



TECHNICAL SUMMARY

Questions?

Contact research.dot@state.mn.us.

Technical Liaison:

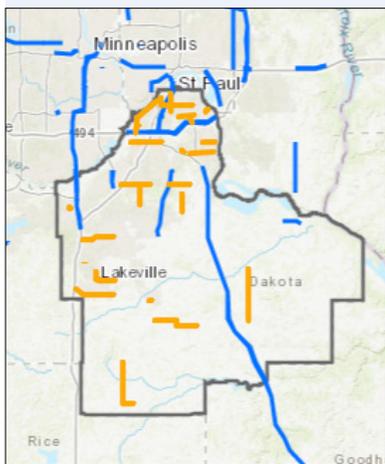
Russ Matthys, City of Eagan
RMatthys@cityofeagan.com

Principal Investigator:

Zhirong (Jerry) Zhao,
University of Minnesota

PROJECT COST:

\$121,668



This map of Dakota County shows the 2020 road projects for MnDOT (blue) and the county (orange).



Evaluating Local Funding in Regional Projects

What Was the Need?

Transportation infrastructure across the country is funded through federal, state and local governments working together in various ways. In recent years, federal and state transportation funds, supported primarily through fuel taxes, have not kept up with infrastructure demand. Consequently, local governments have shouldered more of the efforts to support the roadway systems.

In Minnesota, local funding has supported not only local roadways, but has also supplemented projects that serve larger regions, including state trunk highways, county roads and some city streets. It is important to examine and clarify the state and local shares of funding for these larger transportation projects.

MnDOT and local agencies across the state wanted to evaluate the extent and effects of local agencies' expenditures on nonlocal state and regional transportation projects.

What Was Our Goal?

The main objective of this project was to clarify recent trends in roadway funding and to help local agencies more fully understand the processes and cost burdens of cooperative projects, as well as the local effects of federal and state allocations. An overarching goal was to improve local agencies' ability to make effective and judicious decisions in roadway funding collaborations.

What Did We Do?

Researchers explored the effects of local expenditures on nonlocal state and regional transportation projects through five steps. First, they analyzed the trends of federal, state and local contributions to the roadway system, plus state spending on roadway construction, operations and maintenance between 2008 and 2015. Second, researchers examined patterns of transportation grants across Minnesota counties and estimated their effects on local agency transportation efforts.

Third, they conducted case studies of five cities and one county that had participated in cooperative agreements with MnDOT between 2013 and 2018. Researchers sought to understand the cost burden of these projects on local governments. Fourth, the case study findings served as a basis for a survey that researchers administered to city and county engineers to learn about their experiences and perceived challenges in participating in cooperative agreement projects with MnDOT.

Finally, researchers synthesized their findings into recommendations and guidance for local agencies to consider as they enter into cooperative agreements or other forms of collaboration with larger state and federal agencies.

What Was the Result?

Researchers learned that federal and state revenue had not been keeping up with roadway needs from 2008 through 2017 and that local government contributions had increased. This included local contributions on trunk highway projects through

Data about roadway funding trends and patterns of grants across counties were used along with case studies and survey results to provide local agencies with guidance for making judicious and cost-effective decisions when working with federal and state agencies in collaborative projects that include nonlocal features.

“The results of the research project should be required reading for all local agency project managers participating in regional highway improvements with a local funding contribution. Following the recommendations will limit, if not avoid, unintended and costly surprises.”

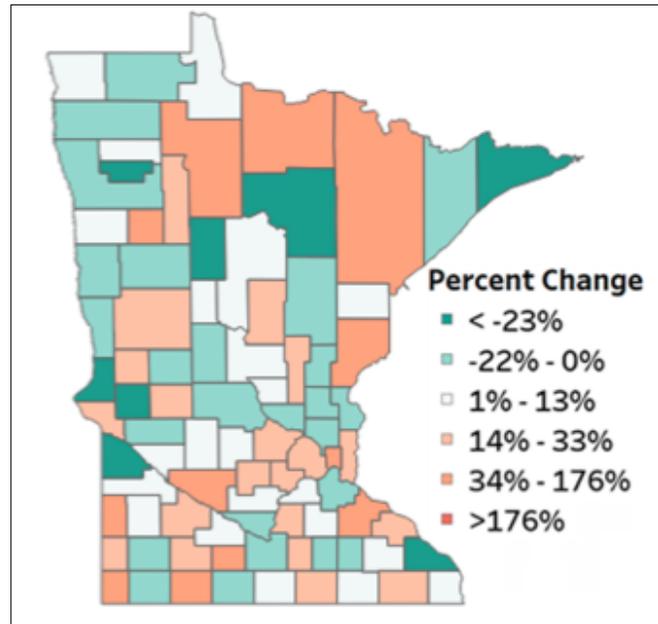
—Russ Matthys,
Public Works Director,
City of Eagan

“Cooperative agreements can be mutually beneficial for both local and state governments. But collaboration could be improved by effective communication, in particular, in dealing with unexpected cost overruns.”

—Jerry Zhao, Professor,
University of Minnesota
Humphrey School of
Public Affairs

Produced by CTC & Associates for:

Minnesota Department
of Transportation
Office of Research & Innovation
MS 330, First Floor
395 John Ireland Blvd.
St. Paul, MN 55155-1899
651-366-3780
www.mndot.gov/research



This map of Minnesota shows the percent change in local roadway project funding by county from 2008 through 2012 and from 2013 through 2017. While a few counties show a steady rate or decrease in local funding, many show an increase of 14% to more than 176%.

cooperative agreements in MnDOT, which improves portions of the highways that are part of the local system, but does limit local agencies' ability to tend to their own roads.

While the case studies and survey showed that cooperative agreements can be mutually beneficial for state and local governments, local governments have often had to manage unexpected costs. State funding is capped, but expenses are not. Researchers determined that local governments need to actively plan, manage and monitor the agreements and procedures of their cooperative agreements.

Based on their findings in this study, researchers developed the following recommendations:

- **Disclose project requirements during the planning phase.** MnDOT should clarify all project requirements, such as the use of materials and the project timeline, in related documents so all agencies involved can create a more accurate and comprehensive budget.
- **Discuss funding conditions of state funds or grants.** MnDOT and local officials should understand funding caps, match requirements and other funding limitations applicable to the project.
- **Include the distribution of unexpected costs in the contract.** Contracts should have a clause that specifically discusses guidelines for allocation of unexpected costs (not initially stipulated) for the lifetime of the contract. A clear understanding will allow all parties to make informed decisions and plan for contingencies.
- **Maintain regular communication between MnDOT and local governments.** MnDOT and local governments should maintain regular communication on project progress through planning and construction stages.
- **Enable the use of state contingency funds to share unexpected cost overruns.** MnDOT should consider making contingency funds more easily available to local agencies involved in cooperative agreements regarding unexpected trunk highway costs.

What's Next?

This research will be made available to local agencies, and efforts will be made to promote its recommendations to local officials involved in pursuing cooperative agreements and other collaborative projects.

This Technical Summary pertains to Report 2020-12, "Local Contributions to State and Regional Transportation Facilities in Minnesota," published May 2020. The full report can be accessed at mndot.gov/research/reports/2020/202012.pdf.