

National Travel Data Relevancy: Policy Applications of National Household Travel Survey Data

Heather Contrino

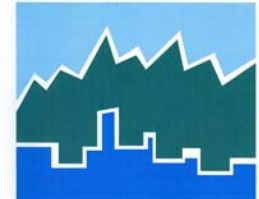
US Department of Transportation
Federal Highway Administration



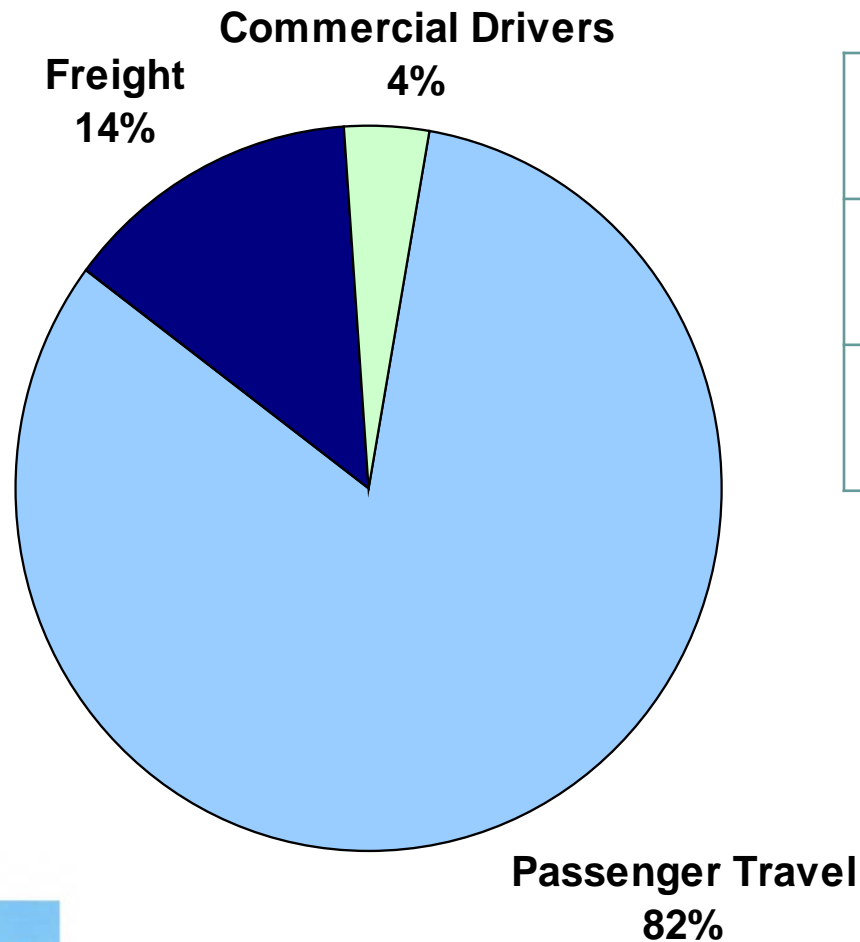
Outline

- NHTS Data
- Key Policy Questions
- Policy Example 1
- Policy Example 2

NHTS



The NHTS obtains information on the public's use of the transportation system



Highway Statistics Total VMT	(000,000s) 2,781,462
Highway Statistics Passenger Travel	2,282,890
NHTS 2001 VMT	2,281,863

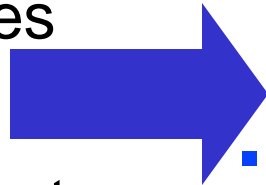


Highway Statistics, 2001

Major Users and Uses

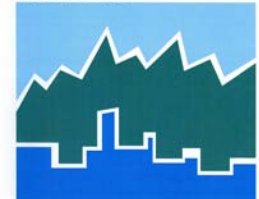
Users

- Administration
- DOT Offices
- Federal Agencies
- State DOT
- Local governments
- Universities
- Research Entities
- Nonprofit/Interest groups



Uses

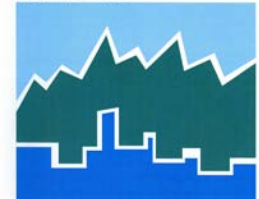
- **Performance measures** - trip rates, mode share, system connectivity, travel time, speed, and distance
- **Travel Characteristics** – trends and forecasts
- **Policy Issues** – air quality, fuel dependency, highway finance, pedestrian and vehicle safety
- **Program Evaluation**



NHTS is the Policy Wonk's Dream

- 40 Years of Data
- Depth
- Breadth
- Power beyond the data
- Forward thinking in survey content

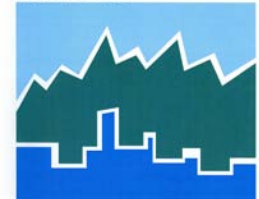
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What are the hot topics?

