Pedestrian and Bicyclist Safety & Travel Trends

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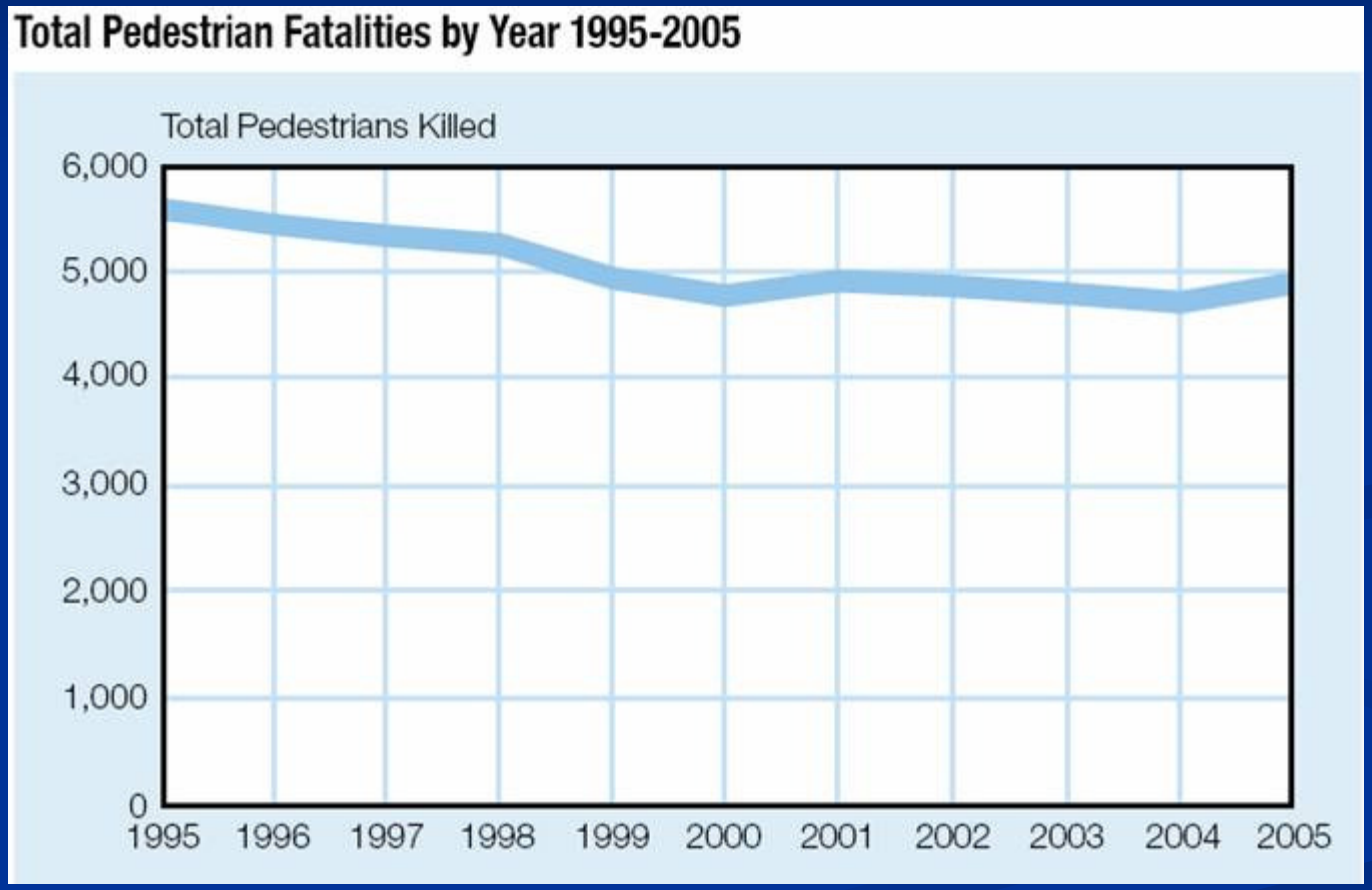
Overview

