Planning
i.e. the Regional Transportation Plan

TTP220
S. Handy
4/18/16
In the news today...

• Authorization bills:  intended $
• appropriations bills:  actual $

“The Senate Appropriations Committee will review transportation spending legislation for fiscal 2017 this week that is sure to fall short of President Obama's budget proposed earlier this year... senators did not take kindly to Obama's $98 billion request, which would be funded by a $10.25-per-barrel oil tax.”

— E&E Daily, 4/18/16
Federal Government
- Funding
- Planning reqs

State Government
- Projects
- Approvals

Metropolitan Planning Organizations
- Long-range plans
- Short-term programs

Local Governments
- Membership on MPO board
- Submission of proposed projects

Regional transportation system
Transportation planning and programming

Planning:
- Developing a vision
- Creating policies and strategies to support the vision
- Long-term horizon

Programming:
- Prioritizing proposed projects
- Matching projects with available funds
- Short-term horizon

Long-Range Plan (LRP)
Regional Transportation Plan (RTP)
Transportation Improvement Program (TIP)
What is a plan?
What does it mean to say, “I have a plan?”
Planning

Where are we?

Policies?

Where do we want to be?

Where are we going?
Planning Officially Defined
Federal Planning Requirements

- Scope: 20 years or more
- Timing: updated every 4 years (or 5)
- Performance targets (new in MAP-21)
- Public involvement
- Fiscal constraint
- Coordination with other plans
- Certification of planning activities
RTP Process – SACOG example

Baseline... today (or a few years ago)
“No Build”... future with no new facilities
“Build”... future with proposed facilities

MAP-21 explicitly allows for consideration of multiple scenarios in RTPs
2000s Theme:
Creating the Vision
Planning

Where are we?

Policies?

Where are we going?

Is this where we want to be?

Is this where we want to be?

Is this where we want to be?

Where do we want to be?
Planning

Where are we?

Here’s where we want to be!

Where are we going?
THE OREGON MODEL
A COMPREHENSIVE COMMUNITY VISIONING PROCESS

1. Where are we now?
   COMMUNITY PROFILE
   Descriptive Information Community Values

2. Where are we going?
   TREND STATEMENT
   Trend Information Probable Scenario

3. Where do we want to be?
   VISION STATEMENT
   Possible/Preferred Scenarios Community Vision

4. How do we get there?
   ACTION PLAN
   Goals, Strategies, Actions Action Agendas & Priorities

Source: http://www.asu.edu/caed/proceedings97/ames.html
Phase II: Scenario Development

Growth Scenario A
Phase II: Scenario Development

Growth Scenario B ??
Phase II: Scenario Development

Growth Scenario C
Phase II: Scenario Development

Growth Scenario D
<table>
<thead>
<tr>
<th>Scenario C</th>
<th>Scenario D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Walkable Boulevards</strong></td>
<td><strong>Centers of Commerce</strong></td>
</tr>
<tr>
<td>Boulevards lined with townhouses, shopping, and employment.</td>
<td>Strong centers of employment convenient to housing areas.</td>
</tr>
<tr>
<td><img src="image1.png" alt="Walkable Boulevards" /></td>
<td><img src="image2.png" alt="Centers of Commerce" /></td>
</tr>
<tr>
<td><strong>Quiet, Semi-Rural Neighborhoods</strong></td>
<td><strong>Lifecycle Neighborhoods</strong></td>
</tr>
<tr>
<td>New suburban neighborhoods are largely residential and remain lower density in character.</td>
<td>Suburban neighborhoods mix a variety of lot sizes, there is a greater variety of townhouses, apartments and condos.</td>
</tr>
<tr>
<td><img src="image3.png" alt="Quiet, Semi-Rural Neighborhoods" /></td>
<td><img src="image4.png" alt="Lifecycle Neighborhoods" /></td>
</tr>
<tr>
<td><strong>Network of Complete Streets</strong></td>
<td><strong>Superhighways of Tomorrow</strong></td>
</tr>
<tr>
<td>Interconnected system of roads that welcome streetcars, bicycling, and walking.</td>
<td>Emphasizes construction of new interstates to serve growing areas in our region.</td>
</tr>
<tr>
<td><img src="image5.png" alt="Network of Complete Streets" /></td>
<td><img src="image6.png" alt="Superhighways of Tomorrow" /></td>
</tr>
</tbody>
</table>
Phase II: Scenario Development

<table>
<thead>
<tr>
<th>Topic</th>
<th>Scenario A</th>
<th>Scenario B</th>
<th>Scenario C</th>
<th>Scenario D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure Cost 1998-2020 (Transportation, water, sewer, utilities)</td>
<td>$38 billion 🇺🇸</td>
<td>$30 billion 🇺🇸</td>
<td>$22 billion 🇺🇸</td>
<td>$23 billion 🇺🇸</td>
</tr>
<tr>
<td>Air Quality (1=Best, 4=worst)</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total Water Demand</td>
<td>334 billion gallons</td>
<td>311 billion gallons</td>
<td>264 billion gallons</td>
<td>251 billion gallons</td>
</tr>
<tr>
<td>Walkable Communities (Walk to work, stores, school, transit)</td>
<td>![Image of people walking]</td>
<td>![Image of people walking]</td>
<td>![Image of people walking]</td>
<td>![Image of people walking]</td>
</tr>
</tbody>
</table>
## Phase II: Scenario Development

<table>
<thead>
<tr>
<th>Topic</th>
<th>Scenario A</th>
<th>Scenario B</th>
<th>Scenario C</th>
<th>Scenario D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Size of Single-Family Lot</td>
<td>.37 acre</td>
<td>.35 acre</td>
<td>.29 acre</td>
<td>.27 acre</td>
</tr>
<tr>
<td>Single Family Homes vs. Condos, Apts. &amp; Townhomes</td>
<td>SF 77%</td>
<td>SF 75%</td>
<td>SF 68%</td>
<td>SF 62%</td>
</tr>
<tr>
<td></td>
<td>Condos, etc. 23%</td>
<td>Condos, etc. 25%</td>
<td>Condos, etc. 32%</td>
<td>Condos, etc. 38%</td>
</tr>
<tr>
<td>Amount of New Land Consumed: 1998 - 2020</td>
<td>409 sq mi</td>
<td>325 sq mi</td>
<td>126 sq mi</td>
<td>85 sq mi</td>
</tr>
<tr>
<td></td>
<td>431 sq mi (Presently Used)</td>
<td>431 sq mi (Presently Used)</td>
<td>431 sq mi (Presently Used)</td>
<td>431 sq mi (Presently Used)</td>
</tr>
<tr>
<td>Agricultural Land Consumed: 1998 - 2020</td>
<td>174 sq mi</td>
<td>143 sq mi</td>
<td>65 sq mi</td>
<td>43 sq mi</td>
</tr>
</tbody>
</table>
Phase III: Scenario Selection

Choosing a Scenario

Preferred Scenario By Growth Topic
Phase IV: Implementation...
• Modeled after Envision Utah
• $3 million, 3-year effort to develop vision
• 7500 citizens participated in workshops
• IPLACE$^3$S and other modeling innovations
• Preferred alternative growth scenario adopted unanimously in 2004
SACOG’s Blueprint

Base Case

Preferred Scenario
State Policy
AB32
The California Global Warming Solutions Act of 2006

80% reduction of GHG from 1990 levels by 2050

http://www.arb.ca.gov/cc/scopingplan/meetings/070808/slides_julyspworkshops.pdf
California Emission Sources (2008)

- Transport, 37%
- Utilities, 34%
- Industrial, 20%
- High GWP gases, 3%
- Other, 6%

AB32 Emission Reduction Strategies

- Clean Cars and Standards, 27%
- Cap and Trade, 16%
- Renewable Energy, 19%
- Energy Efficiency, 12%
- LCFS, 13%
- Smart Growth, 3%
- High GWP Forestry Measures, 4%
- High GWP, Measures, 7%
- Other, 6%

Source: CARB, California GHG Inventory for 2000-2008; Scoping Plan, 2020 Emissions Forecast
Sustainable Communities Strategies in conjunction with Regional Transportation Plans
## Transportation vs. Land Use Planning

<table>
<thead>
<tr>
<th>Level</th>
<th>Transportation Agencies</th>
<th>Land Use Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>FHWA, FTA</td>
<td>none</td>
</tr>
<tr>
<td>State</td>
<td>DOT</td>
<td>none</td>
</tr>
<tr>
<td>Regional</td>
<td>MPO, Transit</td>
<td>none</td>
</tr>
<tr>
<td>Local</td>
<td>City and county planning and public works departments</td>
<td>City and county planning department</td>
</tr>
</tbody>
</table>

*More later!*
2010s Theme:
Performance-Based Planning
Performance-Based Planning

“U.S. transportation policy needs to be more performance-driven, more directly linked to a set of clearly articulate goals, and more accountable for results.”
- National Transportation Policy Project
Planning

Where we are?

Where are we going?

Goals

Forecasts

Policies?

Where do we want to be?

Performance measures
Traditional Transportation Planning

Goals → Measures → Forecasts

- V/C Level-of-Service
- Four-Step Travel Demand Model
# Level of Service

## Table 1

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Control Delay per Vehicle (sec/veh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>( \leq 10 )</td>
</tr>
<tr>
<td>B</td>
<td>&gt;10-20</td>
</tr>
<tr>
<td>C</td>
<td>&gt;20-35</td>
</tr>
<tr>
<td>D</td>
<td>&gt;35-55</td>
</tr>
<tr>
<td>E</td>
<td>&gt;55-80</td>
</tr>
<tr>
<td>F</td>
<td>&gt; 80</td>
</tr>
</tbody>
</table>

## What is Level of Service (LOS) for a Typical Freeway Segment?

<table>
<thead>
<tr>
<th>LOS</th>
<th>Definition</th>
<th>Typ. Illustration</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Represents a free-flow operation. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.</td>
<td><img src="image1.png" alt="Image" /></td>
</tr>
<tr>
<td>B</td>
<td>Represents reasonably free-flow operation. The ability to maneuver within the traffic stream is slightly restricted.</td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td>C</td>
<td>Represents a traffic flow with speeds near or at free-flow speed of the freeway. Ability to maneuver within the traffic stream is noticeably restricted.</td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
<tr>
<td>D</td>
<td>Represents speeds that begin to decline with increased density. Ability to maneuver within the traffic stream is noticeably limited.</td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
<tr>
<td>E</td>
<td>Represents operation at its capacity. Vehicles are closely spaced within the traffic stream and there are virtually no useable gaps to maneuver.</td>
<td><img src="image5.png" alt="Image" /></td>
</tr>
<tr>
<td>F</td>
<td>Represents a breakdown of vehicle flow. This condition exists within queues forming behind the breakdown points.</td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
</tbody>
</table>
Traditional Transportation Planning

- Goals
- Measures: V/C Level-of-Service
- Forecasts: Four-Step Travel Demand Model
New Transportation Planning

Goals
- Congestion Reduction
- Environment
- Equity
- Accessibility

Measures
- V/C Level-of-Service
- Mode split
- ???

