

# TRANSPORTATION DATA ANALYSIS TECHNICAL ASSISTANCE PROGRAM

## Request for Questions

SUBMISSION DEADLINE  
FEB. 18, 2025 – 5 P.M.



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# EXECUTIVE SUMMARY

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The Southern California Association of Governments (SCAG) is opening this Request for Questions, inviting public agencies within the SCAG region to submit transportation research questions tailored for analysis using big data tools. Up to 15 questions submitted by agencies will be selected for analysis by a SCAG-procured consultant.

Public agencies in the SCAG region—which include municipalities, cities, county governments, transit agencies, and Tribal governments—will, at no cost to them, receive recommendations based on the results of the big data analysis. This endeavor is a part of SCAG’s Regional Pilot Initiatives program, specifically the Transportation Data Analysis Technical Assistance Program.

Big data analytics refers to the process of translating large datasets into usable, aggregated information. Public agencies can leverage big data platforms to enhance their effectiveness in urban and regional planning and development. Big data analytics can be used to analyze population demographics, traffic patterns, infrastructure usage, ridership patterns, traffic flow data, commuter behavior, and much more to understand trends, patterns, and correlations about a region of interest. By analyzing large volumes of data from diverse sources, policymakers can gain empirical insights that inform policy and planning strategies. SCAG has an ongoing contract with big data vendor StreetLight InSight®, which would be leveraged as a part of the Transportation Data Analysis Technical Assistance program.

The primary objective of this Request for Questions is to harness the potential of big data analytics to address pressing transportation-related challenges within the SCAG region. SCAG is soliciting pertinent transportation planning and policy questions from interested and eligible public agencies in the region to explore a wide spectrum of topics, including traffic congestion management, public transit optimization, demand management, compliance, regulation, and more. This Request for Questions represents SCAG’s commitment to advancing regional transportation planning through innovative approaches and leveraging the power of big data analytics to promote a culture of data-driven decision-making.

## KEY ACTIVITIES:

1. **Eligibility and Submission:** All public agencies within the SCAG region are eligible to submit transportation planning and policy questions during the open Request for Questions period. The questions will be evaluated based on their relevance, specificity, and suitability for analysis using big data tools. Up to 15 agency-submitted questions will be selected.
2. **Memorandum of Agreement:** SCAG will enter memoranda of agreement (MOUs) with public partners whose questions are selected through the Request for Questions process. These MOUs will provide a framework for collaboration between the selected public partner, SCAG, and the SCAG-procured consultant.
3. **Consultant Engagement:** A SCAG-procured consultant will provide direct technical assistance to the selected public agencies. The selected consultant will collaborate directly with agencies to refine and analyze submitted questions using big data analytics through platforms such as StreetLight InSight® and other similar platforms.
4. **Public Agency Involvement:** Public agencies will be expected to meet with the consultant for monthly program meetings, which the consultant will prepare for and facilitate. Public agencies will also be expected to review the deliverables from the consultant for utility and clarification concerns.

5. **Analysis Deliverables:** The consultant will conduct up to 10 small-scale analyses, resulting in memos, and up to five more robust analyses, leading to whitepapers. This comprehensive approach ensures a diverse range of questions are addressed in varying levels of depth and detail. The consultant will also be required to present to the program's big data stakeholders the findings from the program evaluation.

The expected outcomes for this Request for Questions process include leveraging big data to inform policy recommendations and resource allocation in planning; fostering collaborative partnerships with public agencies that enhance the region's capacity to address complex issues; and developing valuable resources—including whitepapers and memos—to promote knowledge sharing and a broader regional understanding of transportation dynamics in the SCAG region.

# INTRODUCTION

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## Background

The Southern California of Governments (SCAG) is the nation's largest metropolitan planning organization, and represents six counties, 191 cities, and approximately 19 million residents. Established under California state law, SCAG undertakes a variety of planning and policy initiatives to address regional issues impacting Southern California, including the Connect SoCal Regional Transportation Plan/Sustainable Communities Strategy. The agency's goals and objectives are fundamentally connected to the current and evolving transportation network of the region.

