, mobility hubs, first/last mile services, wayfinding systems, and multimodal access plans.
4. **VMT Bank & Exchange Programs** – examples include local or regional VMT mitigation programs.

Applications will be reviewed by SCAG staff immediately following the application deadline and will be assessed on activity eligibility, nexus to the state program objectives, including VMT reduction, alignment with REAP program objectives and SCAG regional priorities. The scoring criteria for all projects funded through the CTC Partnership Program Call will be the same. Question topics and their relationships to the scoring criteria are outlined below. SCAG has developed a map to help CTCs identify location eligibility, which will be shared prior to the opening of the call for projects.

Scoring Criteria	
Focus Area 1: SCAG Goals & Connect SoCal Implementation	**40 Points**
Project Readiness and Approach	**14 Points**
Supports Connect SoCal Implementation	**14 Points**
Stakeholder Engagement	**12 Points**
Focus Area 2: Infill Development that Facilitates Housing Supply, Choice, Affordability	**20 Points**
Location Eligibility	**6 Points**
Proposed Use	**7 Points**
Proposed Evaluation Metrics	**7 Points**

Focus Area 3: Affirmatively Furthering Fair Housing	**20 Points**
Location Eligibility	**6 Points**
Proposed Use	**7 Points**
Proposed Evaluation Metrics	**7 Points**
Focus Area 4: Reducing Vehicle Miles Traveled	**20 Points**
Location Eligibility	**6 Points**
Proposed Use	**7 Points**
Proposed Evaluation Metrics	**7 Points**

Once an application is approved, SCAG will provide the CTC with a conditional award letter. The final funding award will be approved by the Regional Council. All projects and activities funded by this program must conclude by January 30, 2026.

FISCAL IMPACT:
Work associated with this item will be included in the FY22-23 OWP, once REAP 2.0 funding is received, with no fiscal impact on the existing budget.

ATTACHMENT(S):
1. REAP 2.0 CTC Partnership Program Guidelines
2. PowerPoint Presentation - REAP 2.0 CTC Partnership Program

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

2023 COUNTY TRANSPORTATION COMMISSION PARTNERSHIP PROGRAM

PROGRAM GUIDELINES

CONTENTS

CTC PARTNERSHIP PROGRAM OVERVIEW

SCAG is anticipating funding from the California Department of Housing and Community Development (HCD) through the Regional Early Action Planning Grants of 2021 ('REAP 2.0') and this funding is a key part of the state's strategic investments toward a more sustainable, resilient, and inclusive future. SCAG is in a unique position to utilize this resource and build upon REAP 1.0 efforts, allowing for broader planning and implementation investments, including those which focus on transportation initiatives and future housing development. REAP 2.0 funds come from the State General Fund. As part of its implementation of REAP 2.0, SCAG is issuing this Call for Applications for a County Transportation Commission (CTC) Partnership Program to support transformative planning and implementation as described below.

The purpose of the CTC Partnership Program is to provide immediate benefit to the region by supporting transformative planning activities aligned with Key Connection strategies identified in Connect SoCal, which can be implemented quickly to advance new concepts for reducing VMT while simultaneously achieving other program goals for REAP 2.0. Key Connection strategies focus on innovative policies and/or technologies together with expanded mobility offerings to realize regional planning goals.

SCAG has allocated $100 million to REAP 2.0 transportation initiatives and is developing two programs to implement projects. The first is this $80 million CTC Partnership Program, focused on a robust partnership program between SCAG and County Transportation Commissions (CTCs) to fund county-specific pilots and projects. The second is a $15 million Regional Pilot Initiatives Program (RPI Program), which will identify, evaluate, and award funding for regional or local pilots and projects that that achieve regional transportation goals and objectives. SCAG plans to procure a consultant team to help research, define, and guide the RPI Program. SCAG anticipates that this may present further opportunities for CTCs to collaborate with SCAG on potential joint efforts.

REAP 2.0 PROGRAM DEVELOPMENT FRAMEWORK

SCAG is committed to a future where we all have the option to live closer to our jobs, services, and daily destinations with transportation options so we can walk our kids to school, ride our bikes to work, take transit and have access to shared mobility services that reduce the need to drive. Infill housing, combined with transportation network improvements and strategies, results in improved multimodal access to community amenities, lowers average trip length and reduces vehicle miles traveled.

The Regional Early Action Planning Grants of 2021 (REAP 2.0) is managed by The California Housing and Community Development Department (HCD) in collaboration with the Strategic Growth Council (SGC), Governor's Office of Planning and Research (OPR), and State Air Resources Board (CARB) ("the State Partners"), and provides funds to regional governments to accelerate housing production and facilitate compliance with the 6th cycle of the Housing Element, including Regional Housing Needs Assessment. In addition, REAP 2.0 is specifically designed to provide MPOs and other Eligible Entities with tools and resources to help implement and advance plans, primarily by furthering the Sustainable Communities Strategies (SCS) adopted as part of Regional Transportation Plans to pursue greenhouse gas emission reduction targets through land use and transportation strategies.

The REAP 2.0 Program Objectives defined in the State's Final REAP 2.0 Program Guidelines are:

1. Accelerating Infill Development that Facilitates Housing Supply, Choice, and Affordability;
2. Affirmatively Furthering Fair Housing; and
3. Reducing Vehicle Miles Traveled

SCAG's REAP 2.0 program framework combines coordinated and transformative housing development and finance, land use and transportation strategies to help achieve California's housing and greenhouse gas emission reduction goals. Within the framework are the Core Program Objectives, which describe how SCAG will further SCAG's SCS Implementation Strategy as it meets the REAP 2.0 Program Objectives.

These Core Program Objectives are:

- Support **transformative** planning and **implementation** activities that realize Connect SoCal objectives
- Leverage and augment the **Connect SoCal Implementation Strategy** to support activities that can be implemented quickly and in line with community-driven priorities
- Build regional capacity to deliver housing that realizes **6th cycle RHNA goals**
- Represent best practices in **vehicle miles traveled (VMT) reduction**
- Demonstrate consistency with **the Racial Equity Early Action Plan**
- Promote **infill development** in Connect SoCal identified Priority Growth Areas

The Partnership to Affirmatively Transform Homes (PATH) Program will support strategies to accelerate infill development leading to increased housing supply, choice, and affordability. The CTC Partnership Program and Regional Pilot Initiative Program will connect infill housing to daily services and increase travel options that support multimodal communities to shift travel modes. The Early Program Initiatives tie this work together by building capacity for planning innovation across the region through advancements in community engagement and partnerships, data driven decision making and performance measurement and monitoring. All strategies will reduce VMT and will affirmatively further fair housing by fostering racially equitable and inclusive communities; retaining and increasing affordability, especially in high-resource areas; and protecting existing residents, especially lower- or moderate-income residents from displacement. All programs will support the needs of residents in disadvantaged communities and communities that have been historically left behind including in areas of high segregation and poverty. The strategies funded through SCAGs REAP 2.0 programs will help achieve the state planning goals, implement the 6th Cycle housing elements, meet RHNA goals, and move the region toward achieving the Sustainable Community Strategy in SCAG's Connect SoCal Plan. The strategies will also help reduce greenhouse gas emissions, support the development of more livable communities that provide lower-cost housing choices, conserve natural resources, offer transportation options, and promote a better quality of life.

The CTC Partnership Program will be adjusted as necessary based on feedback from the SCAG Policy Committees and Regional Council and further stakeholder engagement. After submission of the final REAP 2.0 application to the State, the program may be adjusted to reflect feedback from the State Partners. In the REAP 2.0 Guidelines, the state reserves the right, at their sole discretion, to suspend, amend, or modify the provisions of the REAP 2.0 Guidelines at any time, including, without limitation, the amount of funds available hereunder. If such an action occurs, the Department will notify all interested parties. As such, SCAG reserves the right, at its sole discretion, to suspend or amend the provisions of this Program in collaboration with the State, including but not limited to grant award amounts. The final Program will be updated to reflect any feedback received once SCAG's full REAP 2.0 funding application is approved by the State.

