

FY 2010 RESEARCH PROBLEM STATEMENT

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TITLE ([more info](#))

Quantifying the benefits of bicycle boulevards

PROBLEM (Description of need) ([more info](#))

We know that bicycle boulevards (traffic-calmed residential streets that have been designated and optimized for bicycle through traffic) attract a higher number of users than other types of bikeways, and that reported bicycle-vehicle crashes on bicycle boulevards are very low. What we do not have is a quantitative measure of *how much safer and more attractive bicycle boulevards are* compared to other places people ride bicycles.

PROPOSED RESEARCH, DEVELOPMENT OR TECHNOLOGY TRANSFER ACTIVITY ([more info](#))

This study would use existing crash data and bicyclist user count data to quantify the degree to which bicycle boulevards are **safer** than other types of bicycle facilities as well as untreated roadways. The study may further quantify the degree to which bicycle boulevards are **more attractive** to users than other types of bikeways. A literature review should be conducted prior to designing the research plan.

Eugene, Corvallis, and Portland are all potential study areas. Potential data sources include municipal bicycle user counts (e.g. through the National Bicycle and Pedestrian Documentation Project) and Jennifer Dill's recent GPS data (published research pending, but preliminary data available) on bicyclist route choice factors. In addition, crash statistics should be analyzed (including PSU's enhanced crash statistics prepared for the Community and School Traffic Safety Partnership).

BENEFITS ([more info](#))

This research will:

- Determine the safety and comfort effects of existing bicycle boulevards in Oregon communities
- Determine whether lower-cost facilities such as bicycle boulevards are an effective tool to increase road safety (especially important as Oregon faces tighter economic times ahead)
- Increase ODOT's ability to design bicycle facilities that increase multimodal trips and decrease drive-alone trips
- Assist in creating outstanding bicycle facility designs that may strengthen ODOT's update of the Oregon Bicycle and Pedestrian Plan
- Contribute needed bicycle data to ODOT's library for use in planning, design, and research projects
- Increase ODOT's understanding of bicycle boulevards' potential to reduce congestion
- Create a quantitative measure of the benefits of bicycle boulevards compared to other types of bikeways and roadways to assist in developing cost-benefit analysis and in prioritizing potential bikeway projects.
- Expand ODOT's depth of understanding of bicycle boulevards' contribution to sustainable transportation

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Problem Statement Number: