

RideSource Shopper Analysis

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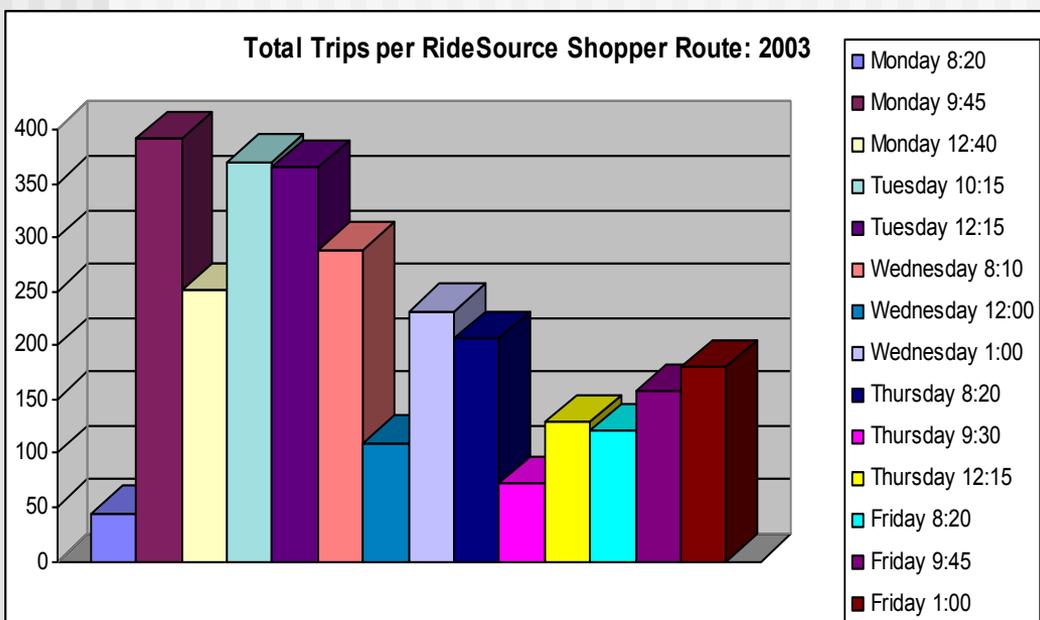
ADA

- Provide service within a $\frac{3}{4}$ mile radius of any fixed-route service
- Maintain the same hours as the fixed-route service
- Fare may be no more than twice that of the fixed-route
- Must take reservations at least one day before desired trip
- Trips must be within one hour of the demanded time, failing to do so is considered denial of service, a violation of ADA

RideSource

- Facing future increases in eligible riders and budget cuts.
 - 2003, eligible riders increased from 718 to 911.
 - Decreasing demand lowers costs.
 - Offer other services that people will substitute away from RideSource.
 - RideSource Shopper

RideSource Shopper



- RideSource shopper moves riders from the more expensive service (RideSource) to a service that is more cost effective.
 - RideSource's cost per trip = \$20.63
 - Shopper's cost per trip = \$8.86

- In 2003, RideSource Shopper averaged 56 rides per week and 4 riders per trip.

Literature Review

- “ADA and the Demand for Paratransit” by Jonathan Levine
 - Analyzed the effects on demand for the paratransit service of a decrease in the fixed route fare for paratransit eligible passengers.
 - \$0.35 decrease in fare had a dramatic effect on demand for the paratransit service.
 - Changes in demand lasted long after the free fare period.

