Impacts of Transit Rail Lines on Property Values
Introduction

• The Question
• Research Tools
• Methodology
• Examples
• Results
Question

• Won’t transit in my backyard hurt my property value? Especially if I am not near a station?
Research Tools

- Transit Agency Websites
- MSN Virtual Earth and Mapquest
- Zillow.com
Research Tools

• Transit Agency Websites
  – System Maps and Operational Information

• MSN Virtual Earth and Mapquest

• Zillow.com
Research Tools

- Transit Agency Websites
  - System Maps and Operational Information
- MSN Virtual Earth and Mapquest
  - Aerials, Illustrations in 3D and Obliques
  - Determine Distances
- Zillow.com
Research Tools

• Transit Agency Websites
  – System Maps and Operational Information

• MSN Virtual Earth and Mapquest
  – Aerials, Illustrations in 3D and Obliques
  – Determine Distances

• Zillow.com
  – Real Estate Data
Transit Agency Websites

• System Maps

  – Example: Sound Transit from Tacoma to Seattle
Transit Agency Websites

• System Maps

• Operational Information
  – System History
  – Time and days of operation
  – Schedule

Example:
Sound Transit from Tacoma to Seattle

<table>
<thead>
<tr>
<th>Train #</th>
<th>Tacoma Dome Station</th>
<th>Puyallup Station</th>
<th>Sumner Station</th>
<th>Auburn Station</th>
<th>Kent Station</th>
<th>Tukwila Station</th>
<th>Seattle King Street Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>1500</td>
<td>6:45 a.m.</td>
<td>5:57 a.m.</td>
<td>6:02 a.m.</td>
<td>6:10 a.m.</td>
<td>6:17 a.m.</td>
<td>6:24 a.m.</td>
<td>6:45 a.m.</td>
</tr>
<tr>
<td>1502</td>
<td>6:20 a.m.</td>
<td>5:32 a.m.</td>
<td>6:37 a.m.</td>
<td>6:45 a.m.</td>
<td>6:52 a.m.</td>
<td>6:59 a.m.</td>
<td>7:20 a.m.</td>
</tr>
<tr>
<td>1504</td>
<td>6:40 a.m.</td>
<td>5:00 a.m.</td>
<td>6:05 a.m.</td>
<td>7:13 a.m.</td>
<td>7:20 a.m.</td>
<td>7:27 a.m.</td>
<td>7:48 a.m.</td>
</tr>
<tr>
<td>1506</td>
<td>7:10 a.m.</td>
<td>7:22 a.m.</td>
<td>7:27 a.m.</td>
<td>7:35 a.m.</td>
<td>7:42 a.m.</td>
<td>7:49 a.m.</td>
<td>8:10 a.m.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Train #</th>
<th>Seattle King Street Station</th>
<th>Tukwila Station</th>
<th>Kent Station</th>
<th>Auburn Station</th>
<th>Sumner Station</th>
<th>Puyallup Station</th>
<th>Tacoma Dome Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>1501</td>
<td>4:20 p.m.</td>
<td>4:36 p.m.</td>
<td>4:43 p.m.</td>
<td>4:50 p.m.</td>
<td>4:59 p.m.</td>
<td>5:03 p.m.</td>
<td>5:20 p.m.</td>
</tr>
<tr>
<td>1503</td>
<td>4:45 p.m.</td>
<td>5:01 p.m.</td>
<td>5:08 p.m.</td>
<td>5:15 p.m.</td>
<td>5:24 p.m.</td>
<td>5:20 p.m.</td>
<td>5:45 p.m.</td>
</tr>
<tr>
<td>1505</td>
<td>5:10 p.m.</td>
<td>5:26 p.m.</td>
<td>5:33 p.m.</td>
<td>5:40 p.m.</td>
<td>5:49 p.m.</td>
<td>5:53 p.m.</td>
<td>6:10 p.m.</td>
</tr>
<tr>
<td>1507</td>
<td>5:40 p.m.</td>
<td>5:56 p.m.</td>
<td>6:03 p.m.</td>
<td>6:10 p.m.</td>
<td>6:19 p.m.</td>
<td>6:23 p.m.</td>
<td>6:40 p.m.</td>
</tr>
</tbody>
</table>
MSN Virtual Earth and Mapquest

