

Mileage Fee Pilot Project Plan

Presentation to the Road User
Fee Task Force

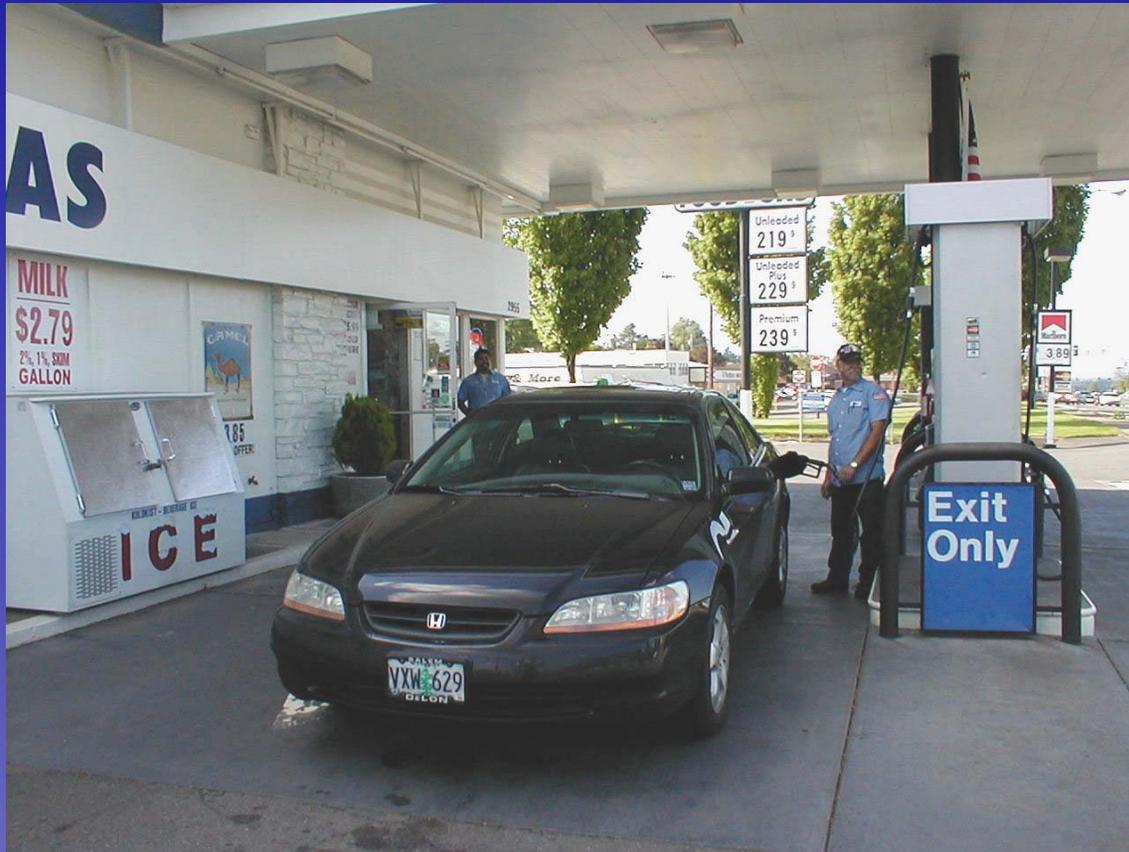
May 14, 2004

by

Mark Ford, HDR Engineering



Paying your road use fees through a fuel tax looks like this



Paying your road use fees through a mileage fee will look like this



The Difference

Gas to Go

Commercial Rd., OR
May 15, 2005 - 8:00 AM

13.5gal @ 219.9 29.69

C CARD XXXX3024 29.69

THANK YOU

Gas to Go

Commercial Rd., OR
May 15, 2006 - 8:00 AM

13.5gal @ 205.5 29.69

Gas tax disc. (3.24)

Net fuel 26.45

Mileage fee

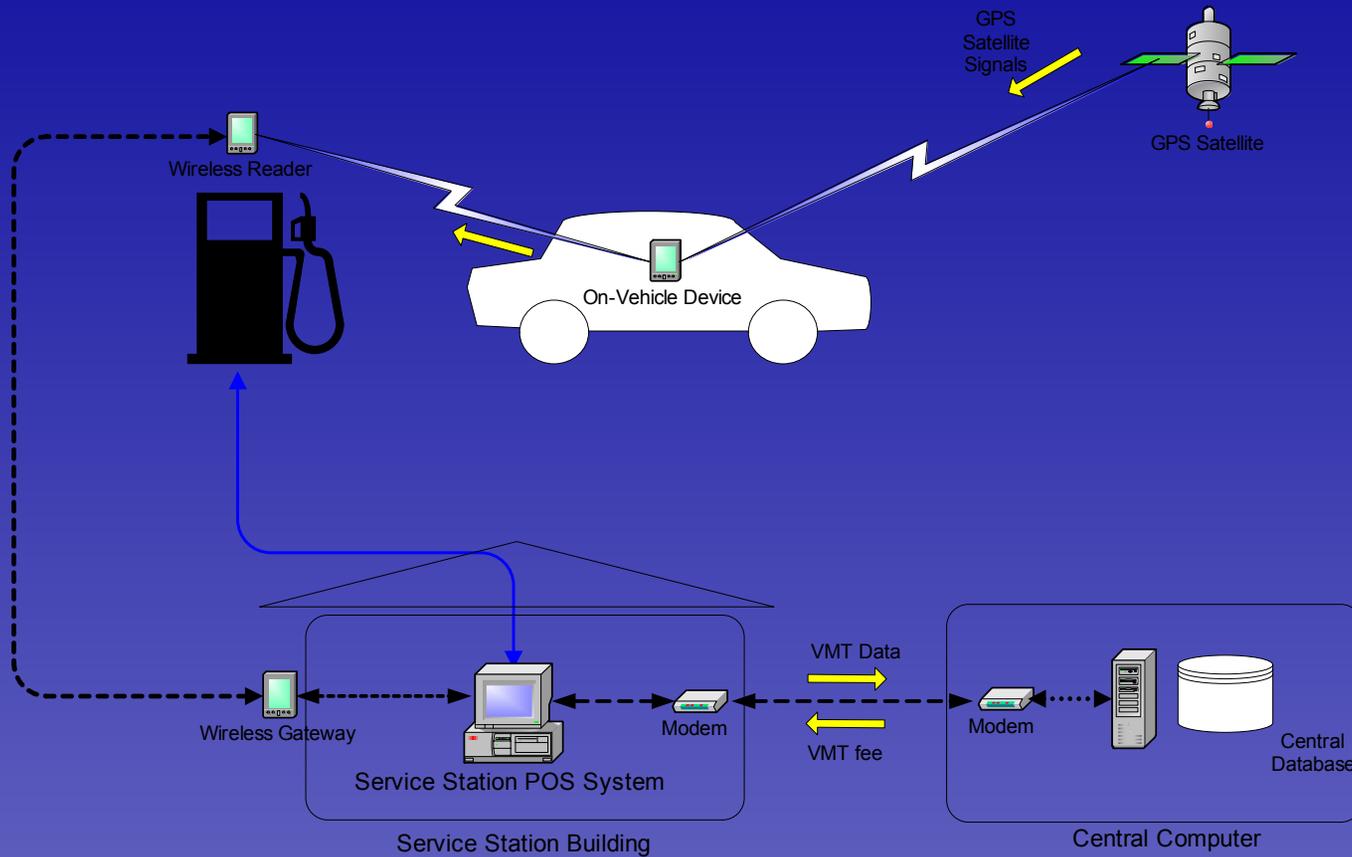
243.3 @ 1.22 2.96

Total Due 29.41

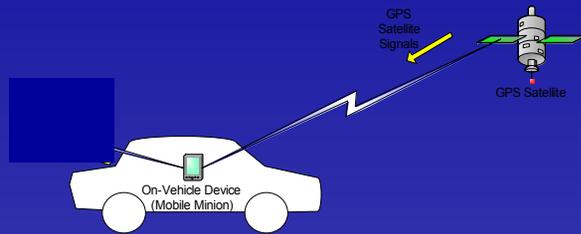
FLEET XXXX3024 29.41

THANK YOU

How does it work?

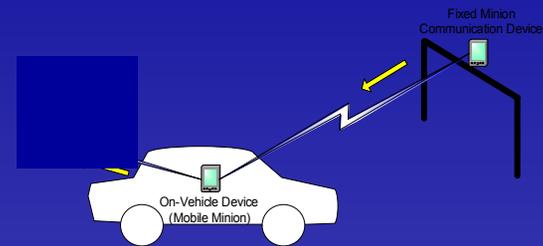


The Hybrid Mileage Recorder



Satellite GPS

- Accurate location, but
- Temporary loss of signal makes mileage inaccurate



Odometer System

- Mileage is accurate, but
- Transponders to determine location are expensive

Hybrid

GPS for Location

Odometer for Mileage

In case you were wondering

The mileage recording device only
records miles

It does not track the vehicle or the time and
location of driving

Mileage Pilot Test

- How does the technology perform?
- How do users relate to the technology?
- Are users responsive to prices?