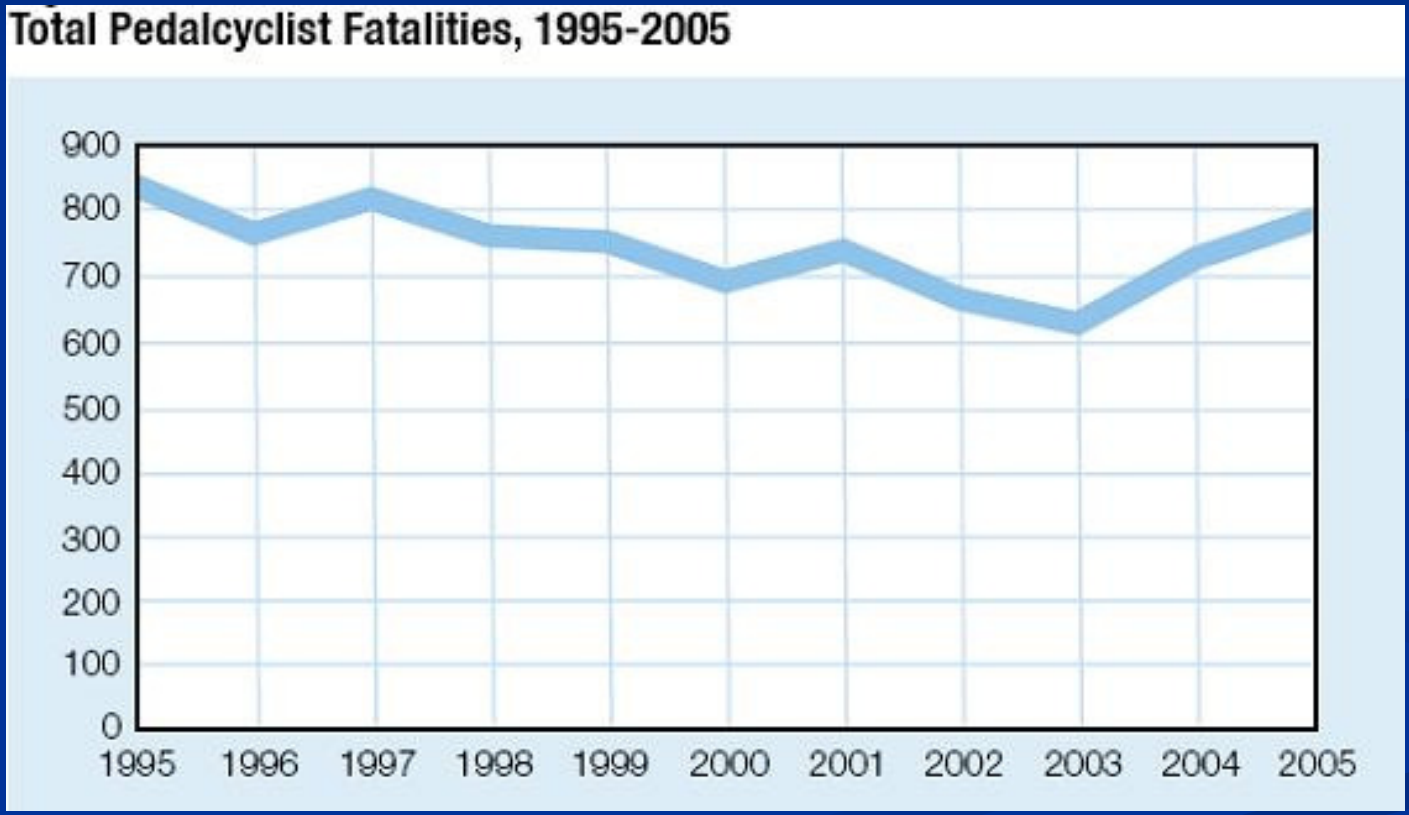
- Pedestrian and bike safety trends
- Tools to improve non-motorist safety
- Missing pedestrian and bike exposure/trip data
- What we do know about biking and walking trips
- Non-motorized transportation pilot program

Safety Data-Pedestrians



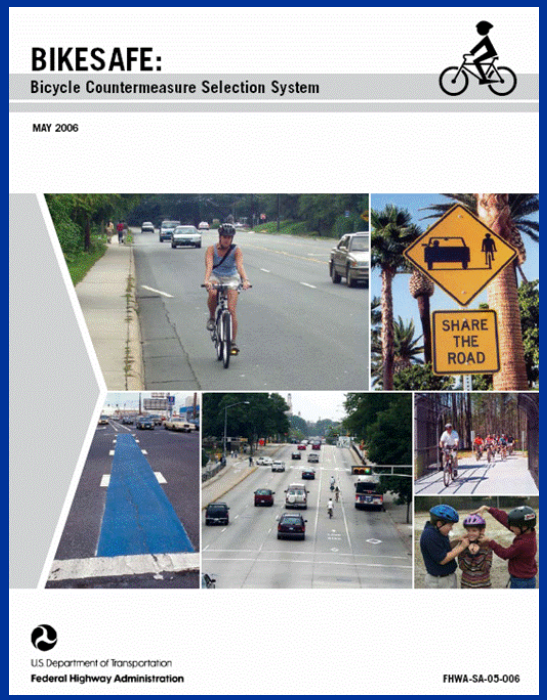
(In 1979: 8,096 pedestrians were killed in roadway crashes)

