



SOUTHERN CALIFORNIA
ASSOCIATION OF GOVERNMENTS
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MEETING OF THE

TECHNICAL
WORKING GROUP

Thursday, July 20, 2023
10:00 a.m. – 12:00 p.m.

SCAG OFFICES
900 Wilshire Blvd., Ste. 1700
Los Angeles, CA 90017
(213) 236-1800

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MEETING ID: 142 774 637

If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Kevin Kane at (213) 236-1828 or via email at kane@scag.ca.gov. Agendas & Minutes for the Technical Working Group are also available at: <https://scag.ca.gov/technical-working-group>

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) 630-1402. 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.

- 1. Connect SoCal 2024 Development General Update**
Sarah Dominguez
20 minutes
[Packet page 5](#)

- 2. Model Peer Review Recap**
Bayarmaa Alexsandr
15 minutes
[Packet page 18](#)

- 3. Connect SoCal 2024 Performance Measures**
Mike Gainor
15 minutes
[Packet page 26](#)

- 4. Connect SoCal 2024 Equity Analysis Update**
Annaleigh Ekman
30 Minutes
[Packet page 33](#)

- 5. Connect SoCal 2024 Work from Home Assumptions**
Kevin Kane
15 Minutes
[Packet page 40](#)

- 6. Connect SoCal 2024 PEIR: Status Update on Additional Stakeholder Outreach & Preliminary Outline of Draft Contents**
Karen Calderon
5 Minutes
[Verbal update only](#)

- 7. SoCal Greenprint TAC update**
Kimberly Clark
5 Minutes
[Verbal update only](#)



TECHNICAL WORKING GROUP

Meeting Minutes (Abridged)

May 18, 2023

10 a.m. – 12 p.m.

The meeting was held via Zoom teleconferencing.

Membership Attendance

LAND USE AUTHORITIES

Brekke, Kendall	City of Lancaster	Lin, Tiffany	City of Irvine
Gable, Emily	City of Los Angeles	Murray, David	City of Riverside
Hogan, Larissa	City of Culver City	Pallini-Tipton, Conni	City of Los Angeles
Lauffer, Amanda	City of Anaheim	Vander Hyde, Candice	City of Lancaster

REGIONAL PARTNERS

Brooks, Caitlin	VCTC	Lee, Josh	SBCTA/SBCCOG
Garfio, Angel	OCTA	Tso, Kristin	OCTA
Huddleston, Lori	LA Metro		

REGULATORY & COORDINATING AGENCIES

Lugaro, Julie	Caltrans – D12
Miranda, Jude	Caltrans – D12

FIELD EXPERTS

Zaman, Ruby	CDR/CSUF
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ALTERNATES & PUBLIC ATTENDEES

Aranguri, Cesar	Indigenous Ark Urban Technologies
Baker, Wally	Jobs 1 st Alliance
Flocks, Violet	Southwest Mountain States Regional Council of Carpenters / ULI
Hoenshell, Shawn	–
McCarthy, Mike	R-NOW
Pena, Tari	–
Singer, Nathaniel	–
Spindler-Ruiz, Pedro	AECOM



TECHNICAL WORKING GROUP

Meeting Summary

1. AB 2334 TECHNICAL ASSISTANCE

Tom Vo presented on AB 2334 technical assistance that SCAG is providing to local and regional partners. The presentation included an overview of AB 2334, publicly available tools and data, and SCAG next steps. Participants provided no comment or questions.

2. JOB QUALITY INDEX

Gigi Moreno provided an economic update with a focus on the SCAG Job Quality Index. The update included an overview of the job quality index, its purpose and value, and outreach efforts to gather feedback. Several participants provided comments and questions for discussion: Mike McCarthy (R-NOW, nonmember), Pedro Spindler-Ruiz (nonmember), Violet Flocks (Southwest Mountain States Regional Council of Carpenters, nonmember), and Wally Baker (Jobs 1st Alliance, nonmember).

3. CONNECT SOCAL 2024 – LDX SURVEY RESULTS

Sarah Dominguez presented the results from the Local Data Exchange (LDX) Survey conducted last year. The presentation included an overview of the survey, response rate by county, specific responses relating to Land Use and Housing, Transportation, and Barriers, as well as next steps. Ruby Zaman (CDR/CSUF), Mike McCarthy, and Emily Gable (City of Los Angeles) participated in discussion.

4. RHNA REFORM UPDATE

David Kyobe provided a quick update on the Regional Housing Needs Allocation (RHNA) Reform Timeline, including the kickoff and deadline of SCAG's RHNA outreach on draft recommendations. No comments or questions were provided.



THE 2024 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY
OF THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS



CONNECT SoCal

Sarah Dominguez
Planning Supervisor
July 20, 2023

1



Outreach Summary

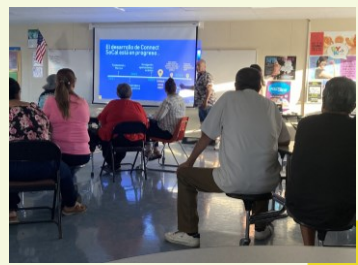
Spring 2023

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Outreach Activities



- 20 in-person workshops
- 7 virtual workshops
- 20 Pop-Up and Street Team Engagements
- 15 Community Partners
- Regionwide advertising campaign
- Resulting in over 3,600 surveys collected



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What We Heard: Survey



When you think about the **challenges** our region faces, please choose three (3) that are most important to you.