Basics of the Test

- Volunteer participants have vehicles equipped with mileage recording devices
- Participants do not pay gas tax, but miles are “read” when vehicles enter participating service stations and mileage fee is charged
- In some cases variable fees charge more for congested times and give discounts for other times and places

Basics continued

- Revenue neutral fees would be:
 - Fixed fee = 1.25-cents per mile
 - Variable fees (still being determined)
 - Discount fee $\frac{1}{2}$ -cent per mile
 - Premium fee for congested hours in urbanized area 10-cents per mile

General Timeline

	Start	Finish
1. Preparation	Ongoing	October '05
2. Preliminary Control Start Up	When Feasible February '05	Continue through project
3. Full Pilot Start Up		
a. Base Phase	October '05	April '06
b. Pricing Phase	April '06	November '06
4. Evaluation	Ongoing	January '07
5. Final Report		January '07

1. Preparation

- Develop and test technology
- Select location of pilot
- Purchase equipment
- Select participants and install technology
- Select fuel stations and install technology
- Set up finance administration
- Set up evaluation process and data base
- Public information
- Set up test administration and communication

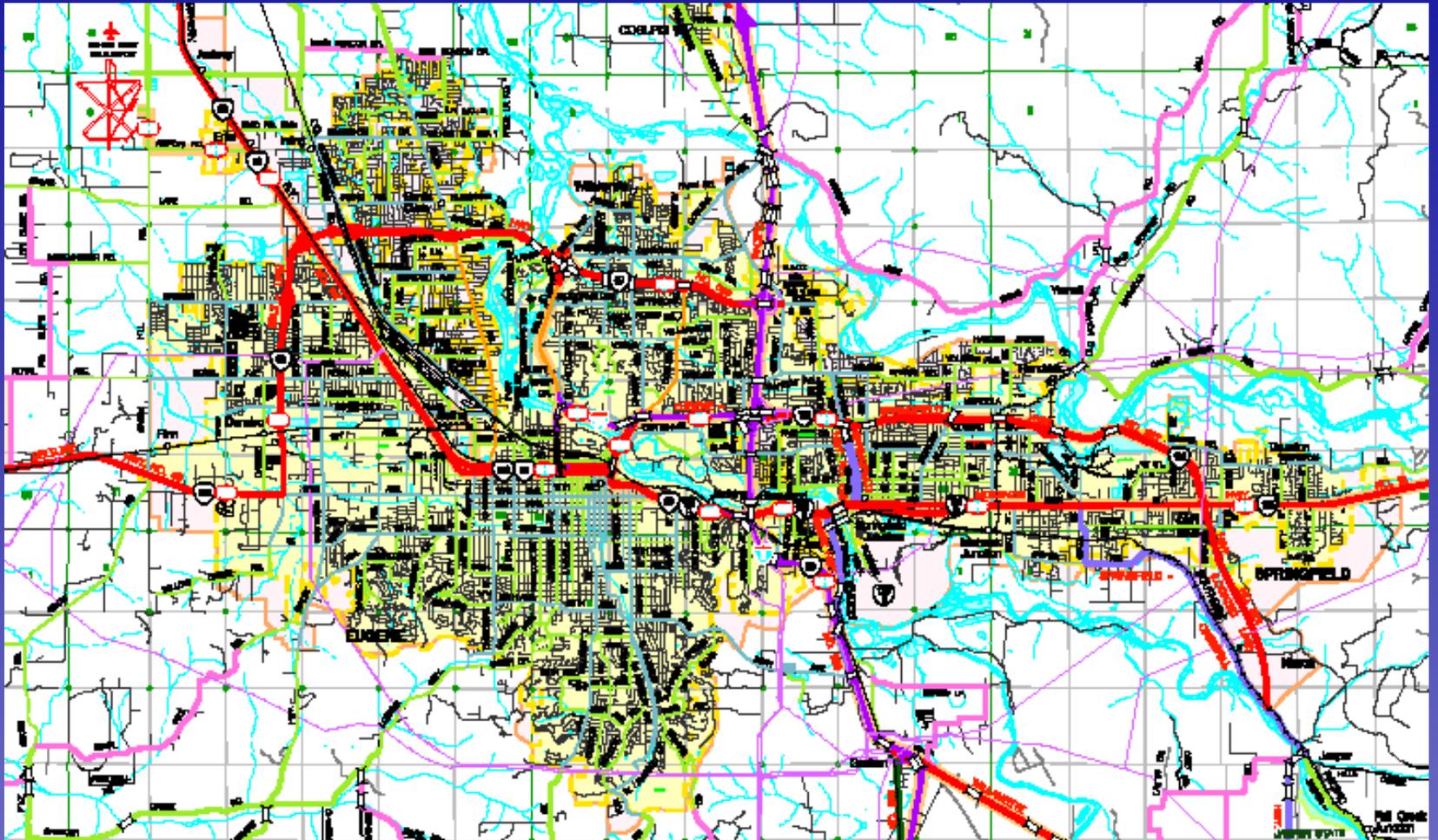
1a. Develop and Test Technology

- Remaining Issues
 - Interface between readers and on-vehicle device
 - Location of devices on vehicles
 - Calibration/accuracy
 - Miscellaneous software