Bicyclist Fatalities



Safety Resources

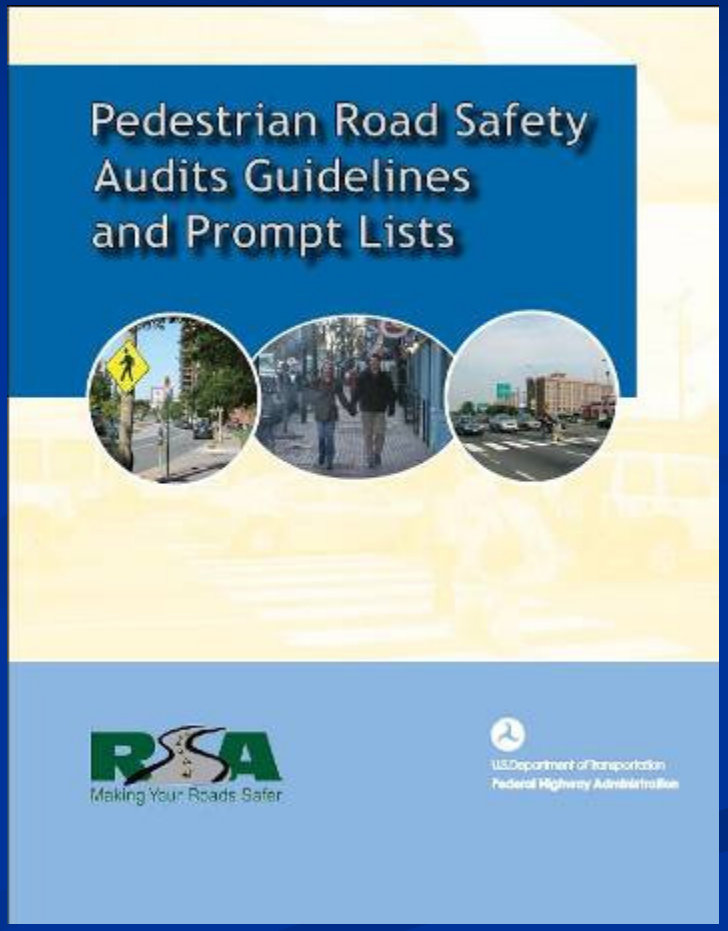
- Tools
  - Pedsafe
  - Bikesafe



Objective	Countermeasures: Pedestrian Facility Design	Roadway Design	Intersection Design	Traffic Calming	Traffic Management	Signals and Signs	Other Measures
1. Reduce Speed of Motor Vehicles	•	•	•	•		•	•
2. Improve Sight Distance and Visibility for Motor Vehicles and Pedestrians	•	•		•		•	
3. Reduce Volume of Motor Vehicles		•		•	•		
4. Reduce Exposure for Pedestrians	•	•		•		•	
5. Improve Pedestrian Access and Mobility	•	•		•		•	
6. Encourage Walking by Improving Aesthetics	•	•		•			•
7. Improve Compliance With Traffic Laws			•	•			•
8. Eliminate Behaviors That Lead to Crashes			•	•		•	•

Pedestrian Road Safety Audits

- What are Road Safety Audits?
  - A formal safety examination of a future or existing facility
  - Conducted:
    - By an independent, multidisciplinary team
- What are they not?
  - Standards checks



Safety—what's missing

- We know that too many people are killed and injured while walking or biking
- But what is the actual degree of risk?
  - What do the fatality trends really mean?
  - What are travel trends?
- How do we get more people to:
  - Walk and bike
  - Be/feel safe doing so?

