MN Transportation Finance Redistribution
Who Contributes More, Who Receives More?
(2010-2015)

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Minnesota Transportation Finance Database

Problem with current reporting system:

• The gap between data & information
  – Open, but not transparent
  – Available, yet not accessible

• Two recent examples
  – Local contributions to roadway investment
  – Inconsistent data between MNET and transit

• The solution: MNTF Data base
  – A consolidated & longitudinal clearinghouse
  – Infrastructure for policymaking and research
Data Composition

Revenues
• From Federal Government
• From State Government
• From Local Government

Expenditures
• Trunk highway programs (MnDOT)
• Local roads (county, city, and township)
• Transit programs (MPO/MnDOT)
Database Development

- Consolidated from multiple sources
- Aggregated or allocated to the county level
- Longitudinal and annually updated
- Interactive interfaces
  - Spatial visualization
  - Online database query
Database Usage

• To support transportation research needs
  – Understanding the funding system
  – Analyzing economic returns of the investment

• To facilitate legislative decision-making
  – Neutral platform and information support

• To enhance public engagement
  – Public understanding of related issues
Transportation Funding Redistribution

We calculate at the county level and then show the aggregated results at the transportation-district level.

- Which districts contribute more?
- Which districts receive more in the allocation?
- Comparing the contribution to the allocation
Transportation Funding Redistribution

• We used data for:
  – Revenues
  – Expenditures

• Calculate the ER-Ratio

• Aggregate the data at the transportation district level

• Five-year average of 2010-2015 at the district level
  – Using five-year moving average to smooth out fluctuations
  – Results aggregated at the transportation district level
Highway Funding Redistribution

STATE

Motor Fuel Tax
Motor Vehicle Sales Tax
Vehicle Registration Fees

Highway User Tax Distribution Fund
(5% Flexible Fund)
(95% Distributed as Shown below)

Municipal State-Aid 9%
County State-Aid 29%

FEDERAL

Formula Funds

Area Transportation Partnerships (Distributed by Target Formula)
Statewide Bridge Fund & Statewide Corridor Fund

MnDOT Projects
Local Projects

Earmark Funds

*Rec Trails
*MPO Planning
*Safe Rts to School
*Coordinated Borders
*SP&R
*Const. Eng.
*Statewide programs

State Trunk Highway Fund
Operation, Maintenance, Engineering, Debt Service
State Road Construction

MnDOT Projects
Local Projects

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Transit Funding Distribution

- Motor Vehicle Sale Tax
- State General Fund
- Fares
- Federal Funding
- Others

 Metro Transit – Bus
 Metro Transit – LRT
 Metro Mobility
 Opt Out Communities
 Contracted Routes
 Community Programs

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MN Transportation Districts

- **District 1:** Aitkin, Carlton, Cook, Itasca, Koochiching, Lake, Pine, St. Louis
- **District 2:** Beltrami, Clearwater, Hubbard, Kittson, Lake of the Woods, Marshall, Pennington, Polk, Red Lake, Roseau
- **District 3:** Benton, Cass, Crow Wing, Isanti, Kanabec, Mille Lacs, Morrison, Sherburne, Stearns, Todd, Wadena, Wright
- **District 4:** Becker, Big Stone, Clay, Douglas, Grant, Mahnomen, Otter Tail, Pope, Stevens, Swift, Traverse, Wilkin
- **District 5 - Metro:** Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington
- **District 6:** Dodge, Fillmore, Freeborn, Goodhue, Houston, Mower, Olmsted, Rice, Steele, Wabasha, Winona
- **District 7:** Cottonwood, Faribault, Jackson, Le Sueur, Martin, Nicollet, Nobles, Rock, Sibley, Waseca, Watonwan
- **District 8:** Chippewa, Kandiyohi, Lac Qui Parle, Lincoln, Lyon, McLeod, Meeker, Murray, Pipestone, Redwood, Renville, Yellow Medicine

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Sources (2015)

- Federal Aid: Trunk Highway, 15.0%
- State Fuel Tax, 27.0%
- Motor Vehicle Sales Tax, 13.0%
- Motor Vehicle Registration Tax, 21.0%
- Federal Aid: Local Roads and Multimodal, 8.0%
- Bonds Proceeds, 11.0%
- Other income and transfers, 5.0%
Analysis: Revenue Share

- **R-Share**: A district’s share in the collection of federal and state transportation revenues
  
