Analyzing the Effectiveness of Commuter Benefits Programs

Results of Transit Cooperative Research Program (TCRP) Project H-25A

ACT Net Conference
April 7, 2005

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In Association with:
Center for Urban Transportation Research,
University of South Florida

Analyzing the Effectiveness of Commuter Benefits Programs Results of Transit Cooperative Research P...
Project Background: Commuter Benefits Programs

- Federal tax code allows employers to offer *tax-free* transit or vanpool benefits to employees
  - Up to $105/month in 2005
- Can be offered three ways:
  - Employer-paid
  - Employee-paid (pre-tax deductions)
  - Combination
- Program requires EMPLOYER involvement
• TCRP Report 87 examined “Strategies to Increase the Effectiveness of Commuter Benefits Programs”

• This study examines the effectiveness of commuter benefits programs
  – What are the effects on travel behavior?
  – What are the effects on transit agencies’ ridership, revenues, and costs?
  – How can organizations (transit agencies, commuter organizations) measure the effectiveness of their program efforts?
Michael Grant

Research Approach: Surveys and Interviews

Surveys focused on:
- Transit benefits recipients
- All employees at participating worksites (before and after)
- All commuters

Survey data from transit/commuter organizations
Survey data from mandatory trip reduction program areas
Transit agency interview
Transit benefits programs typically increase transit ridership…but not in all cases

- Employee transit ridership typically increased 10-50% at worksites after implementation
  - Very wide range of effects
  - Smallest effects found in areas with mandatory trip reduction programs
  - Largest percentage increases found in less transit-intensive areas
  - Individual employer results vary significantly

Transit benefits programs typically increase transit ridership…but not in all cases
How many transit benefits users are new to transit?

Typically 10 to 25% of transit benefits recipients are new transit riders

How many transit benefits users are new to transit?
How many people switch to transit?  Transit Mode Share: Before and After Surveys

- Implementing a transit benefit typically resulted in 2-16 new transit riders per 100 employees
  - Mandatory trip reduction areas saw little impact on average
  - Impact may relate to starting mode share (access to transit) or other factors

![Graph showing transit mode share before and after surveys with specific data points for different locations and survey types.]

How many people switch to transit?  Transit Mode Share: Before and After Surveys
One Factor Affecting Impact: Level of Employer Contribution

- Transit ridership increases more when the employer pays

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>% transit benefits recipients riding more often</td>
<td>42%</td>
<td>34%</td>
<td>24%</td>
</tr>
<tr>
<td>% transit benefits recipients who are new riders</td>
<td>23%</td>
<td>13.2%</td>
<td>3.8%</td>
</tr>
</tbody>
</table>

One Factor Affecting Impact: Level of Employer Contribution
# Factors Contributing to Increased Transit Ridership

<table>
<thead>
<tr>
<th>Factor</th>
<th>No change</th>
<th>Large increase</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Auto-oriented suburb</td>
<td>Small urban center / urban fringe</td>
</tr>
<tr>
<td><strong>Transit Services</strong></td>
<td>Limited or no service</td>
<td>Moderate service level</td>
</tr>
<tr>
<td><strong>Transit benefit level</strong></td>
<td>Employee-paid (pre-tax) only</td>
<td>Employer subsidized</td>
</tr>
<tr>
<td><strong>Other worksite programs</strong></td>
<td>Many competing programs (telework, rideshare matching)</td>
<td></td>
</tr>
<tr>
<td><strong>Parking</strong></td>
<td>Free, plentiful parking</td>
<td>Paid parking</td>
</tr>
<tr>
<td><strong>Existing transit users</strong></td>
<td>Virtually none OR Near all</td>
<td></td>
</tr>
</tbody>
</table>

**Level of change in transit ridership**
What did new transit users switch from? Most New Riders Switched from SOV

- Typically, 80% or more of new transit riders were previous SOV commuters

What did new transit users switch from? Most New Riders Switched from SOV
Do transit benefits programs affect non-commute trips?

- Yes, transit benefit programs appear to encourage greater use of transit for peak and off-peak periods.
- However, surveys are from areas with very high levels of transit service.