1b. Site Selection

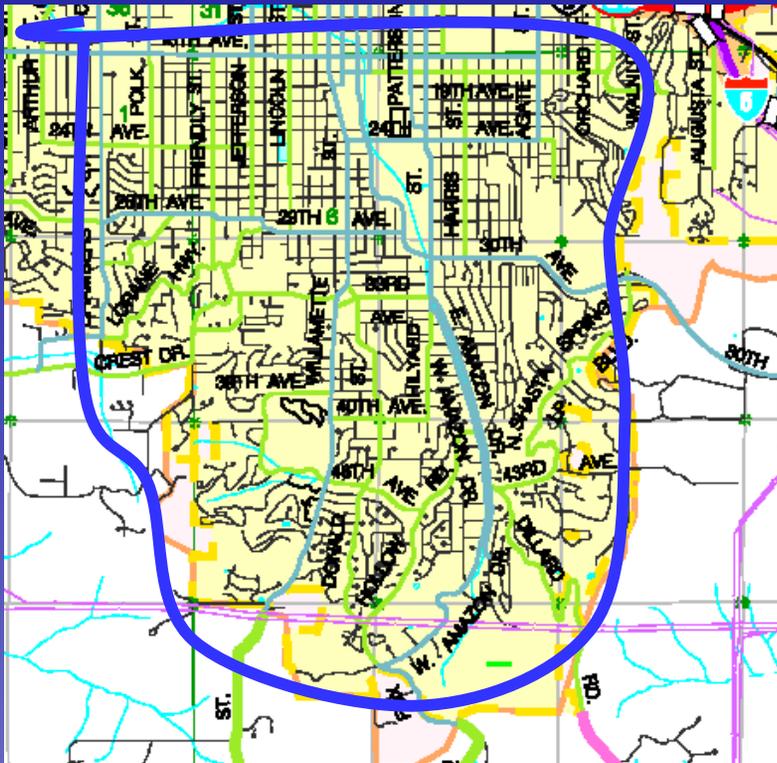
- Selection Criteria
 - Established metropolitan area
 - Small enough that:
 - Participants familiar with control areas
 - Potential fuel stations close to participants
 - Active cooperation of local planning agencies
- Eugene-Springfield best fit

Eugene Urban Area

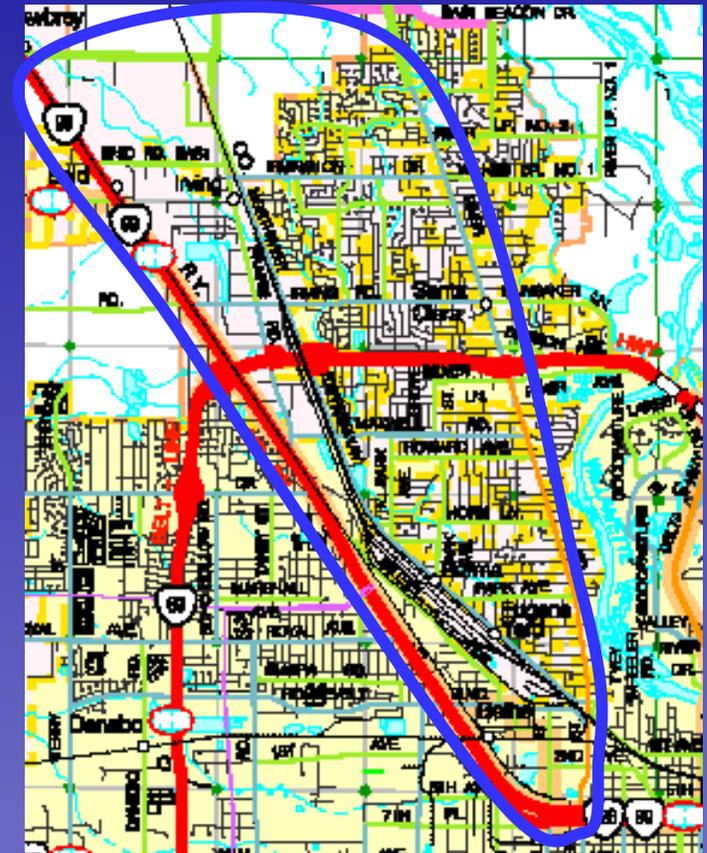


Alternative Areas

South Eugene



River Rd/99 Area



1c. Purchase Equipment

- Hybrid odometer/GPS devices for 300 vehicles
- Equipment for up to 5 service stations
 - Reader and minion devices
 - Possible point of sale hardware and software

1d. Select Participants and Install Technology

- Three groups of participants
 - Control Group – mileage recorded but not subject to fee (80 vehicles)
 - Fixed Fee Group – pay mileage fee based on single rate (80 vehicles)
 - Multiple Rate Group – pay mileage fee based on place and time (120 vehicles)