  - Federal taxes (allocated through county VMT)
    - Highway account (FHWA data 2010-2015)
    - Transit account (FHWA data 2010-2015)
  - State fuel tax (allocated through county VMT)
  - Vehicle registration tax (Tab Fee) (by county of registration)
  - Motor vehicle sales tax (by Department of Public Safety method)
    - 50%: By vehicle registration tax
    - 50%: By vehicle count
Minnesota Transport Finance Redistribution
R-Share (2010-2015)

<table>
<thead>
<tr>
<th>District</th>
<th>F.Fuel</th>
<th>MN.Fuel</th>
<th>TabFee</th>
<th>MVST</th>
<th>R-Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>District 1</td>
<td>7.6%</td>
<td>7.6%</td>
<td>6.9%</td>
<td>7.4%</td>
<td>7.4%</td>
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<tr>
<td>District 2</td>
<td>3.4%</td>
<td>3.4%</td>
<td>3.6%</td>
<td>3.8%</td>
<td>3.5%</td>
</tr>
<tr>
<td>District 3</td>
<td>13.8%</td>
<td>13.8%</td>
<td>12.9%</td>
<td>13.7%</td>
<td>13.5%</td>
</tr>
<tr>
<td>District 4</td>
<td>5.9%</td>
<td>5.9%</td>
<td>5.3%</td>
<td>5.5%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Metro</td>
<td>48.5%</td>
<td>48.5%</td>
<td>51.0%</td>
<td>48.8%</td>
<td>49.1%</td>
</tr>
<tr>
<td>District 6</td>
<td>10.1%</td>
<td>10.1%</td>
<td>9.2%</td>
<td>9.5%</td>
<td>9.8%</td>
</tr>
<tr>
<td>District 7</td>
<td>6.2%</td>
<td>6.2%</td>
<td>6.0%</td>
<td>6.2%</td>
<td>6.1%</td>
</tr>
<tr>
<td>District 8</td>
<td>4.5%</td>
<td>4.5%</td>
<td>5.1%</td>
<td>5.2%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Annual Total (M)</td>
<td>$687</td>
<td>$858</td>
<td>$562</td>
<td>$331</td>
<td>$2,439</td>
</tr>
</tbody>
</table>
Uses (2015)

- State Aid for Local Transportation, 30.0%
- State Road and Bridge Construction, 39.0%
- Operations and Maintenance, 9.0%
- Multimodal Systems, 5.0%
- Public Safety Department, 3.0%
- Program Planning and Delivery, 6.0%
- Debt Service, 4.0%
- Agency Management and Other, 4.0%

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Analysis: Expenditure Share

• **E-Share**: A district’s share in the disperse of federal and state transportation revenues
  
  – State trunk highway expenditures
    • Construction costs allocated the counties by MnDOT
    • O&M costs allocated by districts by MnDOT
  
  – Federal and state transportation grants to local governments
    • To counties: federal transportation grant; state transportation grant
    • To cities: federal transportation grant; state transportation grant
    • To townships: state transportation grant
  
  – Federal and state grants for public transit systems
    • Urban transit systems (allocated to counties)
    • Rural transit systems (allocated by the primary service areas)
## Minnesota Transport Finance Redistribution E-Share (2010-2015)

### Table

<table>
<thead>
<tr>
<th>District</th>
<th>Trunk</th>
<th>GRT</th>
<th>Transit</th>
<th>E-Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>District 1</td>
<td>12.4%</td>
<td>10.7%</td>
<td>3.9%</td>
<td>10.1%</td>
</tr>
<tr>
<td>District 2</td>
<td>6.1%</td>
<td>6.5%</td>
<td>0.5%</td>
<td>5.1%</td>
</tr>
<tr>
<td>District 3</td>
<td>10.6%</td>
<td>10.9%</td>
<td>2.7%</td>
<td>9.1%</td>
</tr>
<tr>
<td>District 4</td>
<td>7.1%</td>
<td>8.1%</td>
<td>0.9%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Metro</td>
<td>36.4%</td>
<td>36.9%</td>
<td>87.7%</td>
<td>47.0%</td>
</tr>
<tr>
<td>District 6</td>
<td>13.1%</td>
<td>11.4%</td>
<td>1.9%</td>
<td>10.2%</td>
</tr>
<tr>
<td>District 7</td>
<td>8.4%</td>
<td>8.6%</td>
<td>1.0%</td>
<td>7.0%</td>
</tr>
<tr>
<td>District 8</td>
<td>5.8%</td>
<td>6.8%</td>
<td>1.2%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Annual Total (M)</td>
<td>$1,187</td>
<td>$1,001</td>
<td>$558</td>
<td>$2,746</td>
</tr>
</tbody>
</table>

