

FY 2008 RESEARCH PROBLEM STATEMENT

ODOT Research Unit
200 Hawthorne Ave. SE, Suite B-240
Salem, OR 97301-5192

Office Phone: (503) 986-2700
FAX Phone: (503) 986-2844

TITLE

ODOT FMS Research Problem Statement #1

Multi-Modal Investment Criteria and Freight's Economic Importance

PROBLEM (Description of need)

Developing a rational set of investment criteria for funding multi-modal freight infrastructure needs is vital to making cost-efficient strategic investments. A rational set of investment criteria can help set priorities among identified needs to allocate scarce resources and build support for projects.

Investment criteria are needed to examine:

1. Core impacts (investment costs, system operating and maintenance costs, vehicle operating costs, travel time benefits, safety and local environment),
2. Strategic mobility impacts (connection between the activity, transport system and the cost of traveling),
3. Strategic environmental impacts (e.g., changes in CO² emissions, loss of natural resource habitat and wetlands), and
4. Strategic economic development impacts (benefits from better integration of economic activities).

Making cost-efficient investments also requires a) understanding how economic well-being is tied to the condition of the freight moving system; b) applying a set of rational investment criteria to regional and statewide projects in order to set priorities for funding; and c) finding better ways to communicate freight's economic importance to a wide variety of audiences, including the general public.

PROPOSED RESEARCH, DEVELOPMENT OR TECHNOLOGY TRANSFER ACTIVITY

1. Review regional, national, and international literature on:
 - a. Criteria for investing in multi-modal freight projects;
 - b. Measures characterizing the economic importance of freight transportation; and
 - c. Outreach approaches for communicating freight's economic importance to various audiences, including the general public.
2. Develop and recommend:
 - a. Investment criteria for freight system projects that will strategically position the state to accommodate future freight demand;
 - b. Measures of freight's economic importance to Oregon; and
 - c. Outreach approaches for communicating freight's economic importance.
3. Test the investment criteria on a representative group of multi-modal freight needs/projects across Oregon. Compare the actual economic impact of the projects with the projected impacts.
4. Evaluate the applicability of the tested investment criteria and make recommendations for future use for budgeting and setting project priorities.
5. Recommend how to incorporate findings on investment criteria and measures of freight importance in state, regional, and local freight policy, planning, and programming activities.
6. Recommend how to incorporate easy to understand measures of the economic importance of freight transportation and outreach approaches in a communications strategy and in planning and programmatic activities.
7. Identify how findings for Oregon can be adapted in other states and regions.

BENEFITS

This research extends the work of ODOT and others to develop and implement multi-modal

investment criteria and measures of the economic importance of freight transportation. The recommendations would provide ways to incorporate the research findings into state, regional, and local freight policy, planning, and programming and communication strategies in Oregon and elsewhere. The Oregon Transportation Commission, ACT's, OFAC and other advisory and decision-making bodies could use this information and methodology when developing priorities and considering funding of multi-modal freight transportation infrastructure projects.

CONTACT PERSON:

FOR RESEARCH UNIT USE ONLY

Ann Hanus
Oregon Economic Community Development Departm
775 Summer St. NE
Salem OR 97301
(503) 986-0135/ ann.hanus@state.or.us

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Steve Kale, Principal
 SR Kale Consulting
 2750 Jory Hill Road South
 Salem OR 97306
 (503) 399-8202/steveonjory@aol.com

Lei Zhang, Assistant Professor
 Department of Civil, Construction and Environmental
 Engineering
 220 Owen Hall
 Oregon State University
 Corvallis OR 97331
 (541) 737-2072
Lei.zhang@oregonstate.edu

Julie F. Rodwell, Manager
 ODOT Freight Mobility Section
 555 13th Street NE, Suite 2
 Salem, OR 97301-4178
 503-986-3525
Julie.F.Rodwell@odot.state.or.us

This research statement was originally submitted as a FY 2007 project by Steve Kale: Economic Importance of Freight Transportation. It has been revised by the above sponsors, and is supported by the Oregon Freight Advisory Committee, as a research problem statement for FY 2008.