Commuting Mode and Latino New Urbanism
Evidence from the 2006-2008 American Community Survey

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Focus of Study

- To examine whether residents of Latino neighborhoods are less likely to solo drive than non-residents
- Predicated on the notion that Latino culture is compatible with “new urbanist” communities—compact, dense, walkable neighborhoods that contain a mix of activities such as employment, housing, shopping, and recreation
- These types of urban environments ought to be conducive to the use of alternative travel modes – carpool, transit, walk
<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Date</th>
<th>Source</th>
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<tbody>
<tr>
<td>&quot;New urbanism' embraces Latinos,&quot;</td>
<td>Haya El Nasser</td>
<td>2/15/2005</td>
<td>USA TODAY</td>
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<tr>
<td>&quot;Cities in Flux: Latino New Urbanism,&quot;</td>
<td>Jonna McKone</td>
<td>11/2/2010</td>
<td>TheCityFix</td>
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<td>Latino New Urbanism Conference, October 16-17, 2003</td>
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<td>University of Southern California</td>
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<td>The Latino Urbanism Symposium</td>
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<td>May 4, 2011 - May 5, 2011</td>
<td>Arizona State University</td>
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<td>Latino Urbanism: A New Model for Sustainable Transportation</td>
<td>James Rojas</td>
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</table>
1. Why study the travel behavior of Hispanics?

2. The commute travel of Hispanics

3. Research question and design

4. Findings

5. Implications for...policy, data, and research
Why study the travel behavior of Latinos?
Why study the travel of Latinos?

- The Hispanic population is large
- The Hispanic population is growing
- The Hispanic population is concentrated in particular areas of the country
- The Hispanic population is growing rapidly in new destinations
- The Hispanic population is ethnically diverse and, therefore, complicated
Race/Ethnicity (in millions)
2006-2008 ACS

- NH White, 198.4, 66%
- Hispanic, 45.4, 15%
- NH Black, 36.4, 12%
- Asian, 13.0, 4%
- Other, 8.0, 3%
Hispanic Population: 1970 to 2050 (in millions)

% Hispanic of Total Population: 1970 to 2050

% Hispanic Population by County (2006)

Percent of Population 2006
Hispanic or Latino

Source: U.S. Census Bureau, Population Estimates, July 1, 2006
% Change in Hispanic Population
by county, 2000-2006

Percent Change in Population
by County 2000 to 2006
Hispanic or Latino

Source: U.S. Census Bureau,
Population Estimates,
July 1, 2000 and July 1, 2006
Hispanic Origin (ACS, 2006)

- Mexican: 64%
- Puerto Rican: 9%
- Cuban: 3%
- Dominican: 8%
- Central American: 8%
- South American: 5%
- Other Hispanic: 8%
The commute behavior of Hispanics
Hispanics are:

- Less likely to travel by solo driving compared to non-Hispanic whites
- More likely to carpool, particularly immigrants
- Less likely to have driver’s licenses than non-Hispanic whites, particularly Hispanic women
- With time in the U.S., Hispanic immigrants tend to assimilate to driving
Hispanic Commute Mode, 1980-2009
Increasing solo driving, declining carpool, transit, non-motorized
Commute Mode – Drive Alone
1990-2009, all workers/Hispanic workers

Commute Mode by Race/Ethnicity (ACS, 2006-08)
Why might there be a relationship between Latino neighborhoods and travel mode?
Carpooling: Spatial proximity to other families of the same ethnic, religious, or cultural group might allow adults to easily find and coordinate with carpooling partners.

Carpooling: Ethnic employment niches might mean that residents of Latino neighborhoods would be more likely to travel to common employment destinations.

Transit and walking: Latinos living in ethnic enclaves—a subset of ethnic neighborhoods that include ethnic-specific businesses and services—may travel relatively short distances and be more inclined to use alternative modes of travel.
What did we do?
Our Data

- Data: 2006-08 American Community Survey
- Sample: metropolitan area workers
- Predicted the likelihood of commuting by carpool, public transit, and non-motorized modes over solo driving (multinomial logistic model)
  - Controlled for: individual, household, and neighborhood characteristics
Data (cont’d)

- Neighborhood characteristics by Public Use Microdata Area (PUMA)
  - Latino neighborhood: Hispanic share of the PUMA population relative to the Hispanic share of the population within the metropolitan area.
    - Residential density
    - Central city: % of housing stock built prior to 1940

- Hispanic resident living in Latino neighborhood – match between ethnicity of resident and neighborhood
All Hispanics, Hispanic immigrants, and recent Hispanic immigrants

- 40% of Hispanics are foreign born compared to 12.5% of the total population.

