Project Performance Assessment: New Tools beyond Level of Service
New Process

- Benefit Cost Assessment
- Performance Outcomes Assessment

Improvements
- Responds to Board and federal direction
- Increases clarity and transparency in SACOG project selection priorities
- Helps position local agencies to better compete for state and federal dollars
Outcomes

- Improved MTP/SCS Investment List
- Possible Better Link to Flexible Funding Rounds
- Support for Other Grant Applications
Two New Methods for Project Assessment

**Benefit Cost Analysis (BCA)**
- Uses SACOG’s Travel Demand Model to estimate benefits at project level
- Monetizes benefits
- Compares monetized benefits to O&M and construction costs
- Best suited for projects large enough to run through model

**Performance Outcomes Analysis**
- Complementary method for all project sizes and types
- Translates vision of desired conditions into performance outcomes
- Draws on data, scope, infrastructure, and neighborhood characteristics
- Gives general assessment (low/med/high)
BCA Tool with Triple Bottom Line

- MTC (Bay Area)
- SANDAG (San Diego)
- Metro (Portland)
- PSRC (Seattle)
- SACOG (Sacramento)
BCA Through 3 Example Projects

1. High Occupancy Vehicle (HOV) bundle
   $400 million construction cost

2. Bundle of arterial capacity projects
   $150 million construction cost

3. Bike and pedestrian improvements bundle
   $40 million construction cost
Examples of BCA Rollups

- **HOV bundle (benefits)**
- **HOV bundle (costs)**
- **Arterial #2 (benefits)**
- **Arterial #2 (costs)**

Categories:
- Construction
- Safety
- Health
- Reliability
- User Cost
- Bike Ped
t- Transit Time
- Auto Time
What are the “Outcomes” in the Performance Outcomes Analysis?

- Reduce VMT per capita
- Reduce congested VMT per capita
- Increase multi-modal travel/alternative travel/choice of transportation options
- Provide long-term economic benefit within the region
- Improve goods movement, including farm-to-market travel, in and through the region
- Improve safety and security
- Demonstrate “state of good repair” benefits
Performance Outcome Assessment Concepts

• Project location and “buffer” area around project
  – Buffer is the area within a specified distance of the project location

• Data layers available for use for each project buffer
  – Safety/TIMS accident occurrences
  – Transit service/GTFS files
  – Land use/SACOG base year land data
  – Demographics/SACOG base year population files
  – Equity/Low-income, high minority population areas from MTP/SCS Title VI analysis
  – Street pattern/regional roadway centerline GIS
  – Bike facilities/regional bike lane GIS
  – VMT, congestion and mode of commute/SACOG travel model outputs
  – Economics and jobs access/SACOG employment estimates and employment centers GIS
  – Adding more through time
Example: # of Collisions
### Outcome 3: Multi-Modal and Transportation Choice

<table>
<thead>
<tr>
<th>Project</th>
<th>Walk: neighborhood connectivity</th>
<th>Walk: street density</th>
<th>Bike: network density</th>
<th>Bike: Suitability</th>
<th>Transit: service/ acre</th>
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<tbody>
<tr>
<td>Ex funding round project</td>
<td>66%</td>
<td>7</td>
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<table>
<thead>
<tr>
<th>Measure</th>
<th>% of 3 &amp; 4-type intersections</th>
<th># of intersections / acre</th>
<th>Bike lane/ total road mileage</th>
<th>Car volumes &amp; speed on facility</th>
<th># of vehicle stops</th>
</tr>
</thead>
</table>

**Finalizing measure**
## Outcome 3: Multi-Modal and Transportation Choice

<table>
<thead>
<tr>
<th>Project</th>
<th>Multi-modal: Density</th>
<th>Multi-modal: T/B/W mode share</th>
<th>Multi-modal: Future mode share</th>
<th>Project design elements</th>
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<td>5%</td>
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<table>
<thead>
<tr>
<th>Measure</th>
<th>(jobs + emp)/ net acre walk share</th>
<th>FY transit, bike, walk share</th>
</tr>
</thead>
</table>
What does this all mean?

• New tools beyond level of service
• Use in various processes (SACOG and external)
• SACOG committed to running for its processes
• Make data, tool available to locals
Resources

Project website
sacog.org/project-performance-assessment

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