Shortage of affordable and diverse housing options (51%)

Limited reliable travel options besides driving to everyday destinations (37%)

Climate change impacts (33%)

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What We Heard: Survey



When you **envision our region in 2050**, which three (3) choices best describes what you'd like to see?

**Healthy for all people
to live in (53%)**

**Prosperous, with
economic opportunity
for all residents (46%)**

**Safe for all modes of
travel (39%)**

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What We Heard: Community Partnerships



Limited transportation options and the housing affordability affect quality of life, particularly in historically disinvested areas.

Infrastructure improvements should be coupled with direct benefits and protections for residents/small businesses at risk of displacement.

Desire for continued engagement with community partners on Connect SoCal implementation including updates on strategies and performance metrics.

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Policy Framework

July 2023 Update

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Policy Development Framework Background



- First adopted by the Regional Council on June 2, 2022
- Documented draft vision and goals
- Outlined policy priorities from Connect SoCal 2020, recent Regional Council actions, and emerging issues
- Established the special subcommittees
- **Regional Council adopted the updated Policy Framework with Regional Planning Policies on July 6, 2023**



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Regional Planning Policies



What is included in the Regional Planning Policies?

- Priorities established with the *Core Vision* of Connect SoCal 2020
- Policy direction from SCAG's Policy Committees since 2020 and recommendations from Connect SoCal 2024 special subcommittees

What is the purpose?

- Articulate broad and established regional policies to achieve goals and realize the regional vision of Connect SoCal 2024
- Provide a resource for transportation agencies or local jurisdictions to demonstrate alignment with RTP/SCS when seeking funding from state or federal programs

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Updated Draft Vision & Goals



Draft Vision: A healthy, accessible, and connected region for a more resilient and equitable future.

1. Build and maintain a robust transportation network. (MOBILITY)
2. Develop, connect, and sustain communities that are livable and thriving. (COMMUNITIES)
3. Create a healthy region for the people of today and tomorrow. (ENVIRONMENT)
4. Support a sustainable, efficient, and productive regional economic environment that provides opportunities for all. (ECONOMY)



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Updated Draft Vision & Goals



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Updated Draft Vision & Goals



Draft Vision: A healthy, prosperous, accessible and connected region for a more resilient and equitable future.

3. Create a healthy region for the people of today and tomorrow. (ENVIRONMENT)
 - Develop communities that are resilient and can mitigate, adapt to, and respond to chronic acute stressors and disruptors such as climate change.
 - 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.**
 - Conserve the restore the region's natural agricultural resources.



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Policy Categories by Goal



MOBILITY

- System Preservation
- Complete Streets
- Transit & Multimodal Integration
- Transportation Demand Management
- Transportation System Management
- Technology Integration*
- Safety
- Funding the System/User Fees

COMMUNITIES

- 15 Minute Communities *
- Housing the Region *
- Priority Development Areas
- Equitable Engagement & Decision-Making*

**New policy area for Connect SoCal 2024*

ENVIRONMENT

- Sustainable Development
- Air Quality & Clean Technology
- Natural & Working Lands Preservation
- Climate Resilience*

ECONOMY

- Goods Movement
- Broadband *
- Universal Basic Mobility*
- Workforce Development*
- Tourism

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Mobility Examples

Draft Regional Planning Policies



- **Transportation Demand Management:** Encourage the development of transportation projects that provide convenient, cost-effective and safe alternatives to single-occupancy vehicle travel (e.g., trips made by foot, on bikes, via transit, etc.).
- **Transportation System Management:** Pursue efficient use of the transportation system using a set of operational improvement strategies that maintain the performance of the existing transportation system instead of adding roadway capacity.
- ***Technology Integration:** Support the implementation of technology designed to provide equal access to mobility, employment and economic opportunity, education, health and other quality of life opportunities for all residents within the SCAG region.

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Mobility Examples

Draft Regional Planning Policies



- **System Preservation and Resilience:** Prioritize repair, maintenance, and preservation of the SCAG region's existing transportation assets first, following a "Fix-It-First" principle.
- **Complete Streets:** Pursue the development of complete streets that comprise a safe multi-modal network with flexible use of public rights-of-way for people of all ages and abilities using a variety of modes (e.g., people walking, biking, rolling, driving, taking transit).

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Mobility Examples

Draft Regional Planning Policies



- **Transit Multimodal Integration:** Encourage and support the implementation of projects both physical and digital that facilitate multimodal connectivity, prioritize transit and shared mobility, and result in improved mobility, accessibility, and safety.
- **Safety:** Eliminate transportation-related fatalities and serious injuries on the regional multimodal transportation system.
- **Funding the System/User Pricing:** Promote stability and sustainability for core state and federal transportation funding sources.

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Communities Examples

Draft Regional Planning Policies



- **Priority Development Areas:** Foster growth within the Forecasted Regional Development Pattern of Connect SoCal 2024 by prioritizing policies that encourage housing and employment in Priority Development Areas.
- ***Housing the Region:** Encourage housing development in areas with access to important resources (economic, educational, health, social, and similar) and amenities to further fair housing access and equity across the region.