Requirements for Participation

- Willing to have devices installed in vehicles and participate in evaluation
- Expect to live in area for duration of pilot
- All vehicles in household participate
- Oregon licensed driver(s) and vehicle(s)
- Vehicle(s) insured
- Credit sufficient to obtain fleet credit card

Desired Sample Distribution

	Households	Vehicles
Couples with Children	40	100
Single with Children	15	15
Couples Under 65	50	100
Couples Over 65	18	18
Single Under 65	37	37
Single Over 65	10	10
Total	171	280

Benefits of Participation

- Subject of focus group being organized
- Possibilities:
 - Cash bonus at end of pilot
 - Free services

Installation of Devices

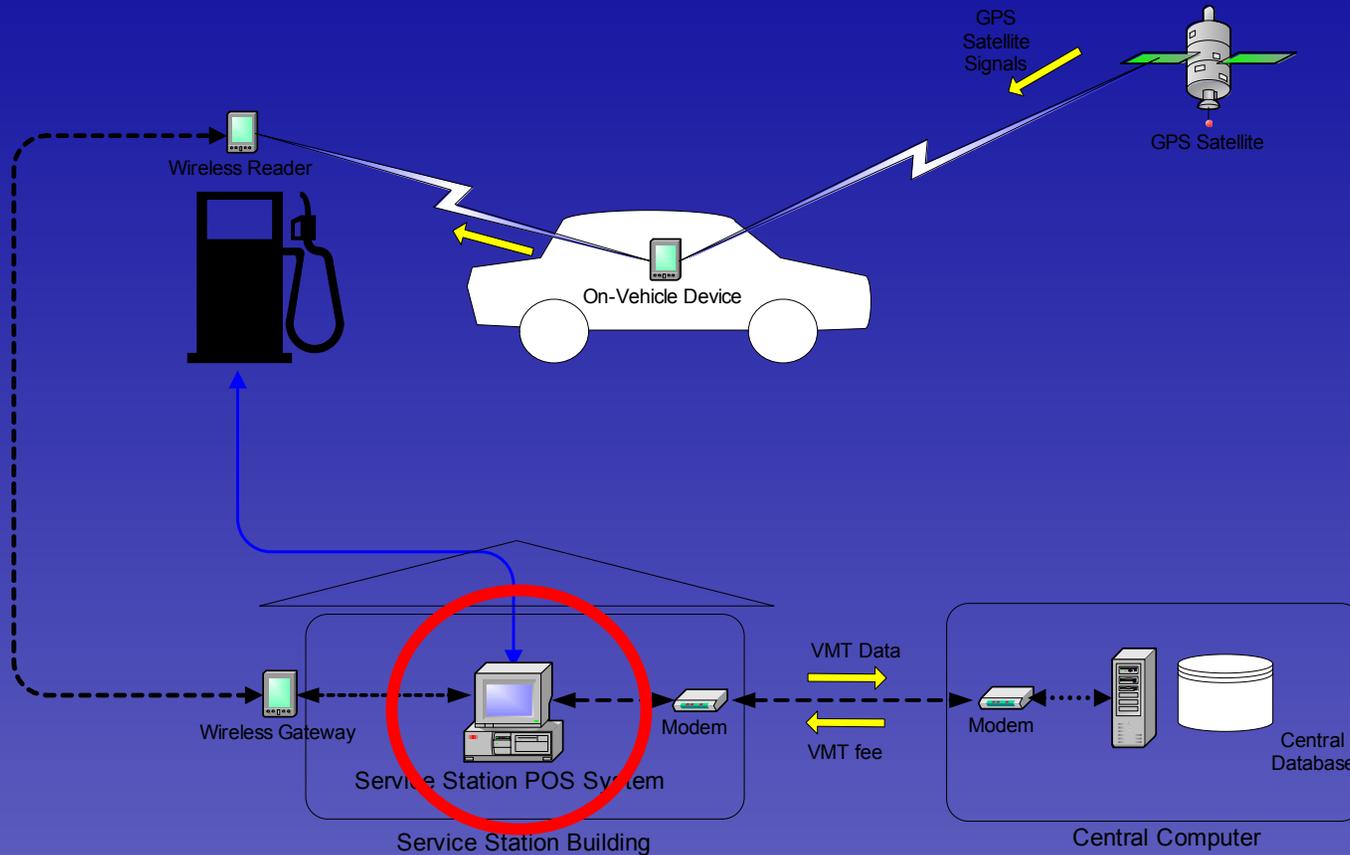
- Installer must perform service in Eugene area and be available for maintenance and deactivation
- Possibilities:
 - One of participating service stations
 - OSU engineering research using public shop
 - Other local auto maintenance shop

1e. Select service stations and install technology

Four options under discussion. In order of preference:

- Mileage fees and fuel sales are recorded at services stations and charges made through service station point of sale computers.

Point of Sale Issue



Service station options (continued)

2. Mileage fees and fuel sales are recorded at service stations but charges are made through fleet credit card system operated by the state.
3. Fuel sales are recorded at stations and mileage recorded off site. Charges are made through fleet credit card system.

