Motivation

• Impacts of transit access
  • Job connections
  • Access = attractiveness
    • Increased property values
• Anchoring location
  • “People flow”
• Economic activity
  • Walkable, dense and sustainable
  • Changing how people interact with neighborhood
Approach

• Quantitative Analysis
  • Number of jobs as a metric for economic activity
  • Focus on specific types of industry – “resident-serving” industries

• Do jobs grow around transit stations? = Development

• Do jobs cluster around transit stations? = Walkability and density
Approach

• Qualitative Discussion - What factors affect the relationship between transit access and economic activity?
  • Zoning
  • Station Design
  • Neighborhood Characteristics
Chicago’s Orange Line

• Opened in 1993 - Chicago’s most recently built rail line
  • First rapid transit access for southwest side
  • Around Loop, southwest along Stevenson Express, south to Midway Airport
Area of Interest - Western, Kedzie and Pulaski Stations

- Farthest stations from any other transit line
- Majority of originating passengers (excluding Midway Station)
- Not along highway
Data Source

- Census Transportation Planning Products (CTPP)
  - Compiled by Federal Highway Administration; based on Census data
  - Time period – 1990 and 2000
  - Transportation Analysis Zone (TAZ) level data
Data Source

• Resident-serving industries:
  • Meet day-to-day needs
  • Benefit most from people flow
  • Contribute to neighborhood vitality

• Examples: Retail, Entertainment; Professional Services

• Contrast to other industries – may provide employment but not direct products/services
Legend

- TAZ Boundary (2000)
- CTA Train Stations
- CTA Train Lines
- Chicago
Quantitative Results
## Little Evidence of Clustering

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variables</th>
<th>All Jobs</th>
<th>Selected Industries</th>
<th>Non-Selected Industries</th>
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*p<0.05

Note: These coefficients come from the models that include station dummy variables.
Qualitative Discussion
Potential Impacting Factors

- Zoning
- Station Design
- Neighborhood Characteristics
Zoning

• Analyzed area half mile north and south of each station
• Prior to 1985: primarily manufacturing and residential; limited commercial and business zoning “in the “right places” (i.e. along main corridors)
• From 1985-1990: Six changes from manufacturing to commercial/business or residential; mainly around Kedzie
• From 1990-2000: Two changes
• Today: Still mostly manufacturing and residential-zoned areas
Station Design

• Why does design matter?
  • Encourage (or discourage) pedestrian access
  • Connect (or isolate) riders from surrounding area and establishments

• How were Orange Line stations designed?
  • Bus-turnarounds
  • Park ‘n’ Ride/Kiss ‘n’ Ride lots
  • Serves expected access... but doesn’t change it
Neighborhood Characteristics

Demographics - 1990-2000

• Growing population - 35% increase compared to 2.6% for city overall

• Younger population - Proportion residents 17 and younger increased five percentage points; proportion 65+ decreased seven points

• Poorer population - Real household income per capita fell; average household income grew slower than city average
Housing Stock Chicago 2000
Proportion Detached Single-Unit Structures
- 0.0 - 0.25
- 0.26 - 0.50
- 0.51 - 0.75
- 0.76 - 1.0

- CTA Train Stations
- CTA Train Lines
- Chicago
Station Area Today

• Strip mall development
• Vacant lots
• Very little pedestrian activity
  • Part of the neighborhood culture?
Take-Aways

• Development around transit doesn’t happen in a vacuum
  • Holistic planning is a must
  • Southwest Rapid Transit Corridor Development Plan (1985)

• Transit access is not just about employment
  • It can (and should) impact neighborhood quality and sustainability

• Planners today are more aware
  • Transit-oriented development
Thank You!
Methodology

Do jobs grow?

- Change in jobs around a transit station
- Total job change
- Change in resident-serving and other industries
Methodology

Do jobs cluster?

• Ordinary Least Squares (OLS) linear regression

• Dependent variables
  • Number of jobs – Total, Resident-serving, Other
  • Change in number of jobs – Total, Resident-serving, Other
  • Share of jobs – Total, Resident-Serving
  • Change in share of jobs – Total, Resident-serving
  • Percent change in number of jobs – Total, Resident-serving

• Independent variables
  • Distance to transit station
  • Distance to transit station squared
  • Dummy variable for nearest station