Forecasts
- Four-Step Travel Demand Model
- ???
## National performance goals

<table>
<thead>
<tr>
<th>Goal area</th>
<th>National goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>To achieve a significant reduction in traffic fatalities and serious injuries on all public roads</td>
</tr>
<tr>
<td>Infrastructure condition</td>
<td>To maintain the highway infrastructure asset system in a state of good repair</td>
</tr>
<tr>
<td>Congestion reduction</td>
<td>To achieve a significant reduction in congestion on the National Highway System</td>
</tr>
<tr>
<td>System reliability</td>
<td>To improve the efficiency of the surface transportation system</td>
</tr>
<tr>
<td>Freight movement and economic vitality</td>
<td>To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development</td>
</tr>
<tr>
<td>Environmental sustainability</td>
<td>To enhance the performance of the transportation system while protecting and enhancing the natural environment</td>
</tr>
<tr>
<td>Reduced project delivery delays</td>
<td>To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies’ work practices</td>
</tr>
</tbody>
</table>

http://www.fhwa.dot.gov/map21/factsheets/pm.cfm
Questions for *Transport Policy* paper

- What goals have MPOs chosen to guide their plans?
  - Continued emphasis on congestion...?
  - Concern for integration with land use...?

- What performance measures are they using to monitor progress towards goals?

- How are forecasts of measures used to evaluate plan with respect to goals?
Approach

• Selection of sample of MPOs
  – Metropolitan Transportation Commission (MTC)
  – Sacramento Area Council of Governments (SACOG)
  – Puget Sound Regional Council (PSRC)
  – The Metropolitan Council (Met Council)

• Informal content analysis of plans
  – Followed by more formal analysis...
Goals - Suppositions

• Goals are central to the planning process.
• Goals provide standard by which to judge existing conditions, trends, plans.
• Goals can be explicit/stated or implicit/unstated.
Goals - Background

• ISTEA of 1991:
  – 15 planning factors
  – Public involvement requirements
• Executive Order on Environmental Justice of 1994
• SAFTEA-LU of 2005:
  – 8 planning factors
SAFETEA-LU Planning Factors

• Support economic vitality
• Increased safety for motorized and non-motorized
• Increased security for motorized and non-motorized
• Increased accessibility and mobility for people and freight
• Protect and enhance the environment
• Enhance integration and connectivity
• Promote efficient system management and operation
• Emphasize preservation of existing system
SAFETEA-LU Planning Factors

- “…promote consistency between transportation improvements and State and local planned growth and economic development patterns”, i.e. land use.
Example 1: MTC
MTC’s Goals

• Safety
• Reliability  
• Access  
• Livable communities
• Clean air
• Efficient freight travel

Emphasizes consistent travel times rather than reduced travel times
Example 2: SACOG
SACOG’s Goals

- Quality of Life
- Access and mobility
- Air quality
- Travel choices
- Economic vitality
- Equity

- Transportation and land use
- Funding and revenue
- Health and safety
- Environmental sustainability
Goals Summary

• Significant emphasis on new goals
  – Linking transportation and land use
• Some continued focus on congestion
Performance Measures - Suppositions

- Performance measures monitor progress toward goals.
- Measures must directly relate to goals, else will lead policy away from goals.
- Goals without measures will get less weight in the planning process.
Measures - Background

• System performance traditionally measured by Level-of-Service (LOS), as dictated by Highway Capacity Manual

• Well entrenched in practice:
  – Good fit with goal of congestion reduction
  – Travel demand models built to forecast LOS

• No standardization of other performance measures
## Key Concept: Types of measures

