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## Following the Money from Investments to Outcomes

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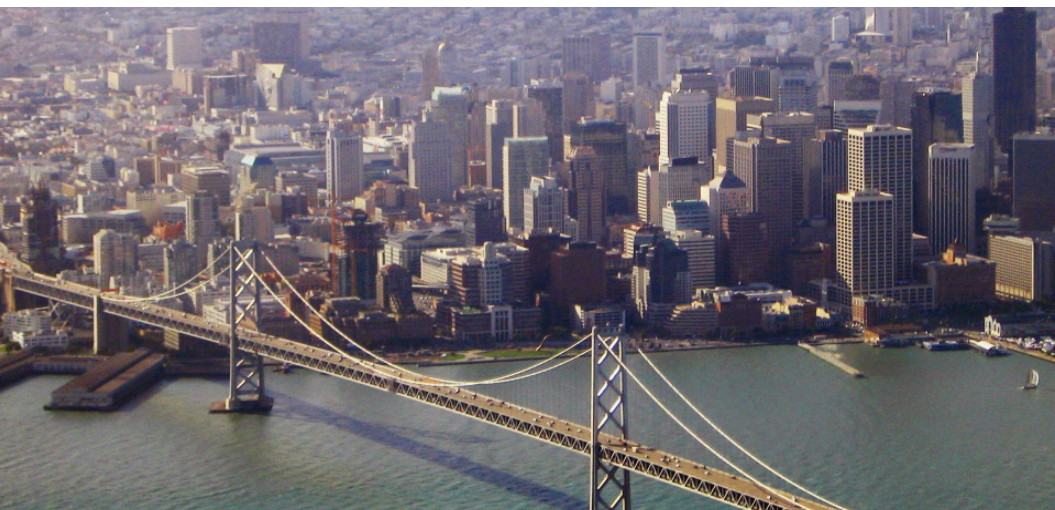
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**NITC**

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## FOLLOWING THE MONEY FROM INVESTMENTS TO OUTCOMES

*NITC researchers from the University of Oregon look into transportation funding processes and how they are linked to outcomes*

### The Issue

Federal, state and local governments spent approximately \$320 billion on transportation in 2012. These public monies buy outputs: facilities and services for highways, transit, air, water, rail and pipelines. But how effectively do these investments deliver desired outcomes: reducing commute times, improving the economy, supporting community development, enhancing public health, providing cleaner air, and advancing other livability goals? The Moving Ahead for Progress in the 21st Century Act (MAP 21), adopted in 2012, established national performance goals, called for the development of performance measures and targets, required that these targets be incorporated into plans and programs, and also required reporting on progress in meeting targets. In reality however, there is a systematic lack of comprehensive data and performance measures to track the relationship of investments to livability targets.

MAP 21 directs states and MPOs to use performance measures and targets. But little has been written about how to integrate performance measures, especially outcomes measures, into all phases of transportation decision-making. In particular, little attention has been given to how existing governance and finance structures can frustrate efforts to achieve desired outcomes cost-effectively. States and MPOs have different mechanisms for allocating funding from various sources to transportation projects and programs: the Federal Highway Trust Fund, state gas and sales taxes, etc. Many funding sources are dedicated to particular uses. For example, twenty-seven states limit the use of gas and other motor vehicle taxes to just investments in roads and bridges. In some states transportation commissions allocate funding; in others the legislature or governor decides.

### THE ISSUE

While it's accepted that mixed-use development promotes active travel, researchers don't have a consensus on exactly how land use determines people's travel patterns.

### THE RESEARCH

The research examined:

- The relationship between pedestrian travel and land use mix;
- The impact of land use mix on pedestrian travel;
- How operationalizing land use mix influences individual travel behavior.

### IMPLICATIONS

This work contributes theoretical and empirical tools for research and practice in transportation and land use planning.

*Photo: Bay Bridge in San Francisco, CA. The Metropolitan Transportation Commission responsible for planning, financing and coordinating transportation for the Bay Area was one of the six case study MPOs.*

## The Research

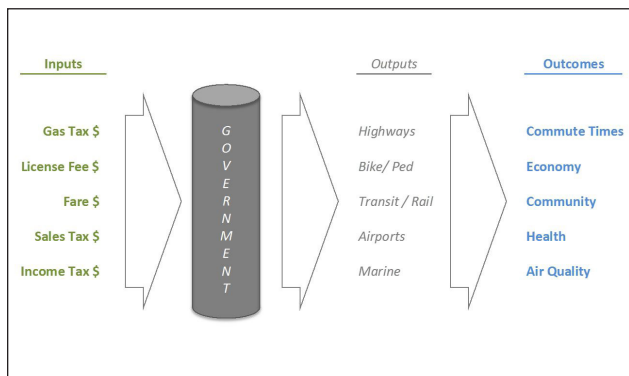
NITC investigators Rebecca Lewis and Rob Zako of the University of Oregon explored six case study states to try to get some clarity on the answer. They worked with metropolitan planning organizations (MPOs) in California, Massachusetts, Minnesota, Tennessee, Utah and Virginia to examine how livability goals were embedded in funding processes. Though performance measures are becoming more pervasive because of federal policy, and each state has goals in long-range plans, Lewis and Zako sought to understand how planning, governance and finance, programming and reporting on performance were integrated. Essentially, they wanted to know how states and MPOs were spending transportation funding in alignment with goals in transportation plans, and how states and MPOs report outcomes to residents.

While they identified good practices in some states, they found little evidence of states systematically linking planning, finance, and programming. Further, they found that states report outputs rather than outcomes.

## Implications

It is relatively clear what outputs are gained from transportation investments: things like roads, bridges, tunnels and transit service. What is harder to find out is the extent to which these investments achieve desired outcomes. How effective have these investments been overall at reducing traffic congestion or travel times? Are communities developing more or less as desired as a result of transportation investments? Are there fewer deaths and serious injuries? Are more Americans choosing active modes of transportation and enjoying better health as a result? Overall, these questions remain unanswered. The final report provides recommendations for better linking planning, governance

and finance, programming, and reporting to improve accountability and transparency.



### Americans Expect Government to Use Taxes to Deliver Results

This graphic illustrates a funding process leading directly from inputs (in the form of taxes) to outcomes (in the form of desired results which offer clearly defined benefits to the population).

As an outgrowth of this research project, Lewis and Zako worked with Transportation For America to develop a separate toolkit, taking recommendations and research from various sources and pulling it all together into a coherent framework. The toolkit, available for download on the project web page (see right sidebar), recommends to practitioners a comprehensive four-phase outcomes-based approach to transportation decision-making. It is broken down into steps, with recommendations and examples in each step. Lewis and Zako hope that bringing the pieces together into a toolkit will spur discussion and innovation, and help practitioners make transportation decisions in a way that is accountable, transparent, and delivers cost-effective results.

## PROJECT INFORMATION

**TITLE:** Effectiveness of Transportation Funding Mechanisms for Achieving National, State, and Metropolitan Economic, Health, and Other Livability Goals

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**PROJECT NUMBER:** 2017-875

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**MORE INFORMATION**  
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