CTC CALL FOR APPLICATIONS

SCAG is releasing this Call for Applications to competitively suballocate funds from the REAP 2.0 Program through HCD. Program guidelines are subject to change, per HCD direction.

ELIGIBLE APPLICANTS

Eligibility in this program is limited to County Transportation Commissions (CTCs) within the SCAG region.

ELIGIBILE PROJECT USES

The CTC Program Call for Applications prioritizes projects that aspire to integrate and align Southern California's mobility and housing opportunities, especially with respect to Connect SoCal, the region's adopted Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS). Applicants are encouraged to review strategies included within Connect SoCal to align project applications with regional planning priorities and concepts. Funds shall be used on planning or implementation efforts that can establish a strong nexus to housing and infrastructure to support new housing. Of critical importance to SCAG is to demonstrate VMT reduction to meet our climate commitments, particularly in ways that advance equity and improve underlying social and health vulnerabilities.

For more information, please refer to the HCD REAP 2.0 Guidelines. Eligible projects must have a significant geographic or region-wide benefit, as the REAP 2.0 Program is not intended to fund individual projects which are small in scope. The CTC Partnership Program guidelines include the following eligible activities and uses that meet REAP 2.0 goals:

1. **Realizing Multimodal Communities:**
   a. Establishing and implementing a vision-zero policy and program, a safety plan, and a slow streets program.
   b. Developing bicycle and pedestrian infrastructure plans and other multimodal plans or policies.
   c. Investing in infrastructure projects and other programs to expand active transportation and implement bicycle or pedestrian plans.
   d. Producing multimodal corridor studies associated with developing specific planning documents or implementation actions.
2. **Shifting travel behavior through reducing driving:**
   a. Studying roadway pricing feasibility and implementing road pricing programs.
   b. Funding the establishment of a local VMT impact fee or catalyzing a regional VMT mitigation bank.
   c. Funding and implementing parking and transportation demand management programs or ordinances.
3. **Increasing transit ridership:**
   a. Funding and implementing actions to establish more seamless regional transit systems between and across communities, including establishing common fares systems, sync transit routing systems and schedules, service design, and wayfinding to connect residential neighborhoods with employment centers and other key destinations.
   b. Developing and implementing multimodal access plans to and from transit facilities
   c. Planning for additional Housing near transit.

The CTC Partnership Program is intended to implement Key Connection strategies included in Connect SoCal and support new concepts for reducing VMT. To that end, SCAG is prioritizing applications that include regionally significant concepts that can be scalable with long-term viability. SCAG invites applications for the following types of programs:

1. **Transit Recovery** – examples include capital improvements to increase bus speed and reliability and improve customer experience.
2. **Mobility Integration & Incentives** – examples include mobility wallets, pricing, universal basic mobility, and fare integration.
3. **Shared Mobility & Mobility Hubs** – examples include micromobility programs, mobility hubs, first/last mile services, wayfinding systems, and multimodal access plans.
4. **VMT Bank & Exchange Programs –** examples include studies, pilot programs, and plans.

All proposed uses will be required to meet the statute and program requirements, including the REAP 2.0 infill objectives. Projects must show a connection to accelerating housing implementation to meet eligibility requirements. In the SCAG region, infill areas may also include 2020 Connect SoCal Priority Growth Areas. Applicants are encouraged to view the interactive map[1] prepared by SCAG that emphasizes geographic need based on a variety of variables. While the CTC Partnership Program focuses on innovative mobility initiatives that can reduce VMT, proposed uses must demonstrate a nexus to all REAP 2021 objectives:

1. Accelerating Infill Development that Facilitates Housing Supply, Choice and Affordability
2. Affirmatively Furthering Fair Housing
3. Reducing Vehicle Miles Traveled

Please contact SCAG with any questions regarding grant dollars and funding eligibility.

PRIORITIZING STAKEHOLDER ENGAGEMENT

Stakeholder engagement is essential in all SCAG programs, and the intent of the REAP funding is to engage with local communities and implement projects "on the ground." SCAG strongly encourages each CTC applicant to engage relevant stakeholders to maximize project impact and further collaborative policy goals. Applicants must demonstrate project-based engagement prioritizing impacted communities and other relevant stakeholders, such as local jurisdictions and community-based organizations (CBOs), during the project to help achieve equitable project outcomes. Commitment letters from stakeholders, CBOs, community partners, local transit operators, or local jurisdictions may be included in each application, but these letters are optional, not required.

[1] Link to interactive map will be made available prior to the opening of the Call for Projects.

APPLICATION PROCESS

Eligible applicants are encouraged to apply to the CTC Partnership Program by completing an application. One application is required per project and entities may submit multiple project applications. **Applicants must complete and submit their application by Friday, February 3rd, at 5:00 p.m.** Program timelines are subject to change, per HCD direction.

SUBMITTAL INFORMATION

Applicants must follow the instructions provided in the application. Applications should include all supporting documents in the online application. Applicants are not required to demonstrate that a governing body has taken official action to apply, but a supporting resolution from the governing body or a letter of intent in support of the project from the appropriate executive officer will be required prior to project initiation. Questions about applications should be emailed to the contact person listed below.

EVALUATION PROCESS, SCORING RUBRIC & CRITERIA

An evaluation team will review the applications. Recommendations will be made to the Regional Council in April 2023. Project award announcements will be made following the State's release of REAP 2.0 funding and authorization to move forward with selected projects.

The scoring criteria for all projects funded through the CTC Partnership Program Call will be the same. Question topics and their relationships to the scoring criteria are outlined below. Further clarification about how points are awarded is provided in the project application forms.

Scoring Criteria	
Focus Area 1: SCAG Goals & Connect SoCal Implementation	**40 Points**
Project Readiness and Approach	**14 Points**
Supports Connect SoCal Implementation	**14 Points**
Stakeholder Engagement	**12 Points**
Focus Area 2: Infill Development that Facilitates Housing Supply, Choice, Affordability	**20 Points**
Location Eligibility	**6 Points**
Proposed Use	**7 Points**
Proposed Evaluation Metrics	**7 Points**
Focus Area 3: Affirmatively Furthering Fair Housing	**20 Points**
Location Eligibility	**6 Points**
Proposed Use	**7 Points**
Proposed Evaluation Metrics	**7 Points**
Focus Area 4: Reducing Vehicle Miles Traveled	**20 Points**
Location Eligibility	**6 Points**
Proposed Use	**7 Points**
Proposed Evaluation Metrics	**7 Points**

FUNDING AND SCHEDULE

Funding for the CTC Partnership Program will be provided through SCAG's share of the REAP 2.0 Grant. SCAG will competitively suballocate funding for project applications based on the overall scoring rubric and criteria including the eligibility of each funding source and the applicant's readiness. The competitively suballocated funding share for the CTC Partnership Program Call for Applications will be approximately $80 million. An additional $15 million is anticipated through SCAG's Regional Pilot Initiatives Program led by SCAG to advance regionally coordinated and significant solutions.

REGIONAL DISTRIBUTION

Given the locational constraints imposed by REAP 2.0, the priority in awarding funding will be for projects that meet the eligibility criteria determined by REAP 2.0 guidelines and furthering SCAG's goal to implement Connect SoCal. Applications should include the locational considerations, supporting attributes, and measurable outcomes that support a Proposed Use as eligible for each the following:

1. Infill Development that Facilitates Housing Supply, Choice, and Affordability
2. Affirmatively Furthering Fair Housing (AFFH)
3. Reducing Vehicle Miles Traveled

Efforts will additionally be made so that CTC Partnership Program projects are awarded in each county within the SCAG region and with regards to geographic diversity, but these efforts are second to the primary need to meet REAP 2.0 eligibility. For consistency with the statute, SCAG will use the State's 2030 population projections as a general guide, but proposals must first and foremost be competitive and address SCAG's program objectives. Proposed projects must receive a minimum of 75 points to be eligible. Please see attached scoring rubric for more information on eligibility.

