

The Impact of Changing Demographics on Travel Demand



October 2008

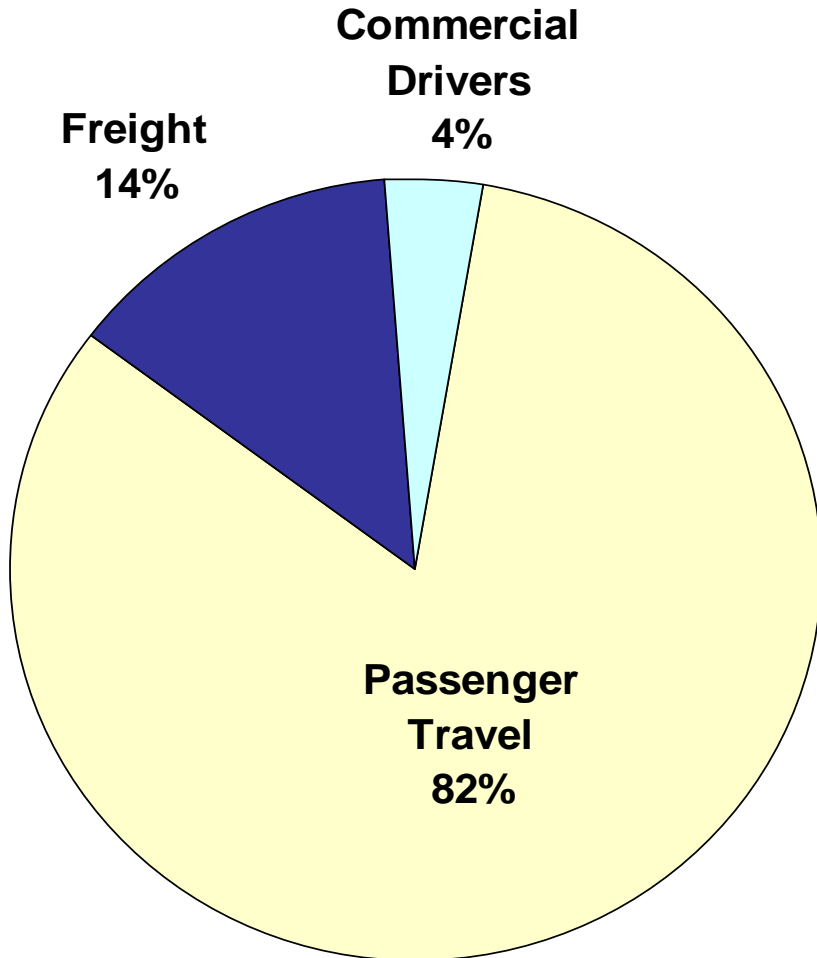
Nancy McGuckin, Travel Behavior Analyst

● ● ● | My Take on Things



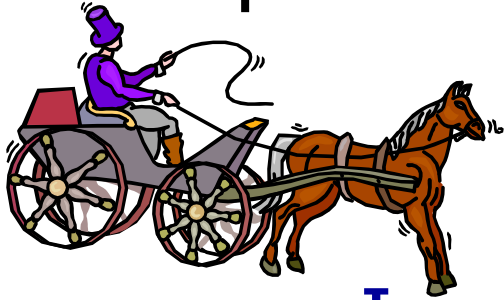
- ❖ The U.S. is in a time of significant demographic change
- ❖ Race and Ethnicity per se do not directly influence travel behavior (with the exception of some cultural factors)
- ❖ Big policy issues on the table have potentially large impacts on the travel options of minority populations

Its people traveling that create most of the travel demand



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

Household demographics are indicators of this demand



1. Income
2. Auto Availability
3. Household Size/Presence of Children
4. Worker Status

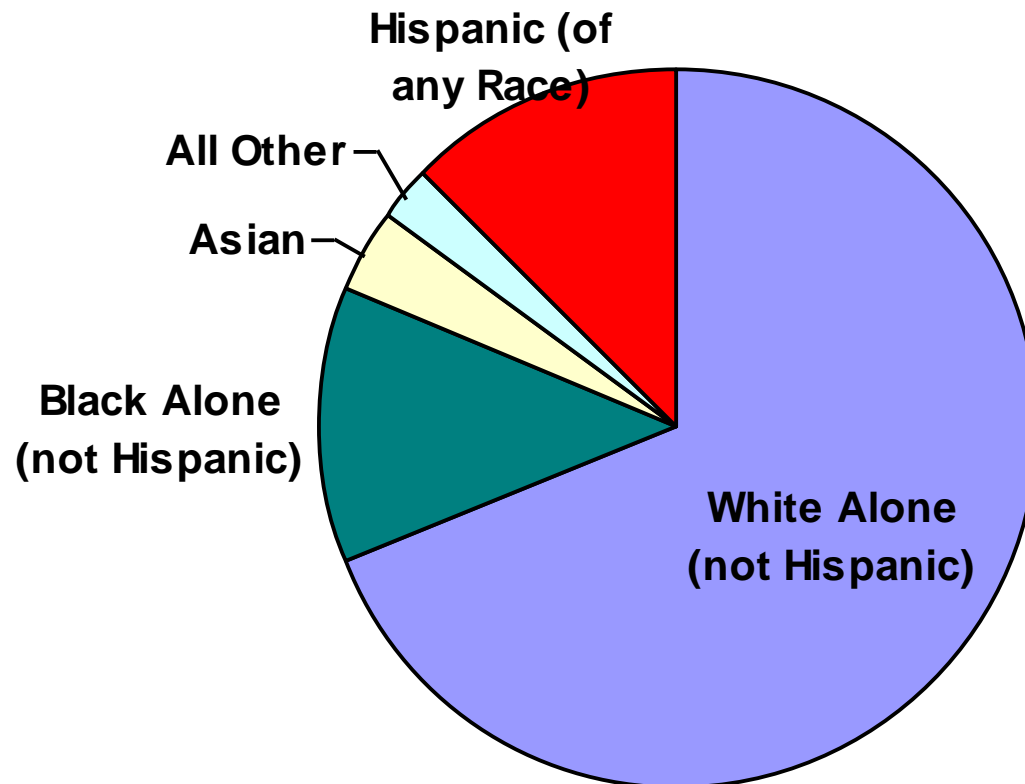


Setting the Stage

- ❖ Minority households are more likely to differ from White households in these key characteristics, and
- ❖ This translates into differences in travel behavior, trip characteristics, and travel options

Currently, White non-Hispanics are in the majority

Distribution of Population across Racial and Ethnic Groups



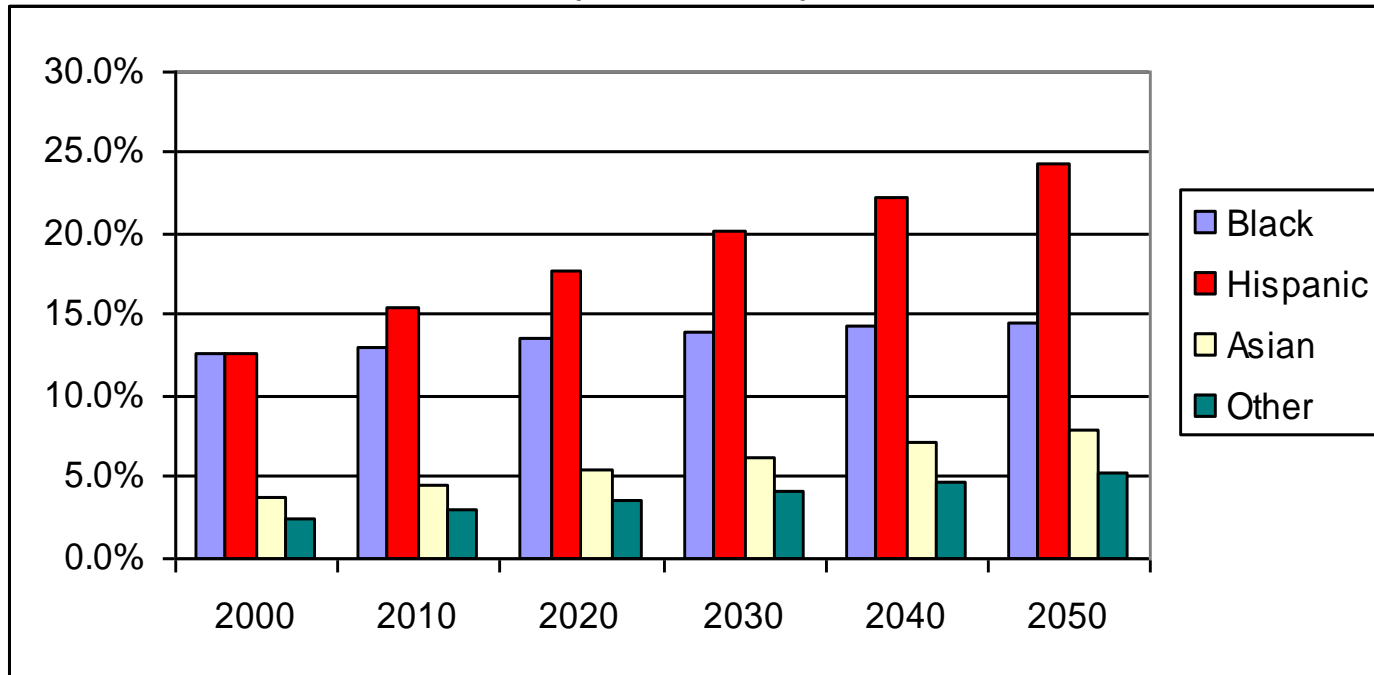
Source: U.S. Census Bureau

However, traditional minority groups will make up the majority of population growth in the U.S. over the next 40 years

The number of Hispanics is expected to grow 188 percent; the Asian population to grow 213 percent; and the Black population (both Hispanic and non-Hispanic) to 61.4 million in size.

Projected Population Growth by Race and Ethnicity

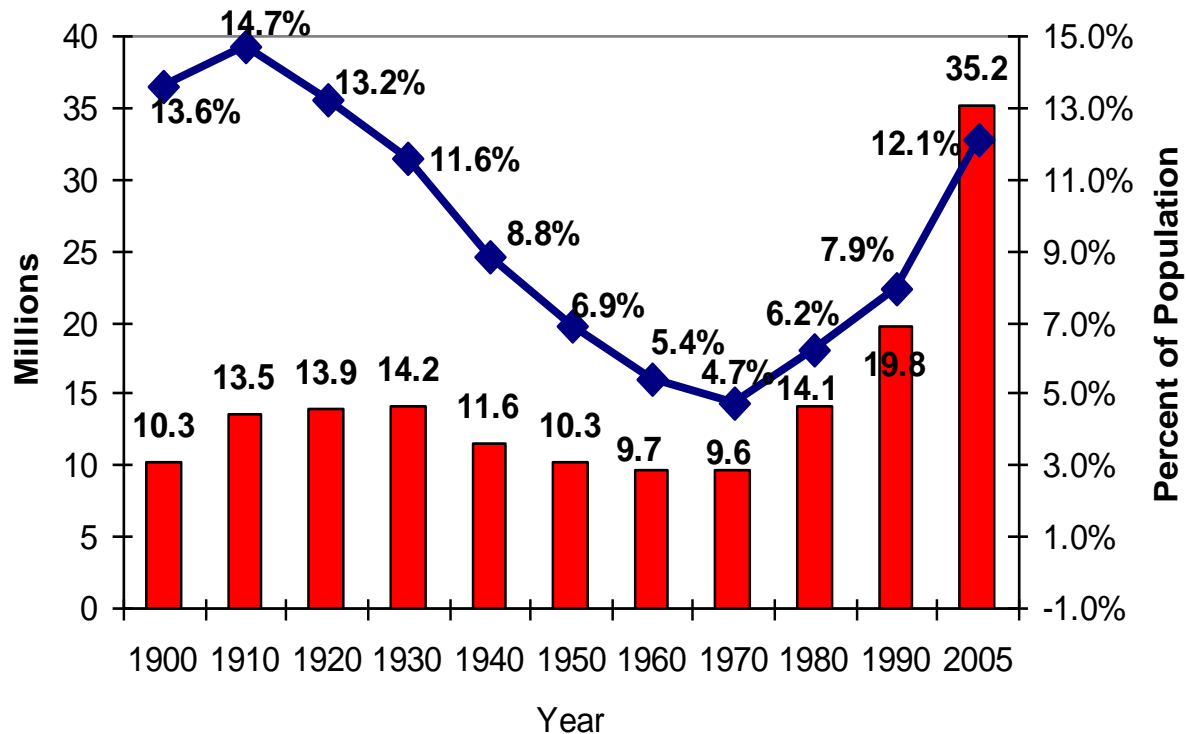
(Percent Growth)



Source: U.S. Census Bureau

● ● ● This growth is partially due to immigration – we are seeing levels of immigration not experienced since the early 1900's

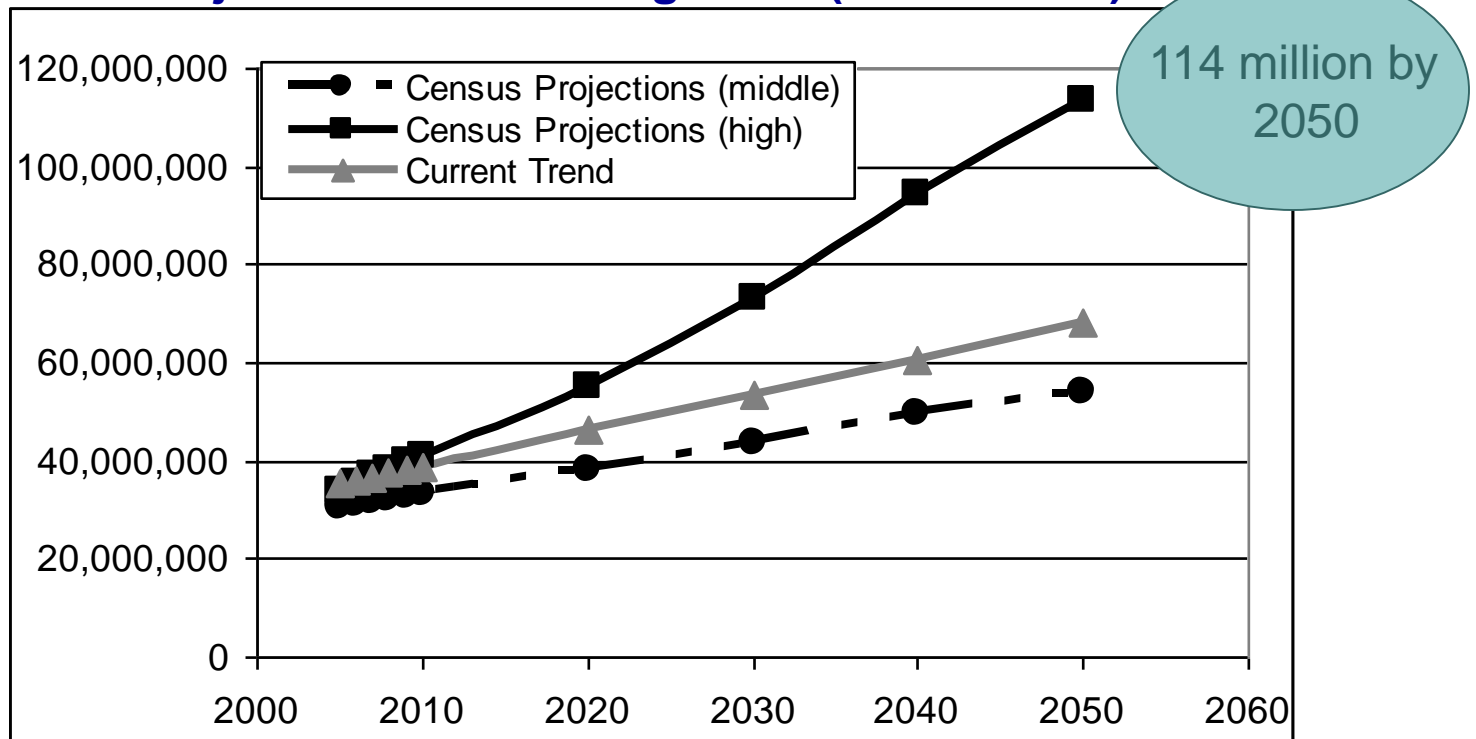
Immigrants in the U.S., Number and Percent of Population



Source: Decennial Census for 1990 to 2000, Center for Immigration Studies and Analysis of March 2005 Current Population Survey Data

Immigration is projected to increase significantly in the future

Projected Annual Immigration (2000 – 2050)



Source: Decennial Census for 1990 to 2000, Center for Immigration Studies and Analysis of March 2005 Current Population Survey Data

These new immigrants will migrate to a few key states creating a concentration of travel demand

Growth in Foreign Born Population

State	2000 population	2005 population	Change 2000-2005	% change 2000-2005
California	8,809,641	9,647,768	838,127	9.5
New York	3,819,028	3,962,767	143,739	3.8
Texas	2,878,503	3,550,140	671,637	23.3
Florida	2,634,349	3,220,141	585,792	22.2
Illinois	1,518,500	1,703,548	185,048	12.2
New Jersey	1,459,007	1,655,837	196,830	13.5
Georgia	573,161	791,706	218,545	38.1
North Carolina	425,246	559,343	134,097	31.5
Arizona	654,746	854,356	199,610	30.5
Virginia	561,332	721,843	160,511	28.6
Maryland	512,040	644,978	132,938	26.0
Pennsylvania	495,017	621,896	126,879	25.6
Washington	608,622	757,235	148,613	24.4
Massachusetts	752,899	907,054	154,155	20.5