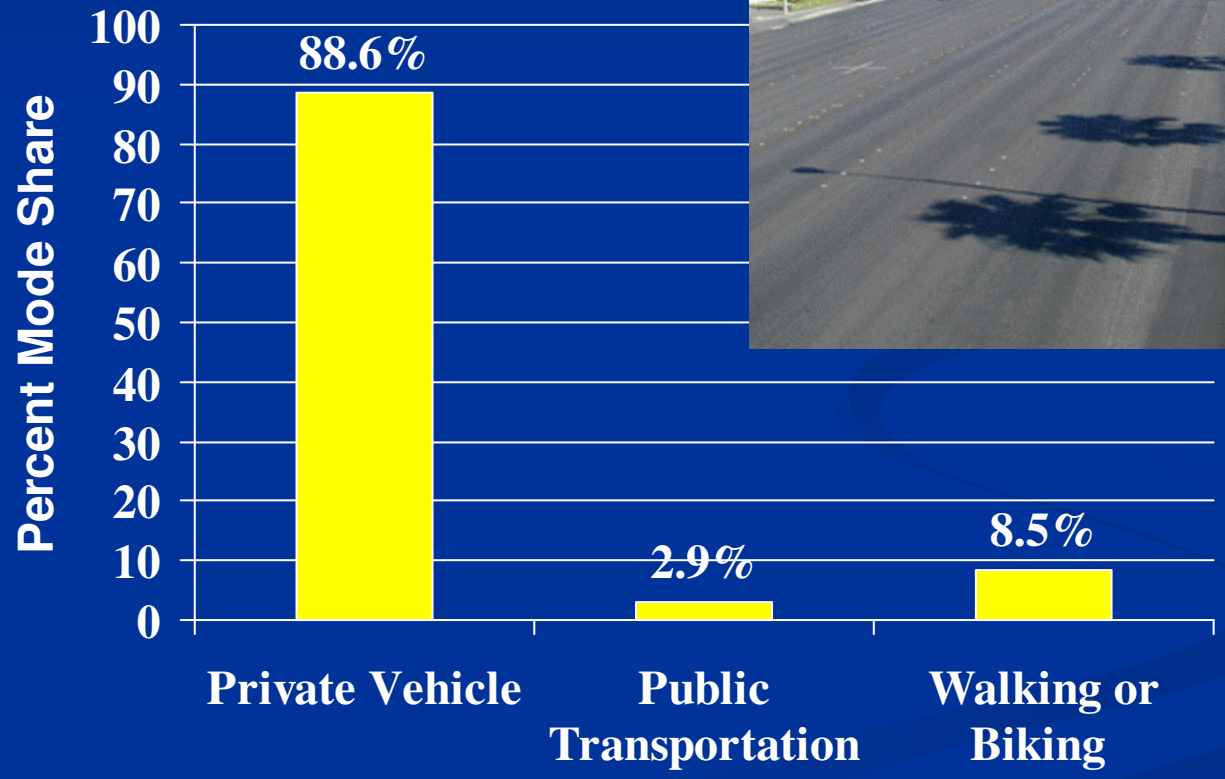
Ped/bike trips data

- National Household Travel Survey
- 2002 Survey by NHTSA

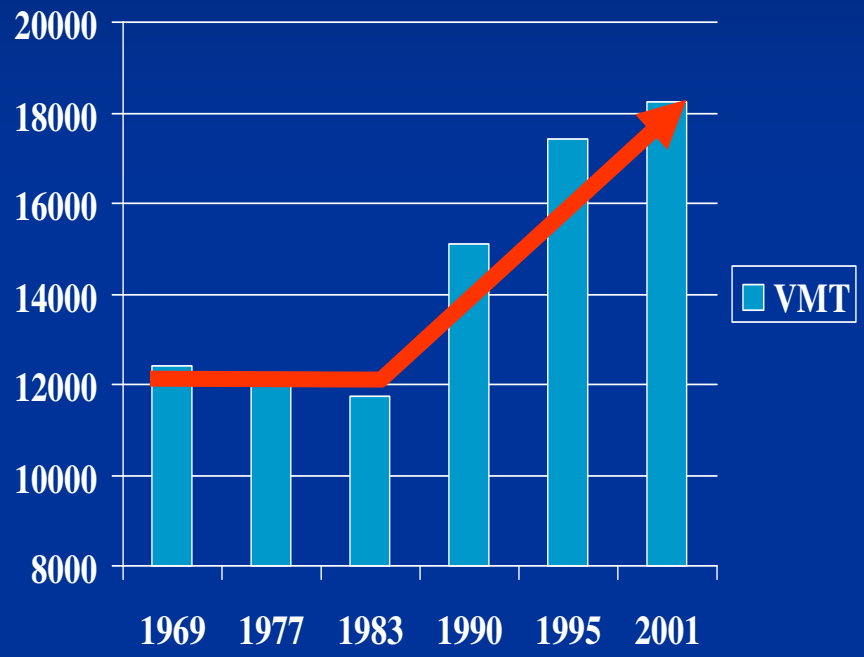
National Household Travel Survey

- Conducted since 1969
- Conducted about every 7 years
- Next survey scheduled for 2008
- Personal travel