Literature Review 2

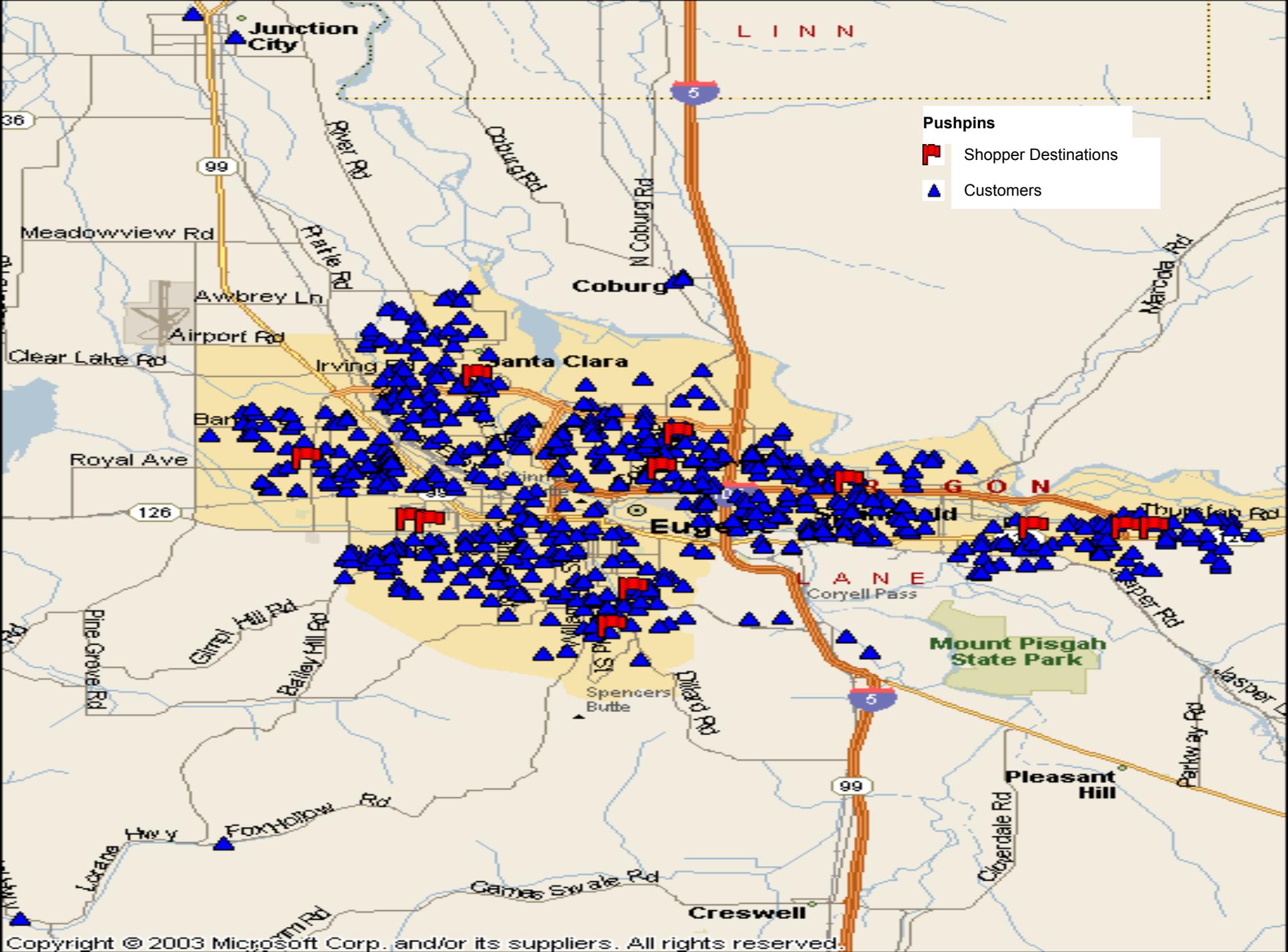
- “The Effect of Education Programs on Paratransit Demand of People with Disabilities” by Fitzgerald, Shaunesey, and Stern.
- Analyzed the effects on demand for paratransit service from educating riders of the costs associated with offering paratransit service.
 - Encouraged responsible usage of paratransit service.
 - Found a 6% decrease in demand in the short run and a 5.5% decrease in the long run.
 - More responsible use of the service: more curb-to-curb pick-ups, less door-through-door.

Motives for this Study

- This study looks at Shoppers as a tool to alleviate demand.
 - Shopping trips have not yet been studied, offering other paratransit agencies another option to decrease demand.