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Communities Examples

Draft Regional Planning Policies



- ***15 Minute Communities:** Promote 15-minute communities as places with a mix of complementary land uses and accessible mobility options that align with and support the diversity of places (or communities) across the region where residents can either access most basic, day-to-day needs within a 15-minute walk, bike ride, or roll from their home or as places that result in fewer and shorter trips because of the proximity of complementary land uses.
- **Equitable Engagement and Decision-Making:** Advance community-centered interventions, resources, and programming that serve the most disadvantaged communities and people in the region, like Priority Equity Communities, with strategies that can be implemented in the short-to-long-term.

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Environment Examples

Draft Regional Planning Policies



- **Sustainable Development:** Promote sustainable development and best practices that enhance resource conservation, reduce resource consumption, and promote resilience.
- **Air Quality:** Reduce hazardous air pollutants and greenhouse gas emissions and improve the air quality throughout the region through planning and implementation efforts.
- **Clean Transportation:** Accelerate the deployment of a zero-emission transportation system and use near-zero emission technology to offer short term benefits where zero emissions solutions are not yet feasible or commercially viable.

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Environment Examples

Draft Regional Planning Policies



- **Natural and Agricultural Land Preservation:** Prioritize the climate mitigation, adaptation, resilience, and economic benefits of natural and agricultural lands in the region.
- ***Climate Resilience:** Prioritize the most vulnerable populations and communities subject to climate hazards to help the people, places, and infrastructure that are most at risk for climate change impacts, recognizing that disadvantaged communities are often overburdened.

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Economy Examples

Draft Regional Planning Policies



- **Goods Movement:** Leverage and prioritize investments particularly where there are mutual co-benefits to both freight and passenger/commuter rail.
- ***Broadband:** Support ubiquitous regional broadband deployment and access, to provide the necessary infrastructure and capability for Smart Cities strategies and to ensure that the benefits of these strategies improve safety and are distributed equitably.
- ***Universal Basic Mobility:** Encourage partnerships and policies to broaden safe and efficient access to a range of mobility services to improve connections to jobs, education, and basic services.

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Economy Examples

Draft Regional Planning Policies



- ***Workforce Development:** Foster a positive business climate by promoting regional collaboration in workforce and economic development between cities, counties, educational institutions, and employers.
- **Tourism:** Consult and collaborate with state, county, and local agencies within the region charged with promoting tourism and transportation.

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Stakeholder Engagement and Feedback



- **April 2023:** SCAG shared draft Regional Planning Policies and solicited feedback from several stakeholder groups:
 - County Transportation Council (**CTC**) Planning Directors
 - Subregional Executive Directors
 - SCAG’s Regional Planning Working Groups (**RPWG**)
 - Technical Working Group (**TWG**)
 - Regional Transit Technical Advisory Committee (**RTTAC**)
 - Global Land Use & Economic (**GLUE**) Council



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Next Steps



**SPRING
2023**

- Public Outreach
- Draft Regional Planning Policies development

NOW

- Policy Framework Update with:
 - Updated Draft Vision and Goals
 - Revised Regional Planning Policies

**THROUGH
SUMMER
2023**

- Plan Modeling & Data Analysis
- Incorporate feedback into:
 - Draft Implementation Strategies
 - Technical Reports

FALL 2023

- **Draft release of Connect SoCal 2024 in October**

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Questions? Comments?

FOR MORE INFORMATION, PLEASE VISIT
SCAG.CA.GOV/CONNECT-SOCAL



SCAG ABM Peer Review



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SCAG Peer Review RTP/SCS 2024



Background

- Model Peer Review procedure is recommended by RTP Guideline from California Transportation Commission (CTC)
- The purpose is to ensure that SCAG regional travel demand model (SCAG ABM) aligns with current state of practice and can effectively support SCAG's various planning functions and analysis
- Peer review panel – experts from federal, state, MPOs, academic and professional
- Peer review covers various aspects - model framework, performance, 2019 base year validation, and sensitivity to policies and strategies
- Suggestion and recommendations proposed by the panel members are used for future model improvements

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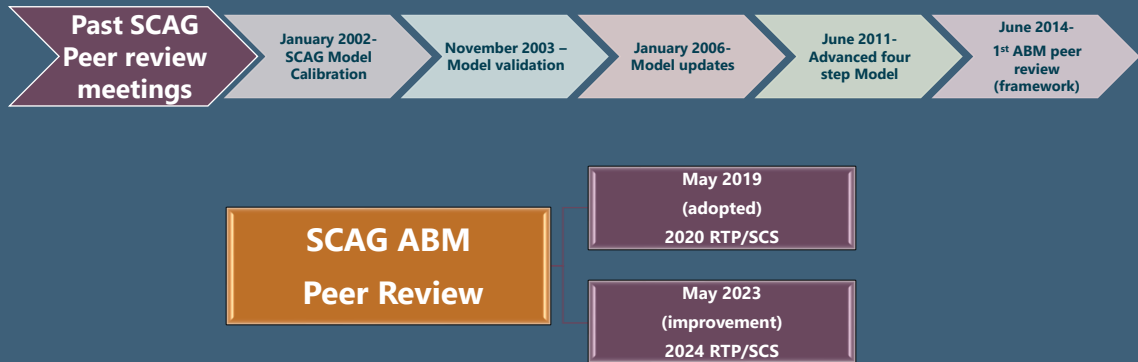
July 20, 2023



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SCAG Peer Review



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SCAG Peer Review RTP/SCS 2024

Overview

SCAG ABM was developed and used for 2020 RTP/SCS. The model has been updated since initial development. SCAG ABM model improvement for 2024 RTP/SCS includes model estimation using the most recent data, 2019 base year model calibration and validation, and new sub-models development.