In July 2023, SCAG's Transportation Committee and Regional Council approved SCAG's proposed framework for the Regional Pilot Initiatives (RPI) program through June 2026, which included "Big Data Research" as one of its program areas. The goal of the RPI program is to develop and deploy pilots of regional significance, in partnership with the public and private sectors. The RPI program is funded by a combination of the Carbon Reduction Program and Office of Traffic Safety grants.

SCAG plays an ongoing and pivotal role in providing a portfolio of data and tools for public agencies in the region to access regional planning data, statistical data, and research information. Included in this portfolio is the SCAG Regional Data Platform (RDP), which is an innovative system to support the collaborative sharing of data and other planning tools and resources to facilitate better planning at all levels. The goals of the RDP are to provide regional access to data, analytical tools, and best practices that support stronger planning and information-based decision-making, and to streamline the exchange of information with jurisdictions and partners across the region.

As part of the RDP, SCAG maintains a contract with big data platform StreetLight InSight® to provide up to 210 licenses to regional stakeholders (at no cost) through June 30, 2026. The purpose of this three-year contract is to provide access for public agency staff and other relevant stakeholders to analyze, evaluate, and understand emergent local and regional multimodal travel behavior and patterns using big data analytics. Embedded in this contract are data integration tools, which provide users on the SCAG licenses to access truck, safety, and real-time speed data.

However, SCAG understands that many jurisdictions in the region who could benefit from these types of big data analytics lack the in-house staff expertise or capacity to effectively operate platforms like StreetLight InSight® or other advanced data platforms. To address these barriers and to foster a region-wide culture of data-driven decision-making, SCAG is implementing the Transportation Data Analysis Technical Assistance Program. This program provides direct support to local jurisdictions and agencies to refine, research, and answer key transportation policy and planning questions using big data analytics, with an emphasis on supporting the needs of small and otherwise under-resourced jurisdictions and agencies. This program is funded by the Carbon Reduction Program and will incur no cost to the public agencies selected through this Request for Questions process.

## Overview of the Request for Questions Process

SCAG is opening this Request for Questions to solicit pertinent transportation planning and policy questions that are well suited to analysis using big data tools. All public agencies within the SCAG region who are currently on the StreetLight InSight® platform are eligible to submit questions. Big data analytics can help answer a wide range of transportation-related questions, which may address traffic, congestion

management, public transit optimization, anonymized traveler information, demand management, compliance, regulation, and more.

SCAG is procuring a consultant that will provide direct technical assistance to support selected public agencies in analyzing their questions. The selected consultant will coordinate directly with agencies to refine, research, and answer their questions using big data analytics, including StreetLight Insight® and up to two additional platforms.

SCAG will enter a Technical Assistance Agreement with public partners selected through the Request for Questions process. The consultant will complete analyses for approximately 10 to 15 jurisdictions, and final deliverables to partner agencies will be provided in memos (1-3 pages) or in more robust white papers (5-10 pages) summarizing the results and recommended policy or planning actions. The anticipated deliverables will weigh various factors, including the complexity of the required analyses.

## OBJECTIVES

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The objective of this Request for Questions process is to:

- Identify key transportation policy and planning challenges faced by public agencies.
- Encourage regional collaboration and knowledge exchange.
- Promote regional data-informed decision-making.
- Facilitate the selection of public agencies for technical assistance.

## SCOPE OF QUESTIONS

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To ensure that questions are well-defined, actionable, and aligned with SCAG and funding source goals, public agencies should consider the following when scoping their questions:

- **Alignment** with the overall transportation objectives of the region and the funding sources, which include: the reduction of transportation carbon emissions through investment in zero-emission vehicles and infrastructure, active transportation, and rail and transit.
- Data **availability and feasibility** to ensure that the requested data exists and can be obtained through big data tools.
- Geographic focus should be **confined within the six-county SCAG region**: Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura counties.
- **Specificity and clarity** of questions that can be effectively addressed through big data analytics to obtain actionable insights.
- **Multimodal applications** to address various transportation modes, including pedestrian walkways, bicycling, ride-share services, public transit, and roadway networks.

