Biking in the U.S.
Trends from the National Household Travel Survey

National Bike Summit
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First, about the NHTS…

- A snapshot of travel by people in the U.S. (all ages)
- Conducted periodically since 1969
- Only national source of trends in daily travel

**Survey Features:**

- Samples from all regions and rural and urban areas
- Conducted in English and Spanish
- Single-day travel-diary for each person’s travel, covering 365 days
- Weighted to represent annual and daily person travel in the U.S.
- All trips, all purposes, all modes on an assigned day for all people
- Use of rarer modes (walk, bike, and transit) over previous week
What is included in the Survey?

- Household demographic information (race, age, sex, household income)
- Usual and actual travel to work (mode, occupancy, miles and minutes)
- Time of day and purpose for non-work travel (mode, occupancy, miles and minutes)
- Vehicle information (vehicle type, age, odometer), miles driven and fuel efficiency
- Transit access and egress mode and distance, plus wait times
How can you use the data?

- Measure changes in bicycle travel over time
- Used to determine accident exposure rates
- Understand travel of specific groups: school children, low income, recreational riders
- Bicycle commuting trends
- And many others!
Who uses the survey data?

Governments: 22%
Universities: 34%
Interest Groups: 17%
Consultants: 15%
Media: 12%

Source: "National Household Travel Survey Data Use: An Overview Prepared by: MacroSys Research and Technology for the Bureau of Transportation Statistics, 2005"
Some of the uses of NHTS: Transportation and Energy Use

The transportation sector’s use of energy, which is overwhelmingly petroleum, more than tripled from 1949 to 2001. Motor gasoline accounts for about two-thirds of the petroleum consumed in the sector.

Source: Energy Information Administration, 2001 Annual Energy Review, Table 2.1A.
Some of the uses of NHTS: Transportation and Health

Is increased vehicle use related to reduced walking and biking?

Source: Matt Coogan
What does the NHTS tell us about trends in biking in the U.S.?

- Nearly half of driving age adults have access to a bicycle.
- More than half of adults with a bike use it in the summer months.*
- Since 1990, children are making fewer bike trips, especially to school.
- As our society ages, the average age of adult cyclists is also getting older.
- Nearly a quarter of bike trips by 16-30 year olds are commutes, and bike commuters are very loyal to their mode.

*From BTS National Survey of Pedestrian and Bicyclist Attitudes and Behavior
Children are taking fewer bike trips…

Proportion of Trips by Children (15 years and less) that are by Bike

Percent of all Trips that are Bike

- 1995
- 2001
And are half as likely to bike to school...
The age profile of adult cyclists is changing...

Changes in Proportion of Bike Trips by Age -- Adult Cyclists

Average age:
1990 = 32.3
2001 = 39.9
Although the majority of cyclists are men, women are reporting more bike trips…

Proportion of Bike Trips by Sex

<table>
<thead>
<tr>
<th>Year</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>1995</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>2001</td>
<td>65%</td>
<td>35%</td>
</tr>
</tbody>
</table>
On an average day, 72.7 percent of bike commuters actually bike to work.

<table>
<thead>
<tr>
<th>Usual Mode</th>
<th>Drive Alone</th>
<th>Carpool</th>
<th>Transit</th>
<th>Bike</th>
<th>Walk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive Alone</td>
<td>89.8%</td>
<td>9.4%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Carpool</td>
<td>22.6%</td>
<td>74.5%</td>
<td>1.0%</td>
<td>0.3%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Transit</td>
<td>8.4%</td>
<td>10.0%</td>
<td>69.3%</td>
<td>0.4%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Bike</td>
<td>8.1%</td>
<td>10.1%</td>
<td>1.4%</td>
<td>72.7%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Walk</td>
<td>10.3%</td>
<td>9.0%</td>
<td>2.7%</td>
<td>0.2%</td>
<td>77.3%</td>
</tr>
</tbody>
</table>
Nearly half of the trips by adult cyclists are for recreation.
But over a quarter of the bike trips made by 16-30 year olds are for work...
How Bike Paths and Lanes Make a Difference*

- Bicyclists riding in areas without bike paths or lanes are nearly twice as likely to feel endangered (mostly by motorists).

- Nearly one-third of the population is dissatisfied with their community designs for making biking safer.

- In areas with neither bike lanes or paths, 48% of adults report being dissatisfied with the community design.

- Frequent bicyclists have a strong preference for more bike lanes over paths.

*From BTS National Survey of Pedestrian and Bicyclist Attitudes and Behavior
Where are the numbers?

Big picture trends from the National Household Travel Survey (NHTS) at:
http://nhts.ornl.gov

Use add-on data for small geography:
Wisconsin State, New York State in 2001
FL, GA, SC, NC, VA, NY in 2008

Community-based surveys of users for facility planning and use assessment
2009 NHTS Add-Ons

- 8 States and 6 MPOs have purchased nearly 80,000 additional household samples
- Add-on data is useful for small-geography analysis, rarer modes, and case studies
- With enriched sample, local areas can examine neighborhood environment and effect on travel
- Areas that periodically participate have potential ‘before’ and ‘after’ snapshots when improvements are made
But we need your feedback...

As the questionnaire is being developed for the next NHTS we want to increase the utility and relevance to the bike community.

We will be looking for specific ideas on the questionnaire and data items.

Coordinated through the League, but feel free to let us know directly:

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Thank You!