

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

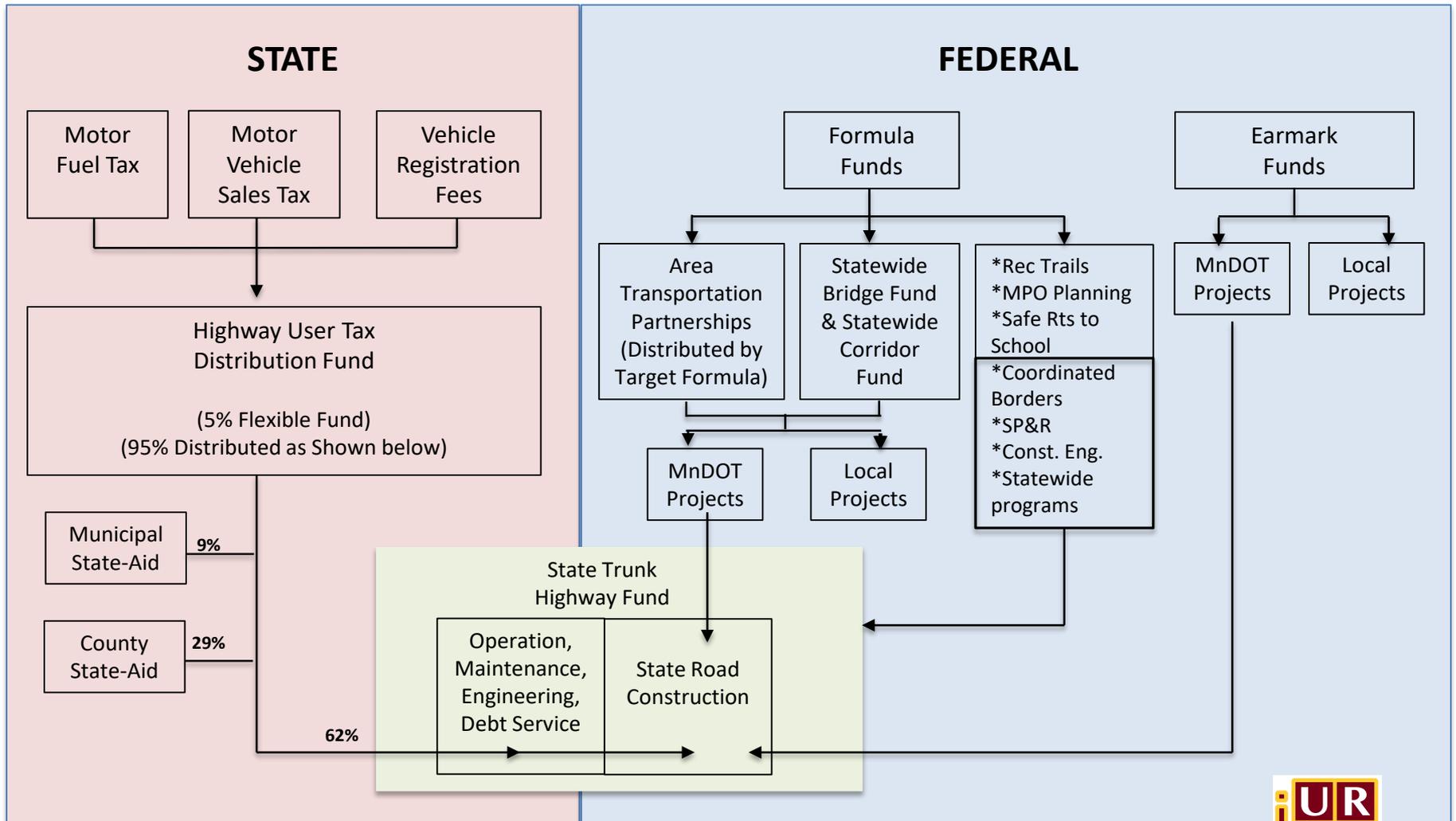
We calculate at the county level and then show the aggregated results at the transportation-district level.

