

SPR RESEARCH PROGRAM

SECOND-STAGE PROPOSAL SUMMARY

PROBLEM NUMBER AND TITLE

27-48: Closing the Loop: Agency-Wide Fiscal Program Evaluation of ODOT Programs and Projects to Determine ROI

PROBLEM SUMMARY

ODOT manages billions of dollars in public transportation investments each year, yet programs and projects are not consistently evaluated using an agency-wide, standardized, transparent fiscal performance framework. Without a unified method to track revenue inputs, operational throughputs, and outcome-based ROI, the agency cannot clearly quantify the true value generated for every taxpayer dollar spent. This gap limits ODOT's ability to validate that investments are efficient, fair, and aligned with strategic goals, while also weakening public accountability and trust. Research is needed to establish a repeatable, auditable, and data-driven process that measures actual ROI across all ODOT programs and project types. This will enable decision-makers to prioritize funding based on measurable public benefit, maximize fiscal stewardship, and improve transparency with the public, communities and travelers.

ODOT OBJECTIVES

The research project objectives are to develop an actionable ROI framework for the evaluation of financial and economic impacts of ODOT program and service investments. This framework *could* assist in:

- Communicating value to community partners (legislators, the public, taxpayers),
- Identifying factors that contribute to high-performing ROI projects,
- Potentially prioritizing future projects for the Capital Investment Plan (CIP), and
- Tiered implementation guidance to address varying levels of agency data and fiscal capacity.

BENEFITS

This research should produce a comprehensive fiscal evaluation framework that ODOT can apply consistently across all programs and project categories—capital, maintenance, operations, safety, mobility, and modernization initiatives. The final product should include a standardized ROI methodology, including definitions, required data inputs, cost-benefit and cost-effectiveness metrics, analytical models, dashboards or reporting tools, and auditing procedures. The framework must clearly describe how to measure revenue inputs, throughputs, and outcomes, and how to calculate ROI in ways that account for financial impacts, safety outcomes, mobility improvements, climate impacts, community outcomes, and long-term system performance. The framework will provide for tiered implementation to address varying levels of data availability and implementation resources available to the agency.

SCHEDULE, BUDGET AND AGENCY SUPPORT

Estimated Project Schedule Length: 24 months

Estimated Project Budget: \$240,000

ODOT Support: Travis Brouwer, ODOT Deputy Director on behalf of the Finance and Budget Division, and Mike Woodford, ODOT Chief Data Officer

FOR MORE INFORMATION

For additional detail, please see the complete STAGE 2 RESEARCH PROBLEM STATEMENT online at:

<https://www.oregon.gov/odot/Programs/ResearchDocuments/27-48.pdf>

SPR RESEARCH PROGRAM

SECOND-STAGE PROBLEM STATEMENT

FY 2027

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27-48: Closing the Loop: Agency-Wide Fiscal Program Evaluation of ODOT Programs and Projects to Determine ROI

RESEARCH PROBLEM STATEMENT

ODOT manages billions of dollars in public transportation investments each year, yet programs and projects are not consistently evaluated using an agency-wide, standardized, transparent fiscal performance framework. Without a unified method to track revenue inputs, operational throughputs, and outcome-based ROI, the agency cannot clearly quantify the true value generated for every taxpayer dollar spent. This gap limits ODOT’s ability to validate that investments are efficient, fair, and aligned with strategic goals, while also weakening public accountability and trust. Research is needed to establish a repeatable, auditable, and data-driven process that measures actual ROI across all ODOT programs and project types. This will enable decision-makers to prioritize funding based on measurable public benefit, maximize fiscal stewardship, and improve transparency with the public, communities and travelers.

RESEARCH OBJECTIVES

The research project objectives are to develop an actionable ROI framework for the evaluation of financial and economic impacts of ODOT program and service investments. This framework *could* assist in:

- Communicating value to community partners (legislators, the public, taxpayers),
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WORK TASKS, COST ESTIMATE AND DURATION

The following table prescribes the work tasks and estimates for cost and duration.

Work Task	Cost Estimates	Duration, estimated
1) Literature Review & Evidence Gathering: Analyze existing national research, best practices, and ROI methodologies used by other state DOTs (e.g., in Caltrans, WSDOT, TDOT)	\$30,000	3 Months
2) Methodological Framework Development: Create a standardized approach to quantify direct, indirect, and induced benefits, e.g. job creation, safety, travel time savings, as well as community and environmental impacts.	\$30,000	3 Months
3) Data Integration: Establish data requirements for modeling, including traffic, economic, and cost data.	\$30,000	3 Months
4) Tool Development: Build tool (e.g., Excel or web-based) for project managers to input data and determine ROI.	\$30,000	3 Months
5) Case Study Application: Apply the framework to 2 or 3 projects, programs, or services to test and refine the tool.	\$40,000	4 Months
6) Draft/ Final Report from Literature Review to Case Study Application	\$40,000	4 Months

Work Task	Cost Estimates	Duration, estimated
7) Implementation Guidebook for ODOT Project, Program & Service Managers: ODOT Staff Training Documents/ Workshop Materials: Develop implementable guidance documents.	\$40,000	4 Months
Total	\$240,000	24 Months

Key Deliverables:

- **Draft & Final Report:** Documenting the ROI methodology and best practices.
- **ROI Calculation Tool:** A spreadsheet or software application.
- **Case Study Report:** Results of project applications.
- **Implementation Guidebook:** Step-by-step instructions for ODOT staff/ personnel.

