2015 OREGON HIGHWAY COST ALLOCATION STUDY

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Study Review Team

- Reviews methods, data, and results, and discusses issues
  - Nine members, chaired by State Economist
    - Mark McMullen, Chair, State Economist
    - Jerri Bohard, Oregon Department of Transportation
    - Mazen Malik, Oregon Legislative Revenue Office
    - Mike McArthur, Association of Oregon Counties
    - John Merriss, Independent Expert
    - Timothy Morgan, AAA Oregon
    - Don Negri, Willamette University
    - Doug Parrow, Independent Expert
    - Bob Russell, Oregon Trucking Association

HIGHWAY COST ALLOCATION STUDY

2015 Results

Highway Cost Allocation in Oregon

- Oregon's 19th study; first was in 1937
- Since 1999, State Constitution has required a study every two years, and adjustment of rates if found necessary
- The question: **Are the shares of revenues paid by light and heavy vehicles fair and proportionate to their shares of costs?**
- To answer the question, we calculate **equity ratios**
  - Share of revenue / Share of cost
  - An equity ratio of 1.0 means perfect equity
  - More than 1.0 means paying more than fair share; less than 1.0 means paying less than fair share

Oregon's Approach

- Costs to allocate are budgeted expenditures over upcoming biennium
- Expenditures of federal funds are included (because they are interchangeable)
- Expenditures by local governments of state funds are included
- Expenditures by local governments of federal and some own-source funds also are included (interchangeability and accountability)

2015 Results

- Light vehicle equity ratio: 0.9974
  - Light vehicles account for 64.40% of the revenues and 64.56% of the costs
- Heavy vehicle equity ratio: 1.0047
  - Heavy vehicles account for 35.60% of the revenues and 35.44% of the costs
- User fees don’t need to be adjusted for equity in the upcoming biennium
- If user fees are changed for other reasons, equity may be maintained through use of HCAS model

AN EFFICIENT FEE DEMONSTRATION PROJECT

White Paper

Efficient Fees and HCAS in Oregon

- The efficient fee method of highway cost allocation was first proposed and implemented during Oregon's 2001 study and was re-implemented for the 2011 study
- The efficient fee method of HCAS calculates costs imposed as the amount of revenue a vehicle class would produce if it paid efficient fees and compares those to what it pays under current-law fees
- If efficient fees were actually implemented, there would be no need to do highway cost allocation studies
- ODOT has been conducting pilot studies related to road pricing, including under SB 801.

What Are Efficient Fees?

- Charge vehicles the costs they impose on the transportation system, including:
  - Wear and tear cost on infrastructure
  - The costs of building new capacity as existing capacity becomes congested
  - The costs of administering the transportation system
  - May also include external costs such as pollution
- Improve fairness by recovering these costs from the specific vehicles that impose those costs
- Sustainably fund transportation maintenance and investment programs over the long-run through the revenues generated from the efficient fees.

How Efficient Fees for Capacity Work

- Tolls are levied on existing capacity based on the costs the user imposes. As vehicle use in a corridor increases so do the toll rates, which manages congestion.
- Revenues accrue over time and capacity is added where revenues indicate.
- Cost-based toll rates can be lower after capacity is added since the tolls don’t need to meet a revenue target.
- Alternative routes also have cost-based tolls so diversion is minimized and revenue is easier to predict.
- The entire enterprise is a sound platform for long-term investment and growth.