4. Mileage is recorded and fuel sales reported off site. Collections and reimbursements are made through ODOT.

Process for Resolving Service Station Decision

- Solicit interest from:
 - Service Stations
 - Oil Companies
 - Fleet Credit Card Providers
- Potential Benefits to Service Stations
 - New customers
 - New point of sale system
 - Maintenance contract for mileage devices
 - Study participant can pay cash

1f. Set up finance administration

- Administration by ODOT Fuels Tax Unit
- Payments and collection to/from service stations and participants
- Reimbursement of fuel taxes paid at non-participating stations
- Exact process depends on which service station alternative is used

Collection Option	Administrative Need
Point of sale transaction	“True-up” payment to service stations
Mileage recorded at station. Mileage charge through fleet card	Administer participant accounts to provide reimbursements and charges
Mileage recorded away from station. Fleet card provides fuel tax discount	Same as above
Mileage off site. No fleet card	Need full billing/payments system

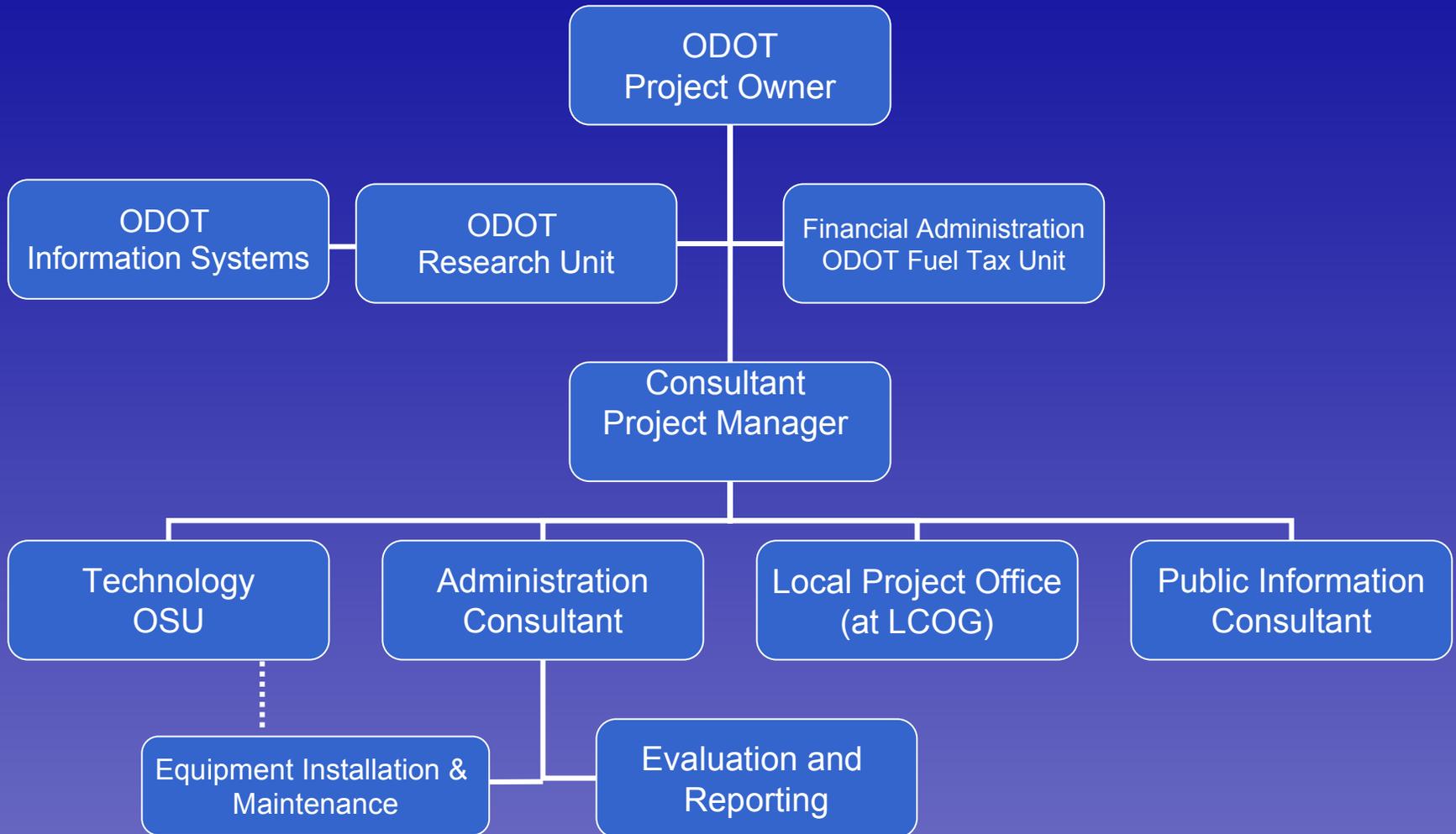
1g. Set up evaluation process and data base