• Aerials
• Illustrations in 3D
  – Virtual Earth 3D (Beta) shows 3D buildings and landmarks in many popular cities and areas. View 3D perspective of land and cities using the mouse, keyboard, or an Xbox 360 Controller for Windows.
MSN Virtual Earth and Mapquest

• Illustrations in 3D
  – Example: The Loews Miami Beach
MSN Virtual Earth and Mapquest

• Obliques
  – Example: Home adjacent to the Metrolink in Los Angeles, CA

Aerial View  Oblique (or Birdseye)
MSN Virtual Earth and Mapquest

- Obliques

Aerial View  Oblique  Rotate
MSN Virtual Earth and Mapquest

• Distances
  – Using the scale on the aerials and maps, determine distances from homes to rail line, and station to homes (for “outlier” properties and adjacent properties)

*Note: Google Earth is another tool to use for measuring and aerial images.
Zillow.com

• Real Estate Data

Why Zillow.com?
  – Provides historical trends that other real estate sources do not

*Note: Majority of Zillow data NOT based on assessment property values, but based on general trends in local communities researched. However, actual sales are shown and provide a good “check” for reliability.
Definition of Zillow: “Zillow comes up with a "Zestimate" for a house, based on a range of publicly available information, including sales of comparable houses in a neighborhood. Zestimate does not take into consideration factors like recent remodeling, quality of school district, or local amenities, although there is an option to update the information for a particular home. The accuracy of the Zestimate varies by location depending on how much information is publicly available, but Zillow allows users to check the accuracy of Zestimates in their own region against actual sales.”

Definition from Wikipedia
Zillow.com

- How to use
  Insert address
Methodology

• Four existing commuter rail lines
  – TRE, Dallas/Fort Worth, Texas
  – Metro Link, Los Angeles, California
  – Sound Transit, Tacoma to Everett, Washington State
  – Altamont Commuter Express, San Jose, California
Methodology

- Six existing light rail lines
  - DART, Dallas, Texas
  - RTD Southwest Corridor, Denver, Colorado
  - Metro Transit Hiawatha Line, Minneapolis/St. Paul, Minnesota
  - TRIMET MAX, Portland, Oregon
  - Regional Transit, Sacramento, California
  - Santa Clara Valley Transportation Authority, Santa Clara, California
Methodology

• For each rail line, three representative homes within close proximity to the rail corridor were selected randomly separated by the longest distance between stations possible.
Methodology
Methodology

• Two “outlier” properties at approximately 3 miles perpendicular in each direction to the rail corridor were selected at random to compare results.
Methodology
Examples

• CRT
  – SoundTransit, Tacoma to Seattle, Washington State
    • History: Opened for service September 2000
    • System Characteristics:
      – 82 mile commuter rail system
      – 9 stations (average spacing 10.3 miles)
    • Went from 22 freight trains per day to 30 total trains (including CRT)
SoundTransit, Tacoma to Seattle, Washington State

• Properties between Kent Station and Auburn Station (approximately 5 miles apart)
  – Adjacent Property #1 (2.4 miles from Kent Station)

Source: www.zillow.com

$ = good check of Zillow.com, reflects actual sales
SoundTransit, Tacoma to Seattle, Washington State

• Properties between Kent Station and Auburn Station (approximately 5 miles apart)
  – Adjacent Property #2 (2.44 miles from Kent Station)

Source: www.zillow.com
= Cost Estimate by Zip Code
= Cost Estimate by Property
= Date rail line opened (September 2000)
SoundTransit, Tacoma to Seattle, Washington State

- Properties between Kent Station and Auburn Station (approximately 5 miles apart)
  - Adjacent Property #3 (2.58 miles from Kent Station)