- Refining & re-estimating coefficients for existing sub-models using the latest data
- Adding two new sub-models for future planning policy analyses
- Calibration and validation- utilizing local target metrics
- Software improvements-run time, code optimization and upgrade
- Incorporate emerging technologies –TNC
- Update- Heavy duty truck model
- Update- SED, network other inputs (AOC, WFH)

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Peer Review Panel

Name	Title	Organization
Guy Rousseau (Chair)	Modeling Manager	Atlanta Regional Commission
Anthony Catalina	Senior Director, Countywide Planning	LA Metro
Brian Gardner	System Planning and Analysis Team Lead	Federal Highway Administration
Konstadinos Goulias	Professor of Transportation	UCSB
Nesamani Kalandiyur	Manager, Transportation Analysis Section	CARB
Wu Sun	Manager of Regional Models	SANDAG
Mike Wallace	Principal	Fehr & Peers

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SCAG Peer Review RTP/SCS 2024



Charge to the Panel

- Review model documentation and provide recommendations intended to improve and/or demonstrate the performance of the model for regional analysis.
- Provide recommendations on future modeling directions and possible future model enhancements.
- Assess adequacy of the SCAG travel demand model



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Agenda

8:30am -8:55am Breakfast/ Networking

8:55am Welcome
Sarah Jepson- Chief Planning Officer

9:00-9:20 Introduction, Charge to Panel Chair

9:20 am- 9:35 am
SCAG overview

9:35 am- 9:55 am
SCAG ABM Model

9:55 am- 10:40 am
Model Improvement and Enhancement

10:45 am- 10:50 am Break

10:50 am- 11:40 am
Calibration and Validation
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

11:40 am- 12:00 pm Break/Lunch

12:00 pm- 12:45 pm
Model Sensitivity Tests (Working lunch)

12:45 pm- 12:55 pm Break

12:55 pm- 2:00 pm
Open Discussion

2:00 pm- 3:40 pm
Panel Discussion

3:40 pm- 3:50 pm Break

3:50 pm- 4:20 pm
Panel Recommendation

4:20 pm- 4:30 pm
Wrap up

SCAG REGIONAL MODEL (ABM)

PEER REVIEW MEETING

Wednesday, May 10, 2020
8:30 a.m. – 4:30 p.m.

SCAG OFFICES
Policy Room A & B
900 Wilshire Blvd., Ste. 1700
Los Angeles, CA 90017
(213) 236-1800
#

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2023 Transportation Modeling Peer Review

A Peer Review of the Southern California Association of Governments (SCAG) Regional Travel Demand Model

Final Report

An in-person peer review of the travel demand modeling process used to develop the SCAG Region’s Transportation Improvement Program (TIP) and Regional Transportation Plan (RTP) was held at SCAG’s office on May 10, 2023. The review was conducted at the request of SCAG to evaluate their current activity-based model, and to provide recommendations pertaining to future model development efforts.

The peer review of the SCAG transportation modeling process featured a panel consisting of two transportation modelers from other Metropolitan Planning Organizations (MPOs) somewhat comparable in size to SCAG, an academic transportation modeler, a transportation modeling

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Positive Highlights of the SCAG Model

- Very well qualified modeling staff and consultants
- ABM is up and running for a very large region
- Aggressive and flexible in exploring data options
 - Quick response tool for the cordon model and external stations
- Validation results have improved since last peer review
- Sensitivity testing is very informative
- Leverage DMV data is a great initiative
- Trying to reflect and capture telemedicine, work-from-home, etc.

Positive highlights of the SCAG model

- Work location model is more representative
- School location model has also improved
- New mode choice model including TNCs is a great work in progress
- Model run-time has decreased
- Follow CARB guidelines for sensitivity testing
- New sub-models trip departure time choice have improved, to remove illogical mode switching, activities with negative trip duration have been removed
- Single TDM reduction factor has improved with work-from-home

Short Term Recommendations

- Travel market segmentation documentation
- Better document the ABM and ancillary models
- Mode shift between rail and trucks in freight model
- More transit validation by corridors and sub-areas
- Daily VMT by facility type
- Sensitivity testing around population and employment, as well as emerging technologies, and all pricing policies (parking, etc.)
- Better documentation on how the ABM is integrated with the land use model
- Coordination with Caltrans statewide travel demand model and adjacent MPO models (SANDAG, etc.)
- Compare model trip tables with CTPP data for smaller geographies and market segments

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Long Term Recommendations

- Report work-from-home by industry / occupation
- Better define “Essential Workers” in the model
- All travel surveys need to be updated
- Employment patterns and change in the economy need to be better accounted for in the model, including flexible [work space](#)
- Feedback between the land use model and ABM
- Regional DTA: transit capacity and crowding levels on key corridors
- Regional DTA: macro-meso-micro hierarchy in scale, pseudo-DTA
- Explicit modeling of first-mile and last-mile deliveries
- EV and charging stations in ABM, vehicle type model
- Consider micro-zones to better model walk and bike trips
- Car-sharing micro-mobility