- Highway Funding
- Fuel Use and Emissions
- Congestion
- Performance Measurement
- Safety
- Intermodalism
- System and Network
- Future Travel Demand
- Rural Programs

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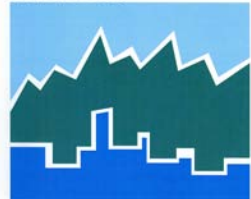
Interstate Revenue

How much revenue does the Interstate generate now?

Mileage	Interstate	All	% Interstate
Urban	334,765,000	1,417,950,000	23.6%
Rural	139,621,000	595,485,000	23.4%
Gas tax	0.184		
Revenue from Gas Tax			
Urban	\$61,596,760		
Rural	\$25,690,264		

Urban and Rural
have Equal
Shares of VMT

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Interstate Revenue

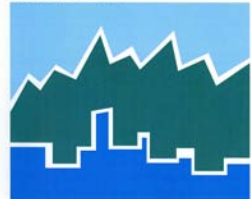
How much revenue does household travel on the Interstate generate?

Mileage	All Interstate	Passenger Vehicle Miles	% Passenger
Urban	334,765,000	306,309,975	91.5%
Rural	139,621,000	111,138,316	79.6%
Gas tax	0.184		
Revenue from Gas Tax			
Urban	\$56,361,035		
Rural	\$20,449,450		

But very different levels of household use

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FHWA Policy Office National Household Travel Survey, Highway Cost Allocation Report, Highway Statistics



Interstate Cost

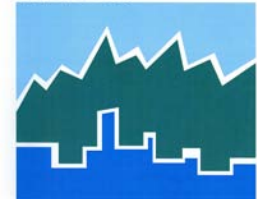
How much does it cost to maintain the Interstate?

Estimated Annual Costs to Maintain and Preserve the Interstate System	
Interstate System	24.8 billion
Rural Interstate	4.4 billion
Urban Interstate	21.5 billion

Source: 2010 Conditions and Performance Report to Congress

Cost far exceeds revenue generated by households

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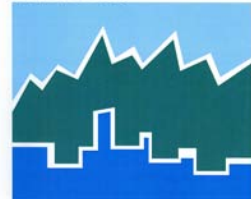


Who are the Interstate Users?