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

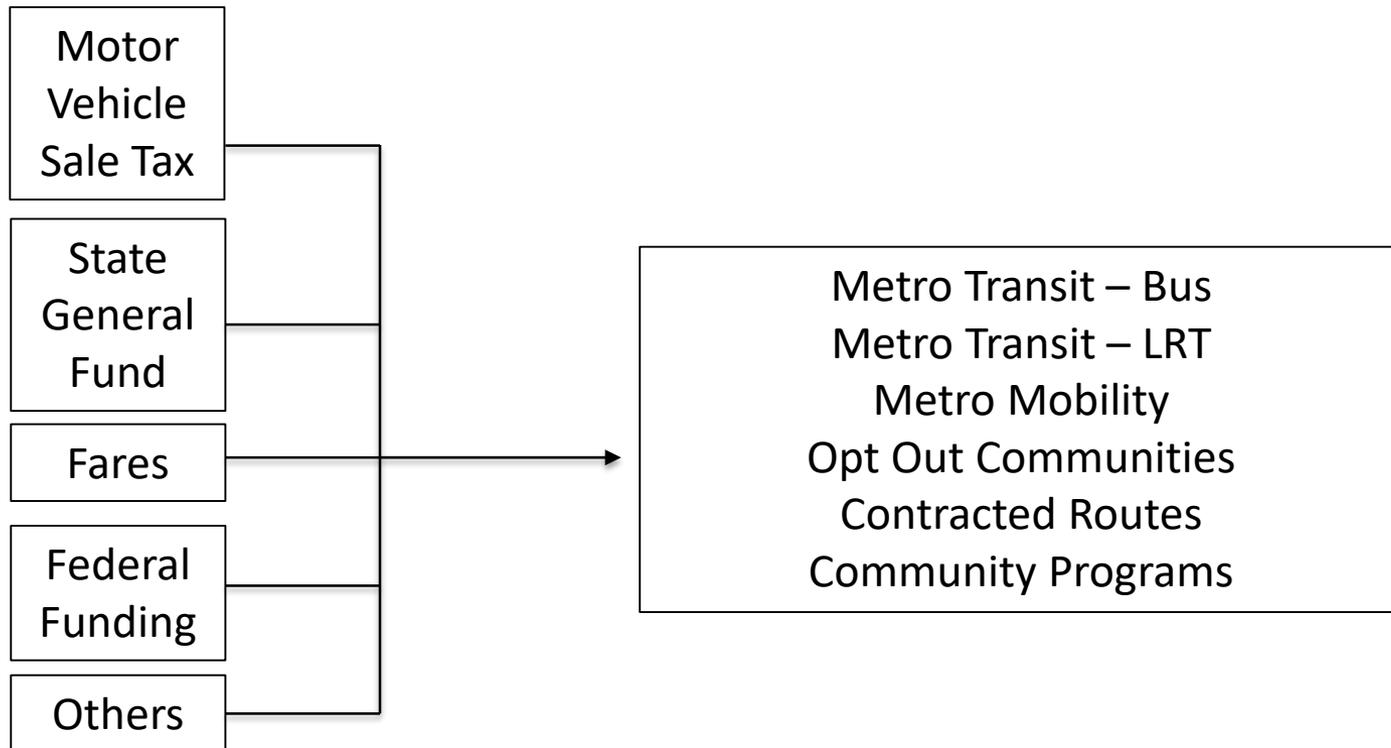
Transportation Funding Redistribution

- 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

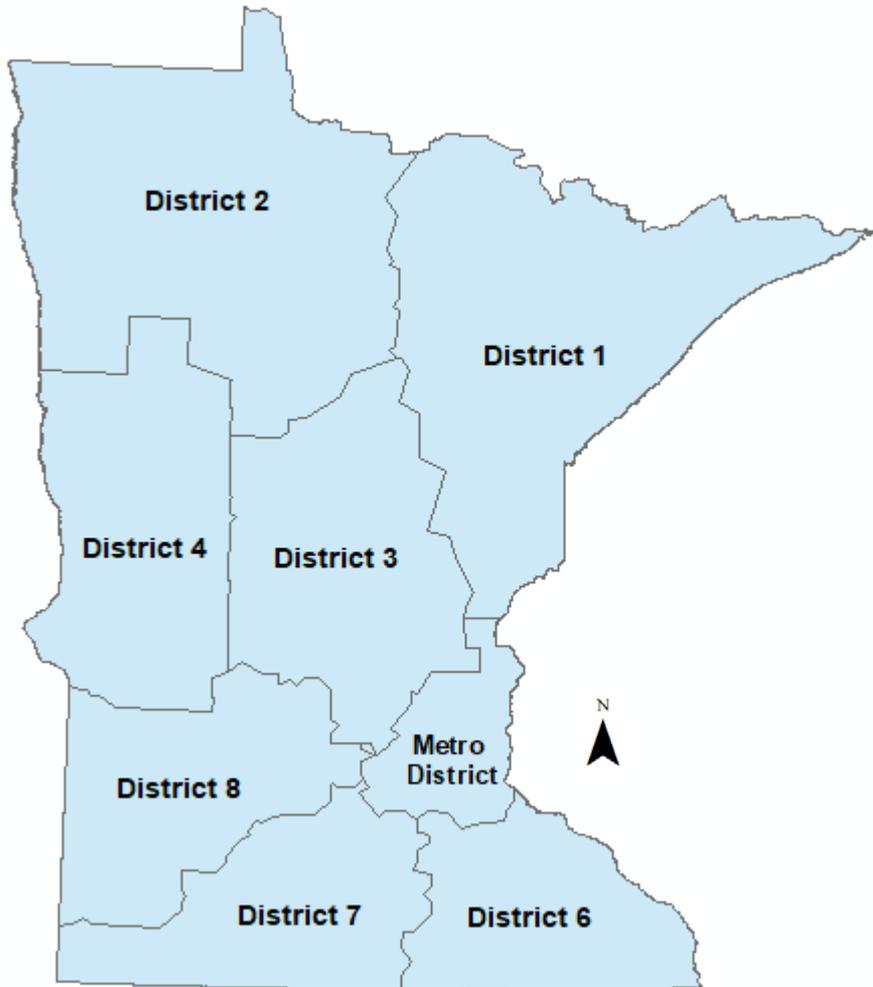
Highway Funding Redistribution



