Regional trends in walking and biking
Transport Chicago conference

June 9, 2017
Overview

- CMAP & ON TO 2050
- Trends in walking and biking since 2010
- Findings from crash data and equity analysis
- Estimating walkability using GIS
  - Fundamentals of walkability
Chicago Metropolitan Agency for Planning
- 7 counties, 284 municipalities
- Long-range transportation planning for the region
  - ON TO 2050: regional plan under development
    - Slated for adoption in 2018
  - GO TO 2040: previous regional plan
Regional Greenways and Trails (2009 and 2015)

Completed

Planned

Bicycle Friendly Communities

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<tbody>
<tr>
<td>Chicago</td>
<td>Evanston</td>
<td>Batavia</td>
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<td>Schaumburg</td>
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<td>Naperville</td>
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<td>Glenview</td>
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<td>Warrenville</td>
<td>Aurora</td>
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<td>Chicago</td>
<td>Highland Park</td>
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<td>Glen Ellyn</td>
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Level of Bicycle Friendly Status:
- Silver
- Bronze
- Renewed
- Honorable mention

Year of Attaining Bicycle Friendly Status:
- 2014
- 2013
- 2012
- Prior to 2012

Miles
Total number of adopted Complete Streets Policies, 2004 - 2016

Bicycle & Pedestrian Projects & Programs, total funding
## On-street facilities

<table>
<thead>
<tr>
<th>Evanston: Protected Bikeway</th>
<th>Aurora: Protected Bikeway</th>
<th>Chicago: Protected Bikeway</th>
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<tbody>
<tr>
<td><img src="image" alt="Evanston Bikeway" /></td>
<td><img src="image" alt="Aurora Bikeway" /></td>
<td><img src="image" alt="Chicago Bikeway" /></td>
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<tr>
<td><strong>Credit:</strong> David Wilson, Flickr Creative Commons</td>
<td><strong>Credit:</strong> CMAP staff</td>
<td><strong>Credit:</strong> CDOT</td>
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<table>
<thead>
<tr>
<th>Chicago: Buffered Bicycle Lane</th>
<th>Chicago: Protected Intersection</th>
<th>Chicago: Through-lane marking</th>
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<td><img src="image" alt="Chicago Intersection" /></td>
<td><img src="image" alt="Chicago Through-lane marking" /></td>
</tr>
<tr>
<td><strong>Credit:</strong> Active Transportation Alliance</td>
<td><strong>Credit:</strong> John Greenfield (Streetsblog)</td>
<td><strong>Credit:</strong> DNAinfo/Tanveer Ali</td>
</tr>
</tbody>
</table>
People walking to work

Number of walking commuters

- City of Chicago
- Non-Chicago
- CMAP Region

ACS 2006-10  ACS 2011-15
Pedestrian Facilities, Policies, Programs

- Addressing pedestrian risk factors
  - vehicle speed, gaps between cars, length of crosswalks, high ADT, number of lanes, one-way vs. two-way, and presence of a median or island

- Infrastructure innovations
  - raised crosswalks, shared streets, a pedestrian scramble, Chicago’s People Street in Lakeview, and curb extensions.
Between 2010 and 2014, an average of 3 people in our region have been killed or seriously injured while walking or biking every day.
### High-crash times

#### Bicyclists

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<th></th>
<th>MON</th>
<th>TUE</th>
<th>WED</th>
<th>THURS</th>
<th>FRI</th>
<th>SAT</th>
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<tr>
<td>(MIN = 6, MAX = 580)</td>
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- 12:00 - 4:59 am
- 5:00- 9:59 am
- 10:00 am - 2:59 pm
- 3:00- 6:59 pm
- 7:00- 11:59 pm

#### Pedestrians

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<td>(MIN = 19, MAX = 762)</td>
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- 12:00 - 4:59 am
- 5:00- 9:59 am
- 10:00 am - 2:59 pm
- 3:00- 6:59 pm
- 7:00- 11:59 pm
1. Percent Population, Black (2010 Census data) **17.7%**
2. Percent of all bicycle and pedestrian crashes occurring in majority black census tracts **17.3%**
3. Percent of all fatal and serious injury bicycle and pedestrian crashes occurring in majority black census tracts **21.4%**
Walkability

- What makes a place walkable?
- How can we measure walkability at a regional scale?
Walkability

- **Useful**
  - Most aspects of daily life are located close at hand and organized in a way that walking serves them well.

- **Safe**
  - The street has been designed to give pedestrians a fighting chance against being hit by automobiles, feels safe.

- **Comfortable**
  - Buildings and landscape shape urban streets into ‘outdoor living rooms,’ in contrast to wide-open spaces, which usually fail to attract pedestrians.

- **Interesting**
  - Sidewalks are lined by unique buildings with friendly faces and that signs of humanity abound.
Walkability

- Useful
  - Most aspects of daily life are located close at hand and organized in a way that walking serves them well.
  - Supermarkets
  - Libraries
  - Schools
  - Transit
Walkability

- **Safe**
  - The street has been designed to give pedestrians a fighting chance against being hit by automobiles, feels safe.
  - Level of Traffic Stress
  - Fatal crashes
Walkability

- **Comfortable**
  - Buildings and landscape shape urban streets into ‘outdoor living rooms,’ in contrast to wide-open spaces, which usually fail to attract pedestrians.

- Tree Cover
- Parcel size
- Block length
- Block size
- Parking spaces
- Intersection density
Walkability

- Interesting
  - Sidewalks are lined by unique buildings with friendly faces and that signs of humanity abound.
  - Percentage of housing stock built before 1939
  - Parcel size
Regional Score

- Added total score for amenities, intersection density, block length, block size, fatal crashes (penalty), no residential (penalty)
Different ranking, same scale
Regional Score

- Localized assessments require more in-depth analysis
  - Sidewalk coverage
  - Quality of the walk
  - Land use mix
  - Number of lanes
  - Traffic volume and speeds
  - Shade/shelter
  - Air quality
  - Noise levels
  - Crime
Thank you!

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