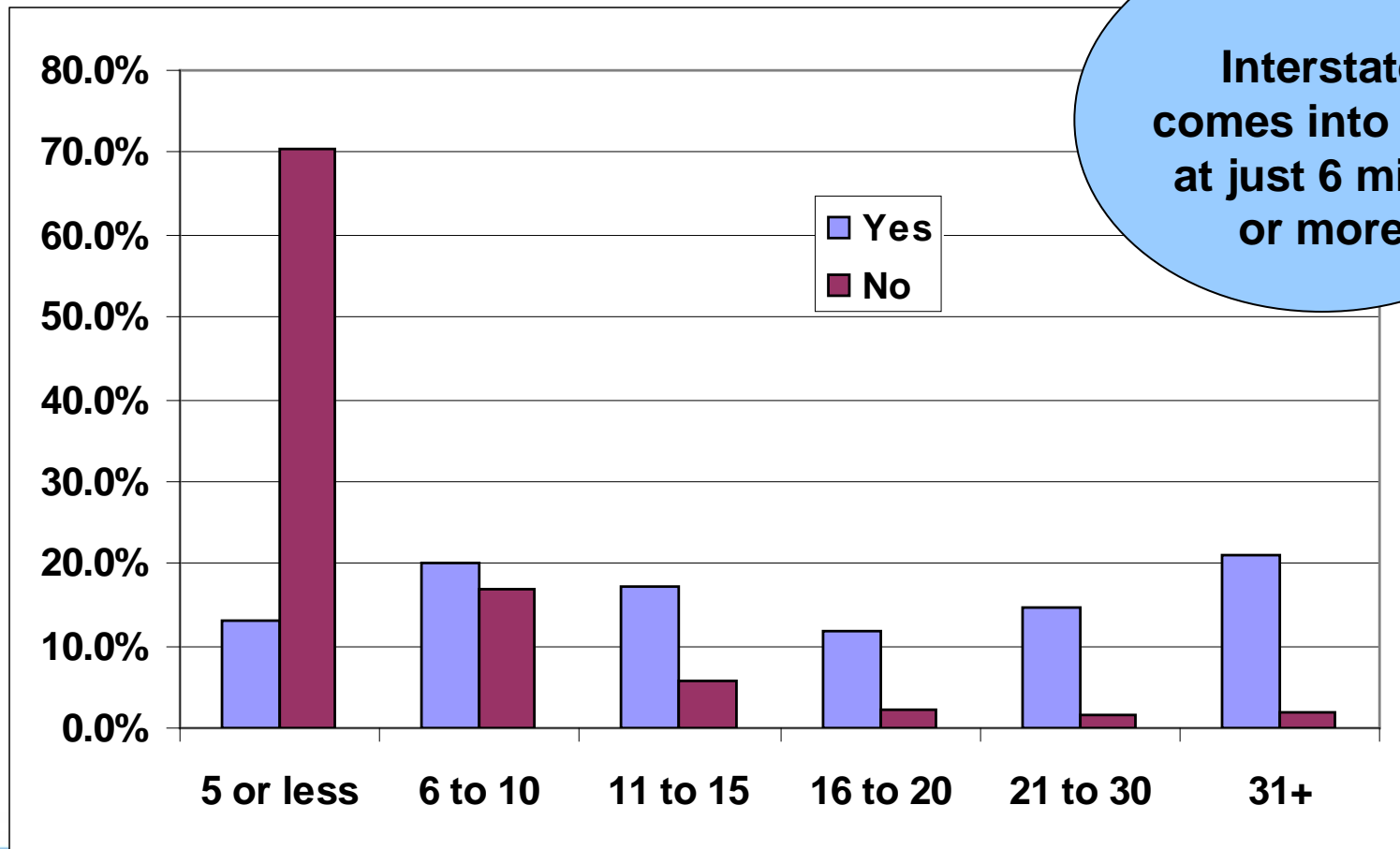
Lower Income Households less likely to use Interstate on a trip

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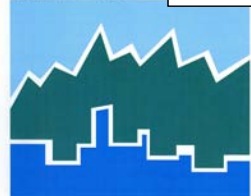