COUNTY POPULATION PROJECTION AND REGIONAL SHARE, 2030

County	Population	Share
Imperial	206,486	1.0%
Los Angeles	10,322,678	52.2%
Orange	3,291,863	16.6%
Riverside	2,728,068	13.8%
San Bernardino	2,368,002	12.0%
Ventura	872,856	4.4%
Total SCAG Region	**19,789,953**	**100%**

Source: California Department of Finance. Demographic Research Unit. Report P-2A: Total Population Projections, California Counties, 2010-2060 (Baseline 2019 Population Projections; Vintage 2020 Release). Sacramento: California. July 2021.

MATCH REQUIREMENTS

There are no local match requirements for projects proposed through the CTC Partnership Program.

PERIOD OF PERFORMANCE AND TIME EXTENSIONS

A project initiation schedule and expectations regarding period of performance will be determined within sixty days of project award announcements, and will be based on project complexity, funding source, and agency capacity. Once the project schedule has been established, extensions will be considered only under

extraordinary circumstances, on a case-by-case basis. Extensions and scope changes must be requested in letter format. All requests must include an explanation of the issues and actions the agency or local jurisdiction has taken to correct the issues. All extensions will be contingent on funding availability and the program requirements of the funding source assigned. Program completion is based on statutory provisions and SCAG expects all selected projects to be completed in a timely manner and requires that applicants coordinate internal resources to ensure timely completion of the projects.

IMPLEMENTING ENTITIES

Awarded applicants are expected to serve as the implementing agency of the projects and activities applied for. Based on the proposal funded this may include all the following: procuring consultants, maintaining records, submitting timely reports, invoices, and close out documents, among all other duties. Implementing agencies must be entities eligible to enter into intergovernmental agreements and must demonstrate capacity to implement government grant administration tasks in a timely manner, including applications, contract execution and monitoring, funds management and transfer, and accounting and reporting, including any competitive sub-contracting if applicable. The implementing agency cannot have any unresolved audit findings from prior government contracts and cannot be party to pending land use, housing, or environmental litigation which could impact the proposed activities.

The implementing agency will be responsible for developing the scope of work for the project or activity leading the procurement process for obtaining consultants and/or resources. The implementing agency will manage and administer the project, which includes tasks such as monitoring activity progress, reviewing tasks and deliverables, and reviewing and processing invoices.

In limited situations, if the implementing agency presents a demonstrated need that it cannot administer the procurement for grant-funded work, SCAG may take on procuring the consultant on behalf of the implementing agency. In this instance, SCAG will work with the implementing agency to complete necessary procurement and contracting. SCAG staff will manage the contract and pay for all costs incurred. However, the implementing agency is responsible for the overall project. SCAG may bundle similar projects together in a common contract.

ADMINISTRATIVE FEE

Up to five percent (5%) of the funding allocation may be charged as administrative activities. Tasks such as reviewing and processing project invoices, processing contract amendments, and preparing reports and metrics of project progress and completion are considered administrative activities. Activities such as developing scopes of work and requests for proposals (RFP), reviewing tasks and deliverables, and outreach with jurisdictions related to the project are considered programmatic and can be charged as a program activity. For projects and activities administered by SCAG, SCAG reserves the right to use the 5% administrative fee for costs related to project administration.

REIMBURSEMENT

All awarded applicants must submit invoices to SCAG monthly and submit a status report quarterly to receive reimbursement. Invoices must follow the requirements set forth in the contract and SCAG's regular invoicing procedures and must comply with applicable state and/or federal requirements. SCAG may consider advance payments or alternative arrangements to reimbursement and payment methods based on demonstrated need. These arrangements will be included in the agreements between SCAG and the awarded applicant. After the agreement is signed, the awarded applicant may submit invoices to

SCAG for reimbursement for eligible activities as specified in the signed agreement. Expenditure reimbursement requires prior authorization of the eligible projects and activities, and SCAG may be subject to repayment of REAP funds to HCD if it is found in breach of its agreement with HCD, which can occur if REAP funds are used for ineligible activities. If SCAG must repay REAP 2.0 funds to the state, SCAG will require reimbursement from the awarded applicant.

SCAG will only reimburse for costs as specified in the signed agreement(s) with the Eligible Applicant or consultant selected to perform the work. No costs will be reimbursed prior to the agreement is executed.

REPORTING REQUIREMENTS

Consistent with SCAG's Overall Work Program reporting procedures and Subrecipient Monitoring Policies and Procedures, the awarded Applicant will be required to provide progress reports and itemized invoices to track progress. Progress will be measured according to the tasks, deliverables, costs, and timeline. Additionally, the REAP 2.0 program requires applicants to file an annual report measuring project outcomes and desired impacts through June 30, 2026. Metrics for the annual report will be developed in the application's evaluation criteria.

SCHEDULE

The following schedule outlines important dates for the CTC Program Call for Applications. **Program timelines are subject to change, per HCD direction.**

CTC CALL MILESTONES	DATE
State Approval of SCAG Reap 2.0 Application	TBD
Call For Applications Opens and Adoption of Guidelines	TBD / January 5, 2023
Application Workshop	TBD
Call For Applications Submission Deadline	TBD / February 3, 2023
Regional Council Approval	TBD / April 2023
Final Work and Invoices Submitted	January 30, 2026

CONTACT INFORMATION

Questions regarding the CTC Partnership Program application process should be directed to:

Kate Kigongo
Department Manager, Partnerships for Innovative Deployment
Telephone: 213-236-1808
Email: kigongo@scag.ca.gov

Regional Early Action Program (REAP) 2021

County Transportation Commission Partnership Program

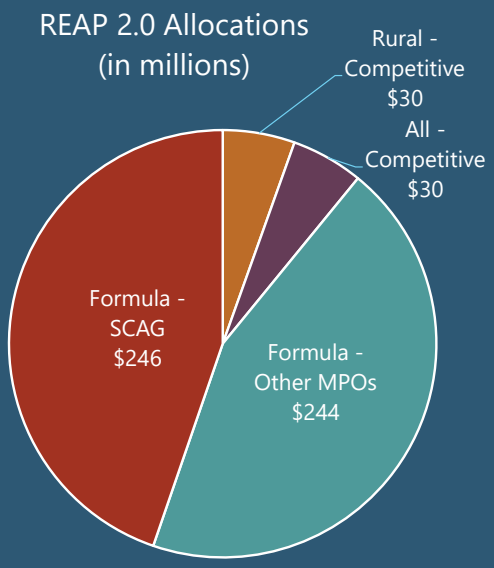
November 3, 2022

WWW.SCAG.CA.GOV

REAP 2.0 INTRODUCTION

AB140 – FY21-22 state budget (May revise)

- ~ $600 million statewide, $500 million formula allocations to MPOs
  - ~ $246 million = SCAG region's formula share



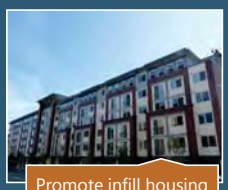
Important Dates

- December 2022 – Final Application Due to State
- June 2024 – All REAP 2.0 Funds Obligated
- June 2026 – All REAP 2.0 Funds Expended

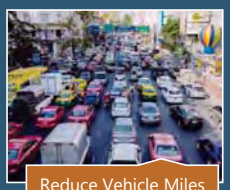
REAP 2.0 QUICK FACTS

"Transformative planning and implementation activities" which implement the regional Sustainable Communities Strategy (SCS)

REAP 2.0 Objectives



Promote infill housing development AND



Reduce Vehicle Miles Travelled AND

Affirmatively Further Fair Housing

SCAG's REAP 2.0 Program Areas

Early Program Initiatives—Connect SoCal Implementation Strategy

- Subregional Partnership Program 2.0
- Decision-Making Tools and Technical Assistance
- Sustainable Communities Program Technical Assistance

Transportation Partnership Programs

- Regional Pilot Initiatives (RPI) Program
- County Transportation Commission (CTC) Partnership Program

Programs to Accelerate Transformational Housing (PATH)

- NOFA – Funding for Last Affordability
- Regional Utilities Supporting Housing (RUSH)
- Housing Infill on Public and Private Lands (HIPP)

TRANSPORTATION PROGRAMS

CTC Partnership Program: Fund a $80m competitive call for projects with the CTCs to advance high-impact and transformative concepts consistent with Key Connection strategies in Connect SoCal.