Transit Funding Distribution

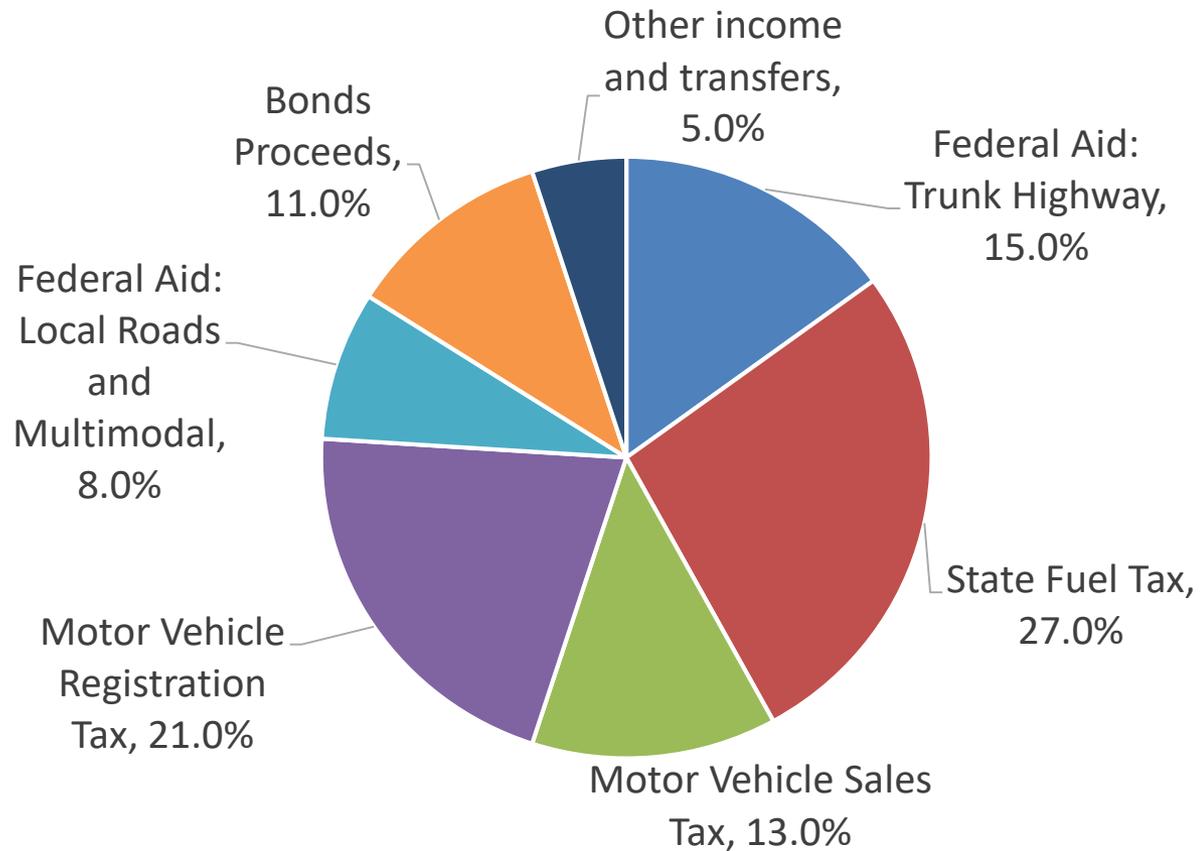


MN Transportation Districts



- **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, Mahnommen, 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

Sources (2015)

