Modeling and Data Support to SB743 Implementation

SACOG 2020 Travel model user conference workshop
Agenda

- **Quick Around**
  - Name, Agency, Knowledge of SB743, expectations of the workshop

- **OPR's technical advisory**
  - Screen criteria
  - VMT analysis tools and methodology

- **SACOG's modeling and data support to SB743 implementation**
  - Thresholds
  - Screen maps
  - Average trip length
  - Modeling

- **Q & A**
Initial Screening - Less Than Significant Impact on Transportation

1. Residential Project
   15% below Region's or City's Residential VMT per capita

2. Office Project
   15% below Region's commute VMT per employee

3. Near TOD

4. Local-serving Retail

5. Project size – generate less than 110 trips
## Methodology
- Regional/local travel models (tour or trip based), tour based is ideal
- Sketch planning tools

## Consistency
- Threshold determination
- Project Assessment
- Project Mitigation
Committed SB 743 Support

- VMT (screening) map
- Transit priority area geography (end of March)
- Fix to SACSIM19—estimating “outside of region” VMT (end of June)
- Regional trip lengths (CALEEMOD, project level VMT estimates) (end of April)
Under Consideration SB 743 Support

- SACSIM streamlining 1: parcel file preparation
- SACSIM streamlining 2: population file preparation
- SACSIM streamlining 3: user interface and speed
- Less-than-4-year updates of base year
- Project-level VMT spreadsheet “template”
- SACMET: bring it back into maintenance
Committed SACOG’s Support
Screening Maps

- Draft Available on open data portal

- Threshold based on regional average
  - Request for maps by jurisdictional average

- Geography – Hexgon (can be TAZ, if recomended by Local Working Group)
  * Hexgon is manageable for online mapping rendering

- VMT GIS layer available by request
Total 7 person tours:
2 work
1 work-based sub-tours
2 School
2 Social/Recreation
Committed SACOG’s Support

Accounting for VMT “outside the region"

Issue with Residential Screening Map

- What not accounted – VMT traveled outside SACOG region
- How much - Methodology by June 2020

Note:
CEQA requires “good faith effort at full disclosure.”
Do so “where methodologies exist”
### SACOG’s Support

#### Screening Maps – VMT Computation

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<th>HHID</th>
<th>PersonID</th>
<th>TourID</th>
<th>Tour Half</th>
<th>Trip ID</th>
<th>Origin</th>
<th>Dest</th>
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</tbody>
</table>

| Location 1 | 20 |
| Location 2 | 12 |

Household Generated (Home location) 48
What VMT accounted, what are not

• Residential/Household Generated – everything tallied to HOME (residence locations)
  • Denominator for per capita – all people
  • Un-counted – VMT traveled outside the region by SACOG residents

• Commute/Work related – only work tours, tallied to JOB locations
  • Denominator for per employee – Jobs available for internal workers
  • SACSIM estimate the proportion of jobs taking by external workers
  • VMT outside the region are not relevant for office project
  • From Day 1: work VMT maps tend to be chaotic—OPR will participate in a dialog on options for modifying the map—SACOG will follow up.
Committed SACOG’s Support

Screening Maps

Screen map using any other sub-area threshold
By REQUEST sacsim@sacog

Screen map by TAZ geography
If Local Working Group recommend

Post-Processes to compute VMT from model output tour/trip table
• Update the trip distance using the distance from global last iteration
• Compute VMT made by residents to outside the region but cut at region border
• Hands training available by request sacsim@sacog
Committed SB 743 Support

- VMT (screening) map - Available by Hex, TAZ later, threshold by sub-areas by request
- Transit priority area geography (end of March)
- Fix to SACSIM19—estimating “outside of region” VMT (end of June)
- Regional trip lengths (CALEEMOD, project level VMT estimates) (end of April)
Committed SB 743 Support

Transit priority area geography (end of March)

Include the following in addition to what’s in TIP—change in definition in statute:

- New light rail stations outside the TIP, but inside the MTP time horizon
- Any bus rapid transit stations (that meet the definition below) inside the MTP time horizon
- Any intersection of two high frequency bus stops that meet that definition after the TIP, but before the MTP time horizon

TPA bill:
https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB1824

Major transit stop bill:
https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB1560
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SACSIM streamlining 1: parcel file preparation

- Assemble data variable from multiple sources
- Buffering is the bottleneck
- Not worth to streamlining ?? (buffer methodology may change)
- Willing to provide hands on training
- From Day 1: User Guide is top priority
Under Consideration SB 743 Support

SACSIM streamlining 2: population file preparation

- Seeking for new population synthesizer - in plan
- Uncertain - Process to prepare the inputs and post-processing the outputs
- Minimum - better documentation and hands-training
- From Day 1: User Guide is top priority.
Questions
Comments
Suggestions