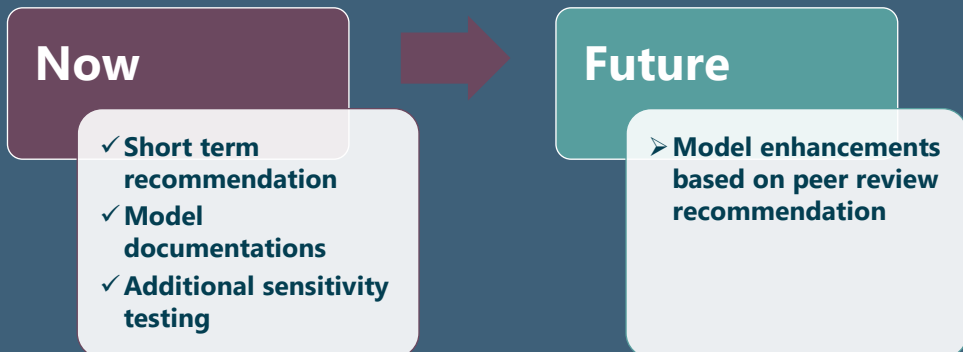
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Recommendation Summary

- SCAG ABM was praised for having a well-qualified modeling team and consultants, being up and running for a large region, and being aggressive and flexible in exploring data options
- Model also received praise for improved validation results since the last peer review, and informative, sensitivity testing
- The panel provided short -term and long –term recommendations
 - Short-term enhancements include model documentation and additional tests
 - Long-term enhancements include travel survey data collection, analysis for post-pandemic travel patterns, sub-model development for special generators, and new modes analysis such as EV and CAV.

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Next step



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Thank you

Contact to Modeling and Forecasting:
ABM and Travel Data Program Lead- Bayarmaa Aleksandr aleksandr@scag.ca.gov



Connect SoCal 2024 Draft Performance Measures

Mike Gainor, Senior Regional Planner

WWW.SCAG.CA.GOV

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Connect SoCal 2024 Goals

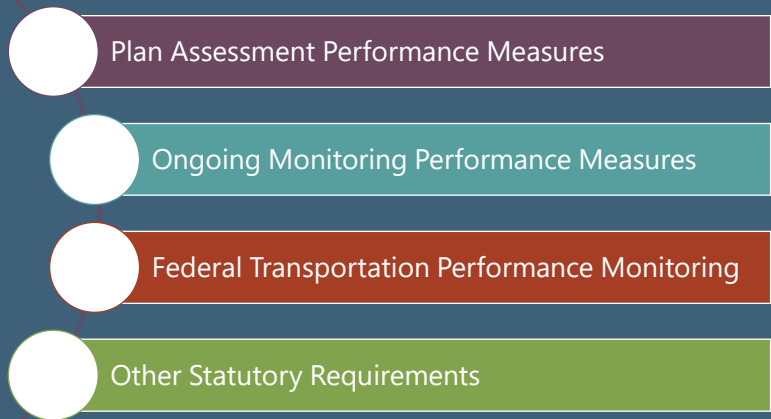
Connect SoCal is guided by four foundational regional goals as we move toward 2050:

Goal	Vision
Mobility	Build and maintain a robust transportation network.
Communities	Develop, connect, and sustain communities that are livable and thriving.
Environment	Create a healthy region for the people of today and tomorrow.
Economy	Support a sustainable, efficient, and productive regional economic environment that provides opportunities for all.

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Connect SoCal Performance Measures

Types of performance measures to support development & implementation of Connect SoCal



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Plan Performance Assessment Measures

- Plan assessment measures evaluate how well the regional transportation system will be expected to perform in 2050 relative to Connect SoCal goals.
- Quantitative measures are identified to evaluate plan performance under several sets of planning assumptions.
- Planning assumptions are input into SCAG models to project future (2050) regional performance relative to each modeled scenario.
- Scenarios based on comparative 'Base Year' representing existing regional conditions in 2019.

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Plan Performance Assessment Measures

- The 'Baseline' projection forecasts 2050 regional conditions expected if Connect SoCal 2024 was not implemented.
- The 'Plan' scenario projects regional conditions in 2050 with the assumption that the program of regional multimodal transportation system improvement projects & strategies identified in Connect SoCal 2024 is fully implemented.
- SCAG models generate output relative to the plan measures to provide insight on how Connect SoCal impacts regional performance.

