WHO RIDES THE BUS?

Examining Transit Ridership in Marion County

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Timeline and Planning Context

- Transit expansion plans developed
- On-board survey
- Transit expansion approved
- Polis’ initial findings
- Expanded transit network complete
- Next on-board survey
- Comparison of findings

Spring 2015 → Fall 2016 → Spring 2017 → Fall 2017 → 2021 → 2021 → 2022
On-Board Transit Survey

- Occurs about every five years
- Over 4,000 respondents
- Tracked specific locations for home, boarding, alighting, and final destination
- Logged route and time information
- Gathered additional demographic information
Friends in Indy Go Places

• We knew Indy Go had the survey data, but they had already commissioned another firm for analysis.

• Indy Go knew we were thinking about possible research on transit.

• Polis and Indy Go wanted to unite transit and neighborhood data for public report.

• Colleagues in both organizations collaborated to make that possible.
Framing the Analysis

- Used survey responses to find ridership habits and trends

- Used GIS to link riders to their home neighborhoods
Who rides the bus?

We used cluster analysis to discover the

- Major groupings of transit riders
- Transit habits, demographics of those riders
- Neighborhoods where riders live
- Major socioeconomic trends in those neighborhoods and how those compare to the riders’ sociodemographic trends
Transit Riders’ and Non-Riders’ Neighborhoods

- Riders’ Neighborhoods
- County Overall

<table>
<thead>
<tr>
<th>Category</th>
<th>Riders’</th>
<th>County Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>People of Color</td>
<td>52%</td>
<td>42%</td>
</tr>
<tr>
<td>Housing Cost Burdened</td>
<td>41%</td>
<td>35%</td>
</tr>
<tr>
<td>Poverty Rates</td>
<td>29%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Demographics
Transit Riders’ and Non-Riders’ Neighborhoods

<table>
<thead>
<tr>
<th>Density</th>
<th>Riders’ Neighborhoods</th>
<th>County Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>People per Acre</td>
<td>5.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Jobs per Acre</td>
<td>12.1</td>
<td>5.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transit Density</th>
<th>Riders’ Neighborhoods</th>
<th>County Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>593</td>
<td>527</td>
</tr>
<tr>
<td>2021</td>
<td>622</td>
<td>561</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mode</th>
<th>Riders’ Neighborhoods</th>
<th>County Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Car Commuters</td>
<td>9%</td>
<td>5%</td>
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</tbody>
</table>
Cluster Variables

Created clusters based on four variables:

- Language
- Race & Ethnicity
- Employment Status
- Transit Service Density
Transit Service Density

Imagine a one-mile-square neighborhood.

400 Revenue Miles per Week ÷ 1 square mile

Transit Service Density = 400
Group Summaries

Trip Purpose (Origin or Destination)

Transit Service Density (Revenue Miles per Sqmi)

Ridership by Age

Ridership by Race

Ridership by Employment

100% Full-Time
What We Can Conclude

Current transit access in Indianapolis promotes mobility and crucial access to healthcare, education, social opportunities, shopping, and employment – more so for some vulnerable groups than the general ridership or population.

Future transit access should improve that access in certain areas, but reduce access where ridership is currently low.
Utility for Transit Planning

Clusters help transit agencies help riders.

- Riders’ needs vary based on access and other factors.
- Transit habits are affected by other transportation options and attitudes.
- Expansion of transit services will change how people use transit.
Utility for Transit Planning

Neighborhood-level data provides context.

• Baseline metrics estimated before transit changes are implemented
• Framework to view how service changes may impact current riders, future riders
• Foundation for long-term partnership with transit agency