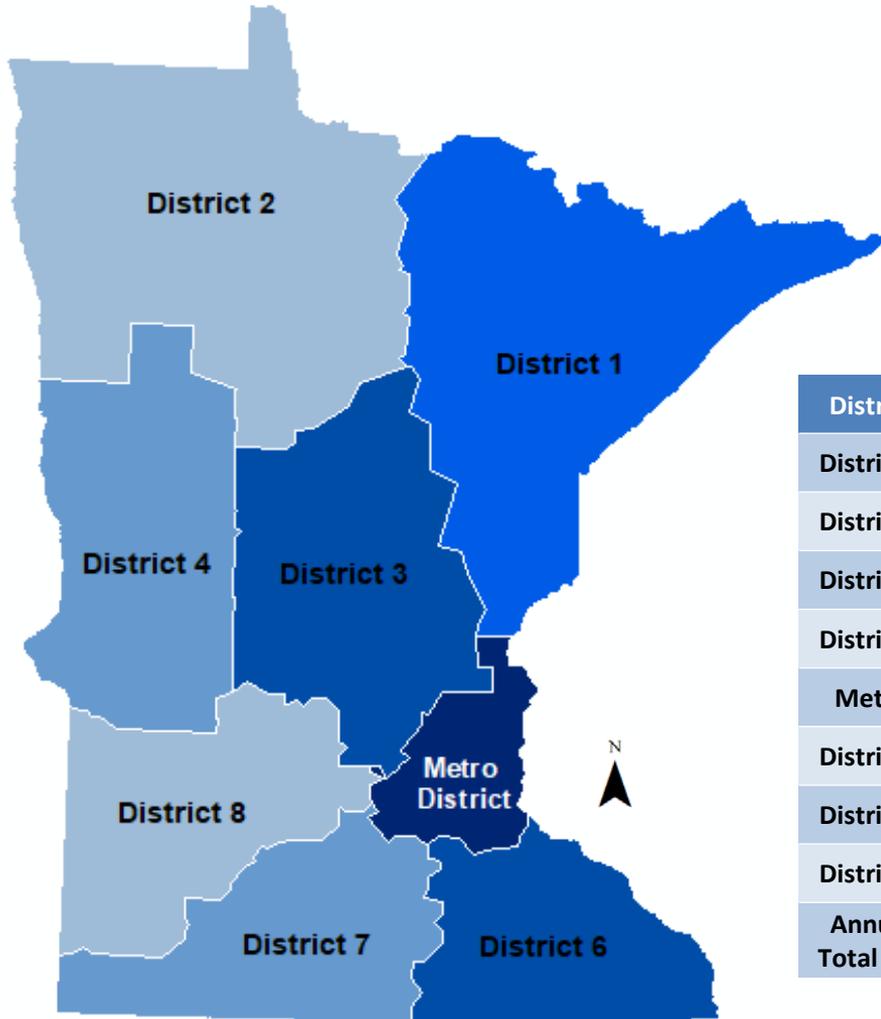


Analysis: Revenue Share

- **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

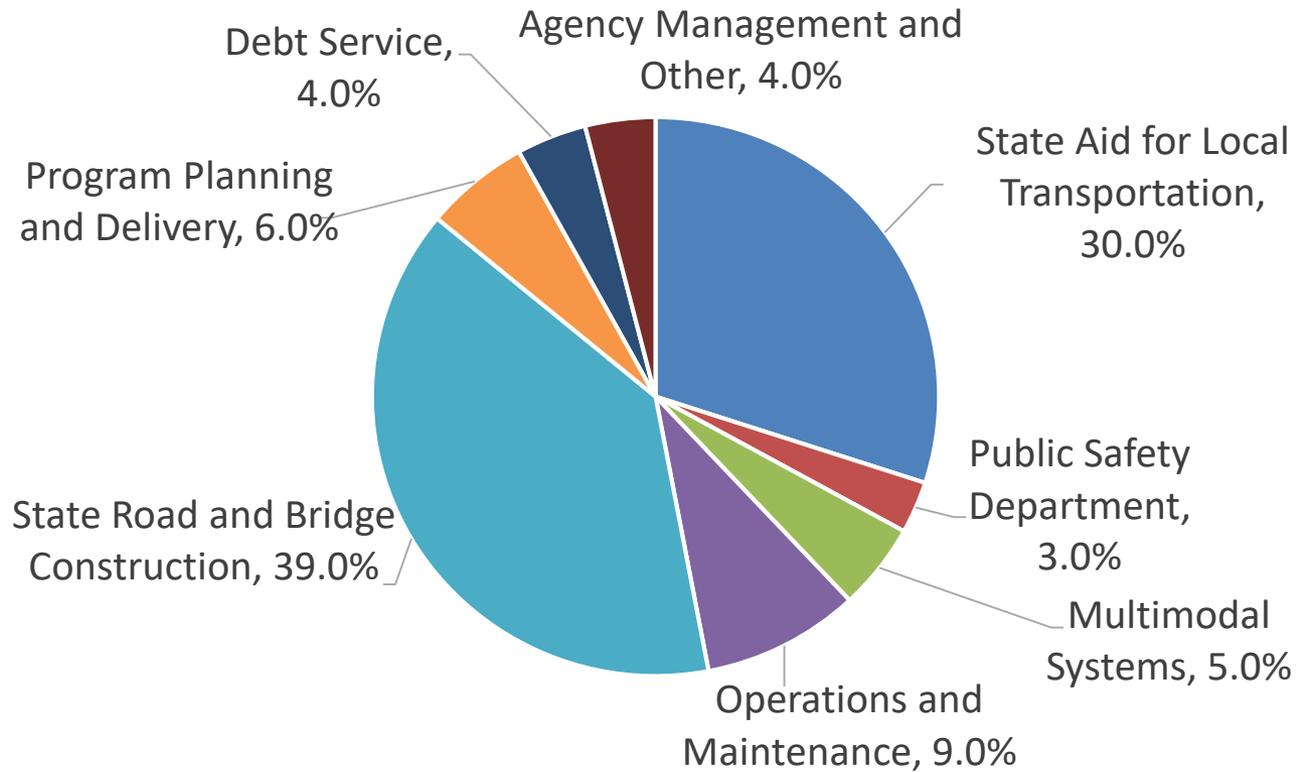
Minnesota Transport Finance Redistribution