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Plan Performance Assessment Measures

Performance Measure	Connect SoCal Goal
Average Trip Distance	Mobility
Average Travel Time	Mobility
Travel Time Distribution by Mode	Mobility
Travel Mode Share	Mobility
Person Hours of Delay by Facility Type	Mobility
Person-Delay per capita	Mobility
Truck Delay by Facility Type	Mobility
Access to Jobs	Mobility
Major Destination Accessibility	Mobility
Transit Boardings per capita	Mobility
Percent of Trips Less than 3 Miles	Communities
Physical Activity-Related Public Health Incidence & Costs	Communities
Air Pollution-Related Public Health Incidence & Costs	Communities
Park Accessibility	Communities
Share of Household Growth in PDAs	Communities

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Plan Performance Assessment Measures

Performance Measure	Connect SoCal Goal
Vehicle Miles Traveled (VMT) per capita	Environment
Greenhouse Gas (GHG) Emissions	Environment
Land Conversion to Urban Purposes	Environment
Energy Consumption	Environment
Water Consumption	Environment
Criteria Air Pollutant Emissions *	Environment
New Jobs Due to Transportation System Investments	Economy
New Jobs Due to Improved Economic Competitiveness	Economy
Transportation System Investment Benefit/Cost Ratio	Economy
Share of Employment Growth in PDAs	Economy

* Federal performance measure

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On-going Regional Monitoring Measures

- In addition to the plan assessment measures, SCAG develops a separate set of performance metrics to monitor progress being made over time toward achieving Connect SoCal goals.
- The monitoring of regional performance trends over time is key to understanding which investments & strategies are proving successful in meeting specific regional goals.
- An effective on-going monitoring program serves to inform & support future regional & local planning efforts & investments.

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On-going Regional Monitoring Measures

- A total of 33 performance measures have been identified for the on-going regional monitoring program, 10 are new for Connect SoCal 2024.
- The on-going measures are correlated to the four Connect SoCal goal areas to ensure that progress toward achievement of regional objectives may be effectively monitored over time.
- The one-to-one correspondence is not exclusive, as many of the performance measures serve multiple regional goals.

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On-going Regional Monitoring Measures

- Measures supportive of the Connect SoCal 'Mobility' goal relate to the efficiency of the regional multimodal transportation system for connecting people & freight to desired destinations.
- Mobility performance metrics include transportation infrastructure condition, system safety, multimodal options, & travel time reliability.
- The Mobility outcome is supported by 16 on-going regional performance measures.

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On-going Regional Monitoring Measures

Performance Measure	Connect SoCal Goal
Average Travel Time	Mobility
Commuter Travel Mode Share	Mobility
Active Transportation Mode Share	Mobility
Local Roads Pavement Condition	Mobility
Transit Boardings per capita	Mobility
Transit Seat Utilization	Mobility
Percent of Reliable Person-Miles Traveled on the NHS *	Mobility
Annual Hours of Peak Hour Excessive Delay per capita *	Mobility
National Highway System (NHS) Bridge Condition *	Mobility
National Highway System (NHS) Pavement Condition *	Mobility
Number & Rate of Collision-Related Fatalities *	Mobility
Number & Rate of Collision-Related Serious Injuries *	Mobility
Number of Active Transportation Fatalities & Serious Injuries *	Mobility
Transit Equipment, Rolling Stock, Infrastructure, & Facility Condition *	Mobility
Transit System Fatalities, Injuries, Safety Events, & System Reliability *	Mobility
Managed Lanes Utilization **	Mobility

* Federal performance measure

** New measure for Connect SoCal 2024

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On-going Regional Monitoring Measures

- The 'Communities' goal is supported by on-going performance measures related to housing & public health (7 measures).
- Measures associated with the Connect SoCal 'Environment' goal focus on air quality, climate resilience, & land/habitat preservation (7 measures).
- The 'Economy' goal is supported by measures related to employment opportunities & freight movement (3 measures).

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On-going Regional Monitoring Measures

Performance Measure	Connect SoCal Goal
Housing Cost Burden	Communities
Asthma Incidence & Exacerbation	Communities
Percent of Residents within 1/2 Mile Walk to Open Space	Communities
Number of Park Acres per 1,000 Residents	Communities
Households Located Near High-Volume Roadways	Communities
Housing Vulnerable to Environmental Impacts **	Communities
Accessory Dwelling Unit (ADU) Development **	Communities
Vehicle Miles Traveled (VMT) per capita	Environment
Air Quality by Air Basin	Environment
Percent of Population in Climate Risk Areas **	Environment
Urban Heat Island Reduction Strategies **	Environment
Habitat Connectivity Investments **	Environment
Nature-based Mitigation Programs **	Environment
Williamson Act Contract Acres Impacted **	Environment
Percent of Interstate Mileage Providing Reliable Truck Travel Time *	Economy
Unemployment Rate **	Economy
Employment **	Economy

* Federal performance measure

** New measure for Connect SoCal 2024

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Connect SoCal Performance Measures

THANK YOU!

Mike Gainor
 Senior Regional Planner
gainor@scag.ca.gov

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Connect SoCal Survey



Transportation Equity Issues		Regional Equity Issues	
Fast, frequent and reliable transit and transportation options	59%	Housing affordability	64%
Safe streets for bicyclists and pedestrians	57%	Air quality	38%
Access to everyday destinations	53%	Economic opportunities	32%
Transportation affordability	31%	Clean water	31%
Freight and goods movement impacts	24%	Workforce development and pathways to good jobs	29%
Access to zero emission vehicles and charging infrastructure	20%	Housing not near jobs	25%
Distribution of transportation investments	14%	Resilience and climate vulnerability	23%
Transportation noise impacts	14%	Gentrification and displacement	21%
Other	5%	Access to broadband/internet	12%
		Other	5%