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>Raw materials, resources</td>
<td>Funding for bike/ped projects</td>
</tr>
<tr>
<td>Output</td>
<td>Quantity produced</td>
<td>Number of bike/ped projects funded</td>
</tr>
<tr>
<td>Outcome</td>
<td>Broader results achieved</td>
<td>Increase in bike/ped mode share</td>
</tr>
<tr>
<td>Goal</td>
<td>Measures of Progress</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Safety</td>
<td>Number of injuries and fatalities at hot spots, pavement condition index, age of transit fleet, bridge retrofit</td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td>Capacity added to system, LOS in congested corridors, progress on ramp meters and signal timing, transit connectivity projects, incident management strategies</td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td>Amount of lifeline transit service provided, progress in programs for older adults, progress in community-based plans,</td>
<td></td>
</tr>
<tr>
<td>Livable Communities</td>
<td>Number of Transportation for Livable Communities projects, number of TOD and mixed-use projects with incentives</td>
<td></td>
</tr>
<tr>
<td>Air Quality</td>
<td>Conformity analysis, progress on retrofitting buses, new controls for spare-the-air days, funding for bike/ped projects</td>
<td></td>
</tr>
<tr>
<td>Efficient Freight Travel</td>
<td>Identification of key freight projects, development of regional truck network on arterials, develop regional air cargo plan</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Performance Measures</td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>System performance</td>
<td>Vehicle miles traveled, traffic congestion levels, hours of delay in traffic jams, transit travel times</td>
<td></td>
</tr>
<tr>
<td>Mode Choice</td>
<td>Share of trips by mode</td>
<td></td>
</tr>
<tr>
<td>Accessibility</td>
<td>Distance person can travel in given time, number of jobs and activities within given time, share of employment centers reach in 20 minute drive, 45 minute transit trip</td>
<td></td>
</tr>
<tr>
<td>Air Quality</td>
<td>Amounts of 4 types of pollutants emitted by on-road motor vehicles</td>
<td></td>
</tr>
</tbody>
</table>
Measures Summary

• Only one systematically matches goals with performance measures
• Heavy reliance still on traditional LOS
• Some signs of...
  – Extracting new measures from model
  – Developing new measures for new goals
Implications...

Is congestion relief still driving the planning process, despite the adoption of new goals, simply because of the entrenched use of LOS (forecast using travel-demand models)…?
1. Develop goals and objectives
2. Select performance measures
3. Identify trends and targets
4. Identify strategies and analyze alternatives
5. Develop investment priorities in LRP and TIP
6. On-going monitoring, evaluation, and performance reporting
MAP-21 Requirements

• US DOT will pick performance measures within 18 months
• States will set targets for these measures within 1 year after US DOT
• MPOs will set targets within 180 days after state – incorporated into RTP and TIP
• States and MPOs must report on system performance relative to targets

Still in progress...

http://www.fhwa.dot.gov/map21/factsheets/pm.cfm
MAP-21

Performance measurement areas

- Pavement condition on the Interstate System and on remainder of the National Highway System (NHS)
- Performance of the Interstate System and the remainder of the NHS
- Bridge condition on the NHS
- Fatalities and serious injuries—both number and rate per vehicle mile traveled—on all public roads
- Traffic congestion
- On-road mobile source emissions
- Freight movement on the Interstate System
In the news today...

FHWA Releases a Copy of the NPRM to Propose National Performance Management Measures to Assess Performance of the National Highway System, Freight Movement on the Interstate System, and the Congestion Mitigation and Air Quality Improvement Program

On Monday, April 18, the Federal Highway Administration (FHWA) released a copy of the Notice of Proposed Rulemaking (NPRM) to propose national performance management measure regulations to assess the performance of the National Highway System, Freight Movement on the Interstate System, and the Congestion Mitigation and Air Quality Improvement Program, as required by the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America’s Surface Transportation Act (FAST Act). The NPRM is scheduled for publication in the Federal Register on Friday, April 29.

This NPRM proposes regulations that would make progress towards the following national goals:

- Congestion reduction - To achieve a significant reduction in congestion on the NHS.
- System reliability - To improve the efficiency of the surface transportation system.
- Freight movement and economic vitality - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- Environmental sustainability - To enhance the performance of the transportation system while protecting and enhancing the natural environment.

In addition, this NPRM:

- Provides for greater consistency in the reporting of condition/performance.
- Proposes requirements for the establishment of targets that can be aggregated at the national level;
- Proposes reporting in a consistent manner on progress achievement; and
- Proposes a process for determining a State DOT's significant progress.

State DOTs would be expected to use the information and data generated as a result of the new regulations to make better informed transportation planning and programming decisions. The new performance aspects of the Federal-aid program would allow FHWA to better communicate a national performance story and more reliably assess the impacts of Federal funding investments.

FHWA will be offering a number of webinars to present the details of this proposed rulemaking. The first webinar is intended to provide an overview of the complete proposal and is scheduled for April 21, 2016. Information on additional webinars will be available shortly.

NPRM = Notice of Proposed Rule Making
Caltrans – Strategic Management Plan

<table>
<thead>
<tr>
<th>Goal 1: Safety and Health</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategic Objectives</strong></td>
</tr>
<tr>
<td>Zero worker fatalities.</td>
</tr>
<tr>
<td>Reduce user fatalities and injuries by adopting a “Toward Zero Deaths” practice.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Promote community health through active transportation and reduced pollution in communities.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

See Appendix for all strategic objectives, performance measures, and targets.

Safety remains Caltrans’ first priority and top goal toward zero deaths.
<table>
<thead>
<tr>
<th>Strategic Objectives</th>
<th>Performance Measures</th>
<th>Targets</th>
</tr>
</thead>
</table>
| **PEOPLE:** Improve the quality of life for all Californians by providing mobility choice, increasing accessibility to all modes of transportation and creating transportation corridors not only for conveyance of people, goods, and services, but also as livable public spaces. | Percentage increase of non-auto modes for:  
• Bicycle  
• Pedestrian  
• Transit | By 2020, increase non-auto modes:  
• Triple bicycle;  
• Double pedestrian; and  
• Double transit.  
(2010-12 California Household Travel survey is baseline.) |
| **PLANET:** Reduce environmental impacts from the transportation system with emphasis on supporting a statewide reduction of greenhouse gas emissions to achieve 80% below 1990 levels by 2050. | Per capita vehicle miles traveled. | By 2020, achieve 15% reduction (3% per year) of statewide per capita VMT relative to 2010 levels reported by District. |
| | Percent reduction of transportation system-related air pollution for:  
• Greenhouse gas (GHG) emissions  
• Criteria pollutant emissions | • 15% reduction (from 2010 levels) of GHG to achieve 1990 levels by 2020.  
• 85% reduction (from 2000 levels) in diesel particulate matter emissions statewide by 2020.  
• 80% reduction (from 2010 levels) in NOx emissions in South Coast Air Basin by 2023. |
| | Percent reduction of pollutants from Caltrans design, construction, operation, and maintenance of transportation infrastructure and building for:  
• Greenhouse gas (GHG) emissions  
• Criteria air emissions  
• Water pollution | By 2020, reduce Caltrans’ internal operational pollutants by District from 2010 levels (from planning, project delivery, construction, operations, maintenance, equipment, and buildings) including:  
• 15% reduction by 2015 and 20% reduction by 2020 of Caltrans’ GHG emissions per EO-B-18-12.  
• 10% reduction in water pollutants. |
| PROSPERITY: Improve economic prosperity of the State and local communities through a resilient and integrated transportation system. | Freight system competitiveness, transportation system efficiency, return on transportation investment. | By 2020, 85% reduction (from 2000 levels) in diesel particulate matter emissions statewide. By 2023, 80% reduction (from 2010 levels) in NOx emissions in South Coast Air Basin. | By 2020, 10% increase in freight system efficiency. |

See Appendix for all strategic objectives, performance measures, and targets.
Challenge for Performance-Based Planning

“...it is not enough just to have goals – we also need a set of agreed-upon tools for objectively measuring how a given policy, program, or investment achieves progress toward those goals. Such tools, or performance metrics, must be fair, transparent, and free of bias toward particular transportation modes...”

- National Transportation Policy Project

Wednesday: role of travel demand forecasting models
Importance of measurement

“You can’t manage what you don’t measure”

“If we can’t measure it, it doesn’t exist”

“Not everything that counts can be measured. Not everything that can be measured counts.”
- Albert Einstein
1990s Theme: Public Involvement
Public Involvement

“Consulting with the public--the transportation consumer--is a crucial way to identify public values and needs, to gather information, and to build consensus on transportation programs... most importantly, public participation makes for better transportation decisions.”