Source:  www.zillow.com

- Cost Estimate by Zip Code
- Cost Estimate by Property
- Date rail line opened (September 2000)
SoundTransit, Tacoma to Seattle, Washington State

- Outlying properties from Kent Station
  - Outlier Property #1 (approximately 3 miles west)

Source: www.zillow.com

- Cost Estimate by Zip Code
- Cost Estimate by Property
- Date rail line opened (September 2000)
SoundTransit, Tacoma to Seattle, Washington State

• Outlying properties from Kent Station
  – Outlier Property #2 (approximately 3 miles east)

Source: www.zillow.com

$ = good check of Zillow.com, reflects actual sales
## SoundTransit, Tacoma to Seattle, Washington State

### Comparison of Adjacent & Outlier Property Data vs. Zip Code Property Data

<table>
<thead>
<tr>
<th>Rail Line</th>
<th>Average Distance From Station (miles)</th>
<th>Average Distance From Rail Line (feet)</th>
<th>Property Value</th>
<th>Year Span</th>
<th>Average Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>SoundTransit, Seattle, WA - CRT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjacent #1</td>
<td>1.93</td>
<td>210</td>
<td>$95,000 - $227,894</td>
<td>10</td>
<td>140% increase</td>
</tr>
<tr>
<td>Adjacent #2</td>
<td>1.94</td>
<td>180</td>
<td>$104,000 - $268,084</td>
<td>10</td>
<td>158% increase</td>
</tr>
<tr>
<td>Adjacent #3</td>
<td>2</td>
<td>135</td>
<td>$90,000 - $244,437</td>
<td>10</td>
<td>172% increase</td>
</tr>
<tr>
<td>Outlier #1</td>
<td>3</td>
<td>-</td>
<td>$136,000 - $367,083</td>
<td>10</td>
<td>170% increase</td>
</tr>
<tr>
<td>Outlier #2</td>
<td>3</td>
<td>-</td>
<td>$215,000 - $470,569</td>
<td>10</td>
<td>119% increase</td>
</tr>
</tbody>
</table>

156%  
145%
SoundTransit, Tacoma to Seattle, Washington State

Comparison of Adjacent & Outlier Property Data vs. Zip Code Property Data

<table>
<thead>
<tr>
<th>Rail Line</th>
<th>Average Distance From Station (miles)</th>
<th>Average Distance From Rail Line (feet)</th>
<th>Property Value</th>
<th>Year Span</th>
<th>Average Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>SoundTransit, Seattle, WA - CRT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjacent #1</td>
<td>1.93</td>
<td>210</td>
<td>$95,000 - $227,894</td>
<td>10</td>
<td>140% increase</td>
</tr>
<tr>
<td>Adjacent #2</td>
<td>1.94</td>
<td>180</td>
<td>$104,000 - $268,084</td>
<td>10</td>
<td>158% increase</td>
</tr>
<tr>
<td>Adjacent #3</td>
<td>2</td>
<td>135</td>
<td>$90,000 - $244,437</td>
<td>10</td>
<td>172% increase</td>
</tr>
<tr>
<td>Outlier #1</td>
<td>3</td>
<td>-</td>
<td>$136,000 - $367,083</td>
<td>10</td>
<td>170% increase</td>
</tr>
<tr>
<td>Outlier #2</td>
<td>3</td>
<td>-</td>
<td>$215,000 - $470,569</td>
<td>10</td>
<td>119% increase</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rail Line</th>
<th>Zip Code Property Value</th>
<th>Year Span</th>
<th>Average Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>SoundTransit, Seattle, WA - CRT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjacent #1</td>
<td>$129,000 - $312,000</td>
<td>10</td>
<td>142% increase</td>
</tr>
<tr>
<td>Adjacent #2</td>
<td>$129,000 - $312,000</td>
<td>10</td>
<td>142% increase</td>
</tr>
<tr>
<td>Adjacent #3</td>
<td>$129,000 - $312,000</td>
<td>10</td>
<td>142% increase</td>
</tr>
<tr>
<td>Outlier #1</td>
<td>$128,000 - $295,000</td>
<td>10</td>
<td>130% increase</td>
</tr>
<tr>
<td>Outlier #2</td>
<td>$142,000 - $326,000</td>
<td>10</td>
<td>130% increase</td>
</tr>
</tbody>
</table>
CRT Results