R-Share (2010-2015)



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

Uses (2015)

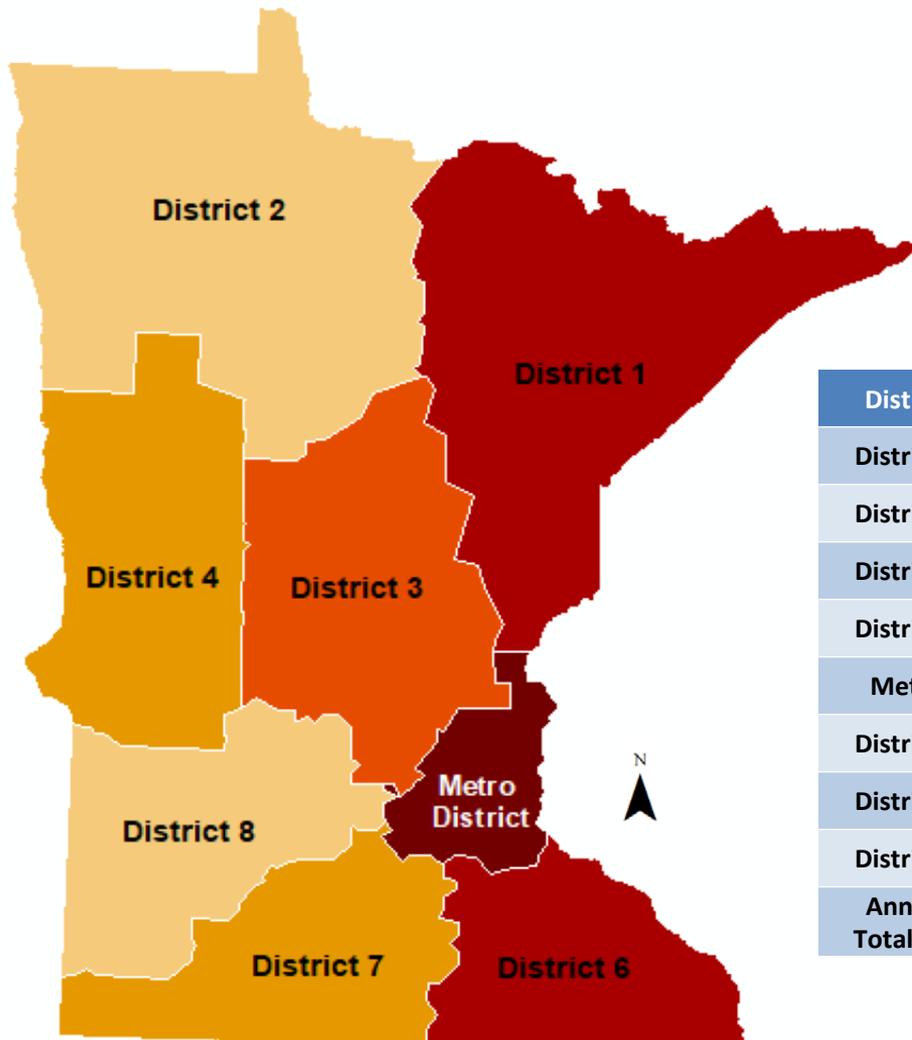


Analysis: Expenditure Share

- **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)



