ADA

- Provide service within a ¾ 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 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.
“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.
“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.
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.
Shopper Map

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

Copyright © 2003 Microsoft Corp. and/or its suppliers. All rights reserved.
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

<table>
<thead>
<tr>
<th>nonshopshop</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Z</th>
<th>P&gt;z</th>
</tr>
</thead>
<tbody>
<tr>
<td>closed</td>
<td>-0.00087</td>
<td>0.00259</td>
<td>-0.34</td>
<td>0.736</td>
</tr>
<tr>
<td>age</td>
<td>-0.00022</td>
<td>0.00011</td>
<td>-1.87</td>
<td>0.061</td>
</tr>
<tr>
<td>ambulant</td>
<td>-0.01123</td>
<td>0.00536</td>
<td>-2.09</td>
<td>0.036</td>
</tr>
<tr>
<td>constant</td>
<td>0.02921</td>
<td>0.00933</td>
<td>3.13</td>
<td>0.002</td>
</tr>
</tbody>
</table>
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.