CRT Property Value Changes

<table>
<thead>
<tr>
<th></th>
<th>TRE (10 years)</th>
<th>Metrolink (10 years)</th>
<th>Sounder (10 years)</th>
<th>ACE (10 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20%</td>
<td>250%</td>
<td>150%</td>
<td>300%</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CRT Results

Average increase in property values for all properties examined:

Adjacent: 162%
Outlier: 162%
Zip Code: 165%
Examples

• LRT
  – Regional Transit, Sacramento, CA
    • History: Original system opened 1987, the extension studied opened June 2004
    • System Characteristics
      – 36.8 mile light rail system
      – 45 stations (average spacing: 0.8 miles)
    • Went from 2 freight trains per day to 139 total trains (including LRT)
Regional Transit, Sacramento, CA

- Properties between Mather Field/Mills Station and Zinfandel Station (1.36 miles apart)
  - Adjacent Property #1 (0.64 miles from Mather Field/Mills Station)

Source: www.zillow.com

= Cost Estimate by Zip Code
= Cost Estimate by Property
= Date rail line opened (June 2004)

🌐 = good check of Zillow.com, reflects actual sales
Regional Transit, Sacramento, CA

• Properties between Mather Field/Mills Station and Zinfandel Station (1.36 miles apart)
  – Adjacent Property #2 (0.66 miles from Mather Field/Mills Station)

Source: www.zillow.com

- = Cost Estimate by Zip Code
- = Cost Estimate by Property
- = Date rail line opened (June 2004)
Regional Transit, Sacramento, CA

- Properties between Mather Field/Mills Station and Zinfandel Station (1.36 miles apart)
  - Adjacent Property #3 (1 mile from Mather Field/Mills Station)

Source: [www.zillow.com](http://www.zillow.com)

- Cost Estimate by Zip Code
- Cost Estimate by Property
- Date rail line opened (June 2004)
Regional Transit, Sacramento, CA

• Outlying properties from Mather Field/Mills Station
  – Outlier Property #1 (approximately 3.6 miles north)

Source: www.zillow.com
- Cost Estimate by Zip Code
- Cost Estimate by Property
- Date rail line opened (June 2004)

($) = good check of Zillow.com, reflects actual sales
Regional Transit, Sacramento, CA

- Outlying properties from Mather Field/Mills Station
  - Outlier Property #2 (approximately 4.4 miles south)

Source: www.zillow.com

- Cost Estimate by Zip Code
- Cost Estimate by Property
- Date rail line opened (June 2004)

Don’t know why this happened
## Comparison of Adjacent & Outlier Property Data vs. Zip Code Property Data

<table>
<thead>
<tr>
<th>Rail Line</th>
<th>Average Distance From Station (miles)</th>
<th>Average Distance From Rail Line (feet)</th>
<th>Property Value</th>
<th>Year Span</th>
<th>Average Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjacent #1</td>
<td>0.47</td>
<td>75</td>
<td>$107,000 - $337,342</td>
<td>5</td>
<td>215% increase</td>
</tr>
<tr>
<td>Adjacent #2</td>
<td>0.48</td>
<td>75</td>
<td>$123,000 - $382,217</td>
<td>5</td>
<td>211% increase</td>
</tr>
<tr>
<td>Adjacent #3</td>
<td>0.8</td>
<td>60</td>
<td>$93,000 - $271,733</td>
<td>5</td>
<td>192% increase</td>
</tr>
<tr>
<td>Outlier #1</td>
<td>3</td>
<td>-</td>
<td>$149,000 - $323,902</td>
<td>5</td>
<td>117% increase</td>
</tr>
<tr>
<td>Outlier #2</td>
<td>3.5</td>
<td>-</td>
<td>$169,000 - $470,292</td>
<td>5</td>
<td>178% increase</td>
</tr>
</tbody>
</table>