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Key Themes in Feedback



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Equity Performance Measures

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Equity Performance Measures



Economy

- Geographic Distribution of Transportation Investments
- Investments vs. Benefits
- Revenue Sources In Terms of Tax Burdens
- Impacts from Mileage-Based User Fee

Communities

- Jobs-Housing Imbalance
- Neighborhood Change and Displacement
- Rail-Related Impacts

Mobility

- Share of Transportation System Usage
- Travel Time and Travel Distance Savings
- Access to Everyday Destinations
- Bicycle and Pedestrian Collisions

Environment

- Resilience and Climate Vulnerabilities
- Emissions Impacts Analysis
- Noise Impacts

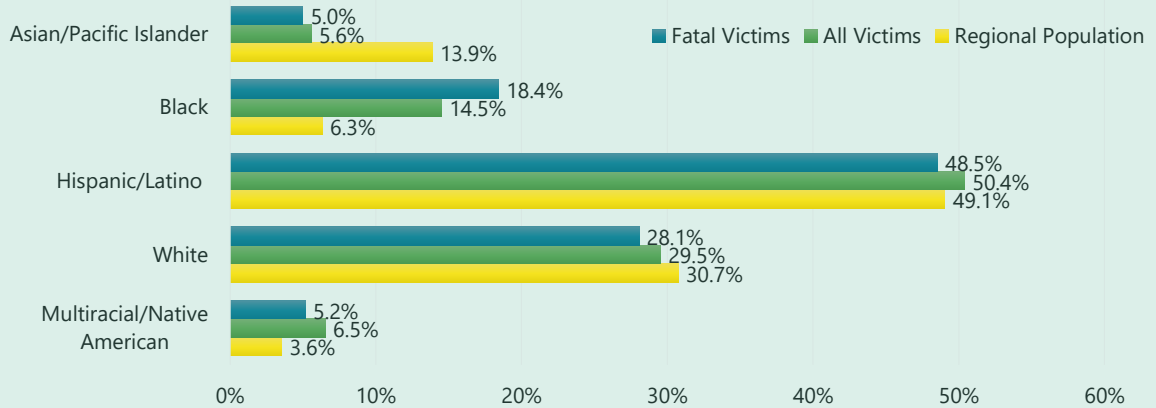
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Equity Performance Measures

Bicycle and Pedestrian Collisions



Bicyclist and Pedestrian Injuries and Fatalities by Race/Ethnicity



Source: Statewide Integrated Traffic Records System (2021), American Communities Survey (2017-2021)

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Equity Performance Measures

Neighborhood Change and Displacement



Gentrifying Neighborhoods

- Targeting early signs of neighborhood change
- Low-income neighborhoods experiencing substantial in-migration of college-educated individuals

Eviction Filings

- Comparing the prevalence of filings in gentrifying neighborhoods and the region

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Equity Performance Measures

Neighborhood Change and Displacement



Initial Take-Aways

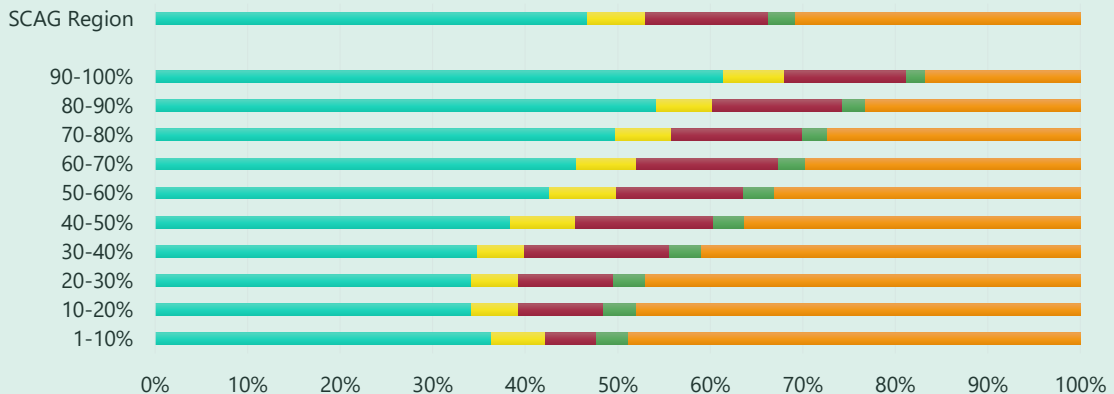
- Gentrification is more pronounced in neighborhoods with a higher concentration of immigrants and renters as well as communities of color.
- Gentrification does not indicate higher risk of displacement.
- Gentrifying neighborhoods are becoming more culturally and racially diverse, calling for planning efforts that foster cultural diversity.

Equity Performance Measures

Existing Conditions: CalEnviroScreen 4.0 Scores in SCAG Region



CalEnviroScreen 4.0 Pollution Burden Percentile by Race and Ethnicity in the SCAG Region



Source: CalEnviroScreen 4.0

Hispanic/Latino Black Asian Other White

Equity Performance Measures

Impacts from Mileage-Based User Fees



Case Studies using Transportation Equity Zones

- Adelanto – Victorville
- North Hills – El Segundo

Comparison between:

- Older Model Gasoline Powered Car
- Newer Model Gasoline Powered Car
- Electric Vehicle



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Equity Performance Measures

Impacts from Mileage-Based User Fees



Initial Take-Aways

- EVs would see the greatest impact from the shift but may still cost less factoring in gasoline/charging prices.
- User Fee programs need to be designed with an equity lens to support low-income and underserved communities
- Mobility Innovations and Pricing Report (2021)



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Questions? Comments?