High Population

High Growth

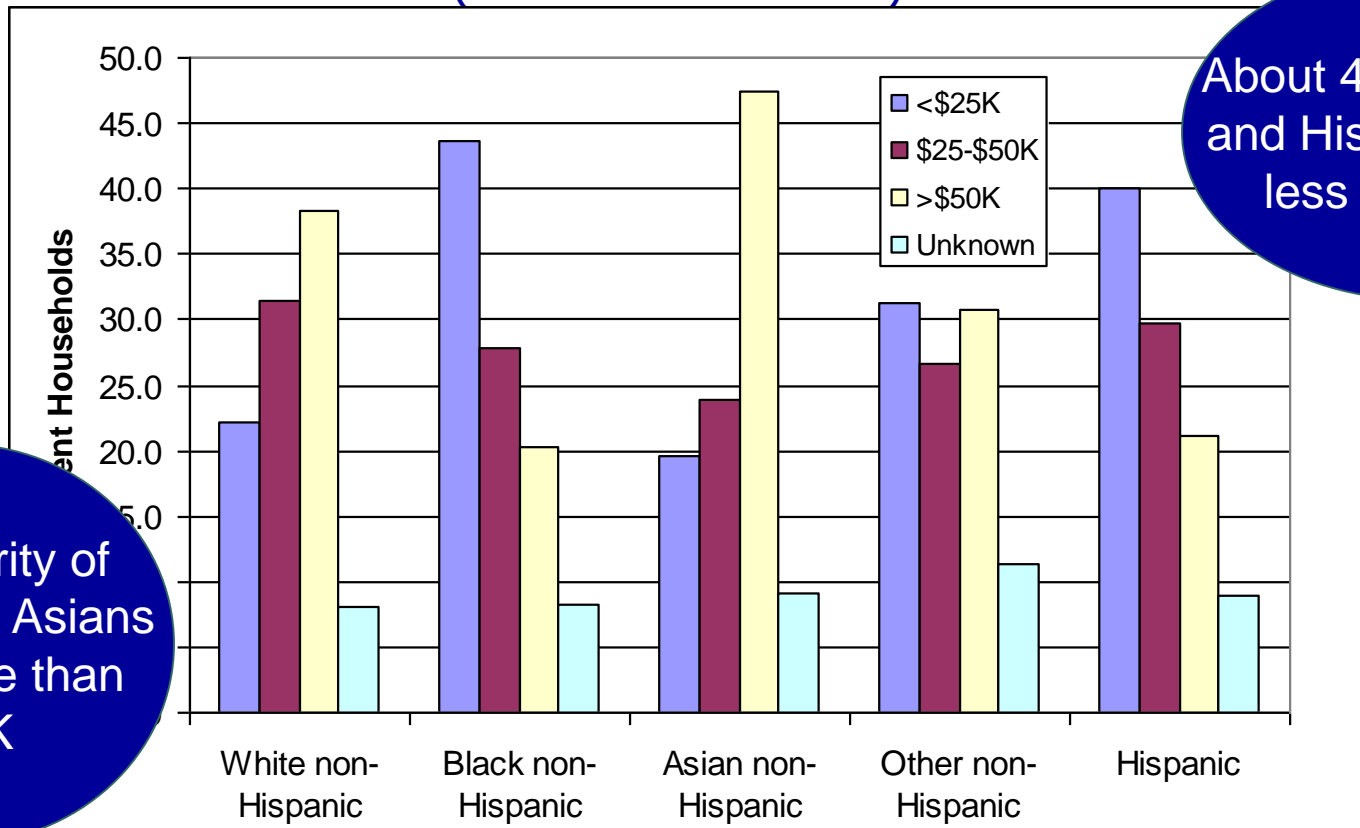


Remember....

- ❖ It is important to understand the current and future demographics in order to understand current and future transportation needs – and how those needs are impacted by new programs and policies

Blacks and Hispanics have the lowest average household income

Household Income Distribution by Race and Ethnicity
(Percent Households)



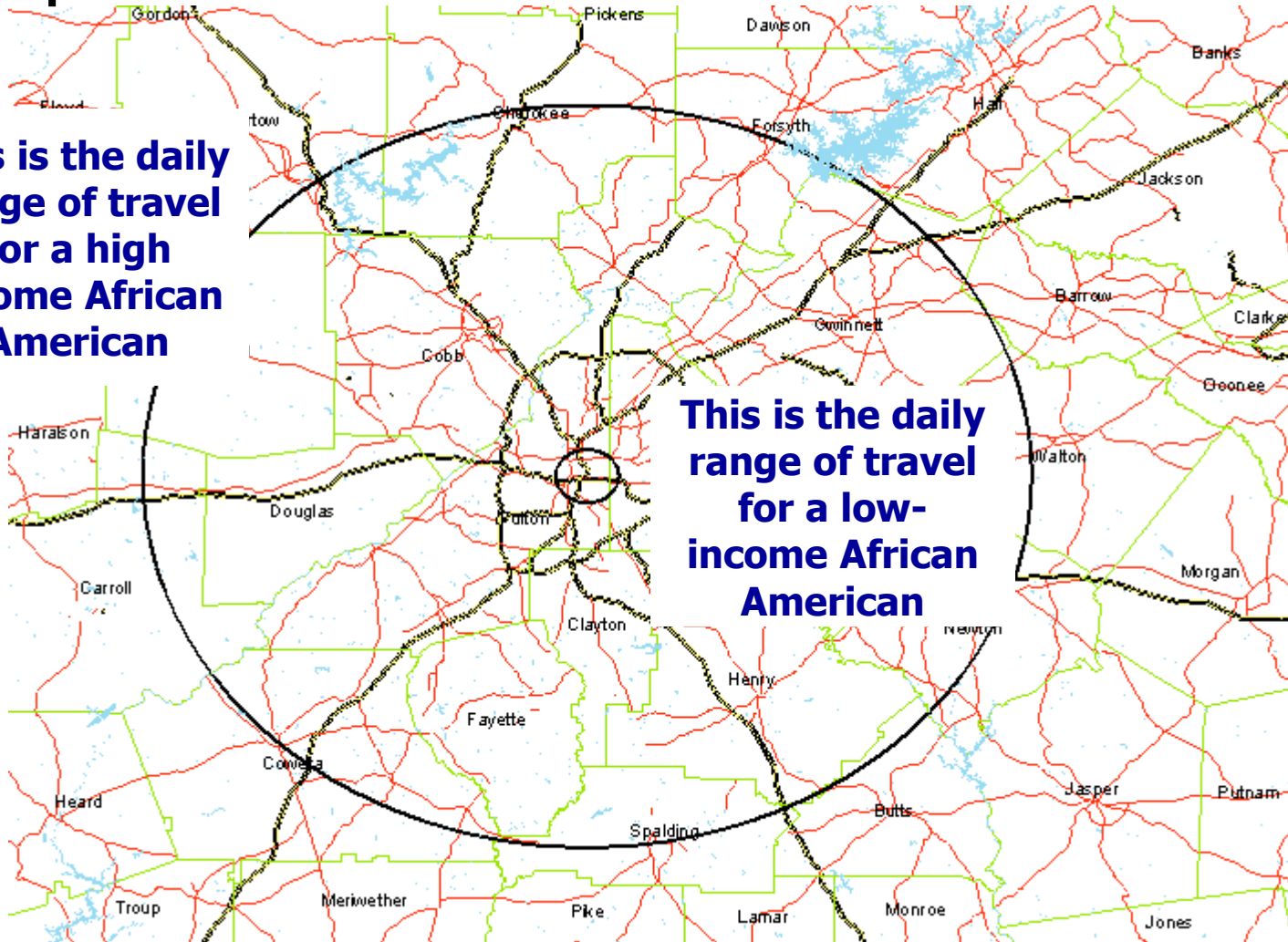
About 40% of Blacks and Hispanics make less than \$25K

The majority of Whites and Asians make more than \$50K

The income level of the household impacts access and travel options

This is the daily range of travel for a high income African American

This is the daily range of travel for a low-income African American





The availability of vehicles is one reason for this....

23.8 percent of African American households and 17.2 percent of Hispanic households do not have a vehicle.

Percent Zero Vehicle Households

	Percent
White	7.3
Black	23.8
Hispanic	17.2
Asian	12.7
All	10.3

Source: Commuting in America III

The number of vehicles and their characteristics impact mobility, safety, and fuel costs



Hispanics and Blacks have the least number of vehicles and the oldest vehicles. Whites have vehicles with the lowest fuel efficiency

Household Vehicle Characteristics by Race and Ethnicity

	Vehicle per Household	Average vehicle age	Average Vehicle MPG
White non-Hispanic	1.99	7.9	20.7 mpg
Black non-Hispanic	1.38	8.2	21.1 mpg
Asian non-Hispanic	1.74	6.7	22.9 mpg
Hispanic	1.69	8.5	21.3 mpg

Source: 2001 National Household Travel Survey, FHWA
Office of Highway Policy Information

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While household trip rates are important, person trip rates tell the story