### Map

- **District 1**: Dark Red
- **District 2**: Light Yellow
- **District 3**: Orange
- **District 4**: Orange
- **District 5**: Orange
- **District 6**: Dark Red
- **District 7**: Dark Red
- **District 8**: Light Yellow
- **Metro**: Dark Red

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Analysis: Expenditure-Revenue Ratio

• **ER-Ratio**: A district’s expenditure share divided by its revenue share in federal and state transportation finance

• **ER-Ratio = E-Share/R-Share**
  – > 1: Counties that receive more than they contribute
  – < 1: Counties that receive less than they contribute
## Minnesota Transport Finance Redistribution
### ER-Ratio (2010-2015)

<table>
<thead>
<tr>
<th>District</th>
<th>R-Share</th>
<th>E-Share</th>
<th>ER.RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>District 1</td>
<td>7.4%</td>
<td>10.1%</td>
<td>1.35</td>
</tr>
<tr>
<td>District 2</td>
<td>3.5%</td>
<td>5.1%</td>
<td>1.45</td>
</tr>
<tr>
<td>District 3</td>
<td>13.5%</td>
<td>9.1%</td>
<td>0.67</td>
</tr>
<tr>
<td>District 4</td>
<td>5.7%</td>
<td>6.2%</td>
<td>1.09</td>
</tr>
<tr>
<td>Metro</td>
<td>49.1%</td>
<td>47.0%</td>
<td>0.96</td>
</tr>
<tr>
<td>District 6</td>
<td>9.8%</td>
<td>10.2%</td>
<td>1.05</td>
</tr>
<tr>
<td>District 7</td>
<td>6.1%</td>
<td>7.0%</td>
<td>1.14</td>
</tr>
<tr>
<td>District 8</td>
<td>4.7%</td>
<td>5.2%</td>
<td>1.12</td>
</tr>
<tr>
<td>Annual Total (M)</td>
<td>$2,439</td>
<td>$2,746</td>
<td>-</td>
</tr>
</tbody>
</table>

*: More than 20% away from 1.
Findings at the District Level (2010-2015)

• E-Share:
  – Metro district receives about 36% highway funding, 88% transit funding, about 47% in total transportation funding

• R-Share:
  – Metro district contributes about 50% of dedicated revenues
  – District 3 contributes about 14%

• ER-Ratio:
  – Metro district receives slightly less than it contributes but the difference is not significant
  – District 3 contributes about 14% but receives about 9%
  – District 1 and 2 receive more than they contribute
Appendix 1: Only roads?

• Expenditure share
  – State trunk highway expenditures
  – Federal and state transportation grants
  – (No federal and state grants for transit)

• Revenue share
  – Federal fuel tax (highway account, no transit)
  – State fuel tax
  – Vehicle registration tax
  – Motor vehicle sales tax
Minnesota Transport Finance Redistribution
ER-Ratio with Roads (2010-2015)

<table>
<thead>
<tr>
<th>District</th>
<th>R-Share</th>
<th>E-Share</th>
<th>ER-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>District 1</td>
<td>7.4%</td>
<td>11.6%</td>
<td>1.57</td>
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<tr>
<td>District 2</td>
<td>3.5%</td>
<td>6.3%</td>
<td>1.78</td>
</tr>
<tr>
<td>District 3</td>
<td>13.5%</td>
<td>10.7%</td>
<td>0.79</td>
</tr>
<tr>
<td>District 4</td>
<td>5.7%</td>
<td>7.6%</td>
<td>1.32</td>
</tr>
<tr>
<td>Metro</td>
<td>49.2%</td>
<td>36.6%</td>
<td>0.75</td>
</tr>
<tr>
<td>District 6</td>
<td>9.8%</td>
<td>12.3%</td>
<td>1.26</td>
</tr>
<tr>
<td>District 7</td>
<td>6.1%</td>
<td>8.5%</td>
<td>1.39</td>
</tr>
<tr>
<td>District 8</td>
<td>4.7%</td>
<td>6.3%</td>
<td>1.33</td>
</tr>
<tr>
<td>Annual Total (M)</td>
<td>$2,348</td>
<td>$2,188</td>
<td>-</td>
</tr>
</tbody>
</table>

*: More than 20% away from 1.
Appendix 2: Trust funds + Local Efforts?

