INRCOG

- Metropolitan Planning Organization (MPO)
- Transportation planning
  - Long-range planning
  - Bicycle/pedestrian
  - Transit
  - Freight
National Household Travel Survey

- Survey of **1,221** households here in Waterloo, Cedar Falls, etc.
- Sent on ongoing basis from 2016-2017
National Household Travel Survey

OAK RIDGE National Laboratory

National Transportation Research Center

Westat

U.S. Department of Transportation Federal Highway Administration

INRCOG

Iowa Northland Regional Council of Governments
National Household Travel Survey

• 740,000,000 miles of travel
• 121,357 people age 5+
• 88,846 drivers
  – 10,950 miles per year on avg.
• 63,810 workers
## Walking and Bicycling

<table>
<thead>
<tr>
<th></th>
<th>Walking</th>
<th>Bicycling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Census data</strong></td>
<td>4.6%</td>
<td>0.5%</td>
</tr>
<tr>
<td>% of commuters</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NHTS data</strong></td>
<td>6.8%</td>
<td>1.2%</td>
</tr>
<tr>
<td>% of all trips</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

• Aren’t these percentages low?  
• Who walks and bicycles anyway?  
• Do we really need to care?
Walking
Walking trips, by age
Percent who walk, by income

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Bicycling
Bicycle trips, by age

Thousands of Trips

- Under 21
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81+
Percent who bicycle, by education

No HS Diploma  |  HS Diploma  |  Some College  |  Bachelor's Degree  |  Graduate or Professional

- Bike Trips
- No Trips

Nationally
Percent who bicycle, by income

Less than $24,999  $25,000 to 49,999  $50,000 to 99,999  $100,000 to 149,999  $150,000+

Nationally
Talent Attraction and Retention

• 48% of employers express workforce is a limiting factor to growing

• 62% of employers recruit from outside the Cedar Valley

Greater Cedar Valley Alliance and Chamber 2018 Annual Report
Can anybody name this city?

Hint: It’s agricultural, but it’s not in Iowa
Example

• Davis, CA
  – Population 68,986
  – Median age is 25.6
  – 73.3% have bachelor’s degree or higher
  – 21.1% of commuters bicycle
“Why can’t they just use the trails?”

Areas without trails

Flooding

Side path conflicts
Areas Without Trails
Flooding
Areas Without Trails and Flood Prone Areas
Bicycle transportation planning

“So when you go to the grocery store, you never wonder whether you can get there.”

— Jennifer Boldry, PeopleForBikes
Side path conflicts

- Trails / side paths are good where there are few intersections and driveways
- Bicyclists are less visible to turning vehicles
- Vehicles encroaching at crossings can cause delays
- Conflicts with pedestrians
Bike lanes

• Suitable on roads 35mph or less
• Bicyclists operate with traffic
• Cross traffic must yield
• Generally faster
• Better visibility
• More likely to be clear in winter
Shared lanes

- Low-traffic roads that are fine as-is
- No bike lanes or trail needed
Uphill climbing lanes

• Ideal where there is limited width
• Downhill bicyclists share the lane
Lane reconfigurations
But, what about traffic?!
Travel Demand Model, 2014
Travel Demand Model, 2045
Travel Demand Model, 2045 w/ Bike Lanes
Travel Demand Model

- By 2045, congested vehicle hours are projected to increase by 30%.
- A full buildout of the Bikeway Plan would increase this by less than 1%.

<table>
<thead>
<tr>
<th></th>
<th>Congested VHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 Base</td>
<td>79,298</td>
</tr>
<tr>
<td>2045 Planned</td>
<td>102,810</td>
</tr>
<tr>
<td>2045 Planned with Bike Lanes</td>
<td>103,549</td>
</tr>
</tbody>
</table>
Potential future improvements

- Green bike boxes
- Bicycle signalization
- Bike boulevards
- Protected intersections
Green bike box

Potential future improvements
Bicycle signalization

Potential future improvements
Bicycle boulevards

Potential future improvements
Protected intersections
Potential future improvements
The Future of Transportation, 2018-2045

Codie Leseman, Transportation Planner
Kyle Durant, Transportation Planner