206% 148%
Comparison of Adjacent & Outlier Property Data vs. Zip Code Property Data

<table>
<thead>
<tr>
<th>Rail Line</th>
<th>Average Distance From Station (miles)</th>
<th>Average Distance From Rail Line (feet)</th>
<th>Property Value</th>
<th>Year Span</th>
<th>Average Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Transit, Sacramento, CA - LRT</td>
<td></td>
<td></td>
<td>$107,000 - $337,342</td>
<td>5</td>
<td>215% increase</td>
</tr>
<tr>
<td>Adjacent #1</td>
<td>0.47</td>
<td>75</td>
<td>$123,000 - $382,217</td>
<td>5</td>
<td>211% increase</td>
</tr>
<tr>
<td>Adjacent #2</td>
<td>0.48</td>
<td>75</td>
<td>$93,000 - $271,733</td>
<td>5</td>
<td>192% increase</td>
</tr>
<tr>
<td>Outlier #1</td>
<td>3</td>
<td>-</td>
<td>$149,000 - $323,902</td>
<td>5</td>
<td>117% increase</td>
</tr>
<tr>
<td>Outlier #2</td>
<td>3.5</td>
<td>-</td>
<td>$169,000 - $470,292</td>
<td>5</td>
<td>178% increase</td>
</tr>
</tbody>
</table>

Average Percent Change: 206% 148%

<table>
<thead>
<tr>
<th>Rail Line</th>
<th>Zip Code Property Value</th>
<th>Year Span</th>
<th>Average Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Transit, Sacramento, CA - LRT</td>
<td>$132,000 - $340,000</td>
<td>5</td>
<td>158% increase</td>
</tr>
<tr>
<td>Adjacent #1</td>
<td>$132,000 - $340,000</td>
<td>5</td>
<td>158% increase</td>
</tr>
<tr>
<td>Adjacent #2</td>
<td>$132,000 - $340,000</td>
<td>5</td>
<td>158% increase</td>
</tr>
<tr>
<td>Adjacent #3</td>
<td>$132,000 - $340,000</td>
<td>5</td>
<td>158% increase</td>
</tr>
<tr>
<td>Outlier #1</td>
<td>$155,000 - $398,000</td>
<td>5</td>
<td>157% increase</td>
</tr>
<tr>
<td>Outlier #2</td>
<td>$119,000 - $325,000</td>
<td>5</td>
<td>173% increase</td>
</tr>
</tbody>
</table>

Average Percent Change: 158% 165%
LRT Results

LRT Property Value Changes

<table>
<thead>
<tr>
<th>Percent Changes</th>
<th>Adjacent</th>
<th>Outlier</th>
<th>Zip Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>250%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>Duration</th>
<th>Percent Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. DART</td>
<td>10 years</td>
<td></td>
</tr>
<tr>
<td>2. RTD</td>
<td>9 years</td>
<td></td>
</tr>
<tr>
<td>3. Metro</td>
<td>5 years</td>
<td></td>
</tr>
<tr>
<td>4. TRIMET</td>
<td>10 years</td>
<td></td>
</tr>
<tr>
<td>5. Regional</td>
<td>5 years</td>
<td></td>
</tr>
<tr>
<td>6. VTA</td>
<td>10 years</td>
<td></td>
</tr>
</tbody>
</table>
LRT Results

Average increase in property values for all properties examined:

Adjacent: 130%

Outlier: 96%

Zip Code: 95%

---

Average Increase

![LRT Property Value Changes](chart.png)
Results

Comparing all the CRT & LRT trends showed the properties were more affected by overall local and regional market forces than by new immediately adjacent passenger rail lines.
Results

Other tools available for more in depth research:

- Assessors data
- County records on sales
- Detailed economic analysis
- Windshield surveys to find current sale prices
- Analyze days on the market
Impacts of Transit Rail Lines on Property Values

Research available upon request

Rail-Volution 2007