Regional Pilot Initiatives (RPI) Program: Launch a $15m transformative regional transportation program to implement innovative pilot projects and programs region-wide.

CTC PARTNERSHIP PROGRAM ELIGIBLE PROJECTS

Plans, Policies and Studies

Pilot Projects and Programs

Implementation Activities

CTC PARTNERSHIP PROGRAM ELIGIBLE PROJECTS

Realizing Multimodal Communities	Establishing and implementing a **vision-zero** policy and program, a safety plan, and a slow streets program.
	Developing **bicycle and pedestrian** infrastructure plans and other multimodal plans or policies.
	Investing in infrastructure projects and other programs to expand **active transportation** and implement bicycle or pedestrian plans.
	Producing **multimodal corridor studies** associated with developing specific planning documents or implementation actions.

CTC PARTNERSHIP PROGRAM ELIGIBLE PROJECTS

Shifting travel behavior through reducing driving	Studying **roadway pricing** feasibility and implementing road pricing programs.
	Funding the establishment of a **local VMT impact fee** or catalyzing a regional **VMT mitigation bank**.
	Funding and implementing **parking and transportation demand management programs** or ordinances.

CTC PARTNERSHIP PROGRAM ELIGIBLE PROJECTS

Increasing transit ridership	Funding and implementing actions to establish **more seamless regional transit systems** between and across communities
	Developing and implementing **multimodal access plans** to and from transit facilities
	Planning for additional housing near transit

CTC PARTNERSHIP PROGRAM SCAG'S PROJECT PRIORITIES

Transit Recovery – examples include capital improvements to increase bus speed and reliability and improve customer experience

Mobility Integration & Incentives – examples include mobility wallets, pricing, universal basic mobility, and fare integration.

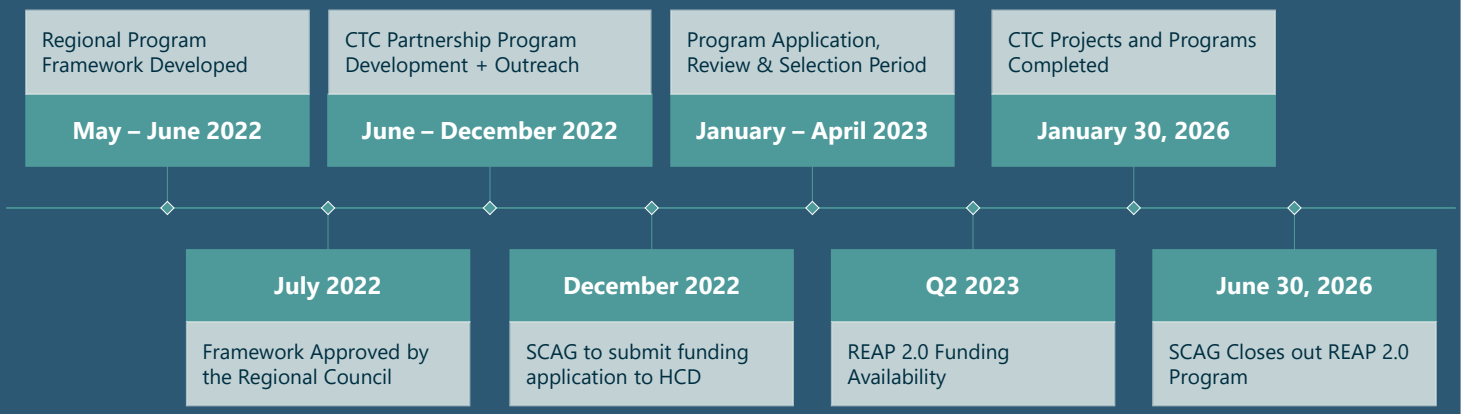
Shared Mobility & Mobility Hubs – examples include micromobility programs, mobility hubs, first/last mile services, wayfinding systems, and multimodal access plans.

VMT Bank & Exchange Programs - examples include studies, pilot programs, and plans

CTC PARTNERSHIP PROGRAM SCORING CRITERIA

Focus Area 1: SCAG Goals & Connect SoCal Implementation	**40 Points**
Project Readiness and Approach	**14 Points**
Supports Connect SoCal Implementation	**14 Points**
Stakeholder Engagement	**12 Points**
Focus Area 2: Infill Development that Facilitates Housing Supply, Choice, Affordability	**20 Points**
Location Eligibility	**6 Points**
Proposed Use	**7 Points**
Proposed Evaluation Metrics	**7 Points**
Focus Area 3: Affirmatively Furthering Fair Housing	**20 Points**
Location Eligibility	**6 Points**
Proposed Use	**7 Points**
Proposed Evaluation Metrics	**7 Points**
Focus Area 4: Reducing Vehicle Miles Traveled	**20 Points**
Location Eligibility	**6 Points**
Proposed Use	**7 Points**
Proposed Evaluation Metrics	**7 Points**

CTC PARTNERSHIP PROGRAM MILESTONE TIMELINE



CTC GUIDELINES SUMMARY

- $80 Million available, competitive call for projects
- Nexus to state REAP 2.0 Program Objectives: reduce VMT, accelerate infill housing, and affirmatively further fair housing
- Fund transformative planning and implementation activities
- Outreach with local stakeholders and community-based organizations encouraged
- SCAG will open the Call for Projects pending HCD approval of the final REAP 2.0 application

RPI PROGRAM EARLY FRAMEWORK

Consultant Scope of Work

Program Development
- Market Research, Case Studies, Public Opinion Survey, Promising Practices

Private Sector Partnerships
- Develop KPIs & Data Sharing Agreements
- Identify jurisdictions and private sector partners for pilot programs

Technical Assistance
- Strategic Advisory Services and reporting assistance through length of program

Program Objectives

- Implement innovative pilot projects and programs from SCAG's own research and feasibility studies

Early Project Concepts

- TDM Strategies using Tech & Data
- Mobility Wallets / MaaS Pilots
- IoT and Smart City Pilots
- Mobility Hubs

RPI PROGRAM MILESTONE TIMELINE

Regional Program Framework Developed	RPI Program Scoping + Outreach	Consultant Develops RPI Program and Projects	RPI Projects and Programs Completed
May – June 2022	**June – December 2022**	**January – April 2023**	**January 30, 2026**

July 2022	**September-October 2022**	**May – June 2023**	**June 30, 2026**
Framework Approved by the Regional Council	RPI Consultant RFP Released and Vendor Selected	Procurements, MOUs for Pilot Projects Begin	SCAG Closes out REAP 2.0 Program

THANK YOU!

For more information, please visit:

https://scag.ca.gov/reap2021

Kate Kigongo, Department Manager
Partnerships for Innovative Deployment
Email: kigongo@scag.ca.gov

AGENDA ITEM 12

REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 – Regional Council Room
Los Angeles, CA 90017
November 3, 2022

To: Transportation Committee (TC)

EXECUTIVE DIRECTOR'S APPROVAL

From: Jaimee Lederman, Senior Planner
(213) 236-1948, lederman@scag.ca.gov

Subject: State Transportation Funding Overview

RECOMMENDED ACTION:
Information Only - No Action Required

STRATEGIC PLAN:
This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians. 7: Secure funding to support agency priorities to effectively and efficiently deliver work products.

EXECUTIVE SUMMARY:
California's transportation network receives funding predominantly from federal, state, and local revenue sources. Regional and local governments provide half of California's transportation funding, whereas, the federal and state governments each provide roughly a quarter of the remaining amount. In Fiscal Year (FY) 2021-22, SCAG received over $5 billion in state transportation funding across all modes.