Data

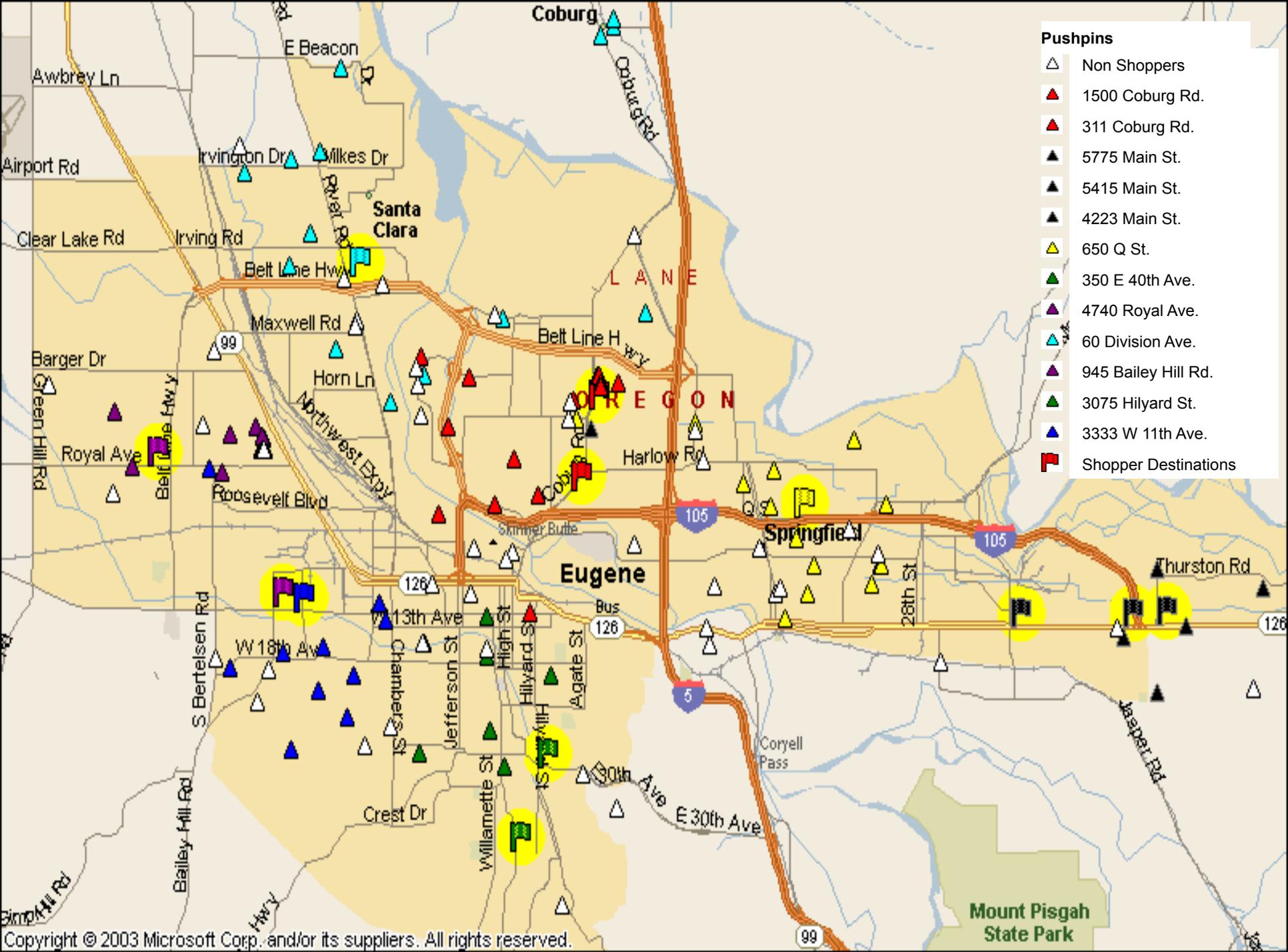
- Initial data set was from July 1, 1994 through April 15, 2004.
 - Due to the large size of the data and the desire to focus on current situation, we chose to use solely on the 2003 calendar year.
- Broke down data set by person by week.
 - 65572 person weeks in 2003.
 - 82471 completed trips in 2003.



- Pushpins**
- Shopper Destinations
 - Customers

2003 Statistics

- 89% of grocery trips are Shopper trips.
- Older riders are more likely to take a shopper trip.
- Ambulant riders are more likely to take a shopper trip.