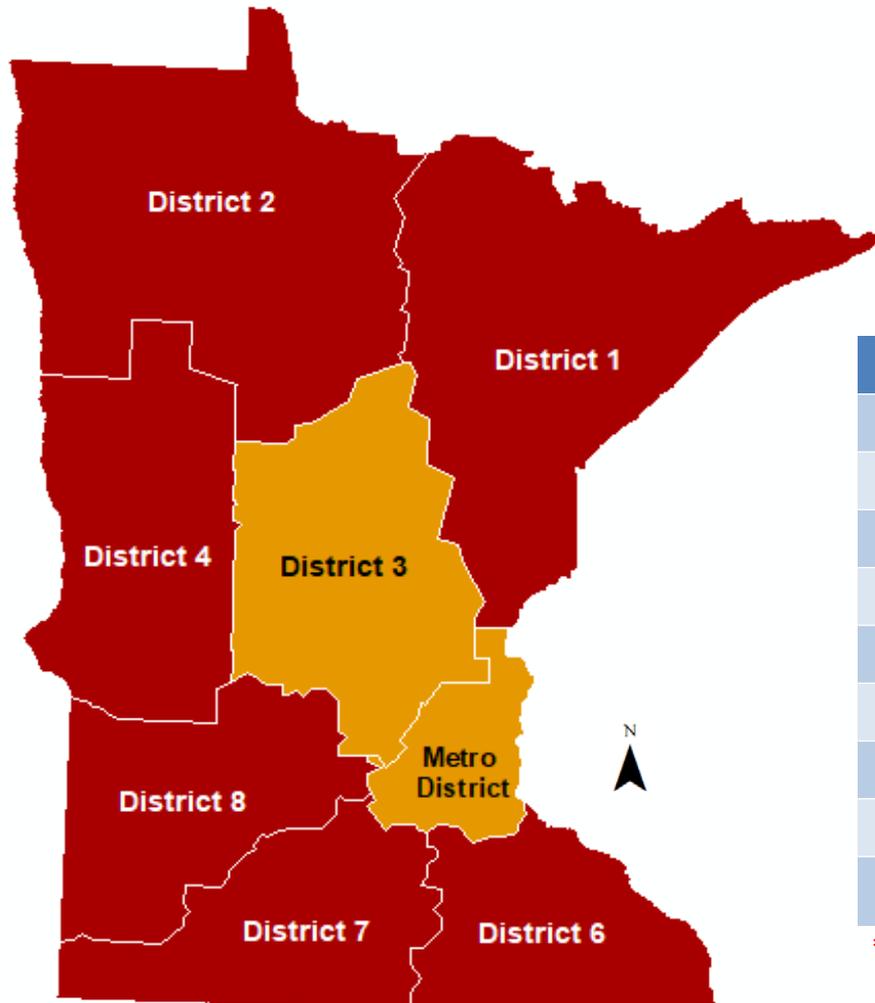
District	Trunk	GRT	Transit	E-Share
District 1	12.4%	10.7%	3.9%	10.1%
District 2	6.1%	6.5%	0.5%	5.1%
District 3	10.6%	10.9%	2.7%	9.1%
District 4	7.1%	8.1%	0.9%	6.2%
Metro	36.4%	36.9%	87.7%	47.0%
District 6	13.1%	11.4%	1.9%	10.2%
District 7	8.4%	8.6%	1.0%	7.0%
District 8	5.8%	6.8%	1.2%	5.2%
Annual Total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

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)



Above 1
 Below 1

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

*: More than 20% away from 1.

Findings at the District Level (2010-2015)

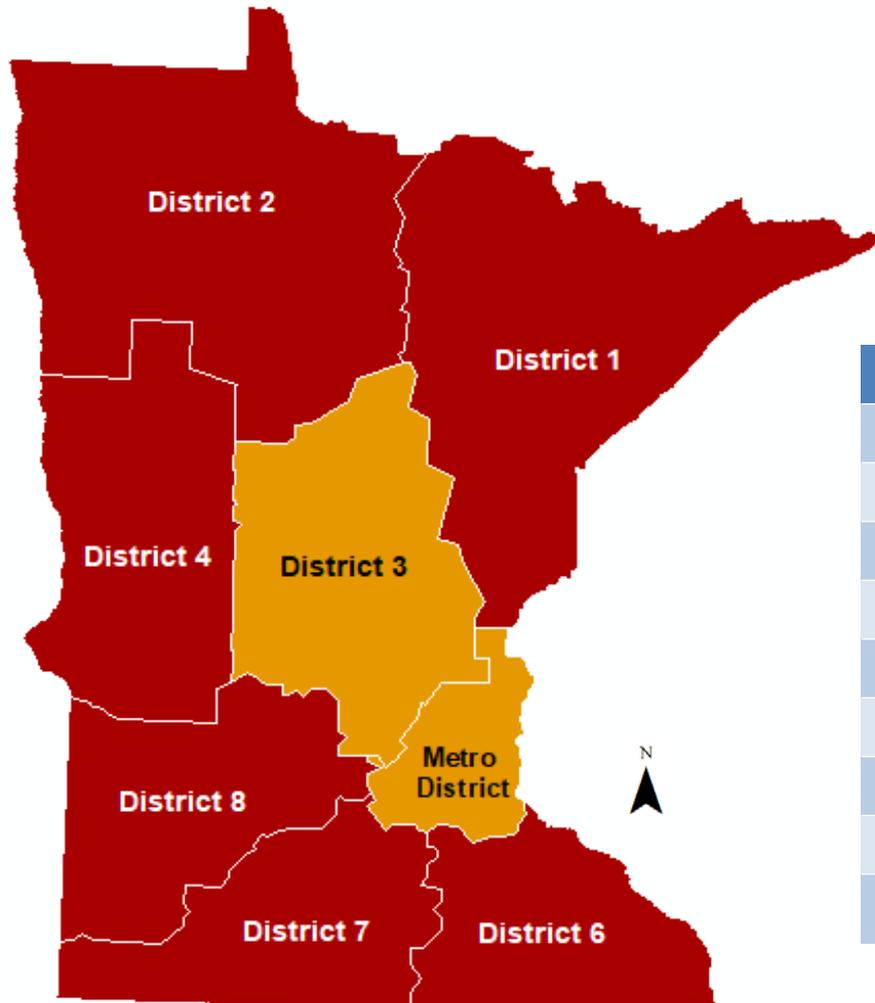
- E-Share:
 - Metro district receives about 36% highway funding, 88% transit funding, about 47% in total transportation funding
- R-Share:
 - Metro district contributes about 50% of dedicated revenues
 - District 3 contributes about 14%
- ER-Ratio:
 - Metro district receives slightly less than it contributes 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)