% of recipients who reported increasing their transit use

<table>
<thead>
<tr>
<th>Survey</th>
<th>Commute</th>
<th>Non-commute</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Francisco (1994)</td>
<td>34%</td>
<td>29%</td>
</tr>
<tr>
<td>New York (1989)</td>
<td>16.5%</td>
<td>14.0%</td>
</tr>
<tr>
<td>New York (1990)</td>
<td>22.7%</td>
<td>21.8%</td>
</tr>
<tr>
<td>New York (1994)</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>New York (2004)</td>
<td>10%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Do transit benefits programs affect non-commute trips?
Impacts on Transit Agencies: Systemwide Ridership

- Transit benefits users can make up a sizable portion of total transit ridership – 5 to 25% of riders
- Survey data suggest that programs have increased transit ridership

<table>
<thead>
<tr>
<th>Agency</th>
<th>Est. number of transit benefits users</th>
<th>% of riders using transit benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMATA</td>
<td>208,000</td>
<td>25%</td>
</tr>
<tr>
<td>MARTA</td>
<td>30,700</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>King County Metro</td>
<td>95,000-103,000</td>
<td>20-22%</td>
</tr>
<tr>
<td>RTD</td>
<td>52,700</td>
<td>12-21%</td>
</tr>
<tr>
<td>Metro Transit</td>
<td>27,000</td>
<td>12%</td>
</tr>
<tr>
<td>VTA</td>
<td>42,800</td>
<td>5%</td>
</tr>
<tr>
<td>Valley Metro</td>
<td>24,000</td>
<td>22%</td>
</tr>
</tbody>
</table>
**Impacts on Transit Agencies: Revenues and Costs**

- Revenues can be significant
  - 5-41% of revenues
- However, programs may be designed to be revenue neutral
- Potential cost savings?
  - Some agencies perceive cost reductions, esp. in pass distribution and cash handling.

<table>
<thead>
<tr>
<th>Agency</th>
<th>Annual Revenue ($M)</th>
<th>Est. % of revenue from transit benefit program</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMATA</td>
<td>$190.8</td>
<td>30%</td>
</tr>
<tr>
<td>MARTA</td>
<td>$20.0</td>
<td>11%</td>
</tr>
<tr>
<td>King County Metro</td>
<td>$25.7-29.7</td>
<td>35-41%</td>
</tr>
<tr>
<td>RTD</td>
<td>$8.1</td>
<td>17%</td>
</tr>
<tr>
<td>Metro Transit</td>
<td>$25.1</td>
<td>42%</td>
</tr>
<tr>
<td>VTA</td>
<td>$1.7</td>
<td>5%</td>
</tr>
<tr>
<td>Valley Metro</td>
<td>$3.6</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Impacts on Transit Agencies: Revenues and Costs**
Overall Impacts on Transit Agencies

- Transit benefits programs increase ridership but may be revenue-neutral
- Program design has implications on revenues and ridership
  - Monthly passes, universal passes, vouchers
  - Discounts, and their structure
  - Many agencies offer multiple programs
- Cost implications are not well understood
- Outcome-oriented objectives are not usually tracked
Evaluating Programs

Why evaluate programs?
- Justify programs
- Secure funding
- Meet requirements (in some cases)
- Determine progress toward meeting goals
- Identify ways to improve performance

Organizations may have different goals and measures:
- Transit agencies: Increase revenues per vehicle operating hour
- Employers/municipalities: Reduce parking demand
- Commuter organizations: Reduce traffic
- For MPOs: Reduce air pollution
Potential Measures of Effectiveness

Activities:
- Sales calls made
- Workshops held
- Advertisements placed

Outcomes:
- Awareness
  - Employer
  - Employee

Participation
- Employer
- Employee

Travel Behavior Change
- New transit riders
- Fewer SOVs

Transit Agency Impacts
- Revenues
- Costs and Savings

Regional Impacts
- VMT Reduction
- Parking Demand Reduced
- Emissions Reduction
- Fuel Savings

Cost-effectiveness:
- $ per ton of pollution reduced
Part 1: Evaluating Effectiveness
- **Strategic Planning and Program Evaluation**
  - Why Evaluate Programs?
  - Relationship between Planning and Evaluation
- **Setting Realistic Expectations**
  - Developing a Baseline
  - Understanding Factors that Influence Effectiveness
- **Implementing a Transit Benefits Program to Meet Strategic Goals and Objectives**
  - How Goals and Objectives Shape Program Design
  - Role of Program Type and Pricing
- **Defining and Measuring Success**
  - Measures of Effectiveness
  - Using Surveys to Measure Impacts

Part 2: Understanding Impacts of Transit Benefits Programs
- **Impacts on Employee Travel Behavior**
- **Impacts on Transit Agencies' Ridership, Revenues, and Costs**
For More Information

- **TCRP Report 87: Strategies for Increasing the Effectiveness of Commuter Benefits Programs**

- **NTI Courses**
  - The National Transit Institute offers courses for both executives and staff on developing, implementing, and marketing commuter benefits programs
  - See www.ntionline.com or contact Susan Winter at 732-932-1700

- **For more info:**
  
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