GHG, Land Use, and Transportation

Tools to drive policy change
WHAT DO WE WANT?
EVIDENCE-BASED CHANGE
WHEN DO WE WANT IT?
AFTER PEER REVIEW
6. Match density to transit capacity

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![Bar chart showing average VMT/Household (miles/hhld) by Proximity to Rail/Ferry Stop]

- < 1/2 mile: 20
- 1/2 mile to 1 mile: 28
- > 1 mile, Urban: 30
- > 1 mile, High-Sub: 38
- > 1 mile, Low-Sub: 44
- > 1 mile, Rural: 55
- Regional Average: 36

Source: San Francisco Bay Area Metropolitan Transportation Commission (MTC)
3. Permeability
7. Create compact regions with short commutes
8. Increase mobility by regulating parking and road use
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Source: Sightline Institute.
8. Increase mobility by regulating parking and road use

Source: Litman, 2004
Questions: Metrics at what scale?
Questions: Measuring with what level of rigor?

Before/after measurement
Questions: Measuring with what level of rigor?

Travel Demand Modeling

- New model considers density, design, mix of uses, transit proximity

- Forecasts no net new vehicle trips

Santa Monica, California General Plan
Questions: Measuring with what level of rigor?

Sketch modeling tools

<table>
<thead>
<tr>
<th>Figure ES-1</th>
<th>Summary of Recommended Strategies</th>
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<tbody>
<tr>
<td></td>
<td>Emissions Reduction Potential¹</td>
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<tr>
<td>Transportation Demand Management</td>
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<tr>
<td>Residential Development Trip Reduction Requirement / Vehicle Trip Generation Fee</td>
<td>Medium</td>
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<tr>
<td>Employer Transportation Management Plan Requirements</td>
<td>Medium</td>
</tr>
<tr>
<td>Expand Residential SmartTrips program to cover entire City every 5 years</td>
<td>High</td>
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<tr>
<td>Transportation System Management and Operations</td>
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<tr>
<td>Manage City of Portland Streets; Refine signal timing to optimize circulation</td>
<td>Low</td>
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<tr>
<td>Manage ODOT Roads: Incident management; active traffic management</td>
<td>High</td>
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<tr>
<td>Parking Management</td>
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<td>Reduce parking supply as a ratio of new residential development (per stall fees, eliminate minimums, reduce maximums, unbundling, and planning regulations)</td>
<td>Medium</td>
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<tr>
<td>Reduce parking supply as a ratio of new commercial development (per stall fees, eliminate minimums, reduce maximums, unbundling, and planning regulations)</td>
<td>Medium</td>
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<td>Land Use</td>
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<td>Achieve 90% of Portland growth in transit bike corridors and in walkable neighborhoods</td>
<td>High</td>
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</tbody>
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Portland, Oregon GHG Analysis
Consider the audience and context

- Funders?
- Government officials?
- Citizens?
Recap (in case you were napping)

- Data shows: Eight Principles reduce GHG

- Better measurements can lead to better policy decisions

- To choose the right metrics, consider:
  - Scale
  - Level of rigor
  - Audience/context