- **Innovative considerations** to explore the integration of emerging technologies for improving transportation system efficiency, safety, and sustainability, such as smart infrastructure, autonomous transportation, connected vehicles, etc.
- Impact assessment and **actionable takeaways** that can contribute to evidence-based decision-making and policy recommendations.

Big data analytics play a pivotal role in informing and providing empirical evidence to justify transportation planning and policy decision-making. However, because of the scale and complexity of big data, it can become challenging to process and analyze using traditional data processing applications. By harnessing, aggregating, and translating diverse datasets using big data platforms, transportation planners in the SCAG region can gain valuable insights into travel patterns, traffic behavior, infrastructure usage, and more to make informed and evidence-based decisions.

Big data analytics can answer critical transportation planning and policy questions, including some of the following case study examples:

- *Example Question 1:* Which portions of the Ventura County highways have the most congestion during the weekday peak commute periods?
  - Informed the development of the [Ventura County Transportation Commission's Freeway Service Patrol program](#), which used the [StreetLight InSight® platform](#) to identify and target highway segments along U.S. 101 and CA-118, with the highest traffic congestion rates during rush hour to provide roaming tow trucks that can efficiently respond to and clear disabled vehicles and reduce traffic jams.
- *Example Question 2:* What are the regional movement patterns in and around Santa Barbara County?
  - Supplemented the development of the [Santa Barbara County Association of Governments \(SBCAG\)'s Understanding Regional Travel Patterns report](#) for decision-makers and the public, which used the [Replica platform](#) to consider where and how people move into, out of, and within Santa Barbara County.
- *Example Question 3:* How should Translink, Vancouver's transit authority, make buses faster and more reliable along the busiest corridors in the region?
  - Worked in partnership with [StreetLight Insight® platform](#) to build a "[mode share map](#)," which illustrated the strength of bus ridership in the region, making the case for more bus priority (including investments in dedicated bus lanes).
- *Example Question 4:* Where are the highest risk locations for Vulnerable Road Users (VRUs) on state and local roads in California?
  - The California Department of Transportation worked in partnership with the [Replica platform](#) to obtain pedestrian and bicycle activity data and volumes based on heat maps to support their recently completed [VRU safety assessment](#).

By answering these and similar questions, big data analytics can empower transportation planners to develop effective policies, prioritize investments, and optimize transportation systems to meet the evolving needs of communities in the region, while promoting efficiency, equity, and sustainability.

# ELIGIBILITY

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All public agencies within the SCAG region— county transportation commissions, federally recognized Tribal governments, SCAG cities, and transit agencies—currently using the SCAG StreetLight Insight® license or that have operated the platform independently are eligible to submit questions.

# SUBMISSION GUIDELINES

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1. *Question Format:* Eligible public agencies will submit their questions to SCAG via an online submission form. Eligible agencies can submit up to five questions and will have the option to indicate question priority. Agencies are expected to indicate one primary point of contact at their agency who, if selected, would participate in coordination activities throughout the question analysis process with the SCAG-selected consultant.
2. *Question Review:* Questions will be reviewed and addressed by SCAG's review committee using pre-set scoring criteria and timeline. See "Question Evaluation Criteria" below.
3. *Response Process:* Within six weeks of the closing of the Request for Questions period, SCAG will contact all submitting agencies notifying them of their selection or rejection. Selected agencies should expect to coordinate with the selected consultant to refine their questions as needed.