- Pushpins**
- △ Non Shoppers
 - ▲ 1500 Coburg Rd.
 - ▲ 311 Coburg Rd.
 - ▲ 5775 Main St.
 - ▲ 5415 Main St.
 - ▲ 4223 Main St.
 - ▲ 650 Q St.
 - ▲ 350 E 40th Ave.
 - ▲ 4740 Royal Ave.
 - ▲ 60 Division Ave.
 - ▲ 945 Bailey Hill Rd.
 - ▲ 3075 Hilyard St.
 - ▲ 3333 W 11th Ave.
 - Shopper Destinations

Methodology

- Formulating regression model that explains the choice of taking a shopper trip based on the distance from the destination.
 - Results are inconclusive.
 - Statistically insignificant results.
 - Alternating signs on the coefficients.
- There is a high take-up rate, but we do not know how much substitution away from regular trips.

Regression Results

Table 2: Effect Distance has on the Number of Non-Shopper Grocery Trips

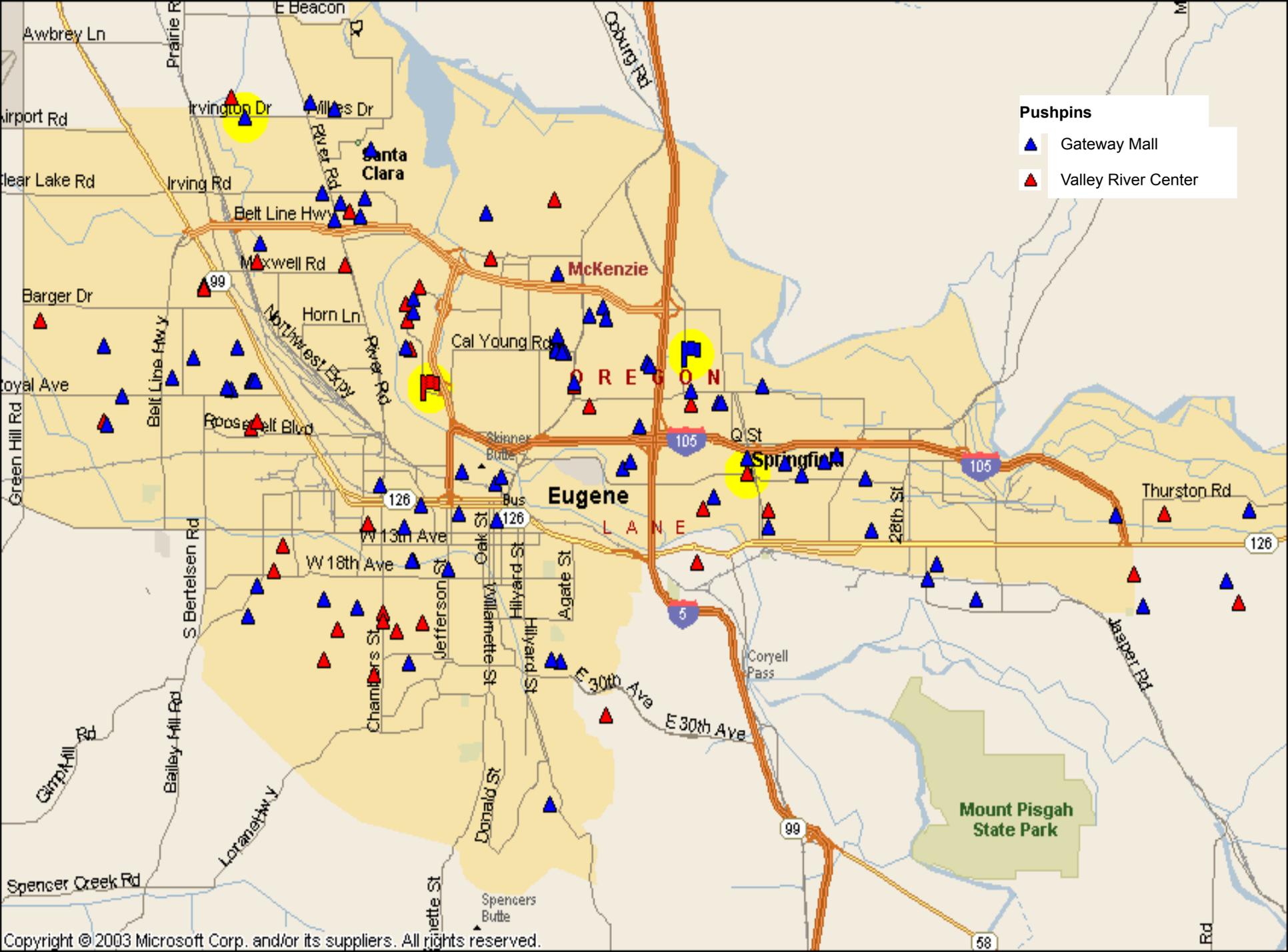
nonshopshop	Coefficient	Standard Error	Z	P>z
closetd	-0.00087	0.00259	-0.34	0.736
age	-0.00022	0.00011	-1.87	0.061
ambulant	-0.01123	0.00536	-2.09	0.036
constant	0.02921	0.00933	3.13	0.002

Results cont.