- Technology evaluation
- Participant perceptions
- Participant behavior
- Other Implementation Questions

1h. Public Information and Outreach

- Preliminary participant focus group
- Preliminary press release and op-ed
- Advertisement for service station participation
- Advertisement for participants
- Press releases
 - Start Up
 - Conclusion
 - Other as needed
- Distribution of study results

1i. Administration of Pilot



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2. Preliminary Control Start Up

- To gain first hand experience and monitor performance of technology
- Up to 20 vehicles equipped to run for duration of test
- Operated by study managers and stakeholders

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Technology Evaluation

- OSU to respond to technology issues during pilot
- Sample performance during pilot
- Evaluation of technology at project conclusion

Technology Evaluation

– Availability

– Feasibility

– Accuracy

– Reliability

– Security

– Expandability

– Interoperability

– Systemic Precision

– Evasion Potential

Participant Perception

- All participants to be surveyed three times during pilot (beginning, middle, end)
- Service stations to be interviewed three times during and after pilot
- All information will be confidential and data cleaned to remove identity of individual participants

Participant Perception

- Of technology
- Of fees and financial administration
- Other issues
- Cross sections by
 - Household type
 - Number of vehicles in household
 - Commuting and travel patterns
 - Income, age, sex
 - Fee group (control, fixed fee, variable fee)

Participant Behavior

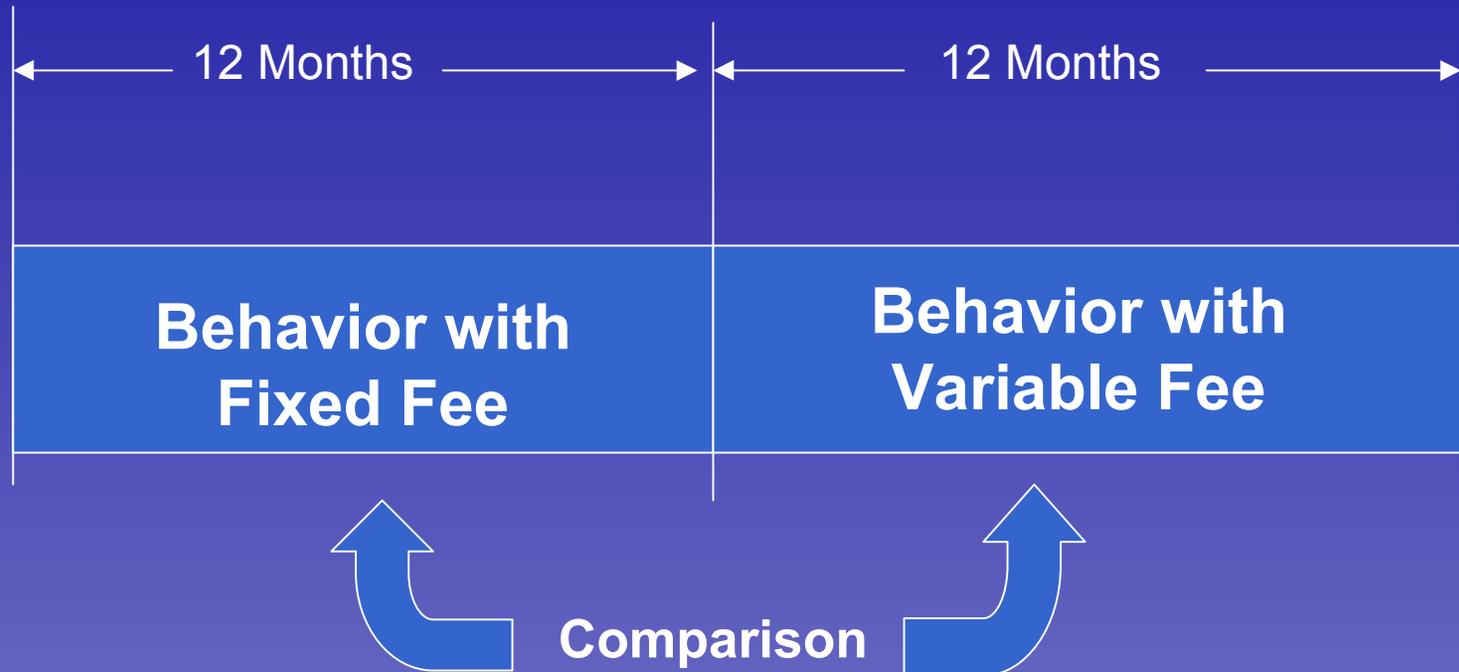
- Compare driving behavior with and without mileage fees and congestion charges
- Data collected by computer through mileage reports
- Data will be for evaluation and for billing and reimbursement purposes. Data retained for future evaluation will be cleaned to remove identity of individual participants