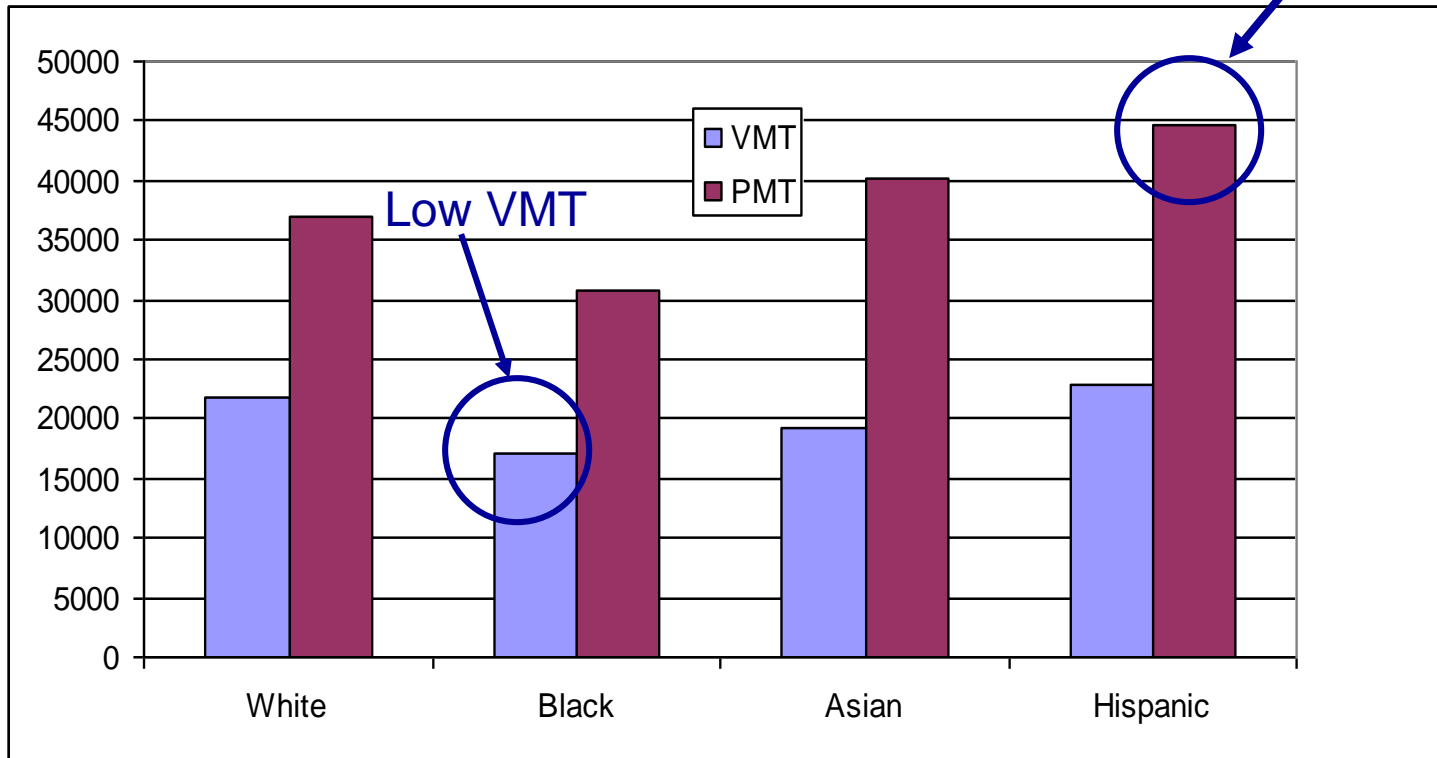
Annual Trip Rates by Race and Ethnicity

	Trips per household	Trips per person
White non-Hispanic	3693.9	1525.2
Black non-Hispanic	3609.5	1318.9
Asian non-Hispanic	3868.6	1342.5
Other non-Hispanic	3506.2	1461.4
Hispanic	4979.5	1327.9

Source: 2001 National Household Travel Survey, FHWA Office of Highway Policy Information

Vehicle access and transportation options are demonstrated in the type and level of travel

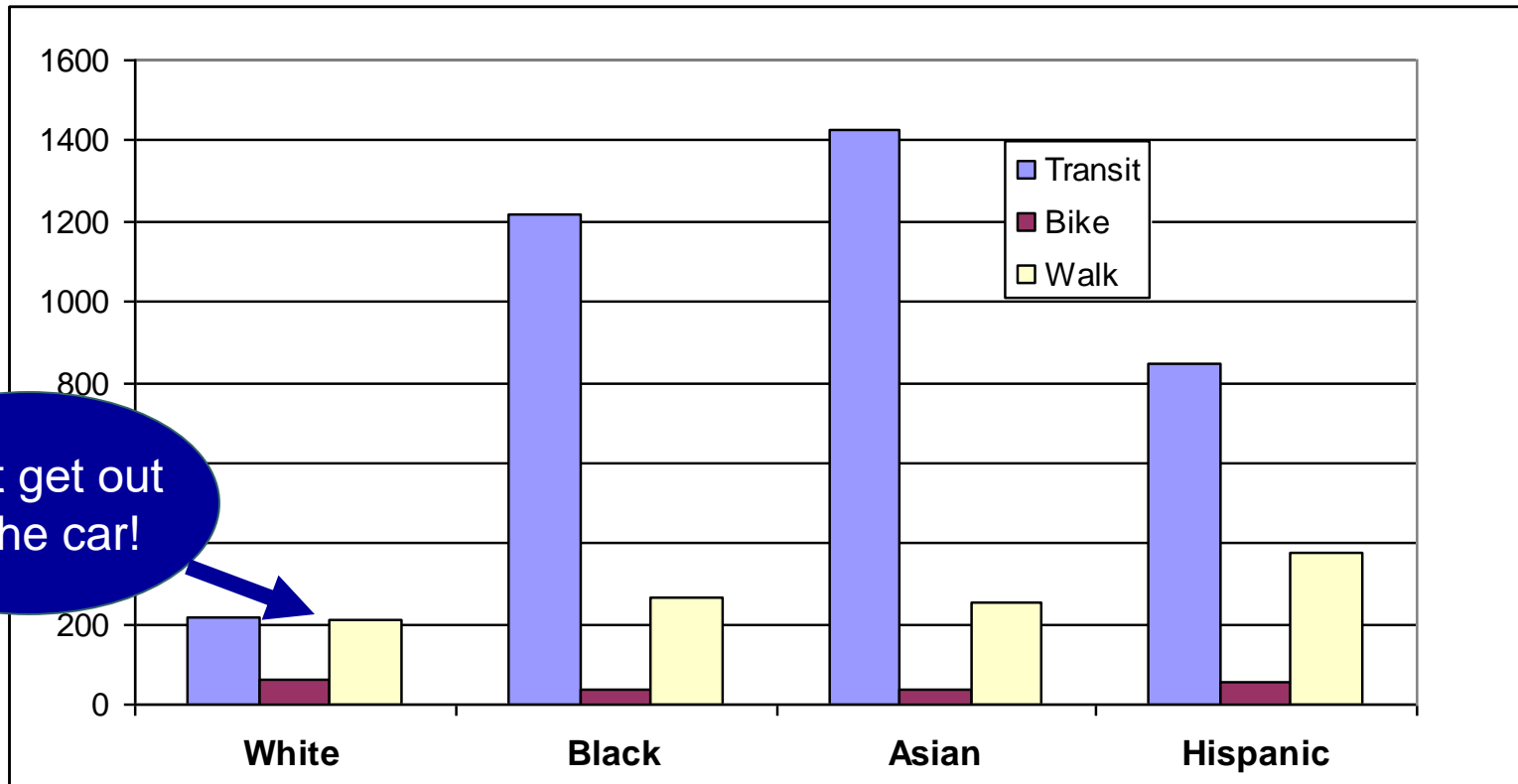
VMT and PMT by Race and Ethnicity



Source: 2001 National Household Travel Survey, FHWA Office of Highway Policy Information

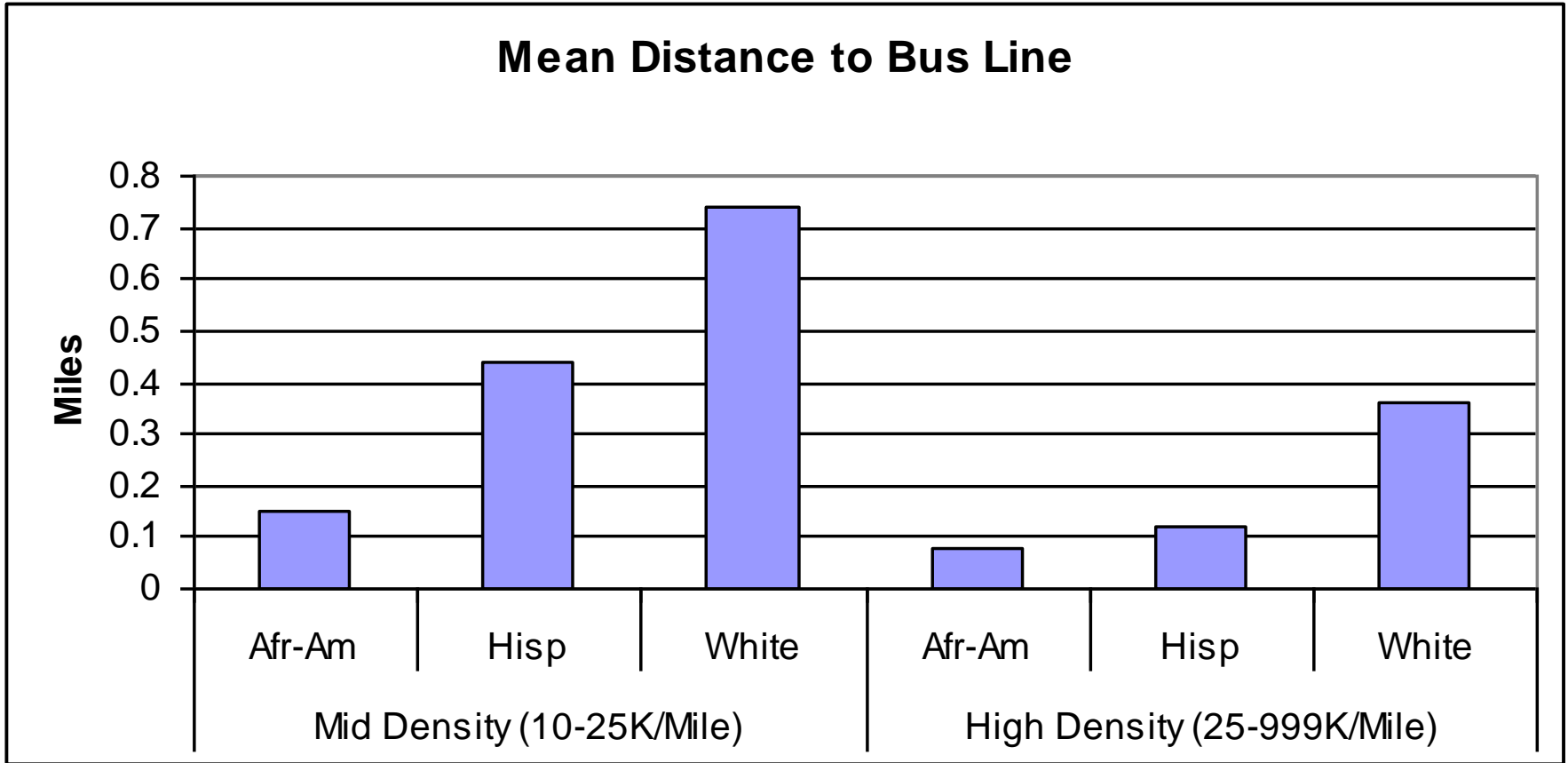
Minorities are heavy users of transit and walking