- Since Shoppers are only available to riders close to the destinations, we restricted the distance to only a few miles (ranging between 1 and 4) from the Shopper destination.
 - Many trips that were insignificant yielded results that were significant and having the correct sign.
 - With every little change in distance, significance would dramatically change.
 - Finding a rider who used the regular service for a grocery trip.

Applications

- 556 round trips to the Gateway Mall in 2003. 541 of those trips were used for personal reasons. 271 use the regular service.
 - 114 were from Holly Residential Care Center, costing approximately \$4600 in 2003, however these are all AFSN trips.
- 533 round trips to the Valley River Center in 2003. 515 of those trips were used for personal reasons. 430 used the regular service



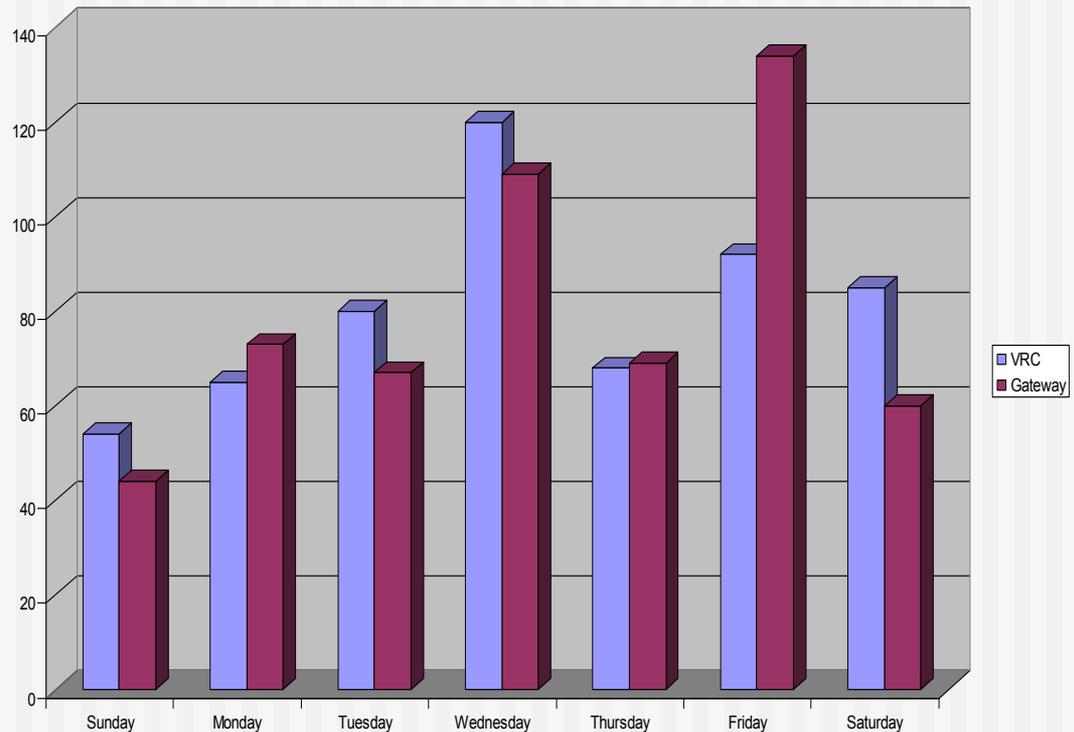
Mall Shoppers

- Gateway

- Average trip:
12:30 – 3:40

- VRC

- Average trip:
11:15 – 2:05



Substitution Effects

- Mall trips are more discretionary and may introduce additional riders that normally would not have used RideSource.
- This increase in total number of trips may be more costly than current users substituting away from the regular service.

Where to go from here

- The implementation of the mall shopper can serve as the basis for future studies.
- Similarly the recent shopper put into operation in Cottage Grove may be used to look at before after effects.