- Walking and biking trips measured (but not perfect measures)

Mode share for trips (2001)

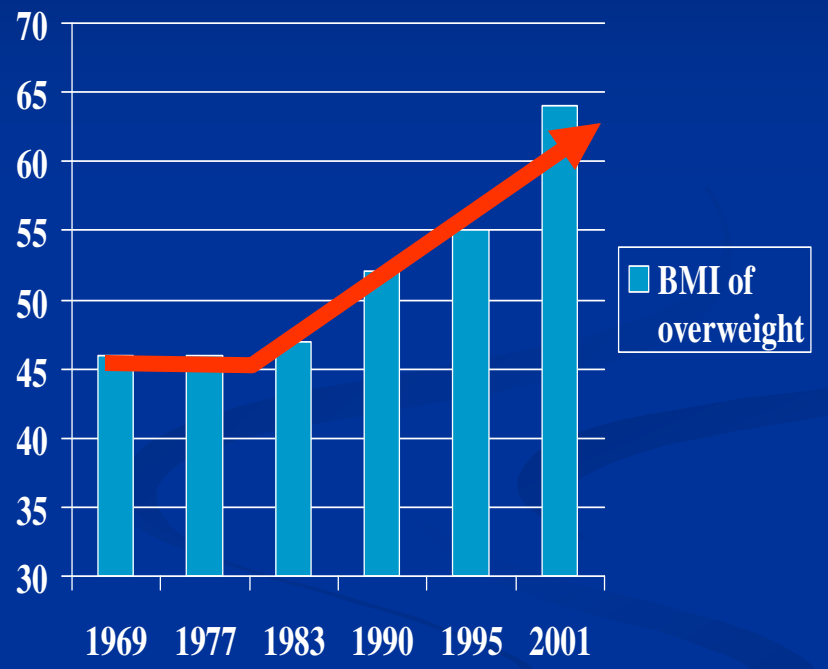


Growth in Vehicle Miles Traveled vs. Growth in "Overweight"



Growth trend for annual household vehicle miles of travel

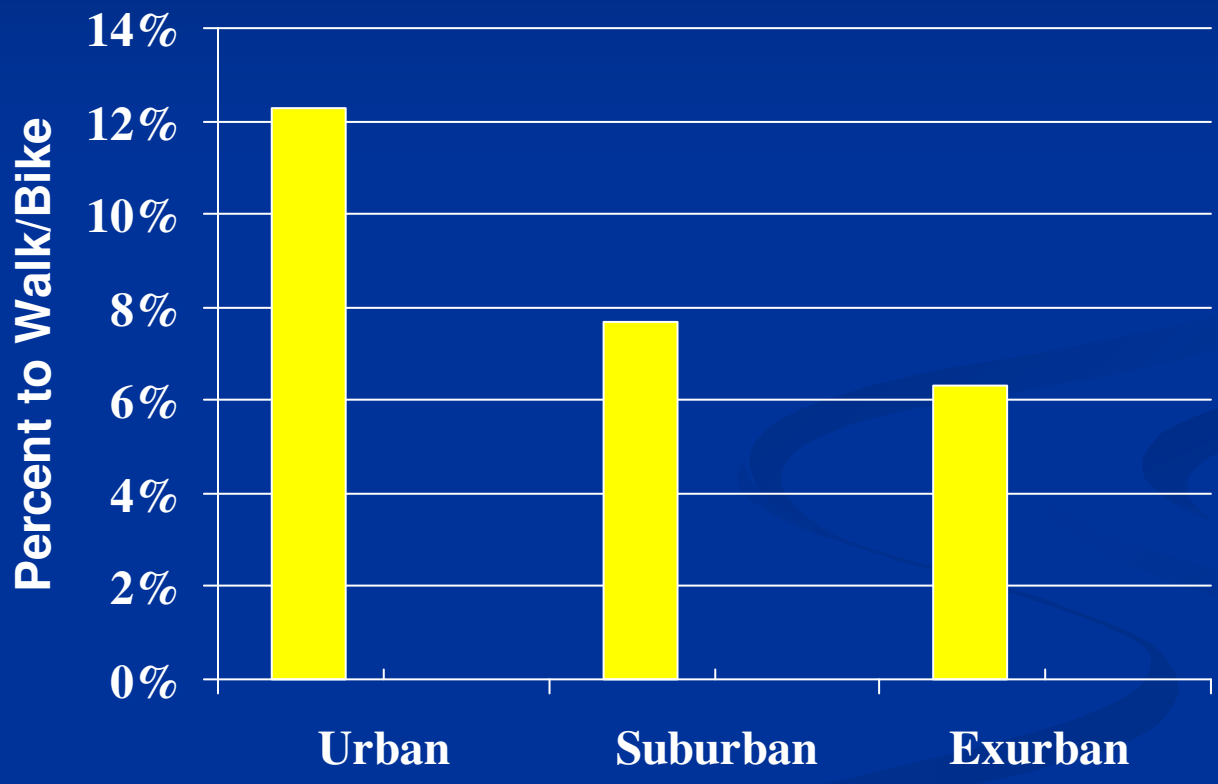
(50% overall growth)