Estimated Project Length: 24 months

Estimated Project Budget: \$240,000

EXPECTED ODOT IMPLEMENTATION ACTIONS

Deliverable Implementation Actions: The production of a comprehensive ROI evaluation framework, including methodology definitions, required data inputs, cost benefit and cost effectiveness metrics, analytical models, dashboards or reporting tools, and auditing procedures. The product should enable ODOT to institutionalize a transparent, repeatable, and accountable method for evaluating ROI and the effectiveness of transportation program and service investments.

POTENTIAL BENEFITS

This research should produce a comprehensive fiscal evaluation framework that ODOT can apply consistently across all programs and project categories—capital, maintenance, operations, safety, mobility, and modernization initiatives. The final product should include a standardized ROI methodology, including definitions, required data inputs, cost-benefit and cost-effectiveness metrics, analytical models, dashboards or reporting tools, and auditing procedures. The framework must clearly describe how to measure revenue inputs, throughputs, and outcomes, and how to calculate ROI in ways that account for financial impacts, safety outcomes, mobility improvements, climate impacts, community outcomes, and long-term system performance. The framework will provide for tiered implementation to address varying levels of data availability and implementation resources available to the agency.

The research should also identify necessary updates to relevant work policies, budgeting procedures, program management standards, investment prioritization tools, and reporting requirements. Additional deliverables may include pilot testing on selected programs, implementation guidance, workforce training modules, and recommendations for continuous improvement. Ultimately, this product must enable ODOT to institutionalize a transparent, repeatable, and accountable method for evaluating the effectiveness of transportation investments.

Other state DOTs and public-sector agencies have begun implementing ROI-based evaluation frameworks to strengthen public accountability and improve investment prioritization. However, no current model fully aligns with ODOT’s unique program structures, revenue sources, statutory constraints, and strategic lenses (equity, climate, and safety). This research would help benchmark proven national practices, identify gaps in ODOT’s current fiscal performance systems, and adapt best-in-class evaluation methods to Oregon’s needs.

Potential tasks include: (1) inventory and assessment of existing ODOT fiscal tracking tools, program reporting systems, and performance measures; (2) review of national and international ROI evaluation frameworks; (3) development of a multi-dimensional ROI model that includes financial, operational, social,

climate, and safety outcomes; (4) identification of necessary data sources and data governance processes; (5) pilot implementation; and (6) development of agency-wide rollout recommendations. This work would also support improved public transparency by enabling ODOT to show clearly how investments translate into measurable public value.

This research will help ODOT better align with Oregon's Strategic Action Plan goals by improving fiscal stewardship, ensuring resources are directed toward the highest-value uses, and strengthening public trust. It also would provide foundational infrastructure for future performance audits, legislative reporting, and long-term financial planning.

PEOPLE

ODOT Champions: Travis Brouwer, ODOT Deputy Director on behalf of the Finance and Budget Division, Mike Woodford, ODOT Chief Data Officer

Problem Statement Contributor: Matt Bagwell, along with highly ranked, strong support from the Communities & Commerce Expert Task Group (ETG) members below: Naomi Zwerdling, Chris Melson, Eric Havig, John Boren, Thomas Guevara, Gian Olsen, & Allen Molina

REFERENCES

- Amekudzi-Kennedy, A., Clark, R., Amoaning-Yankson, S., Gupta, A., Rabinek, T., & Smith-Colin, J. (2018). Transportation research implementation management: Development of performance-based processes, metrics, and tools.
- Kousky, C., Ritchie, L., Tierney, K., & Lingle, B. (2019). Return on investment analysis and its applicability to community disaster preparedness activities: Calculating costs and returns. *International Journal of Disaster Risk Reduction*, 41, 101296.
- Reeb, T., & Gallagher, S. (2024). Developing an ROI Assessment Model for Employee Development Programs Implemented by California Transit Agencies.

STAFF REVIEW PAGE

LITERATURE CHECK

TRID&RIP

A review of TRID & RIP databases found no existing research that answers the research question

ODOT DECISION LENSES

Climate: Climate is not the primary focus of this proposal. However, the ROI framework may include modules that allow climate-related benefits (GHG reduction, resilience improvements, environmental outcomes) to be measured as subcomponents of project value. Including these optional metrics would allow ODOT to quantify climate-related costs and benefits more consistently during investment decision-making.

Equity: While equity is not the sole focus, the ROI framework should include equity impact assessment as a core component of calculating public value. This aligns with ODOT’s Strategic Action Plan, which emphasizes fair distribution of transportation benefits and transparent decision-making. Incorporating equity metrics—such as distributional impacts, access to essential services, and benefits to underserved communities—will ensure that investment decisions reflect statewide equity or “fairness” commitments.

Safety: Safety outcomes are a core component of ODOT’s investment decisions. A standardized ROI framework would allow the agency to quantify safety impacts—such as crash reduction value, risk mitigation, and long-term public health benefits—as part of investment evaluation. This improves strategic safety investments, supports transparent reporting, strengthens collaboration among safety-focused programs, and integrates modern analytical tools to potentially produce more optimal data-driven safety outcomes.

TECHNOLOGY & DATA ASSESSMENT

No Identified T&D output

At the end of this project, if selected, implementation agency wide within ODOT will help coordinate the adoption of new technology or data to realize the full potential of this research.

CROSS-AGENCY IMPACTS

- List ODOT partners or impacted units. Broadly, many partner units may benefit and be positively impacted by this research, including the Finance and Budget Division.
- Identify any issues of concern raised by any ODOT partners. None were noted at the time of this submission filing.