FOR MORE INFORMATION, PLEASE VISIT
SCAG.CA.GOV/CONNECT-SOCAL





Connect SoCal 2024 Work-from-Home Assumptions

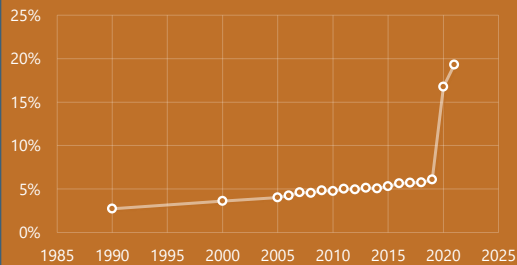
Kevin Kane, PhD
Program Manager, Demographics and Growth Vision
July 20, 2023
Technical Working Group

WWW.SCAG.CA.GOV

1

“Fully-remote work:” American Community Survey

SCAG REGION - % WORK AT HOME



2019 = 6.08%; 2021 = 19.3%

Source: ACS Means of Transportation to Work



Notes: Chart reports data from the American Community Survey 1-year samples for 2006, 2012, 2019, and 2021, Table DP04. Data for this variable are incomplete for Imperial County. Data for Imperial County are from the 5-year sample, if available.

Varies subregionally; by industry

2

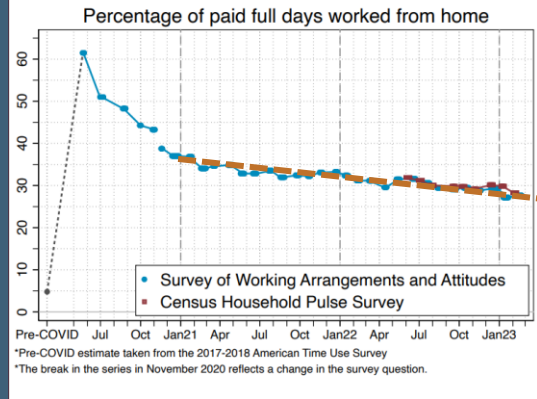
Remote + hybrid work: U.S. Survey of Working Arrangements and Attitudes (SWAA)

- Define work-from home (WfH) as **the total number or percent of the days worked at home.**

- SWAA: First half of 2023: 28.1% of workdays were at home

- SCAG region example:
 - 9M workers x 5 days/week = 45M workdays
 - 12.6M days at home (28.1%)
 - 32.4M days on-site (71.9%)

Days Worked from Home Are At 27% In Early 2023



2024?

Source: Barrero, Jose Maria, Nicholas Bloom, and Steven J. Davis, 2021. "Why working from home will stick," National Bureau of Economic Research Working Paper 28731. See www.wfhresearch.com

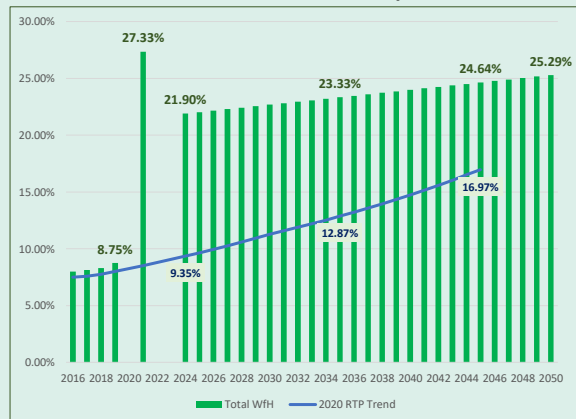
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Connect SoCal 2024 Work from Home Assumption



- Work from home (as % of avg weekday work trips) peaked in 2021 at 27.3% based on ACS and UC Davis data
- We estimate by 2024 WfH could stabilize at 21.9% based on UC Davis and SWAA data
- Green bars show our Connect SoCal "baseline" which increases to 25.3% by 2050, composed of:
 - Full-time remote workers, which grow according to past trend
 - Hybrid workers, which stay flat at 2024 levels
- Blue lines provide for comparison with 2020 RTP assumption

Draft Work from Home Assumptions



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Additional Considerations for Connect SoCal

- Rebound effect*
 - Reduced commute opens up space in peoples' schedules (and on roadways)
 - Connect SoCal 2020 off-model strategy: 25 percent of commute savings reinvested into additional trips
 - UCLA ITS meta-analysis:
 - *"telecommuting has long been touted as a potential solution to chronic transportation problems like traffic congestion and vehicle emissions, but the research has consistently found that it is more likely to increase, rather than decrease, overall driving among remote workers."*
- Equity
 - Ability to WfH is highly correlated with industry and wage levels
- Resilience
 - Sustainable development—focus on complete communities and multiple travel options
- Next Steps
 - Complete model runs; draft plan release.

*See Speroni, S., & Taylor, B. D. (2023). *The Future of Working Away from Work and Daily Travel: A Research Synthesis*.
<https://escholarship.org/uc/item/23v094gk>