The Transportation Committee will have an opportunity to dialogue with Steven Keck, Chief Financial Officer for the California Department of Transportation (Caltrans), and Lauren Prehoda, Road Charge Program Manager for Caltrans, as they provide an overview presentation on state transportation funding and current efforts to modernize the state's transportation funding system.

BACKGROUND:
California's transportation network receives funding predominantly from federal, state, and local revenue sources. Regional and local governments provide half of California's transportation funding, whereas, the federal and state governments each provide roughly a quarter of the remaining amount. In Fiscal Year (FY) 2021-22, SCAG received over $5 billion in state transportation funding across all modes.

At the national level, the U.S. continues to face an insolvency crisis with the Federal Highway Trust Fund (HTF), which is funded by excise taxes on fuel that have not been adjusted since 1993. In California, Senate Bill 1 (SB 1), the Road Repair and Accountability Act (2017), increased the state gas excise tax from 18 cents per gallon to 53.9 cents per gallon (as of July 1, 2022), created new fee mechanisms, and further indexed the gas tax to inflation going forward. SB 1 provides a key down payment for our transportation infrastructure needs, but does not fully fund investments necessary for preserving our system. For example, gas tax revenues remain the primary source of funding for the State Highway Operation and Protection Program (SHOPP), which funds projects to maintain the state highway system. Statewide, the 2021 State Highway System Management Plan identifies $116.8 billion in statewide needs over the next ten years, while available funding was only $55.3 billion.

California is leading the way on developing new and innovative ways to move around the state and demands a modern transportation funding system that can adapt to our state's changing needs. California's progress toward its goals of more fuel efficient and zero-emission vehicle use means that drivers will continue to buy less gas, undermining some of the gains from SB 1.

Recent Challenges

Recently, state funding for transportation has faced multiple uncertainties from the impact of the COVID-19 pandemic on travel and corresponding user charge revenues, a steep decline and rapid recovery in sales tax revenues, and volatility of key economic indicators including inflation and construction costs.

At the same time, an unexpected state budget surplus has allowed for a one-time general fund transfer of $9.5 billion in the Governor's FY 2022-23 budget across four years to support transportation infrastructure throughout the state. This includes $7.7 billion through FY 2024-25 to fund transit and rail projects throughout the state, and $1.8 billion in FY 2021-22 to support active transportation, climate adaptation, and grade separation projects. The most recent budget also includes an additional $1.4 billion from the general fund for supply chain resilience, and $4.2 billion from Proposition 1A funding for High-Speed Rail. Still, state general fund surpluses are not consistent and sustainable sources for future transportation investment.

Future of State Transportation Funding

As required by Senate Bill 1077 (SB 1077), California has been studying the potential for mileage-based revenue collection as an alternative to the motor fuel tax system. A nine-month pilot had more than 5,000 vehicles participate and recorded over 37 million miles driven. Overall, 85 percent of pilot participants were satisfied with the pilot, and 73 percent felt a road charge was a more equitable transportation funding solution than the gas tax. Caltrans continues to engage in research on technology and user experience, impacts to disadvantaged communities, interoperability

between states, impacts to rural communities, and much more. Caltrans also works on projects with RUC West, a consortium of 17 states studying the potential of a road use charge.

The Transportation Committee will have an opportunity to dialogue with Steven Keck, Chief Financial Officer for Caltrans, and Lauren Prehoda, Road Charge Program Manager for Caltrans, as they provide an overview presentation on state transportation funding and current efforts to modernize the state's transportation funding system.

FISCAL IMPACT:
None.

ATTACHMENT(S):
1. PowerPoint Presentation - State Transportation Funding Overview

State Transportation Funding

Steven Keck

Chief Financial Officer, California Department of Transportation

Lauren Prehoda

Road Charge Program Manager, California Department of Transportation

Primary Transportation Fund Sources Flowing Through the State

- **Federal Funding**
  - Fuel taxes (gasoline and diesel)
  - Federal "General Fund" funding
  - Federal Truck and Tire fees
- **State Funding**
  - Gasoline and Diesel excise taxes
  - Sales Taxes on Diesel
  - State Commercial Vehicle Weight Fees
  - Cap and Trade Revenues
  - Transportation Improvement Fee
  - Zero Emission Vehicle (ZEV) Fee

Senate Bill 1 - The Road Repair & Accountability Act

- Also referred to as SB 1, was signed by Governor Brown on April 28, 2017.
- Increased transportation funding by $54 billion over ten years.
- New excise tax and fee increases are permanent and indexed for inflation.
- Focuses on "Fix It First".
- Splits Funding equally between State and Local priorities.
- Calls for accountability and transparency.
- Constitutional Amendment to protect funds for transportation purposes.

SB1 State and Local Programs

(in millions)

STATE	
SHOPP	$15,177
Bridge and Culverts	$ 4,000
Trade Corridor Enhancement	$ 3,244
Congested Corridor	$ 2,500
Parks	$ 797
Agriculture	$ 268
STIP (State Share)	$ 368
Freeway Service Program	$ 250
RMRA - Fund Administration	$ 78
Transportation Workforce Training	$ 25
UC/CSU Transportation Research	$ 70
State Total	$26,777

LOCAL	
Local Streets and Roads	$15,118
State Transit Assistance	$ 4,339
Transit & Intercity Rail Capital Prog.	$ 2,940
Local Partnership	$ 2,000
Active Transportation	$ 1,000
STIP (Local Share)	$ 1,105
Commuter Rail & Intercity Rail	$ 456
Local Planning Grants	$ 250
RMRA - Fund Administration	$ 78
Local Total	$27,285

Primary Transportation Revenue

- Gasoline = 72.3 cpg
  - Federal Excise Tax – 18.4 cents per gallon (cpg)
  - State Base Excise Tax – 53.9 cpg
- Diesel = 65.4 cpg + 10.5% sales tax
  - Federal Excise Tax – 24.4 cpg
  - State Excise Tax – 41 cpg
  - Sales taxes – 10.5%
- Transportation Improvement Fee
  - $28 - $196 (adjusted annually) due at time of annual registration based on value of vehicle as determined by Department of Motor Vehicles
- Zero-Emission Vehicle Fee (Road Improvement Fee)
  - $102 due at time of annual registration on zero-emission vehicles model year
    2020 and later
- Commercial Vehicle Weight Fees
  - Used to service debt on transportation-related bonds

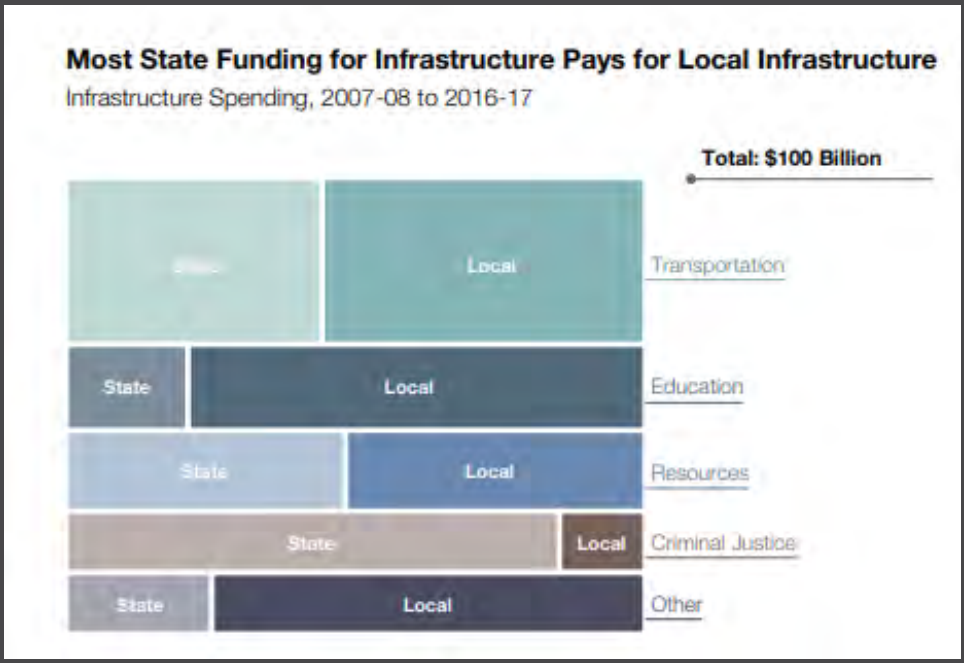
5

How the Transportation Improvement Fee Works

Tier	Vehicle Value From	To	Fee
1	$ -	$ 4,999	$ 28
2	$ 5,000	$ 24,999	$ 56
3	$ 25,000	$ 34,999	$ 112
4	$ 35,000	$ 59,999	$ 168
5	$ 60,000	Koenigsegg	$ 196