Efficient Fee By the Numbers

Exhibit 1.2. Benefits and Costs of Network Road Pricing

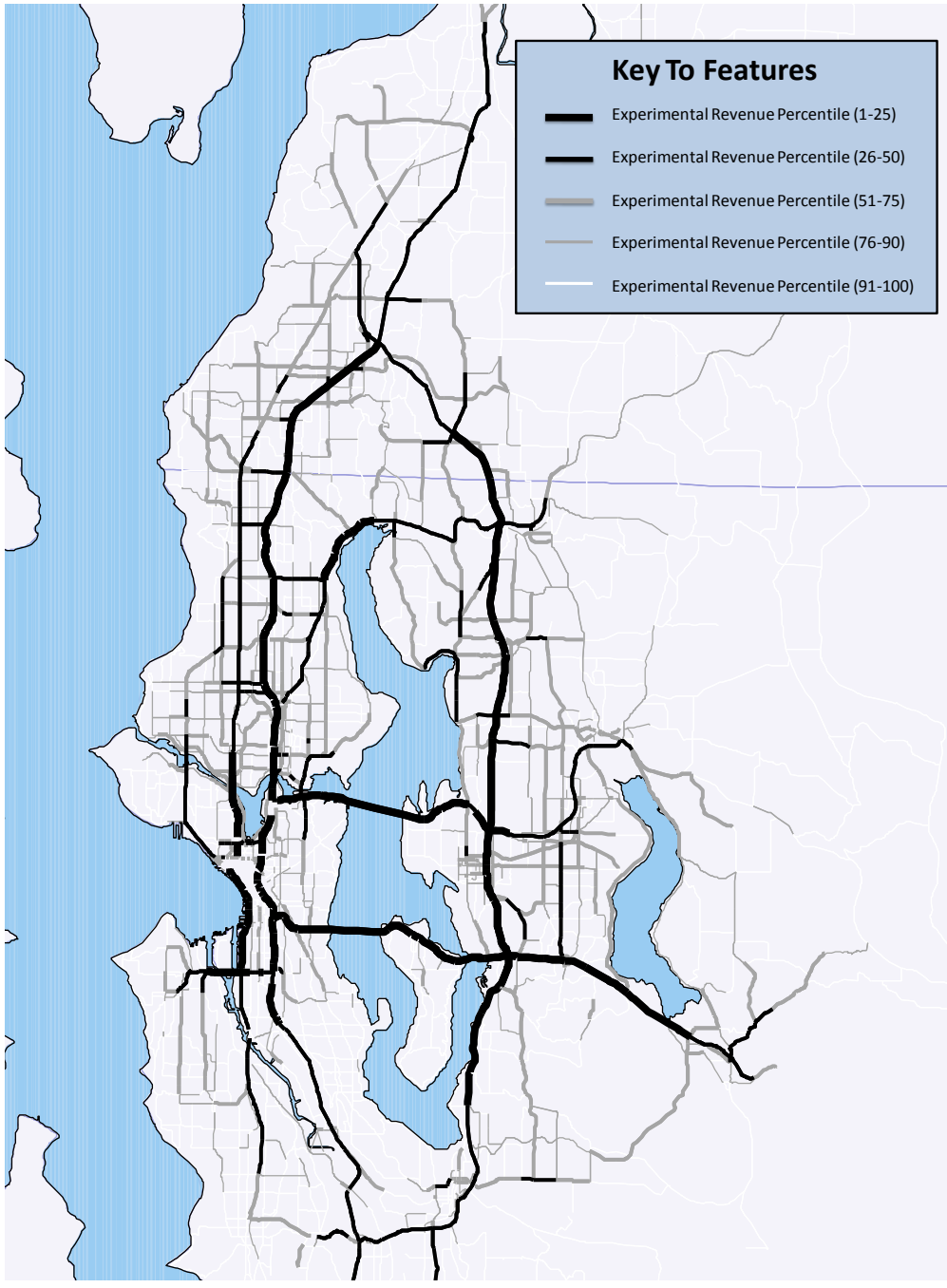
Present Value Benefits/Costs	Millions of 2008 Dollars
Benefits	
Time Savings	$36,600
Reliability Benefits	$4,500
Operating Cost Savings	$2,500
Toll Effects on Consumer Surplus	-$97,100
System Operator Benefits (Tolls)	$87,000
Present Value of Benefits	$33,600
Costs	
OBU Costs	$1,500
Enforcement	$100
Central System	$500
Data Communication	$3,300
Other	$100
Present Value of Costs	$5,500
Present Value of Benefits less Costs	**$28,200**
Benefit-to-Cost Ratio	**6.1**

Source: Puget Sound Regional Council, ECONorthwest

Findings from Puget Sound study in 2006 were used to estimate the effects from a full implementation

Investment Policy

- Efficient fees provide direct information that can guide investments
- Revenues accrue to high demand facilities
- Opportunity to support high value investments