Why? How?

http://www.fhwa.dot.gov/reports/pittd/adminmes.htm
General Requirements

- Must be “early and continuous”
- Must be “meaningful” = ?
## Techniques

<table>
<thead>
<tr>
<th>Old way “decide, announce, defend”</th>
<th>New way “collaborative and consensus-based”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Late in the game</td>
<td>Early, late, and in between</td>
</tr>
<tr>
<td>Limited options</td>
<td>Multiple options</td>
</tr>
<tr>
<td>Public hearing</td>
<td>Workshops and “charrettes”</td>
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<tr>
<td>Written comments</td>
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<td>Polls and on-line input</td>
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<td>Special events</td>
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<td>Partnerships with CBOs</td>
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<tr>
<td></td>
<td>...and other creative ideas</td>
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</table>
Some Tips for Practitioners
(from Matley 2002)

• An effective public involvement effort will take time, money, and patience
• Successful public involvement usually raises controversy.
• Communicating technical information to nonprofessionals without exhausting them may strain your creativity.
• Gaining agreement on facts is not always straightforward.
• Getting the right people to the table can be tough; getting them to stay can be tougher.
“How then, does a transportation agency grab and hold people’s interest in a project or plan, convince them that active involvement is worthwhile, and provide the means for them to have direct and meaningful impact on its decisions?”

– FTA Guide
**TRANSPORTATION EDUCATION SURVEY**


<table>
<thead>
<tr>
<th>In 5 words or less, what is the most challenging aspect of your job?</th>
<th>6.2%</th>
<th>Public involvement</th>
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<tbody>
<tr>
<td>5.6%</td>
<td>Dealing with the public</td>
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<td>Category</td>
<td>Frequency</td>
<td>Percent</td>
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<td>Politics</td>
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<tr>
<td>Building consensus and balancing priorities</td>
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<td>6.8%</td>
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<td>Public involvement</td>
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<td>6.2%</td>
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<tr>
<td>Time management</td>
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<td>6.2%</td>
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<tr>
<td>Managing multiple demands</td>
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<td>Dealing with the public</td>
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<td>Frustrations with others</td>
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<td>Persuading, convincing, conveying</td>
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<td>Landing and dealing with clients</td>
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<td>5.2%</td>
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<td>Working with different disciplines</td>
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<tr>
<td>Dealing with change and keeping up</td>
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<td>4.3%</td>
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<tr>
<td>Making things happen and finding answers</td>
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<td>4.3%</td>
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<tr>
<td>Coordination with other agencies</td>
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<tr>
<td>Communicating</td>
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<td>Recruiting and retaining staff</td>
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<tr>
<td>Limited funding relative to needs</td>
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<tr>
<td>Integrating transportation and land use</td>
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<td>1.5%</td>
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<tr>
<td>Technical analysis vs. politics</td>
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<td>Regulations and bureaucracy</td>
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<td>Personal motivation</td>
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<tr>
<td>Regional problems</td>
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<td>Personal skills and knowledge</td>
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<td><strong>324</strong></td>
<td><strong>100.0%</strong></td>
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</table>
Paper 2

1. Select issue – your choice, see suggestions
2. Select 3 MPOs – things to control or vary
3. Develop analysis framework - criteria
4. Analyze MPO activities – LRP + other
5. Write-up results
Example Issues for Paper 2

• Accessibility vs. Mobility orientation
• Bicycle and Pedestrian orientation
• Sustainability orientation
• Livability orientation
Picking 3 MPOs

All three the same on that characteristic

All three different on that characteristic
Other issues?

- Goods movement
- Equity/environmental justice
- Land use
- Public involvement
- Others...?
Next up

- Forecasting on Wed!
- Programming next Mon!
- Do readings!
- Read Assignment 2!
- Memo on MPOs and issue due next Monday!