State Funding of State and Local Infrastructure

Excerpted from: "*CalFacts 2018*", California Legislative Analyst's Office



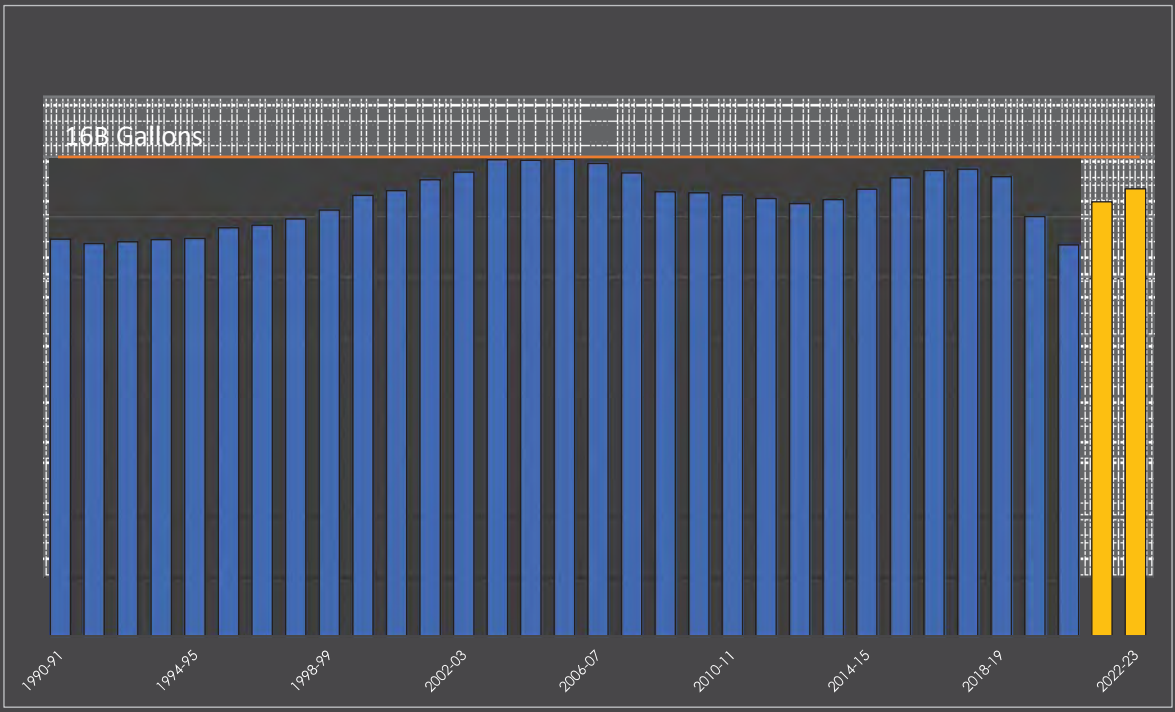
7

Federal Infrastructure Law

- $1.2 trillion Infrastructure Investment and Jobs Act approved on November 15, 2021.
  - Reauthorized surface transportation programs for five years
  - $550 billion in new spending in addition to regular annual spending on infrastructure.
  - Created new competitive transportation grant programs and increases funding for existing competitive programs.
- California is estimated to receive the following formula funding over the five-year life of the bill:
  - $25.7 billion — Federal-aid highway apportionment
    - New Programs – EV Infrastructure, Carbon Reduction and PROTECT
  - $4.2 billion — (New) Bridge replacement and repair
  - $9.45 billion — Public Transportation