• Expenditure share
  – State trunk highway expenditures
  – Federal and state transportation grants
  – Federal and state grants to public transit
  – Local efforts both both roads and transit

• Revenue share
  – Federal fuel tax (highway account and transit)
  – State fuel tax
  – Vehicle registration tax
  – Motor vehicle sales tax
  – Local efforts both both roads and transit
Minnesota Transport Finance Redistribution
ER-Ratio with Local Efforts (2010-2015)

<table>
<thead>
<tr>
<th>District</th>
<th>R-Share</th>
<th>E-Share</th>
<th>ER-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>District 1</td>
<td>7.4%</td>
<td>9.0%</td>
<td>1.21</td>
</tr>
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<td>District 2</td>
<td>3.3%</td>
<td>4.2%</td>
<td>1.29</td>
</tr>
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<td>District 3</td>
<td>11.7%</td>
<td>9.2%</td>
<td>0.79</td>
</tr>
<tr>
<td>District 4</td>
<td>5.5%</td>
<td>5.8%</td>
<td>1.06</td>
</tr>
<tr>
<td>Metro</td>
<td>52.5%</td>
<td>51.0%</td>
<td>0.97</td>
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<td>District 6</td>
<td>8.9%</td>
<td>9.2%</td>
<td>1.04</td>
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<td>District 7</td>
<td>6.1%</td>
<td>6.6%</td>
<td>1.08</td>
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<tr>
<td>District 8</td>
<td>4.7%</td>
<td>5.0%</td>
<td>1.07</td>
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<tr>
<td>Annual Total (M)</td>
<td>$4,394</td>
<td>$4,700</td>
<td>-</td>
</tr>
</tbody>
</table>

*: More than 20% away from 1.
Appendix 3: Roadway Funding Structure

• Federal and state special revenues
  – Trunk highway spending
  – F&S transportation grants to local governments

• Local efforts
  – Total local roads spending – F&S grants
Minnesota Transport Finance Structure
Highways and Local Roads (2010-2015)

<table>
<thead>
<tr>
<th>District</th>
<th>ATP</th>
<th>F&amp;S Special Revenue</th>
<th>Local Efforts</th>
<th>Total (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>District 1</td>
<td>67.2%</td>
<td>32.8%</td>
<td>$378</td>
<td></td>
</tr>
<tr>
<td>District 2</td>
<td>73.6%</td>
<td>26.4%</td>
<td>$187</td>
<td></td>
</tr>
<tr>
<td>District 3</td>
<td>61.1%</td>
<td>38.9%</td>
<td>$384</td>
<td></td>
</tr>
<tr>
<td>District 4</td>
<td>66.3%</td>
<td>33.7%</td>
<td>$250</td>
<td></td>
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<tr>
<td>Metro</td>
<td>44.8%</td>
<td>55.2%</td>
<td>$1,790</td>
<td></td>
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<tr>
<td>District 6</td>
<td>68.3%</td>
<td>31.7%</td>
<td>$395</td>
<td></td>
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<tr>
<td>District 7</td>
<td>66.4%</td>
<td>33.6%</td>
<td>$280</td>
<td></td>
</tr>
<tr>
<td>District 8</td>
<td>64.6%</td>
<td>35.4%</td>
<td>$213</td>
<td></td>
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<tr>
<td>Annual Total</td>
<td>56.4%</td>
<td>43.6%</td>
<td>$3,877</td>
<td></td>
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</tbody>
</table>

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Roadway Funding Structure (2010-2015)

- F&S special revenues account for 56%
- Local efforts account for 44%
- Consistent across transportation districts
- Except for the Metro District
Appendix 4: Transit Funding Structure

• Federal and state special revenues
  – F&S capital grants
  – F&S operating grants
• Fare revenues
  – Fare by operation
  – Fare by contracted services
• Local efforts
  – All other sources
### Minnesota Transport Finance Structure
#### Urban and Rural Transit (2010-2015)

<table>
<thead>
<tr>
<th>District</th>
<th>F&amp;S Special Revenue</th>
<th>Fare</th>
<th>Other local Efforts</th>
<th>Total (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>District 1</td>
<td>69.6%</td>
<td>7.9%</td>
<td>22.5%</td>
<td>$31</td>
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<tr>
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<td>17.0%</td>
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<td>21.5%</td>
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<td>10.9%</td>
<td>17.3%</td>
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<tr>
<td>Metro</td>
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<td>$856</td>
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<td>19.6%</td>
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<td>10.2%</td>
<td>13.1%</td>
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<td>District 8</td>
<td>71.6%</td>
<td>10.3%</td>
<td>18.1%</td>
<td>$8</td>
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<tr>
<td>Annual Total</td>
<td>58.5%</td>
<td>12.4%</td>
<td>29.1%</td>
<td>$951</td>
</tr>
</tbody>
</table>
Transit Funding Structure (2010-2015)

- Fare accounts for 12% of total spending
- F&S special transportation revenues account for 59%
- All other local efforts account for 29%
- Regional variations
  - Metro district is driving the overall pattern
  - Western districts have higher reliance on F&S grants