2016 ULI SPRING MEETING, PHILADELPHIA

TRENDS IN TRANSPORTATION AND REAL ESTATE

RJ ELDRIDGE, DIRECTOR OF PLANNING
Toole Design Group

- Planners
- Engineers
- Landscape Architects
- Urban Designers
AGENDA

1. Data Trends
2. Emerging Approaches
3. Innovative Facilities
PEOPLE ARE MOVING TO CITIES

1 IN 7 PEOPLE LIVES IN:
NEW YORK
LOS ANGELES
CHICAGO

1 IN 3 PEOPLE LIVES IN:
ONE OF THE 10 LARGEST CITIES

VIRTUALLY ALL POPULATION GROWTH OCCURRING IN URBAN AREAS
PER CAPITA VMT IS FALLING

VEHICLE MILES PER CAPITA
YEARLY TRENDS

TREND:
DECREASING
VEHICLE MILES TRAVELED PER CAPITA
MILLENIALS NOT GETTING LICENSES

- Cars too expensive
- Prefer to walk, bike or transit
- Ride with someone else
- Telecommuting
- Environmental concerns
- Too busy
“I don’t think car-buying for Millennials will ever be what it was for Boomers.”

Sheryl Connelly
Head of Global Consumer Trends
Ford Motor Company
THE GROWTH OF BIKE COMMUTING

For cyclists of all stripes, there's nothing like Bike to Work Day — our annual celebration of active transportation. Thanks, in part, to encouragement efforts like BTWD, the number of bike commuters is on the rise — especially in Bicycle Friendly Communities. Since 2000, bicycle commuting rates in large BFCs increased 105 percent — far above the national average of 62 percent and more than double the rate in non-BFCs (31 percent). Here are just a few key cities where bike commuting is growing by leaps and bounds.

OVERALL GROWTH OF BIKE COMMUTING (2000-2013)

- NON-BICYCLE FRIENDLY COMMUNITIES: 31%
- ALL OF UNITED STATES: 62%
- BICYCLE FRIENDLY COMMUNITIES: 105%

BFC and non-BFC numbers based on sample of 70 largest cities.

Key: Data from the American Community Survey

- 1990 bicycle commuter share
- 2000 bicycle commuter share
- 2003 bicycle commuter share
- 2013 bicycle commuter share
- Total percentage increase from 1990-2013

produced by THE LEAGUE OF AMERICAN BICYCLISTS

Learn more about the Bicycle Friendly America program at www.bikeleague.org/bfa
**Vehicle Trips (Travel Day VT, annualized)**

**Number of Vehicle Trips (VT) by Trip Distance (TRPMILES) Including Trips 2 Miles or Less Where TRPMILES GE 0**

<table>
<thead>
<tr>
<th>Calculated Trip distance converted into miles</th>
<th>Travel Day Vehicle Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample Size</td>
</tr>
<tr>
<td>Less than 0.5 miles</td>
<td>28,892</td>
</tr>
<tr>
<td>1 mile</td>
<td>116,184</td>
</tr>
<tr>
<td>2 miles</td>
<td>97,869</td>
</tr>
<tr>
<td>3 miles</td>
<td>78,713</td>
</tr>
<tr>
<td>4 miles</td>
<td>56,824</td>
</tr>
<tr>
<td>5 miles</td>
<td>55,197</td>
</tr>
<tr>
<td>6 - 10 miles</td>
<td>141,966</td>
</tr>
<tr>
<td>11 - 15 miles</td>
<td>63,652</td>
</tr>
<tr>
<td>16 - 20 miles</td>
<td>33,824</td>
</tr>
<tr>
<td>21 - 30 miles</td>
<td>32,844</td>
</tr>
<tr>
<td>31 miles or more</td>
<td>35,208</td>
</tr>
<tr>
<td><strong>All</strong></td>
<td>741,173</td>
</tr>
</tbody>
</table>

Source: Federal Highway Administration, 2009 National Household Travel Survey (NHTS)
Tabulation created on the NHTS website at http://nhts.ornl.gov

= 43% of trips!
MILLENNIALS TRIP DECISIONS

- 45% are **consciously** replacing driving with other modes
- Between 2001 – 2009:
  - 24% more bike trips
  - 16% more walk trips
  - 40% more trips on public transit

Transportation and the New Generation
Why Young People Are Driving Less and What It Means for Transportation Policy

FRONTIER GROUP U.S. PIRG Education Fund
52% of Americans would like to live in a place where they do not need to use a car very often.
ECONOMIC IMPACTS

NYC 8th/9th Ave Protected Bike Lane
- 49% increase in retail sales
- 49% fewer commercial vacancies

Broad Avenue Bike Lanes, Memphis, TN
- 16 new businesses
- 29 property renovations

Portland, OR
- Customers arriving by bike spend most per month

Monon Trail, Indianapolis, IN
- 11% higher property values within ½ mile of trail
EMERGING APPROACHES
1. Traffic deaths are preventable and unacceptable.

2. The street system should be safe for all users, for all modes of transportation, in all communities, and for people of all ages and abilities.

3. Transportation systems should be designed to anticipate human error so the consequence is not severe injury or death.

4. The transportation system should be designed for speeds that protect human life.

5. Safe human behaviors, education, and enforcement are essential contributors to a safe system.
Safe:
• Minimize conflicts
• Encourage yielding
• Delineate space
• Provide consistency
LOW STRESS NETWORK PRINCIPLES

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Comfortable:
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• Accommodate passing bicyclists
LOW STRESS NETWORK PRINCIPLES

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Connected:
• Provide direct, seamless transitions
• Integrate into multimodal network
**Definition**

“A protected bike lane is an exclusive space for bicyclists along or within a roadway that is physically separated from motor vehicles and pedestrians by vertical elements.”
PROTECTED INTERSECTIONS

conventional intersection treatment
PROTECTED INTERSECTIONS
Number of Protected Bike Lanes

Source: People for Bikes

Number in the U.S.

Source: People for Bikes
RATES OF CYCLING

1970  
1st Bike Lanes

2000  
Lots of Bike Lanes

2009  
Protected Bike Lanes

Share of workers commuting by bike

Source: Based on graphic from www.bikeportland.org
DEVELOPMENT CONSIDERATIONS

Implications:
- Right of way
- Intersection design
- Sidewalks, cafes and street furniture
- Utilities and drainage
- Parking and driveways
- Building access
- Transit stops

WHITE FLINT (MD) PROTECTED BIKE LANE
Retrofits don’t always function well...
Retrofits are not attractive...
14’ Stormwater/LID

7’ Walk
More Efficient, Higher Use, Safer, More Attractive, Better Use of $$$
BIKE PARKING

Key Principles:

- Secure
- Sheltered
- Convenient
- Private & Public/Visitor

image from: West Side Action
BICYCLE-ORIENTED DEVELOPMENT

BIKE PARKING/WASH

BIKE CLUB PARKING (150 BIKES)

COMMUTER SHOWERS/LOCKERS

BIKE CLUB ACCESS

photos from: Cascade Bicycle Club
Cities are competing - regionally and globally

- Economic opportunity (jobs)
- Cost of living
- Environment
- Transportation choice
- Quality of life/amenities
Thank you

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