Source: 2009 NHTS

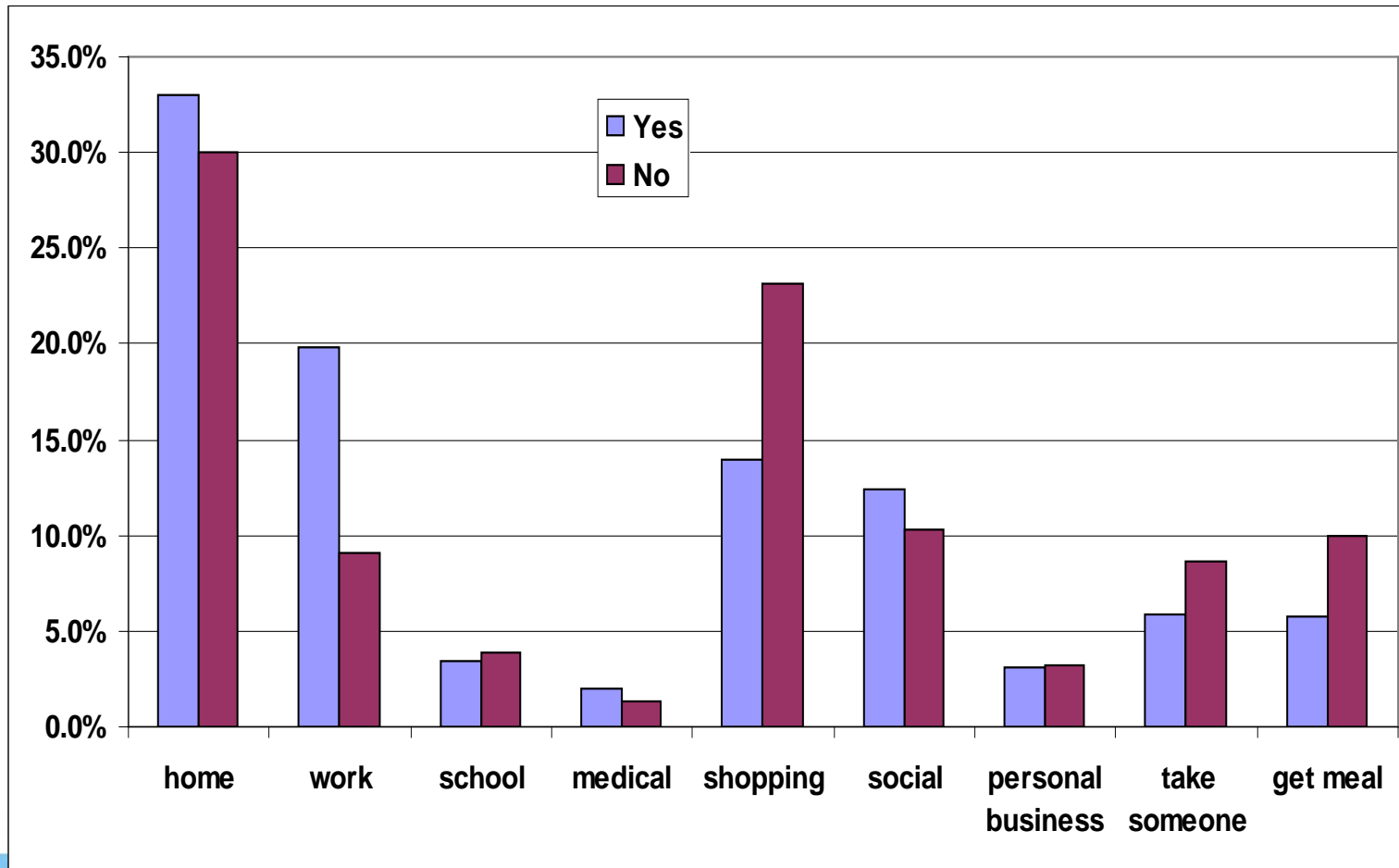
Mileage Distribution of Interstate Trips



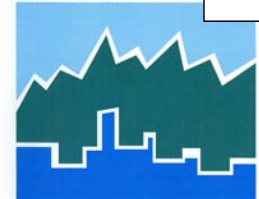
Interstate comes into play at just 6 miles or more



Trip Purpose Distribution

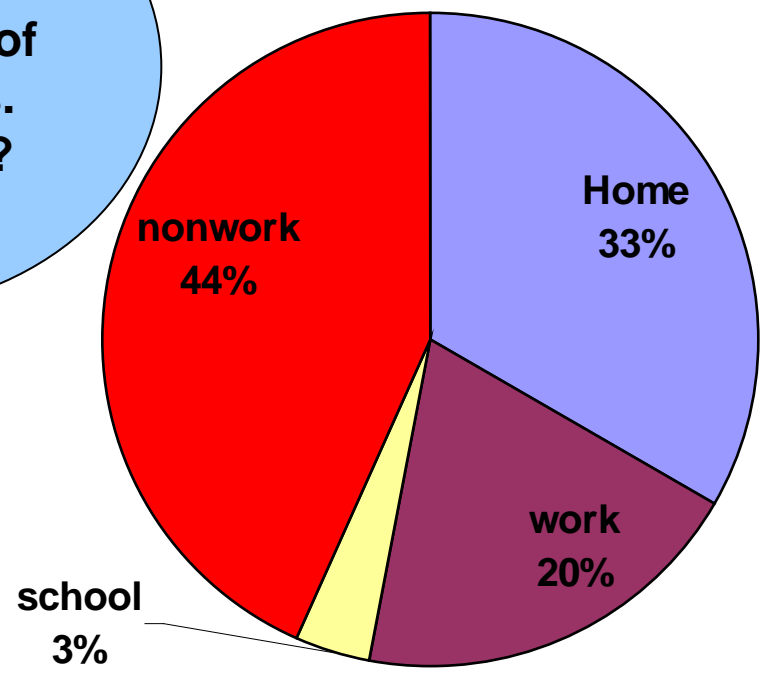


Source: 2009 NHTS



Would any trips be diverted to local roads?