Above 1
 Below 1

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

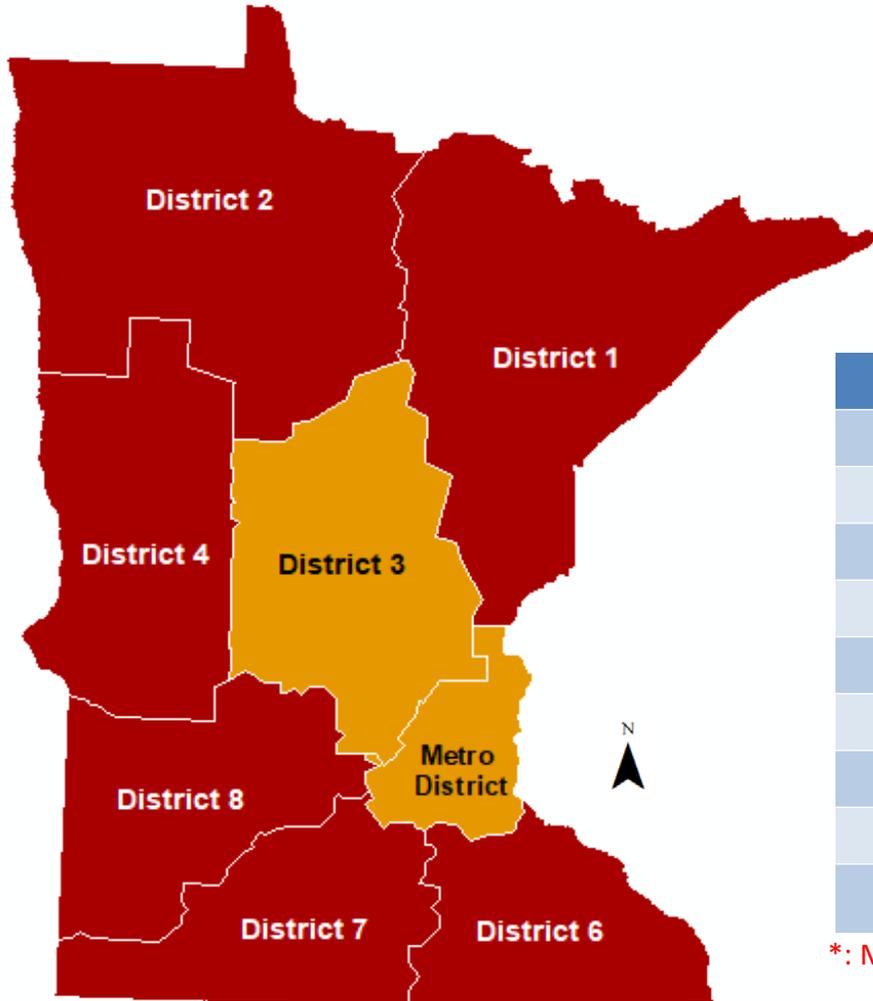
*: More than 20% away from 1.

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)



Above 1
 Below 1

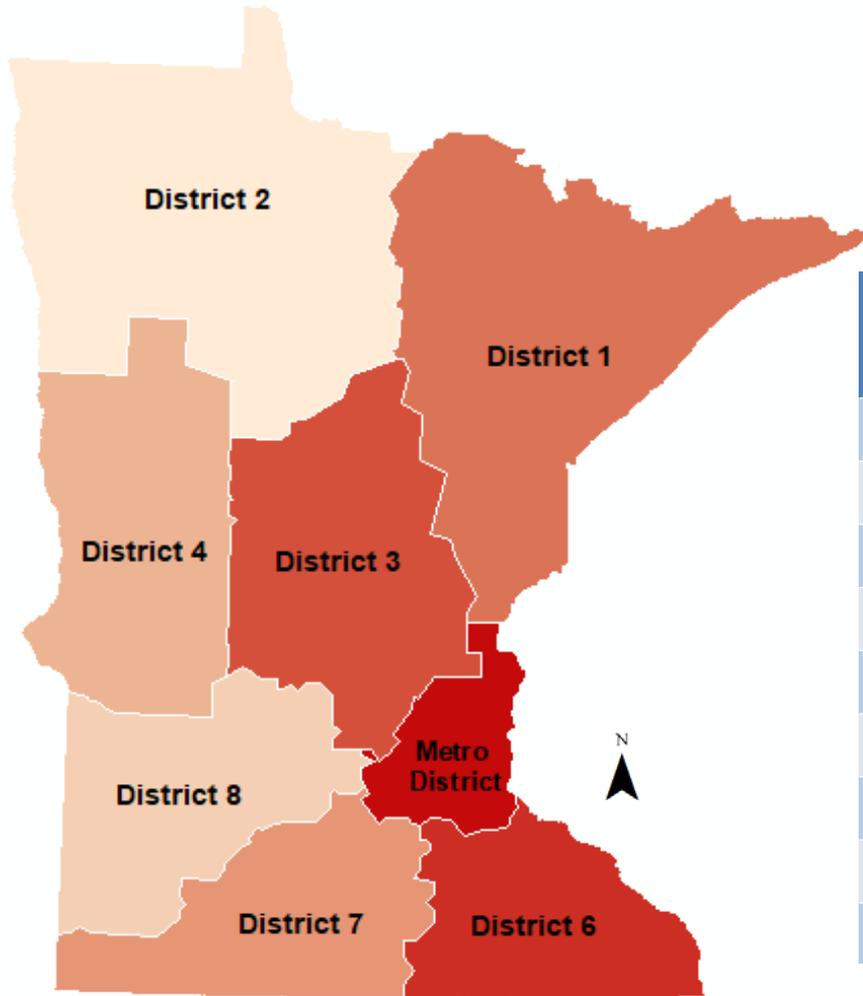
District	R-Share	E-Share	ER-Ratio
District 1	7.4%	9.0%	1.21
District 2	3.3%	4.2%	1.29
District 3	11.7%	9.2%	0.79
District 4	5.5%	5.8%	1.06
Metro	52.5%	51.0%	0.97
District 6	8.9%	9.2%	1.04
District 7	6.1%	6.6%	1.08
District 8	4.7%	5.0%	1.07
Annual Total (M)	\$4,394	\$4,700	-