Participant Behavior

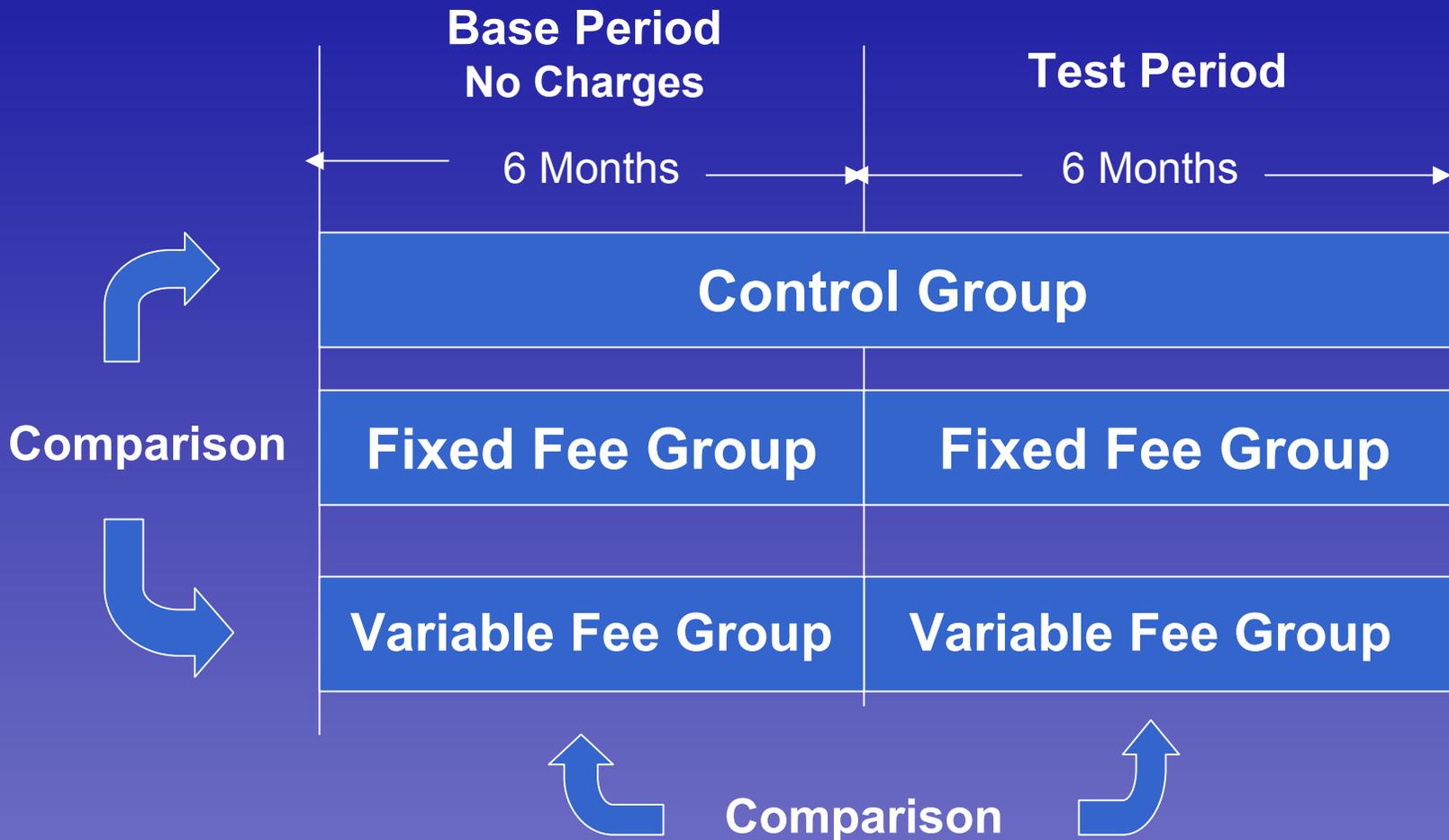
- Who is most affected and by how much?
- Regression analysis to determine
 - Elasticity of pricing
 - Impacts by cross sections

Alternatives for Behavior Comparison

Original Plan



Behavior Comparison



Advantages of Revised Plan

- Cross section comparison
- Less loss of participation
- Fewer participants required
- More time to prepare technology
- More time for evaluation

Other Implementation Questions

- Usefulness for Phasing/ Partial Implementation
- Administration
- Cost
- Net Revenue Generation Potential
- Adaptability to Congestion Pricing

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Conclusions to Date

- This is a workable technology
- Technology more complicated than originally anticipated
- Setting up pilot test probably more complicated than ultimate implementation
 - Need to use volunteers
 - Lack of universal collections
- Simplicity of operation just as important to service stations as to participants
- Differential charges by area presents interesting opportunities

Thank you