# QUESTION EVALUATION CRITERIA

SCAG staff, with consultant support, will conduct an evaluation of the portfolio of questions received. Screening will include a review of all questions submitted by public agencies based on the following criteria:

1. *Confirm Eligibility:* SCAG staff and the selected consultant will review submitted questions and documentation to ensure that agencies are eligible and that proposed questions can be answered using big data. The selected consultant will coordinate with agencies to make any necessary refinements to the questions. SCAG or the selected consultant will provide agencies who are not selected with notes on how a submission may be revised for a future application.
2. *Scoring Criteria:* Eligible questions can achieve up to 100 points. The review committee, which includes SCAG staff and the SCAG-selected consultant, will score questions using the following rubric:

Scoring Criteria	Possible Points
<p><i>Connection to Regional Priorities:</i> Project implements SCAG’s <a href="#">Connect SoCal 2024</a>, specifically addressing the following:</p> <p><b>Safe and Equitable Access (Mobility):</b> Build and maintain a robust transportation network.</p> <ul style="list-style-type: none"> <li>• Support investments that are well-maintained and operated, coordinated, resilient, and result in improved safety.</li> <li>• Ensure that reliable, accessible, affordable, and appealing travel options are readily available while striving to enhance equity in high-need communities.</li> <li>• Support planning for people of all ages, abilities, and backgrounds.</li> </ul> <p><b>Environment:</b> Create a healthy region for people of today and tomorrow.</p> <ul style="list-style-type: none"> <li>• Integrate the region’s development pattern and transportation network to improve air quality, reduce greenhouse gas emissions, and enable more sustainable use of energy and water.</li> </ul>	Up to 20 points
<p><i>Feasibility for Big Data Analytics:</i> The question can be analyzed and answered using big data tools and techniques.</p>	Up to 25 points
<p><i>Geographic Focus:</i> The question is geographically focused within the six-county SCAG region.</p>	Up to 15 points
<p><i>Equity:</i> Question demonstrates direct and indirect benefit for <a href="#">Priority Equity Communities</a>.</p>	Up to 20 points
<p><i>Carbon Reduction Potential:</i> Question demonstrates potential to decrease carbon emissions in the SCAG region.</p>	Up to 20 points

# TIMELINE

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The following schedule outlines important dates for the Request for Questions process. *Process timelines are subject to change.*

Timeline	Date	Time
Request for Questions released	Jan. 6, 2025	10:00 a.m.
Deadline to Submit Questions via JotForm	Feb. 18, 2025	5:00 p.m.
Consultant Question Assessment & Refinement Begins	Feb. 2025	
Public Agency Partners Selected, Announced	Apr. 2025	5:00 p.m.
Part I: Questions Answered	Jan. – Mar. 2026	
On-Call Question Solicitation	Mar. 2026	

# SUBMISSION INSTRUCTIONS

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SCAG will accept applications via this Request for Questions until 5 p.m. on Feb. 18, 2025, via online submission form. During this six-week period, eligible public agencies will have the opportunity to formulate and submit questions and direct inquiries to SCAG staff, as needed. Dedicated office hours will be hosted by SCAG on Jan. 28, 2024, from 1:00 to 3:00 p.m. on Zoom, with support from the consultant, to provide eligible public agencies with the opportunity to ask questions about the Request for Questions process. All public agencies that submit questions will receive confirmation of receipt from SCAG staff within five business days.

# ANALYSIS DELIVERABLES

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Up to 15 agency questions will be selected via this Request for Questions. Depending on the complexity of the question, agencies will receive either a whitepaper or memo deliverable, focusing on how big data resources can be employed to craft and steer appropriate policy recommendations. The primary deliverables are listed below in greater detail.

- Whitepaper analyses: Up to five formal whitepapers in response to research questions submitted which would benefit from deeper, longer format (5-10 pages) analysis.
- Memorandum analyses: Up to 10 “memorandum analyses” to address research questions submitted which can be appropriately analyzed in a shorter format (1-3 pages) deliverable.

# CONTACT INFORMATION

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Questions regarding the Request for Questions process should be directed to SCAG’s Local Information Services Team (LIST) at [LIST@scag.ca.gov](mailto:LIST@scag.ca.gov).



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