*: 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)



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

Roadway Funding Structure (2010-2015)

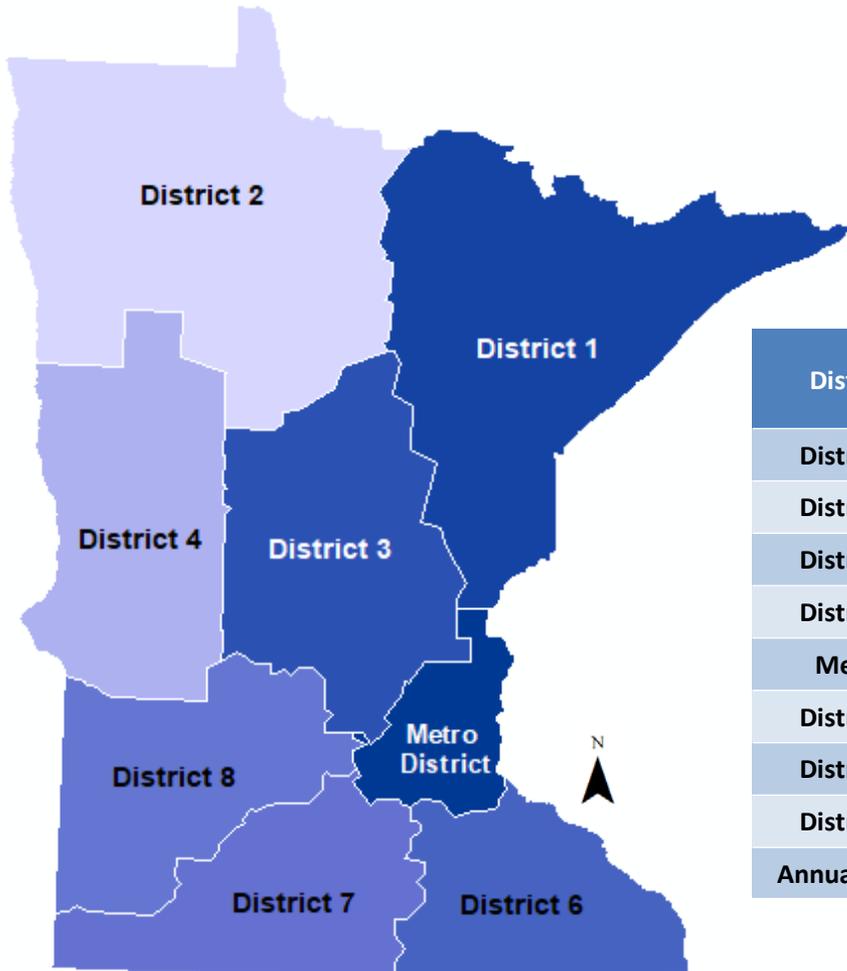
- F&S special revenues account for 56%
- Local efforts account for 44%
- Consistent across transportation districts
- Except for the Metro District

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)



District	F&S Special Revenue	Fare	Other local Efforts	Total (M)
District 1	69.6%	7.9%	22.5%	\$31
District 2	76.6%	6.4%	17.0%	\$4
District 3	69.8%	8.7%	21.5%	\$22
District 4	71.9%	10.9%	17.3%	\$7
Metro	57.2%	12.7%	30.1%	\$856
District 6	65.1%	15.3%	19.6%	\$16
District 7	76.7%	10.2%	13.1%	\$8
District 8	71.6%	10.3%	18.1%	\$8
Annual Total	58.5%	12.4%	29.1%	\$951

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