



Authorize Request for Proposals for Big Data

Consent

Prepared by: Shengyi Gao

Attachments: No

Approved by: Erik Johnson

Referring Committee: Policy & Innovation

1. Issue:

Staff is seeking authorization to release a Request for Proposals (RFP) to purchase big data to support its Overall Work Program and the 2024 Blueprint development.

2. Recommendation:

The Policy and Innovation Committee recommends that the board: (1) authorize the release of an RFP to purchase access to big data sources, and (2) delegate authority to the executive director to negotiate and execute a contract with the selected firm.

3. Background/Analysis:

Big data refers to large data sets that can reveal patterns, trends, and associations, especially relating to human behavior. Of particular interest for transportation planning are big data sources such as cellular signals, GPS and location-based data collected through smart phones and other electronic devices such as in-vehicle navigation systems.

In 2018, SACOG, partnering with Caltrans and California Air Resources Board (CARB), successfully implemented Big Data for Transportation Planning Pilot (pilot) and acquired detailed travel data from September 2018 to November 2020. The travel data was used to track travel changes during the pandemic period, update vehicle miles travelled (VMT) maps for SB 743 project screening, enhance the travel demand model (SACSIM23) that SACOG uses for developing the 2024 Blueprint, and provide support to key projects such as Next Generation Transit, EDCTC Highway 50 Action Plan, and Caltrans I-80 Management Lane Study.

The pilot and project applications demonstrated how big data can help planners answer key planning questions about issues such as VMT variations over time, equity, active transportation, congestion, and transportation safety. The Federal Highway Administration, Caltrans, California Air Resources Board, San Diego Association of Governments, Southern California Association of Governments, Metropolitan Transportation Commission, and many other Metropolitan Planning Organizations nationally have determined big data as a valuable planning tool and primary source of travel data for regional planning.

4. Discussion/Analysis:

To measure the progress towards the goals and objectives in SACOG's Overall Work Plan, monitor implementation of the 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy, and 2024

Blueprint, SACOG will benefit from access to real-time, high-quality big data. Having access to a big data vendor will provide information comparable to SACOG's household travel survey at a fraction of the cost and with the added ability to track changes in behavior over time, quickly analyze data in a user-friendly interface, and include trips that start or end outside of the SACOG region.

Staff is recommending the release of a Request for Proposals to provide access to big data sources for three years, with the option to extend the contract for up to an additional two years. The proposed budget is \$80,000 for the first year, and a total of \$400,000 for the life of the contract (including the option years).

5. Fiscal Impact/Grant Information:

\$80,000 is included in the Overall Work Program (OWP)/Budget for Fiscal Year 2022-2023 and the remaining amount will be included in the OWP/Budget in the subsequent years.

6. This staff report aligns with the following SACOG Work Plan Objectives:

Goal 1 : Advance Economic Prosperity

Objective 2: Establish the Sacramento region as a testbed and scale-up location for innovative mobility solutions.

Goal 2 : Connected Communities

Objective 2: Support innovative mobility options that develop equitable, accessible transportation options for all residents.

Objective 5: Begin sustained effort to address the racial inequities related to economic prosperity indicators associated with housing, transportation, and opportunity.

Objective 3: Prioritize cost-effective transportation investments that enhance mobility while improving safety, air quality, and the condition of transportation infrastructure and assets.