Annual Person Miles of Travel



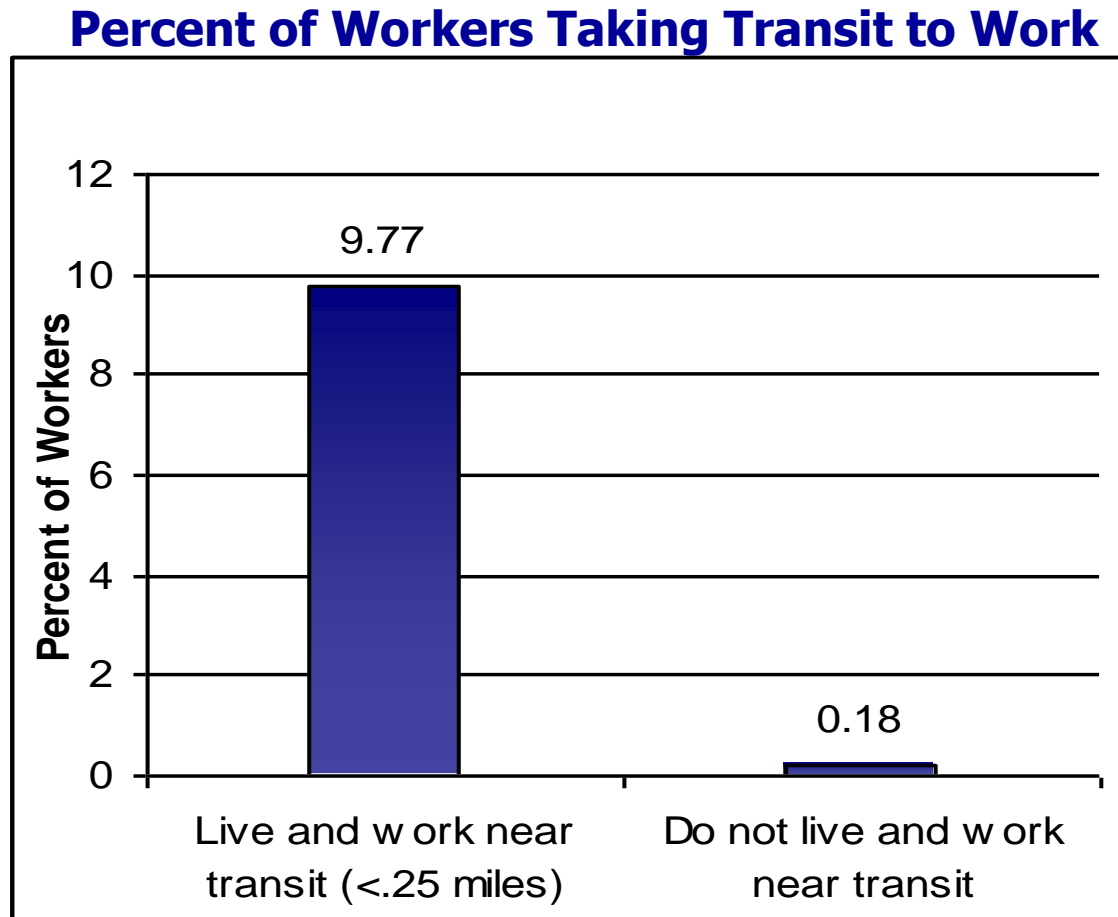
Can't get out of the car!

**This is because on average,
minorities live closer to transit**



High Density
minus NYC

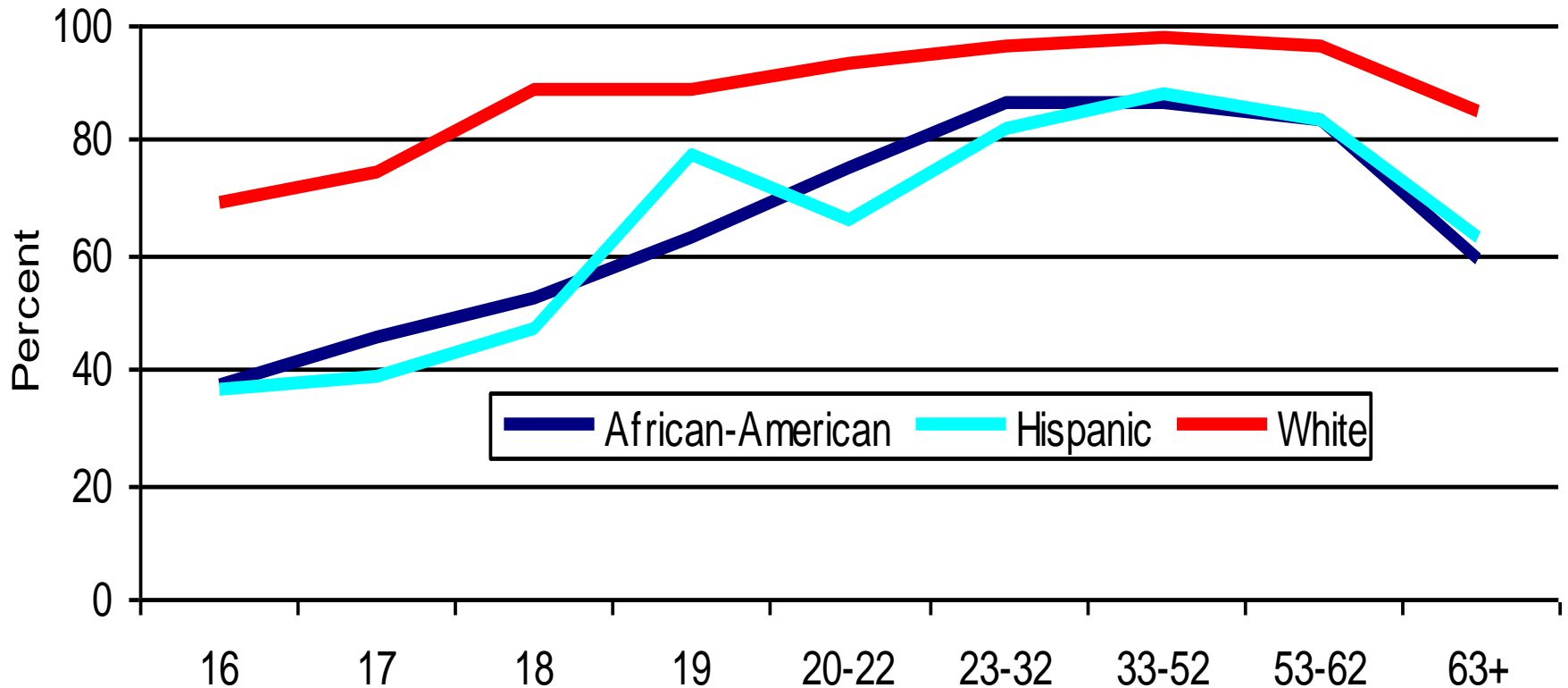
And people who live closer to transit take more transit



Source: 2001 NHTS, Workers 16+ who took transit

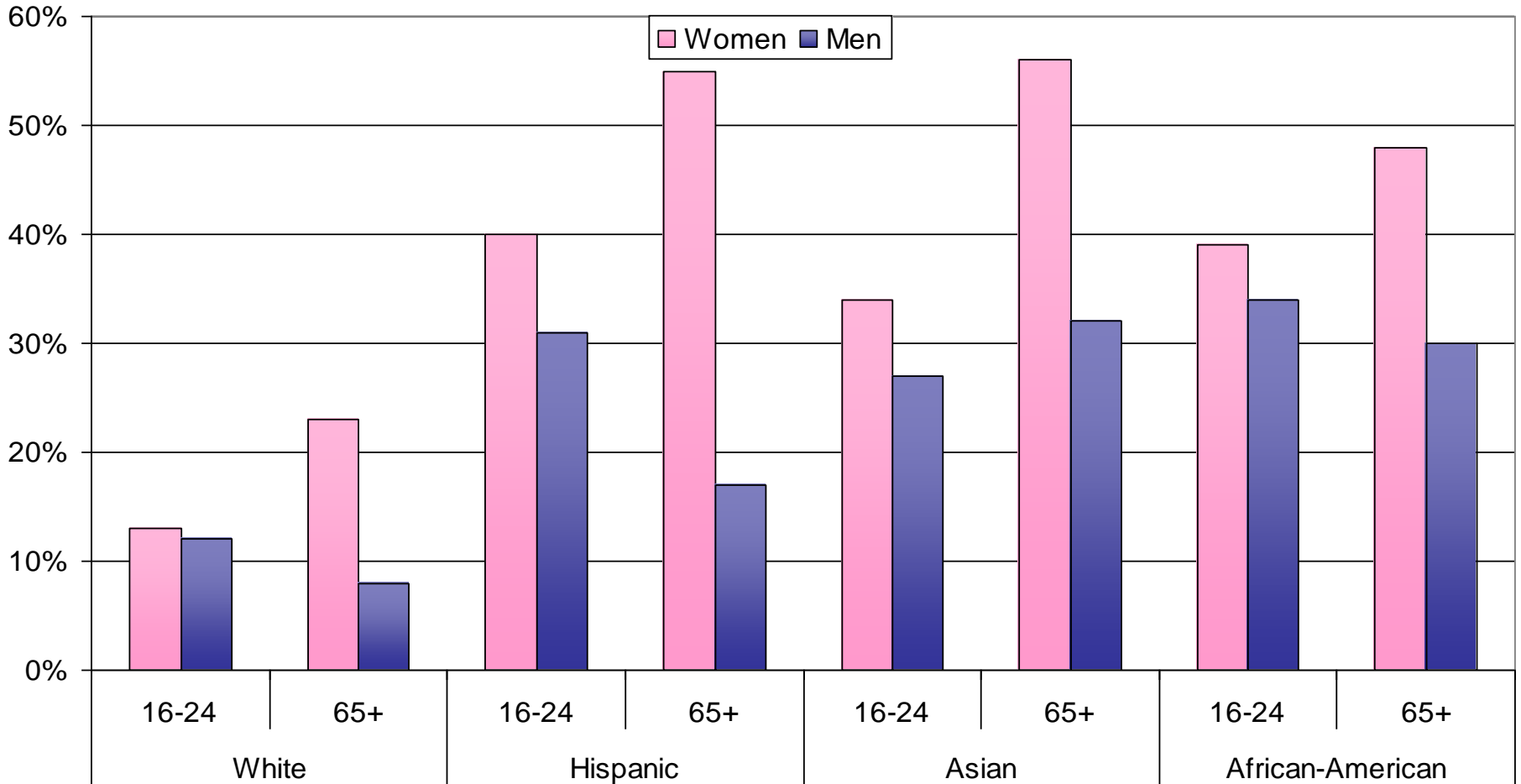
Whites drive at younger ages than Blacks or Hispanics

Percent of Drivers by Age Group and Race



One-third of all non-drivers are 65 and older; about half of older Hispanic, Asian and Black women don't drive

Percent of Non-Drivers
16-24 and 65 Years and Older



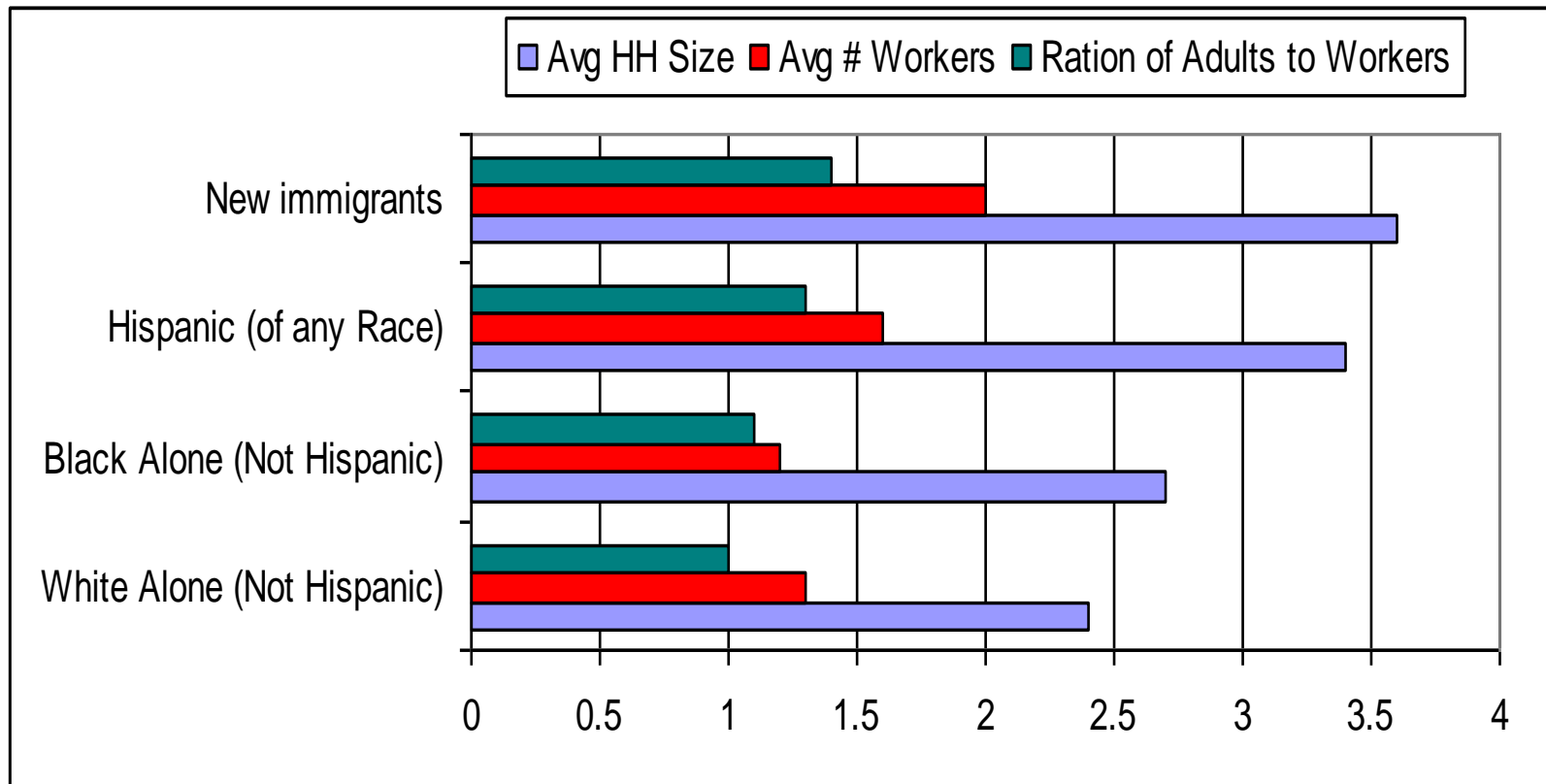
● ● ● | **This may be why minorities are more likely than Whites to carpool (or fampool)**

Vehicle Occupancy by Race and Ethnicity

	1995	2001
White	1.48	1.51
African American	1.53	1.55
Asian	1.50	1.58
Hispanic	1.62	1.80

Source: 2001 National Household Travel Survey, FHWA Office of Highway Policy Information

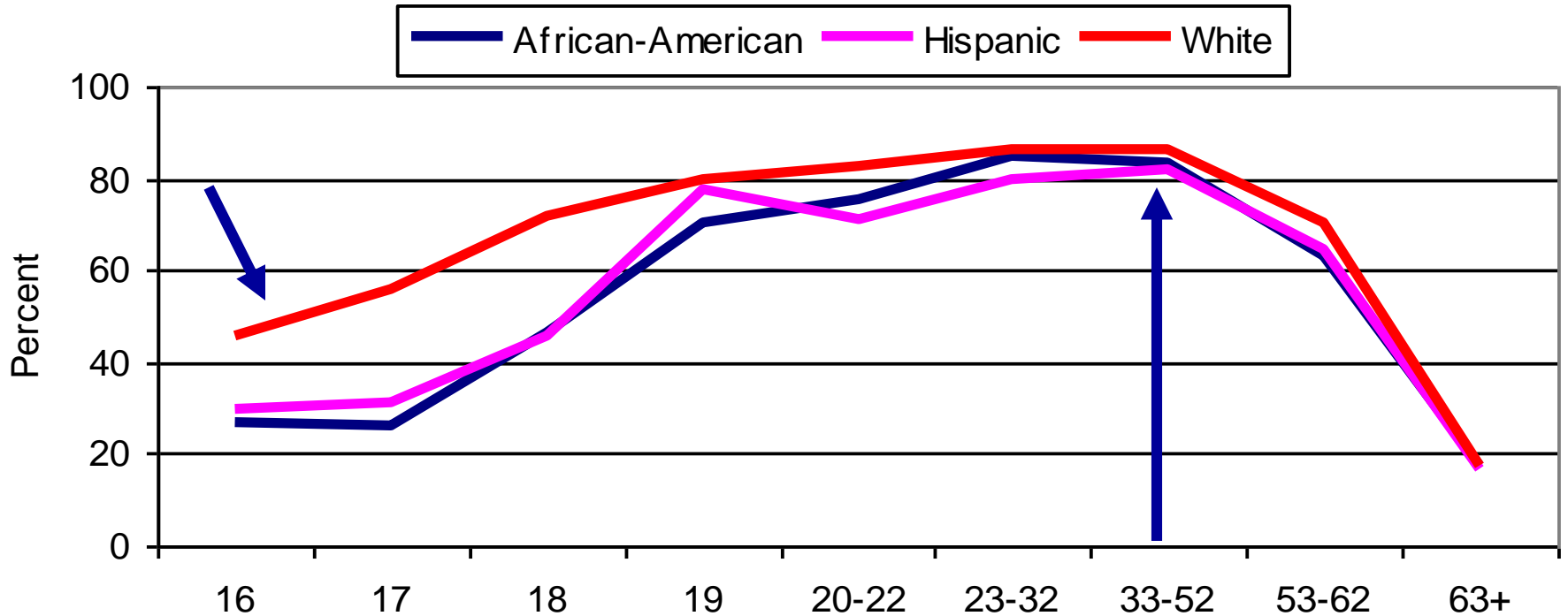
Hispanics and new Immigrants have larger households and more workers



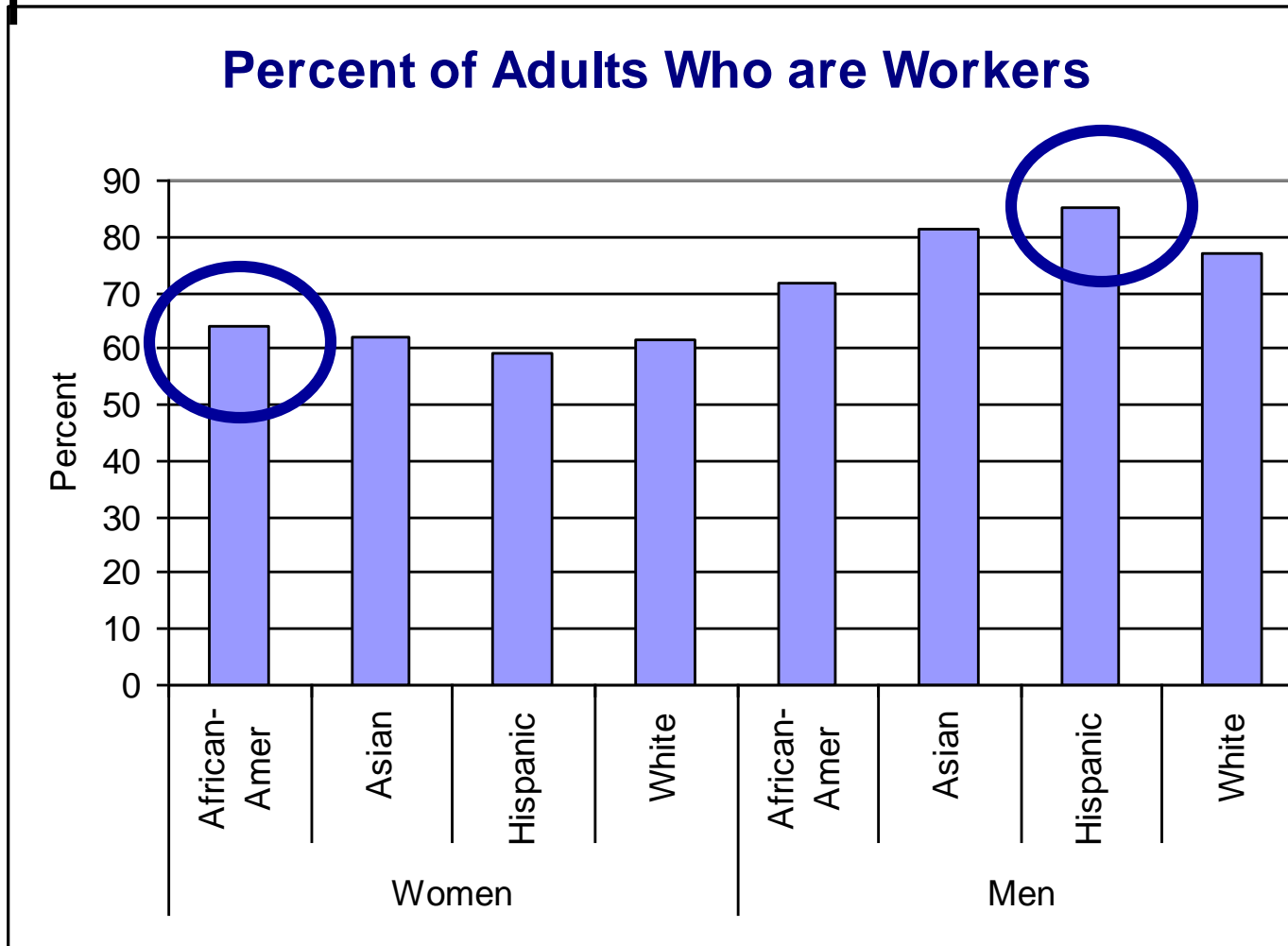
Source: McGuckin, Srinivasan, Murakami and 2001 National Household Travel Survey, FHWA Office of Highway Policy Information

While Whites enter the workforce at a younger age...

Percent of People in the Paid Workforce by Age



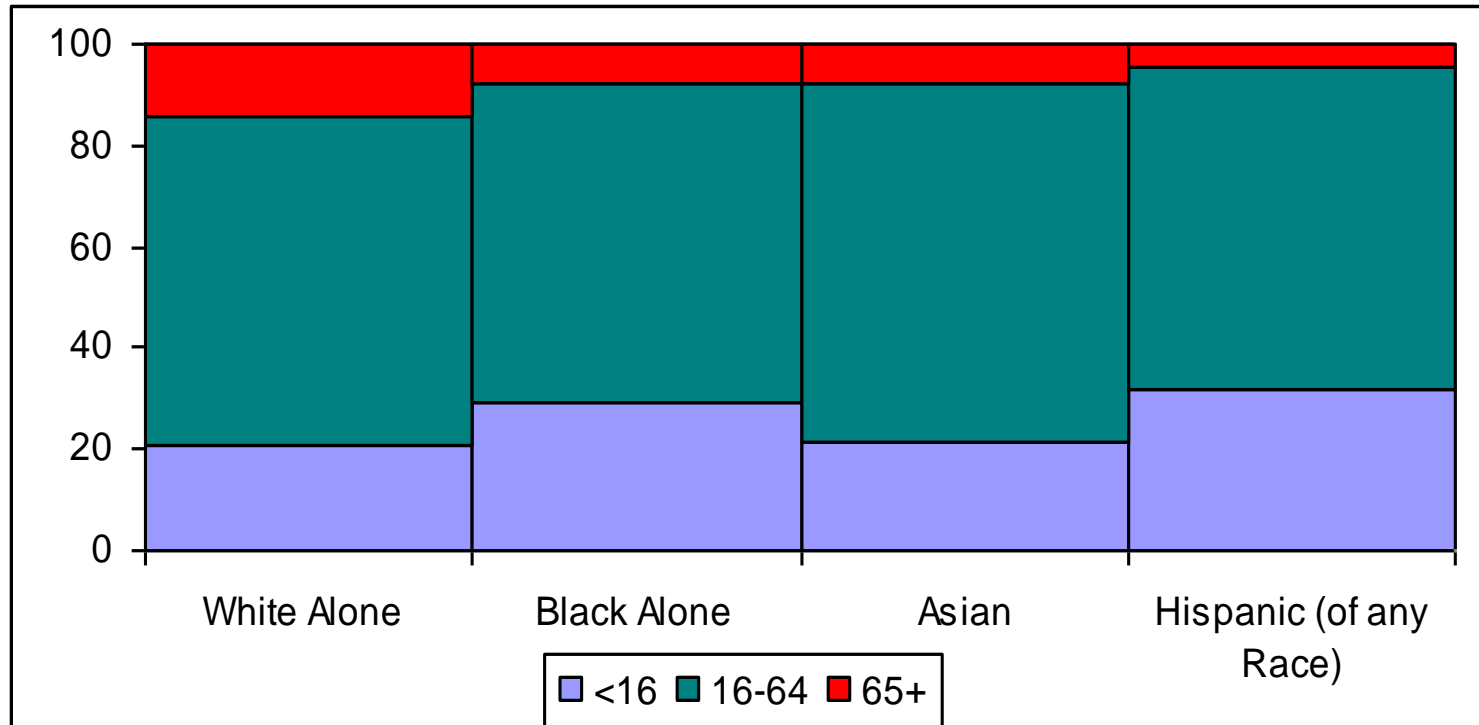
Hispanic men and Black women have higher workforce participation overall



Source: Nancy McGuckin, 'Driving Demographics', National Press Foundation, 2006

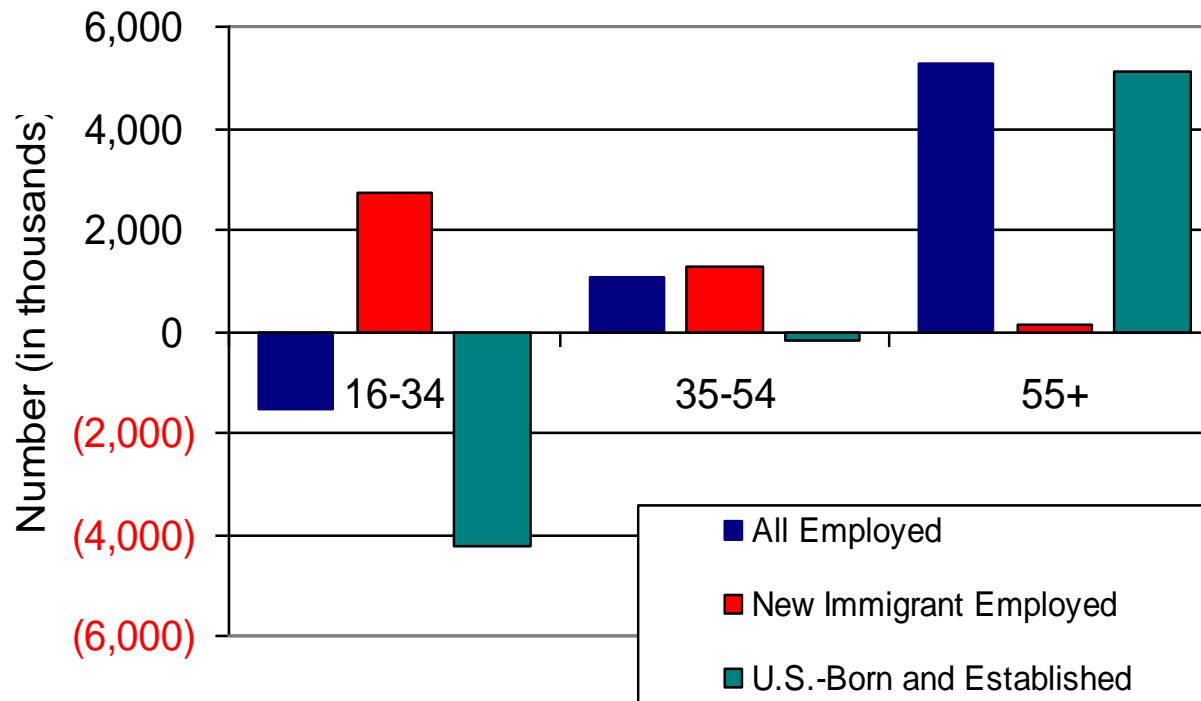
The demographics of our workforce may continue to change as White baby boomers age

Age Distribution by Race and Ethnicity



Source: Commuting in America III

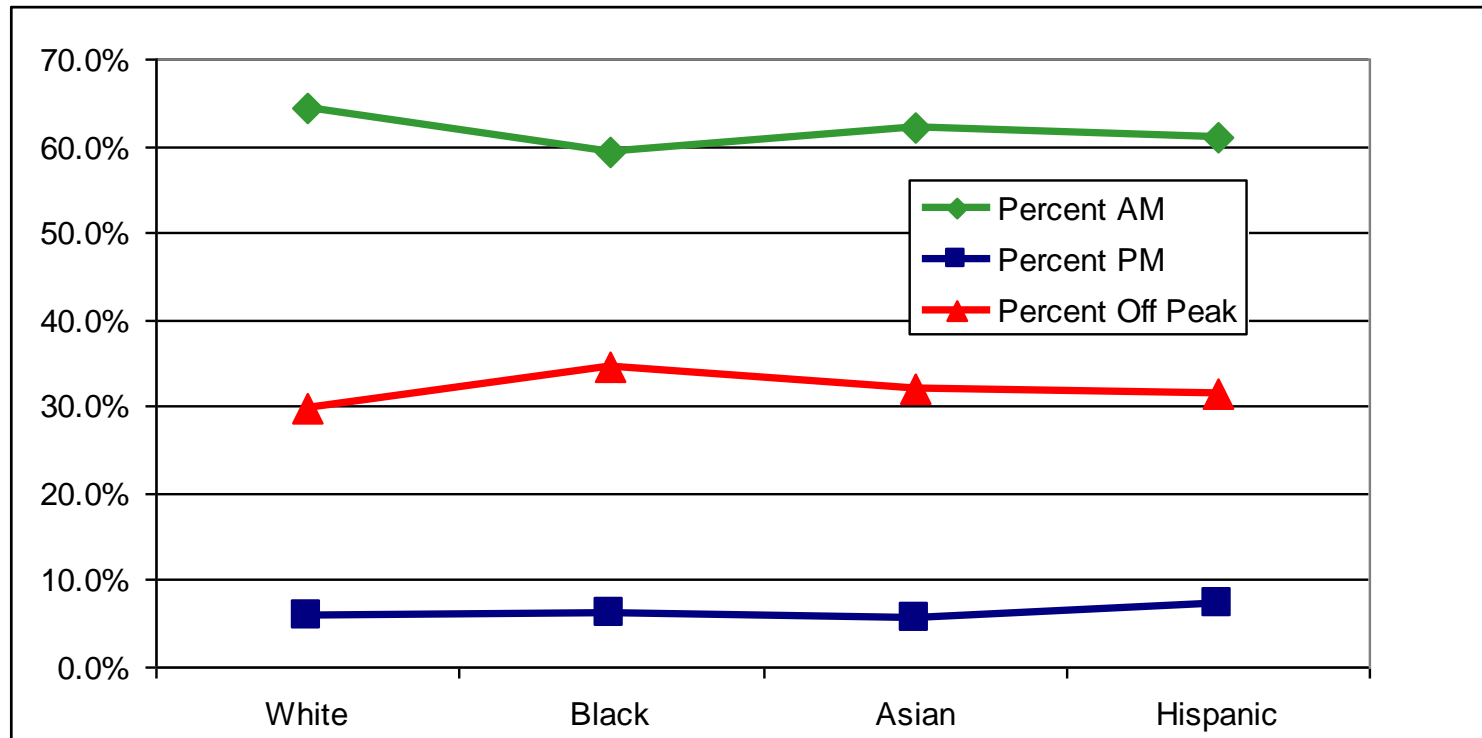
In fact, over 80% of new immigrants are in the 16-64 age group



Source: Center for Immigration Studies, U.S. Bureau of Labor Statistics, 2005 Current Population Survey. New immigrants are foreign born workers who arrived in the U.S. from 2000-2005.

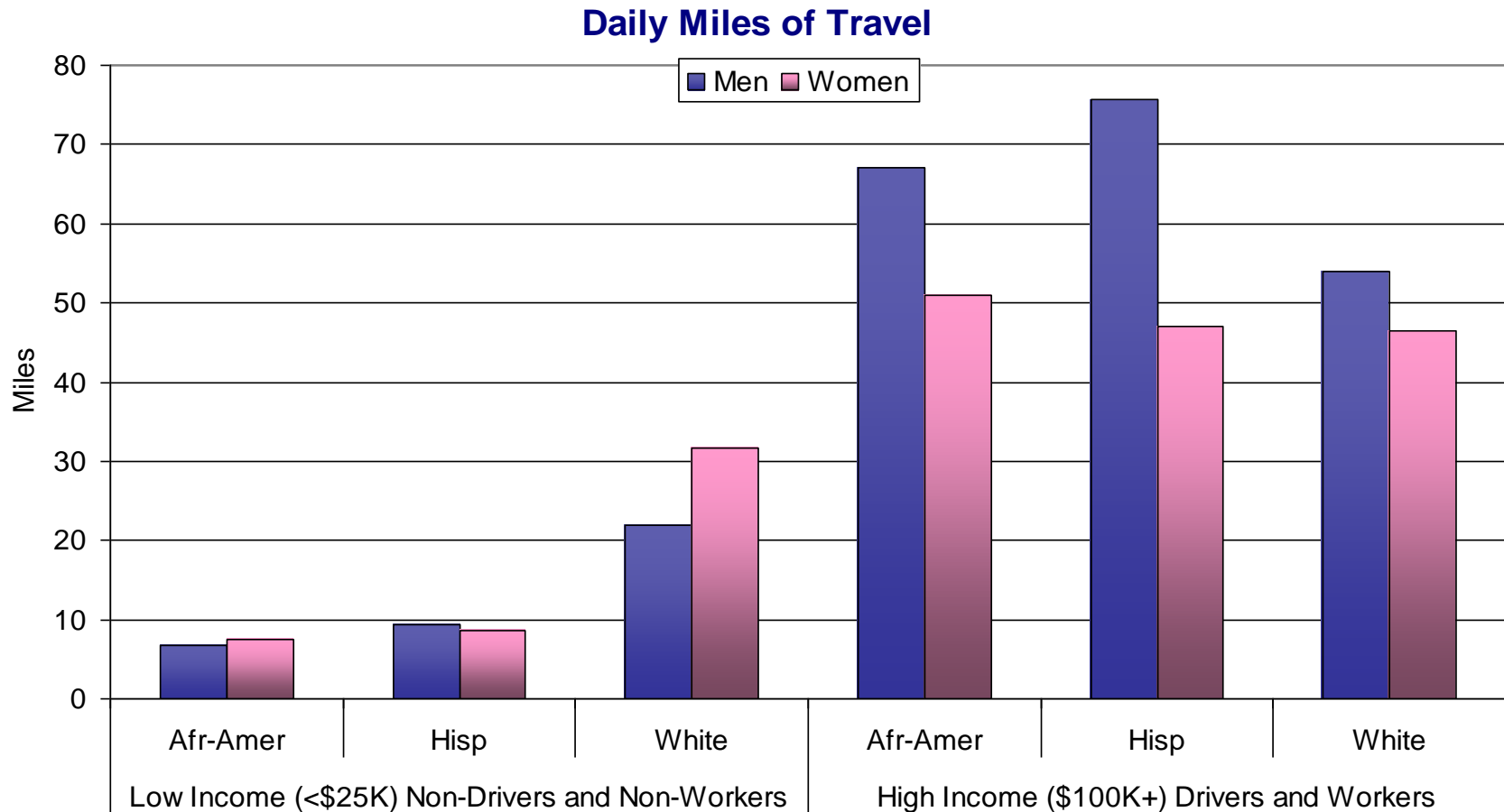
The percent of work trips made during peak periods is very similar across racial and ethnic groups

Work Trips by Time of Day (percent of trips)



Source: 2001 National Household Travel Survey, FHWA Office of Highway Policy Information

Driving, working, and income combine to increase the miles of travel each day...



Source: 2001 National Household Travel Survey, FHWA Office of Highway Policy Information



Summary Thoughts

- ❖ The number of minority households will continue to increase in the U.S.
- ❖ Income levels among minorities (especially Blacks and Hispanics) limit travel options
- ❖ Access to transit is an important aspect of mobility for minority populations
- ❖ We may see a concentration of this demand in high growth and high immigration States and metro areas



More Summary Thoughts

- ❖ Blacks and Hispanics have the oldest vehicles and the highest levels of pedestrian travel
- ❖ The future workforce will include even greater levels of participation by minorities
- ❖ The work distribution across time is almost the same for all population groups
- ❖ As income increases, minority travel mirrors the White population