Planning for Accessibility

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Legacy Community Alliance for Health: Health Equity in Transportation

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Why measure accessibility?

Mobility measures

- Travel speed
- Level of service
- Vehicle throughout
- Person throughput
Why measure accessibility?

- Origins
- Destinations
- Ability to travel between them
- Sensitive to multiple modes
Accessibility metrics

1. Non-work access
   • Typically walking
   • Score (0-100)

2. Access to jobs
   • Multimodal
   • “Number of jobs within 30 minutes”
Walking access is good for other reasons

- Home values
  - Median home value (thousands) vs. Non-work access score (walking)

- Household VMT
  - Average daily household VMT vs. Non-work access score (walking)

- Automobile mode share
  - Automobile commuters vs. Non-work access score (walking)
How it works
Access to job by transit (avg. morning)

<table>
<thead>
<tr>
<th>Jobs accessible</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 15 min</td>
<td>250</td>
</tr>
<tr>
<td>&lt; 30 min</td>
<td>24,000</td>
</tr>
<tr>
<td>&lt; 45 min</td>
<td>33,000</td>
</tr>
<tr>
<td>Weighted</td>
<td>18,000</td>
</tr>
</tbody>
</table>

Weighted distribution:

- 0.00  
- 0.25  
- 0.50  
- 0.75  
- 1.00  

Minutes:
- 0    
- 30   
- 60   
- 90   
- 120  

Weighting:

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000 - 35,000
- 35,000 - 45,000
- 45,000 +
Transit project evaluation

Total impact
- +1.03 million household-jobs

Average impact
- +5 jobs
- Across 200,000 households

<table>
<thead>
<tr>
<th>Jobs accessible</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 15 min</td>
<td>270</td>
<td>280</td>
</tr>
<tr>
<td>&lt; 30 min</td>
<td>1,400</td>
<td>8,800</td>
</tr>
<tr>
<td>&lt; 45 min</td>
<td>3,100</td>
<td>34,800</td>
</tr>
<tr>
<td>Weighted</td>
<td>1,200</td>
<td>8,500</td>
</tr>
</tbody>
</table>
Walking access (Vienna, Virginia)

- Grocery stores, parks, schools, restaurants, and other non-work destinations
Spot improvements
Walking access, change

- More than 1,000 households earn at least one point

**Total impact**
- 4,165 points
- Other related outcomes
Tool and data are open source.

bna.peopleforbikes.org
Additional resources

- Visit ssti.us (search for “accessibility”)
- Contact Chris McCahill, mccahill@ssti.us