For Hispanics in 6 metropolitan areas: Los Angeles-Long Beach, New York-NE New Jersey, Chicago, Houston, Riverside-San Bernardino and Miami.
Findings
Where do Hispanic workers live?

**Hispanic Neighborhood Ratio**

- All Workers: 0.99
- Hispanic Workers: 1.28

**% Hispanic in PUMA**

- All Workers: 17%
- Hispanic Workers: 38%

**Residential Density**

- All Workers: 4,163 persons per sq. mile
- Hispanic Workers: 6,497 persons per sq. mile
### Model 1/Model 2 (Hispanic and Hispanic immigrant) Relative to Solo Driving

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<tr>
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<th>Carpool</th>
<th>Public Transit</th>
<th>Non-Motorized</th>
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<tbody>
<tr>
<td>Hispanic/Hispanic immigrant</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Hispanic neighborhood</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hispanic/Hispanic immigrant living in Hispanic neighborhood</td>
<td>+</td>
<td>-</td>
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## Model 3 (Recent Hispanic immigrant) – Relative to Solo Driving

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<tbody>
<tr>
<td>Recent Hispanic immigrant</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Hispanic neighborhood</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Recent Hispanic immigrant and living in Hispanic neighborhood</td>
<td>+</td>
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*Red: Differs from Models 1 and 2*
Metropolitan Models
Hispanic Workers by Metropolitan Area

![Bar chart showing the number of Hispanics and the percentage of Hispanics in different metropolitan areas.]

- Los Angeles-Long Beach: 46%, 1.94 million
- NY-NE New Jersey: 46%, 1.02 million
- Chicago-Gary-Lake: 46%, 0.75 million
- Houston-Brazoria: 43%, 0.74 million
- Riverside-San Bernardino: 43%, 0.39 million
- Miami-Hialeah: 65%, 0.67 million

Legend:
- % Hispanic
- # Hispanic (in millions)
Similar to the national model:

- Hispanics are more likely to carpool and use transit than non-Hispanics
- Hispanics are less likely to use non-motorized travel than non-Hispanics
- One exception: Miami where Hispanics are less likely to use transit and more likely to use non-motorized transportation
Odds Ratio Latino Neighborhoods Carpool (relative to solo driving)
Odds Ratio Latino Neighborhoods
Public Transit (relative to solo driving)
There appears to be a strong positive relationship between Latino neighborhoods and commuting by carpooling, one that is enhanced by a match between residents and the ethnic neighborhood – suggestive of the role of ethnic social ties in travel.

The transit findings appear only relevant for recent immigrants; they may move to ethnic neighborhoods to take advantage of local opportunities and services, including transit services.
In areas with very high percentages of Hispanics (like Los Angeles or Miami) the match between residents and the ethnic neighborhood may make little difference.

In MSAs with high levels of transit service, public transit may outcompete autos. Carpool may play less of a role.

In MSAs with low levels of transit service, Latinos may move to Latino neighborhoods to take advantage of local opportunities and services.
Implications: Policy, Data, Research
**Policy, Data, Research**

- **Policy:**
  - Match local opportunities to local residents
  - Enhance public transit services in ethnic neighborhoods to help facilitate adjustment to U.S.

- **Data**
  - Need smaller geographic units – census transits, block groups not PUMAs
  - Need data on non-work travel – possible that the neighborhood effects would be more substantial if we examined non-work travel

- **Research**
  - Refine these models
  - Do race/ethnic neighborhoods work differently across racial/ethnic groups? Asian neighborhoods? African American neighborhoods?
  - Metropolitan variation: what helps to explain these results?
  - Alter comparison group: Latinos, within and outside of Latino neighborhoods.
THANK YOU

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