8

Impact of COVID-19



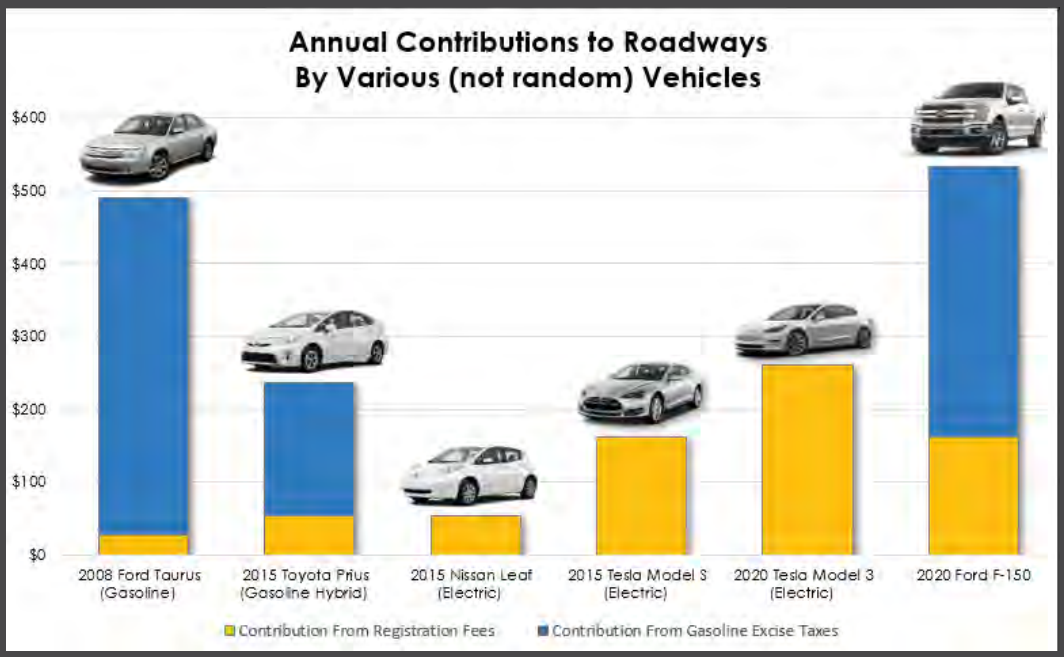
9

How Transportation Funding Works

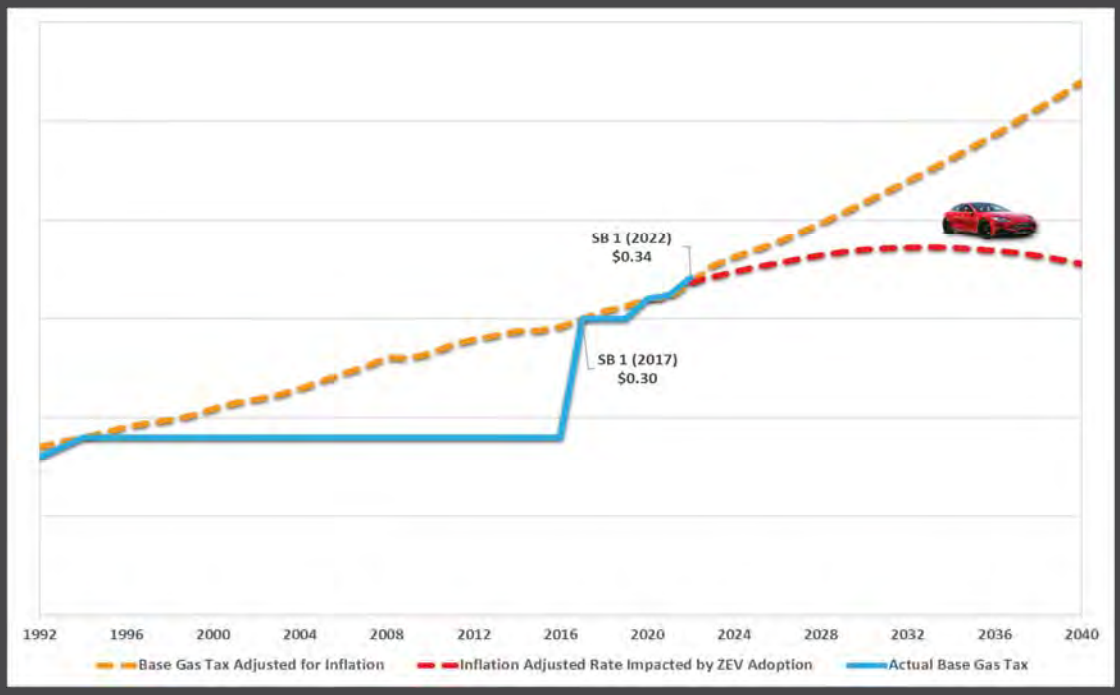
10

…may come with problems

Imbalance in the Current System



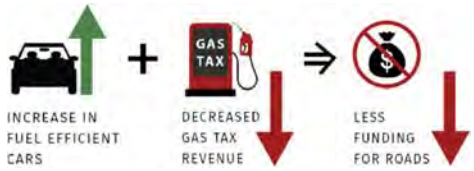
ZEV Adoption Impacts to the Effectiveness of the Gas Tax

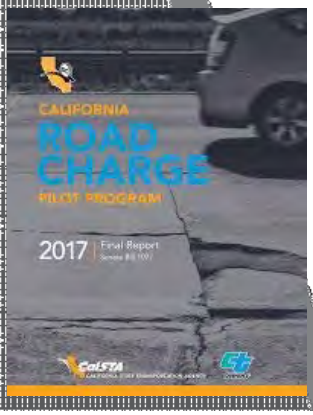


The Future is Closer Than You Think

What Do We Need to Do?

- Modernize the Transportation Funding System from the ground up
- Address "Fair Share" issues
- Take the opportunity to address equity issues
- Communicate
- Communicate
- Communicate





15

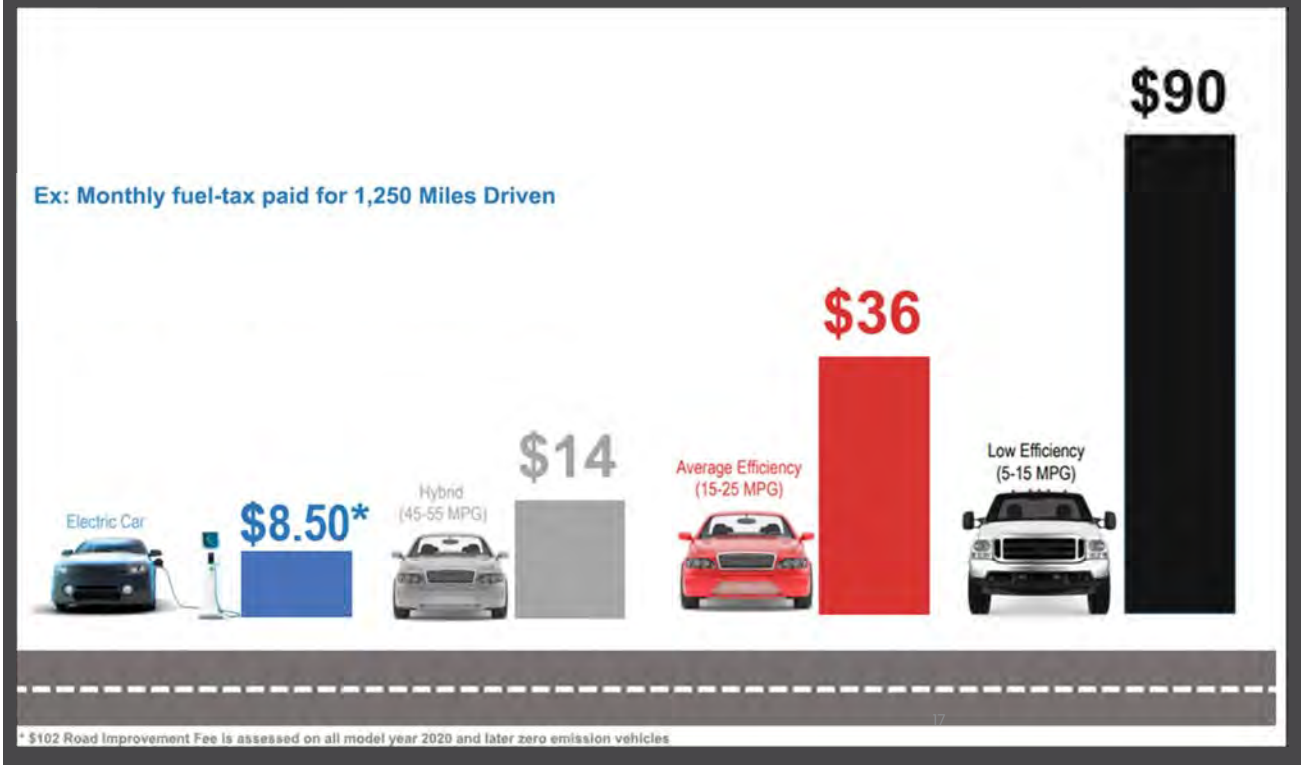
What is a Road Charge?

Road Charge is an innovative funding mechanism intended to replace the current gas tax, and more accurately ensures that all drivers are paying their fair share to **use the road. Road Charge allows drivers to support local road and highway maintenance based on how many miles they drive, instead of how many gallons of gas they use.**

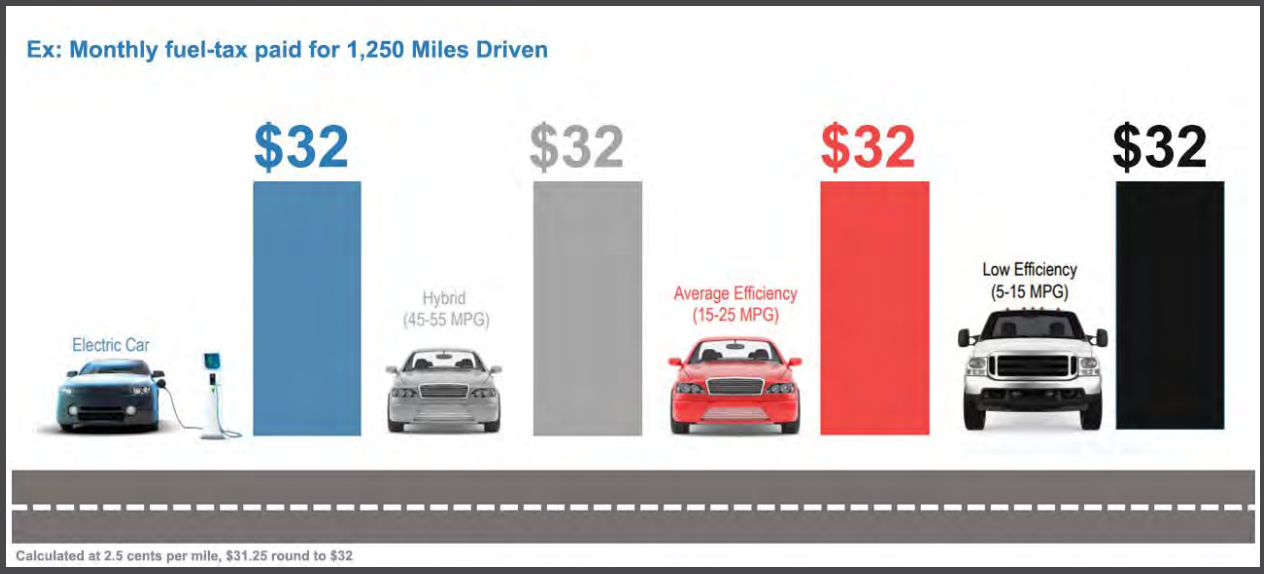
California is studying Road Charge as:

- A <u>replacement</u> for the gas tax
- One per mile rate for all passenger vehicles
- Revenue neutral, not a tax increase
- Aims to stabilize funding, not change behavior
- No change in how funding is spent: existing formulas and programs remain

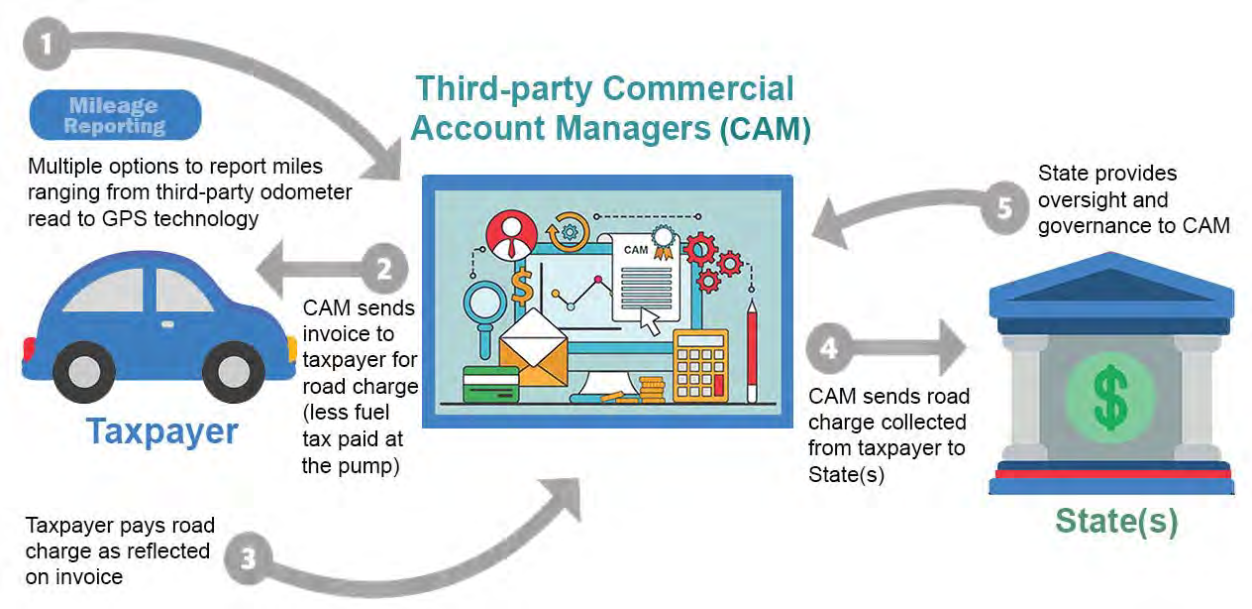
What drivers pay under the Gas Tax



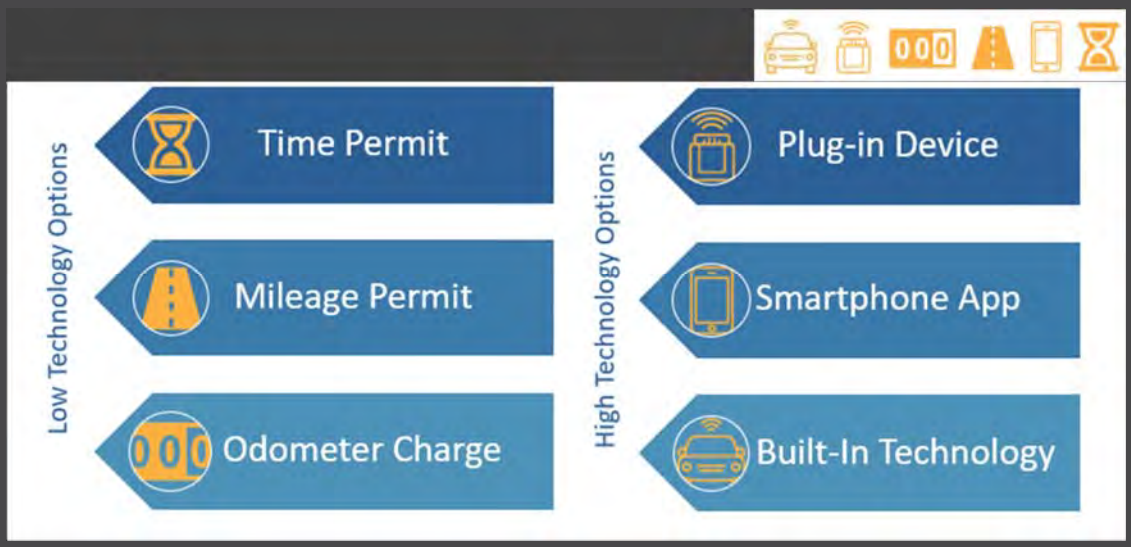
What drivers pay under Road Charge



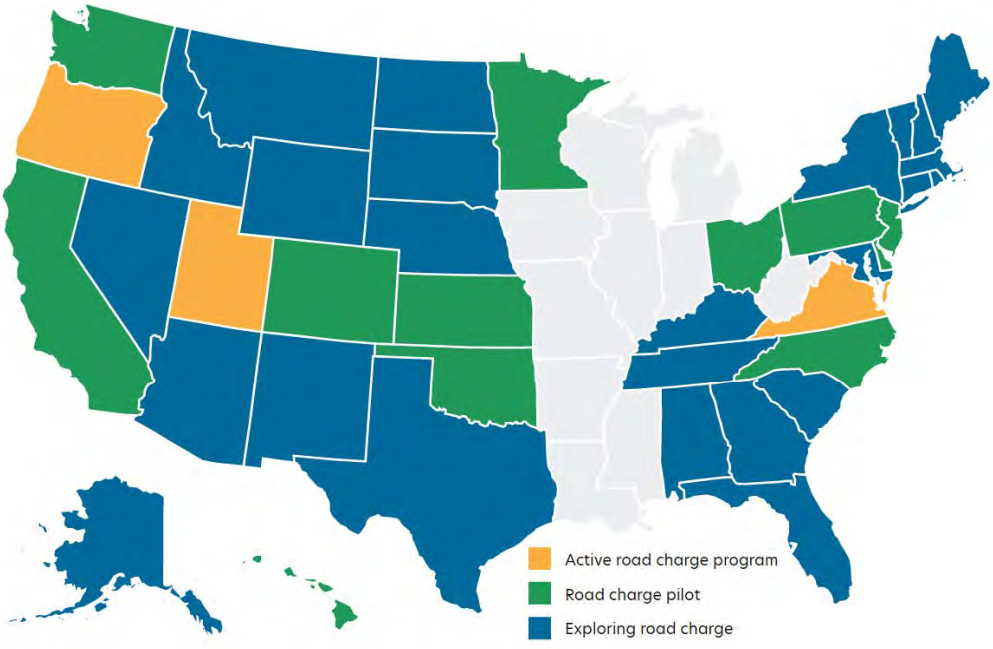
Road Charge System Structure



Mileage Reporting Methods



The National Picture



In addition, several nations around the world have implemented distance-based charging including Belgium, Germany, and New Zealand, and many other nations are considering this option.

With the Governor's Executive Order banning the sale of gas-powered vehicles in 2035, can a Road Charge be implemented in time?

- Based on the experience of other states, and given the size and complexity of California, we expect the Legislature would want to explore a phased approach to potential implementation.
- Such a phased rollout could likely be accomplished in 10-12 years.
- As long as ZEVs are transitioned before 2035, there will not likely be long-lasting impacts to revenue.

Questions