Demonstrating Efficient Fees

- Demonstrate variable rates by building on the success and technical implementation of Oregon's current mileage fee program (SB 801)
- Develop a clear message that explains why a pilot project is useful
- Include local governments and MPOs in planning
- Secure authorization and funding
- Ensure accountability with clear expectations about results

Expectations for Demonstration

The pilot project proposed here should be expected to generate significant contributions to the knowledge about mileage-based user fees across a broad range of important topics, including:

- Accounting for driver behavior
- Testing the technical and operational systems
- Safeguarding privacy
- Understanding fairness

CARBON TAX

Issue Paper Prepared by

Northwest Economic Research Center, PSU

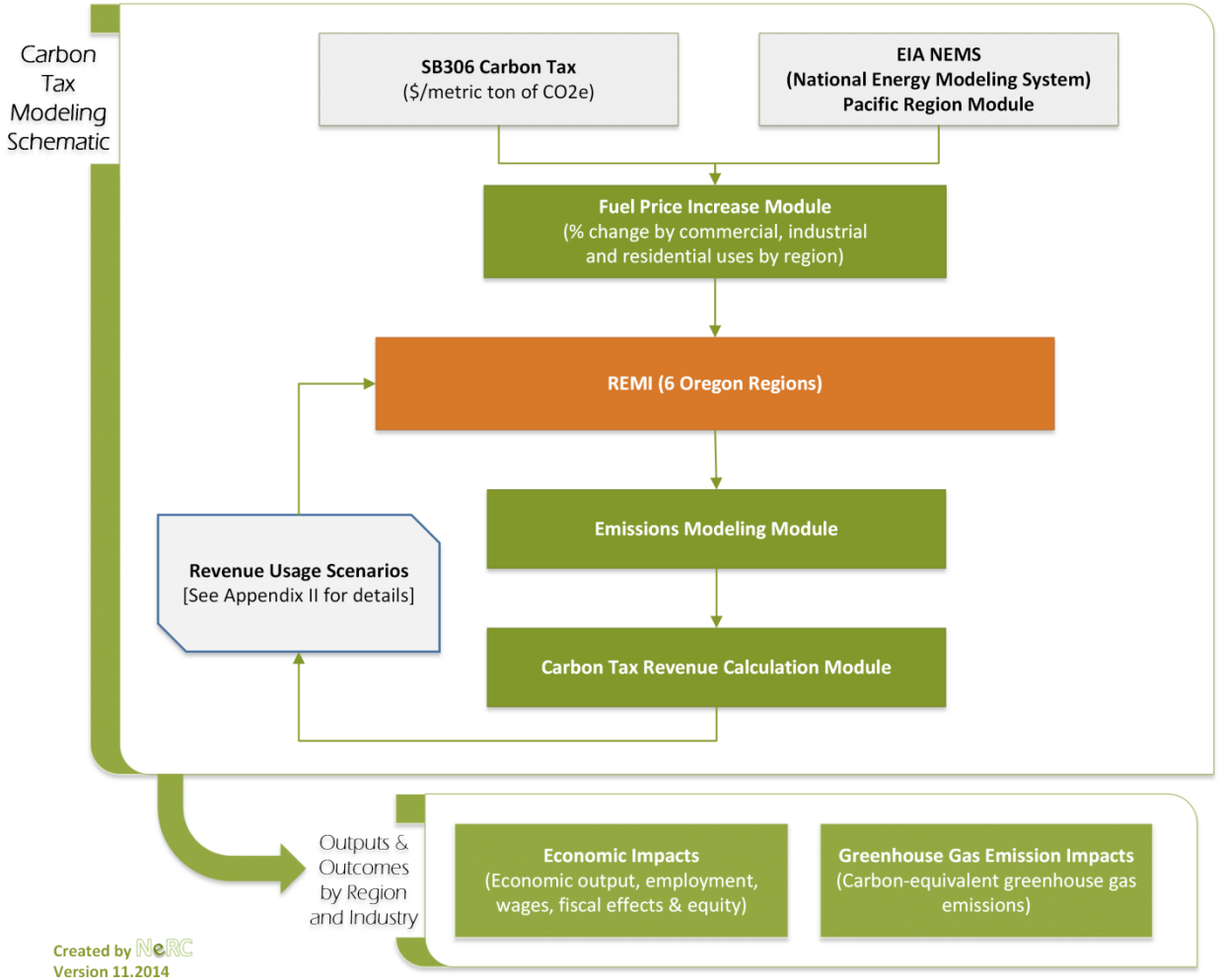
Introduction

- Estimated Change in Demand for Transportation Fuel Due to Carbon Tax
- Based on SB306 Modeling
  - Assumes Carbon Tax Implemented on Fossil Fuels Combusted in Oregon and on Imported Electricity

