Performance Measures

- MAP-21 represents transition
- DOT establishes measures through 3 phase rulemaking
- State and MPO must set targets
- No penalties for not meeting targets
Performance Measures

- Interstate performance
- NHS performance
- Interstate pavement condition
- NHS pavement condition
- NHS bridge condition
- Fatalities and injuries/VMT
- Fatalities and injuries overall
- Mobile source emissions
- Metro congestion
- Freight movement on Interstate highways
Dashboard vs MAP-21 Measures

VDOT Virginia Department of Transportation

Performance  Safety  Condition  Projects  Citizen Survey  Finances  Management

Dashboard
Performance Reporting System for Projects and Programs

- **Highway**: 87% (0% - 100%)
  - Highway Deaths Since the Beginning of the Year

- **Safety**: 544 (0 - 1200)
  - Quality of Road Surface

- **Condition**: 81% (0% - 100%)
  - YTD Planned vs. Actual Expenditures (Variance)

- **Finance**: -2% (-50% - +50%)
  - YTD Planned vs. Actual Expenditures (Variance)

Commissioner of Highways
Gregory A. Whitley, CPA

Transportation For America
## Dashboard vs MAP-21 Measures

### Table 10. Vehicle Hours of Delay in 2035

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Recentralization</th>
<th>Trend</th>
<th>Sprawl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Vehicle Hours of Delay (millions)</td>
<td>124.0</td>
<td>144.4</td>
<td>171.4</td>
</tr>
<tr>
<td>Annual Wasted Time (millions of person hours)</td>
<td>146.3</td>
<td>170.3</td>
<td>202.3</td>
</tr>
<tr>
<td>Annual Person Hours of Delay per Capita</td>
<td>23.8</td>
<td>27.7</td>
<td>32.9</td>
</tr>
<tr>
<td>Annual Wasted Fuel (millions of gallons)</td>
<td>21.3</td>
<td>27.1</td>
<td>35.5</td>
</tr>
<tr>
<td>Annual Congestion Cost (billions of 2008 $s)</td>
<td>$ 3.12</td>
<td>$ 3.64</td>
<td>$ 4.33</td>
</tr>
<tr>
<td>Annual Congestion Cost per Household (2008 $s)</td>
<td>$ 1,338</td>
<td>$ 1,560</td>
<td>$ 1,857</td>
</tr>
</tbody>
</table>

*DVRPC 2008*
Regrettably, Virginia is not among these States. Based on the State progress reports submitted to the Committee in September 2009, Virginia has fallen far behind other States in putting to work its Recovery Act highway formula funds. According to submissions received from all States and the District of Columbia, your State ranks last among all States (51 out of 51),\(^2\) based on an analysis of the percentage of Recovery Act highway formula
House Letter: Va. Last to Use Stimulus Cash for Highways

Saturday, October 3, 2009 2:33 PM

In a scathing letter to Gov. Timothy M. Kaine, the chairman of the U.S. House Transportation and I Committee said no state has been slower than Virginia in putting federal highway stimulus cash to use.

As of Aug. 31, construction had begun on only 16.5 percent of the $695 million Virginia received for local highway and bridge projects under President Barack Obama's stimulus initiative, said the letter James L. Oberstar, D-Minn.

Nationally, nearly 43 percent of the billions of dollars a Democratic Congress approved for highway already under construction, according to a footnote on the bluntly worded two-page letter to Kaine, picked Democratic National Committee chairman.
Performance Measures

- MAP-21 measures are limited
  - Must work for 50 states, DC and 300+ MPOs

- USDOT is prohibited from establishing additional performance measures

- States and regions may establish additional measures
Performance Measures

Atlanta
- Travel Time Index: 1.35
- Average travel time: 57.4 minutes
- Extra rush hour delay: 14.8 mins
- Travel time without traffic: 42.5 mins

Chicago
- Travel Time Index: 1.43
- Average travel time: 35.6 minutes
- Extra rush hour delay: 10.7 mins
- Travel time without traffic: 24.9 minutes

Though Atlanta has a much lower (better) Travel Time Index (TTI), Chicago commuters spend 20 minutes less per peak period trip.

