PUBLIC TRANSIT AND EQUITY: EXAMINING THE LINK BETWEEN PHYSICAL AND ECONOMIC MOBILITY

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The comments in this presentation are those of the presenter alone and do not necessarily reflect the views of the Federal Reserve Bank of Atlanta or the Federal Reserve System.
Transit benefits for livable cities
- Increased physical activity
- Improved air quality
- Reduced sprawl
- Economic development

Source: Google Street View (Toulouse)
• Income inequality rising in the U.S.
• Assumed relationship between transit and access to employment and other opportunities

Source: Census CPS, 1967-2016
• 20th century suburbanization driven by household preferences, public policy
• Repopulation transit-accessible urban centers leading to displacement of low-income households

Source: @GDOTATL
• Known link between wage equality and transit coverage at the metro level
• Spatial mismatch of jobs and housing

Source: Atlanta Regional Commission
• Is area income inequality reduced by greater transit accessibility?

Source: Minnesota GO
• Gini coefficient of income inequality
  - 0 = perfectly equal
  - 1 = perfectly unequal
GINI COEFFICIENT OF INCOME INEQUALITY

0.389 - 0.412
0.413 - 0.429
0.430 - 0.441
0.442 - 0.449
0.450 - 0.457
0.458 - 0.464
0.465 - 0.473
0.474 - 0.485
0.486 - 0.505
0.506 - 0.546
ECONOMIC MOBILITY MEASURES (EQUALITY OF OPPORTUNITY)

• Chetty et al metrics of economic mobility
  – Absolute
  – Relative
ABSOLUTE MOBILITY: MEAN CHILD RANK FOR PARENTS AT THE 25TH PERCENTILE
RELATIVE MOBILITY (RANK-RANK SLOPES)
• EPA Smart Location Mapping
  – Access to jobs and workers via transit (N=148)

• U of Minnesota Accessibility Laboratory
  – Jobs accessible to transit by average worker (N=49)

• FTA National Transit Database (NTD)
  – Expenditures, ridership (N=182)

• Brookings Institution
  – *Metro-wide jobs access by transit* (N=100)
AVERAGE SHARE OF JOBS ACCESSIBLE IN 45 MINUTES VIA TRANSIT

Brookings (2011)
• Significant relationship between transit accessibility to jobs and 2 measures of inequality/mobility

<table>
<thead>
<tr>
<th></th>
<th>Average share of jobs accessible with 45 minutes by transit</th>
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</thead>
<tbody>
<tr>
<td>Gini</td>
<td>-0.261**</td>
</tr>
<tr>
<td>Relative mobility</td>
<td>-0.083</td>
</tr>
<tr>
<td>Absolute mobility</td>
<td>0.348**</td>
</tr>
</tbody>
</table>

** Significant at the 0.01 level
TRANSIT ACCESSIBILITY BY GINI QUARTILES

Share of jobs accessible within 45 minutes by transit:

- 1 (most equal): 9%
- 2: 7%
- 3: 6%
- 4 (most unequal): 5%
- Total: 7%
TRANSIT ACCESSIBILITY BY ABSOLUTE MOBILITY QUARTILES

Share of jobs accessible within 45 minutes by transit:

- 1 (least mobile): 6%
- 2: 7%
- 3: 7%
- 4 (most mobile): 9%
- Total: 7%

**Legend:**
- 1 (least mobile)
- 2
- 3
- 4 (most mobile)
- Total
• Transit access matters
• However, are we accurately measuring accessibility (and for whom?)
• Relationship between rail and income changing over time – how pronounced is gentrification near transit?
LESSONS LEARNED

• Understand housing and transportation costs across sub-areas
• Consider populations with most needs (low-income, low-skill)
• Protect affordability near transit
• What are equity concerns with new modes and technologies?
• Engage community

RESOURCES

Location Affordability Portal
Understanding the Combined Cost of Housing and Transportation

CNT
AllTransit™

Enterprise®

EQUITABLE TRANSIT-ORIENTED DEVELOPMENT

SPARCC
Thanks
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