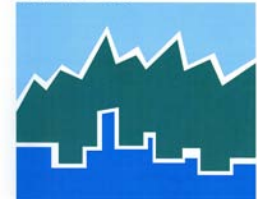
Potential for a large number of diverted trips. Good or bad?



Source: 2009 NHTS

What do we know?

- Interstate costs a lot more than the revenue from household travel
- If tolled, people in urban areas would pay the largest share due to increased reliance
- Higher income folks are more likely to use the Interstate for trips
- Interstate is used more than local for trips as low as 6 miles.
- Almost half of Interstate trips are non-work which could shift demand to local alternative facilities

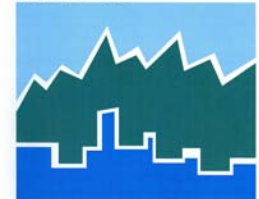


Telecommuting

Workers	
Yes	151,373,000
No	86,807,000
Workers with option to work at home	
Yes	16,524,000
No	117,862,000

11% of workers have the option to work from home

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Source: 2009 NHTS

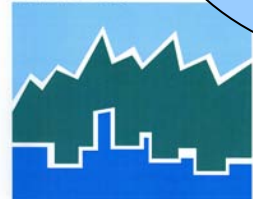
Usual mode for telecommuters

Work at home by Usual Mode	Car	Van/SUV	Truck	Transit	Bike/Walk
yes	60.6%	11.8%	8.0%	6.8%	5.2%
No	63.3%	11.5%	12.7%	4.7%	3.2%
Number of People who can work at home by usual mode					
	Car	Van/SUV	Truck	Transit	Bike/Walk
	10,013,544	1,949,832	1,321,920	1,123,632	859,248

Non-telecommuters more likely to use car for work trip

Source: 2009 NHTS

NHTS

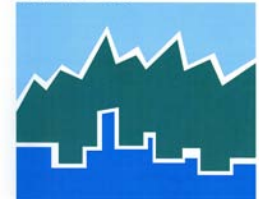


Frequency of telecommuting

Frequency of working at home in past month (percent)	
None	35.6%
1 to 4	40.9%
5 to 10	14.8%
10+	8.7%

Nearly a quarter of telecommuters work at home 5 or more times per month

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Source: 2009 NHTS

Number of People

Usual Mode to Work by Number of Times Work at Home

	None	1 to 4	5 to 10	10+
Car	3,564,822	4,095,539	1,482,005	871,178
Transit	400,013	459,565	166,298	97,756
Bike/Walk	305,892	351,432	127,169	74,755

**Lots of non-car
folks
telecommuting**

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Source: 2009 NHTS

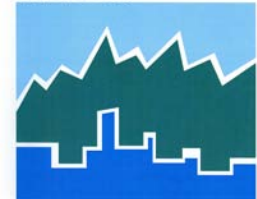
Number of Trips

Average Work Trips Replaced by Telecommuting

	2.5	7	10
Car	20,477,697	20,748,063	17,423,567
Transit	2,297,827	2,328,166	1,955,120
Bike/Walk	1,757,162	1,780,362	1,495,092

Over 11.5 million work bike/walk and transit trips per month are replaced by telecommuting

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Source: 2009 NHTS

What do we know?

- About 11% of workers telecommute and the numbers are growing
- 12% of telecommuters use transit or bike/walk to work
- 25% of telecommuters work from home 5 or more times per month
- Over 11.5 million transit, walk, and bike trips are replaced by telecommuting each month
- People who work from home make more trips

What is the best mix of congestion mitigation programs and how can we target them?



Wrap Up

- Policy and program decisions need national data like the NHTS
- The applications of the data to real world transportation questions are numerous
- The relevancy, depth, breadth, and history of the program has enormous value



Thank You!
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