Transportation For America
## Performance Measures

<table>
<thead>
<tr>
<th></th>
<th>Denver 1982</th>
<th></th>
<th>Denver 2007</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel Time Index</td>
<td>1.09</td>
<td>Average travel time</td>
<td>1.31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50.6 minutes</td>
<td>Travel time without traffic</td>
<td>49.6 minutes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>46.4 mins</td>
<td>Extra rush hour delay</td>
<td>37.9 mins</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.2 mins</td>
<td></td>
<td>11.7 mins</td>
<td></td>
</tr>
</tbody>
</table>
GreenDOT - Massachusetts

- Reduce greenhouse gas emissions
- Improve statewide air quality
- Consume less energy
- Increase reliance on renewable energy
- Minimize energy + chemicals used in maintenance
- Enhance ecological performance of MassDOT impacted land
- Improve life-cycle impacts of investments
- Purchase environmentally preferred products
- Build green facilities for MassDOT
- Design a multi-modal transportation system
- Promote healthy transportation + livable communities
- Triple mode share of bicycling, transit + walking
- Achieve zero solid waste disposal
- Reduce all exposure to hazardous waste
- Use less water
- Improve ecological function of water systems
### Goal

Triple mode share of bicycling, transit + walking

### Task

Connect land use planning with transportation planning + investments

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2013</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>GreenDOT Implementation Plan activities incorporated into MPO's Unified Planning Work Programs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project evaluation criteria that prioritize mode shift, GreenDOT + GHG reduction adopted by MPOs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transit authorities participate in all MassDOT and MPO corridor studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTA's participate in MassDOT MEPA review and mitigation formation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All MassDOT owned roads 'master planned' for Complete Street improvements during future repaving or reconstruction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete Commuter Rail Master Plan to evaluate options to expand capacity + increase ridership along each line</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority Development Areas (PDAs) + Priority Protection Areas (PPAs) approved by HED established in all MPOs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategic regional visions for 'zero' SOV growth + GHG reduction adopted by MPOs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Virginia requires MPOs to track

- Job-to-housing balance
- Per capita VMT
- Job and housing access to transit and HOV facilities
- Job and housing access to pedestrian facilities
- Transit usage
- HOV usage
Job-to-Housing Ratio
One key measure targeted at encouraging reasonably compact development around activity centers is the *jobs-to-housing ratio*, which measures the relationship between the density of employment opportunities and the amount of people seeking those employment opportunities in a given region. This measure is designed to help gauge how the balance of jobs to housing in an area impacts the demand for the transportation network. An imbalance causes traffic volumes to be concentrated in one direction during the morning peak period and the opposite direction in the afternoon peak period. This imbalance heightens the demand for increased capacity. The more intense congestion that results from unbalanced peak hour commutes imposes avoidable direct and indirect costs on each commuter and business.
### DVRPC – Comprehensive Measures

#### TABLE ES-4. 2035 ECONOMIC DEVELOPMENT INDICATORS

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Recentralization</th>
<th>Trend</th>
<th>Sprawl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Annual Household Automobile and Utility Expenses (2008 $s)</td>
<td>$14,770</td>
<td>$15,070</td>
<td>$16,060</td>
</tr>
<tr>
<td>Total Supportive Infrastructure Costs (billions of 2008 $s)</td>
<td>$7.38</td>
<td>$10.8</td>
<td>$35.6</td>
</tr>
<tr>
<td>Supportive Infrastructure Costs per New Housing Unit (2008 $s)</td>
<td>$28,600</td>
<td>$37,400</td>
<td>$53,300</td>
</tr>
<tr>
<td>Jobs Added to Environmental Justice Communities</td>
<td>79,400</td>
<td>17,300</td>
<td>(151,000)</td>
</tr>
</tbody>
</table>

*DVRPC 2008*
Moving Forward

- All MAP-21 measure become effective 2\textsuperscript{nd} quarter of 2015 calendar year
- States have one year to set targets after that date
  - MPOs have 6 months after state targets are set
- Should work with regions to have buy-in on additional measures before March 2015
  - Allows measure to be incorporated already required MAP-21 process