Growth trend for percent of Americans 'overweight'

(40% overall growth …*in girth*)

Utilitarian Walking By Area Type



Example—Trips to School

Distance for School Trips

	1969 Elementary age	2001 Ages 6 to 12
Less than 1 mile	*45.2%*	24.6%
1 to 1.9 miles	17.6%	16.7%
2 miles and more	37.2%	*58.7%*

Many Americans live further away from their destinations

Example—Trips to School

Travel Mode to School

	1969 Elementary age	2001 All Students
Private Vehicle	16.3%	50.0%
School Bus	38.1%	32.6%
Walk or Bike	*42.0%*	*16.2%*
Public Transit	3.1%	*0.8%*
Other	0.4%	0.5%

NHTSA's National Survey of Pedestrian and Bicyclist Attitudes and Behaviors

- National survey conducted in 2002
- *Results to be released soon*
- Describes walking and biking habits and attitudes for travel during Summer 2002
- ~9,500 respondents

NHTSA survey--bicyclists

- 43% of respondents road a bike at least once during Summer 2002
- Reasons people chose not to bike:
  - Access to bike—28%
  - Safety reasons—4%
- Bicyclists
  - 13% felt their safety was threatened
    - Fewer felt safe in suburban locations
    - 88% felt threatened by motorists; 37% by facility issues (uneven surfaces)
- Satisfaction with facilities—only 19% very satisfied
  - Non-riders less satisfied than riders (45% vs. 57%)
- Bike paths *available* to 50% who rode, bike lanes for 5%.
- *57% would like to see changes in their community for biking.*

NHTSA survey-walkers

- 72% walked/ran for at least 15 minutes at least once a week.
- Reasons for not walking
  - Lack of desire/need (27%),
  - Disabilities/health (25%),
  - Weather (23%)
- 6% felt threatened while walking
  - Motorists (62%) were the most common perceived threat.
- Why didn't use sidewalks when available?
  - Convenience—36% (i.e., didn't go where they wanted to go.)
- *34% wanted to see walking safety improvements for their community.*

Case Study

- Couple moves to Washington DC in 1999
  - Moved from a sprawling southern city
  - They own one car
  - Her commute—walk/bus 80 minutes RT
    - Changes jobs, opts to bike 4 miles RT
    - Changes jobs again now bikes 25 miles RT (45 minutes biking each way)
  - His commute—60 minutes by car RT
    - Changes jobs—bikes 16 miles RT (30 minutes each way)

Why the mode shift?

- Pragmatics first…
  - Easiest way to get to new job was by bike
  - Transit not practical; driving not considered
- …Personal benefits next
  - Exercise benefits
  - Energy level
  - Low environmental impact
  - Cost
- Can't go back!

Non-motorized Pilot Program

- Improving connectivity of pedestrian and bicyclist facilities in 4 locations
- What are the implications for improving biking and walking nationally?
  - Perceived barriers and actual barriers
  - Safety and facility presence
  - Quality of Information
- Engineering, education, & encouragement combined will make a difference

Contact Information

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