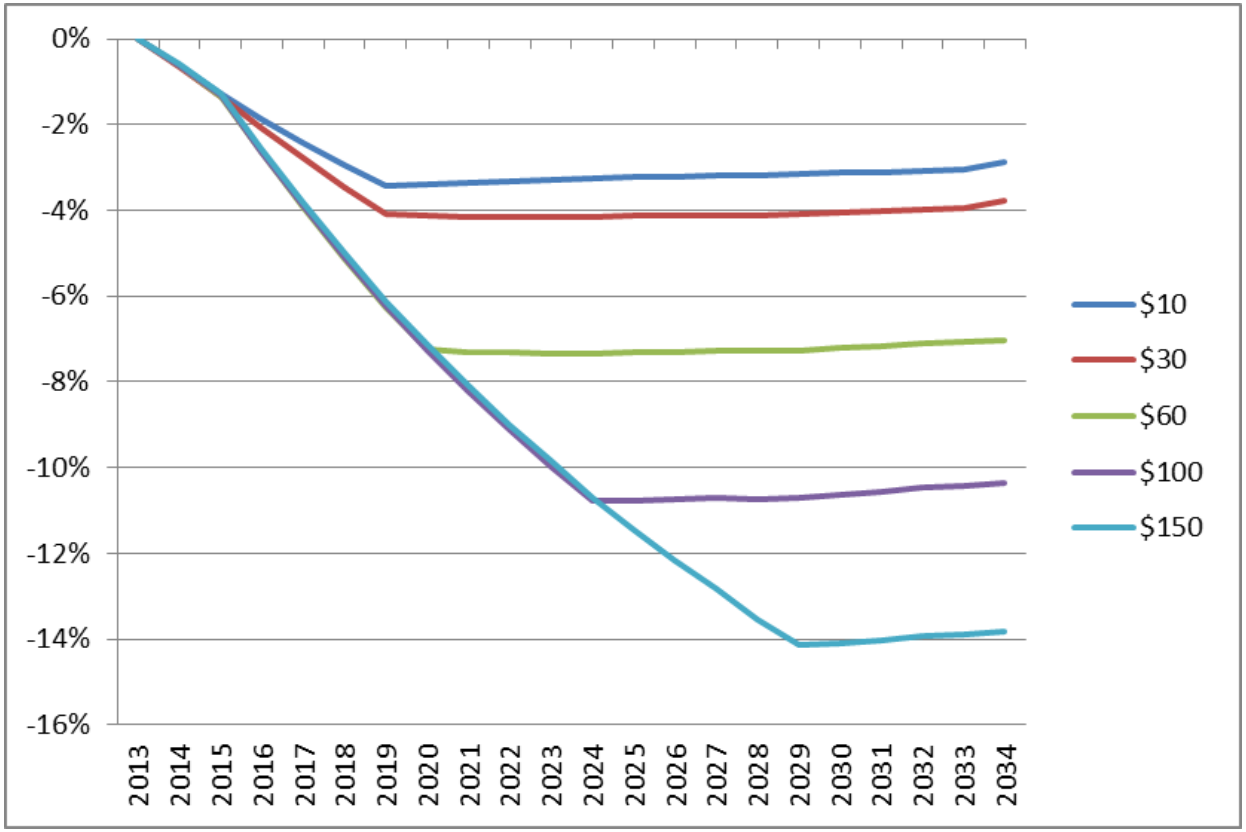
Background

- $1 per ton of CO2 equivalent leads to a one-cent increase in price of a gallon of gas
- Significant Revenue Potential
- Constitutional Requirement
  - Transportation-Related Revenue 41-51% of Total

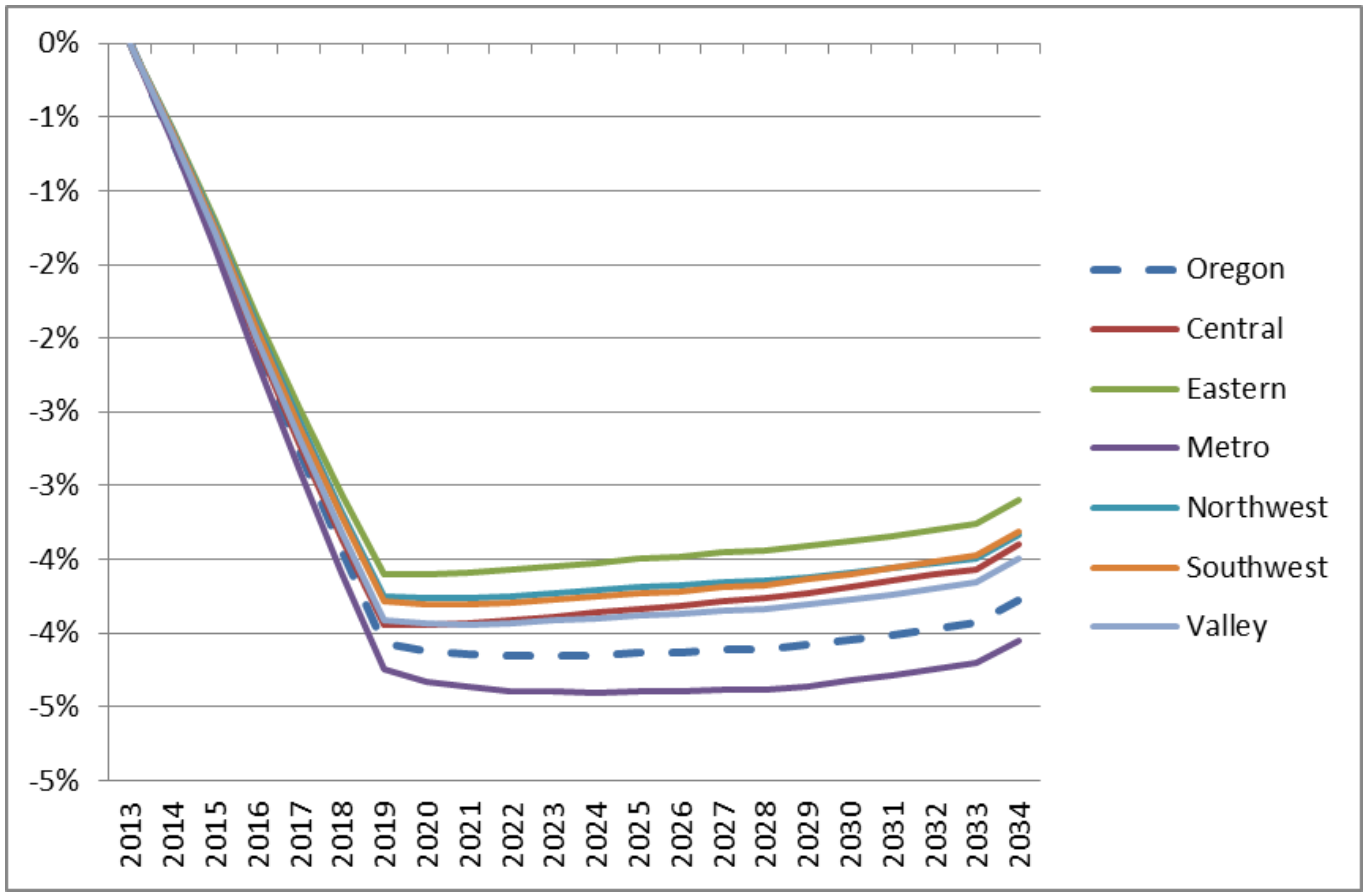
Methodology



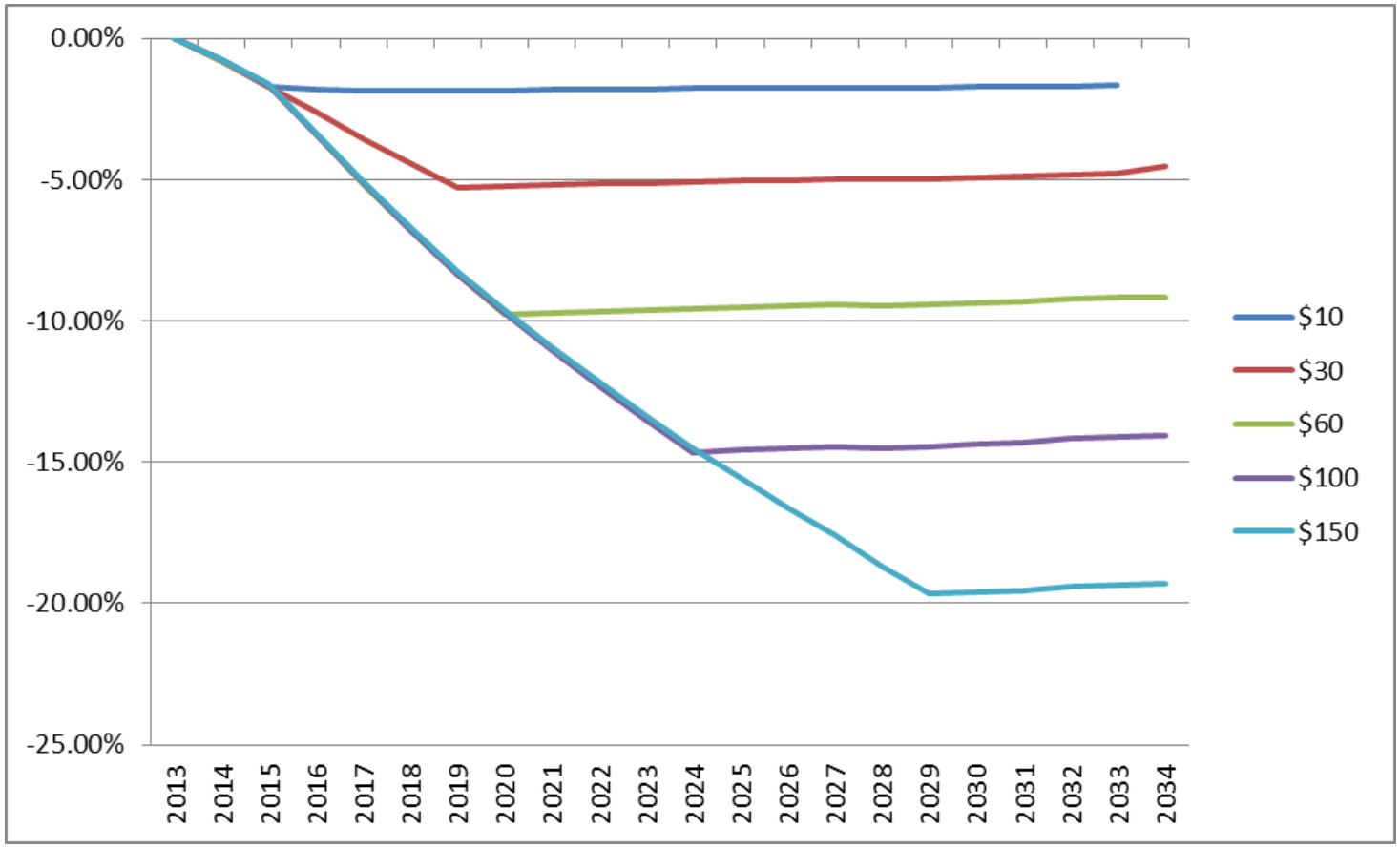
Change in Quantity of Petroleum Fuel Demanded



Regional Change in Quantity of Fuel Demanded



Change in Quantity of Fuel Demanded by Households



Conclusions

- Modeling and Empirical Research Agree on Fuel Demand Reduction
- Largest Reductions in Portland Metro
- Small Increase in Transportation Employment Related to Highway Funding