



The Changing Landscape of Daily Travel

Analysis using the

**U.S. Census and the
National Household Travel Survey**

Presented at the

2004 Transportation Research Board

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Long-range trends effecting travel:

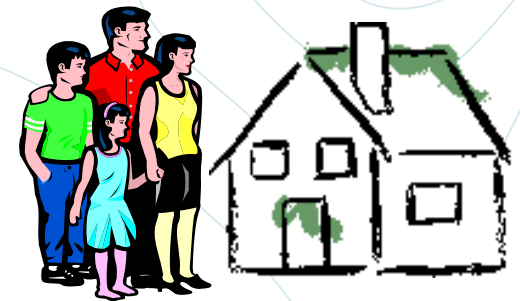
- **Changes in family structure from nuclear families toward dominance of single-person and non-family households.**
- **Labor force participation—women’s massive entry into the labor force increased household income, vehicles, and travel. Impending effects of an already aging workforce and 78 million baby boomers edging toward retirement.**
- **Growth in non-work and discretionary travel is already changing the landscape of our peak periods—A trend expected to dramatically increase.**

Family structure is changing...

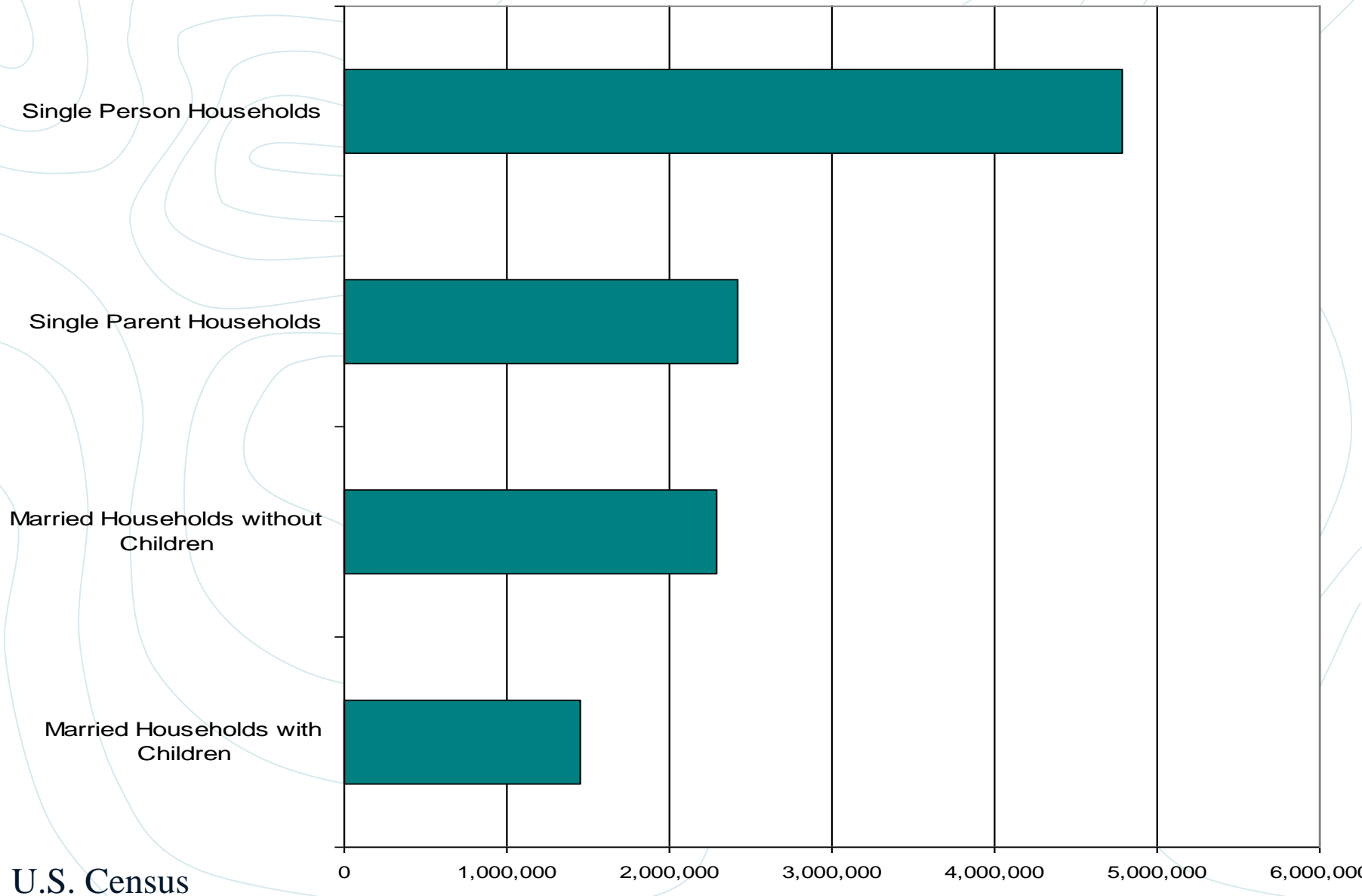
In 1960, **61%** had a father working outside the home, a homemaker mother, and three children

In 2000, **67%** of households are **not** nuclear family:

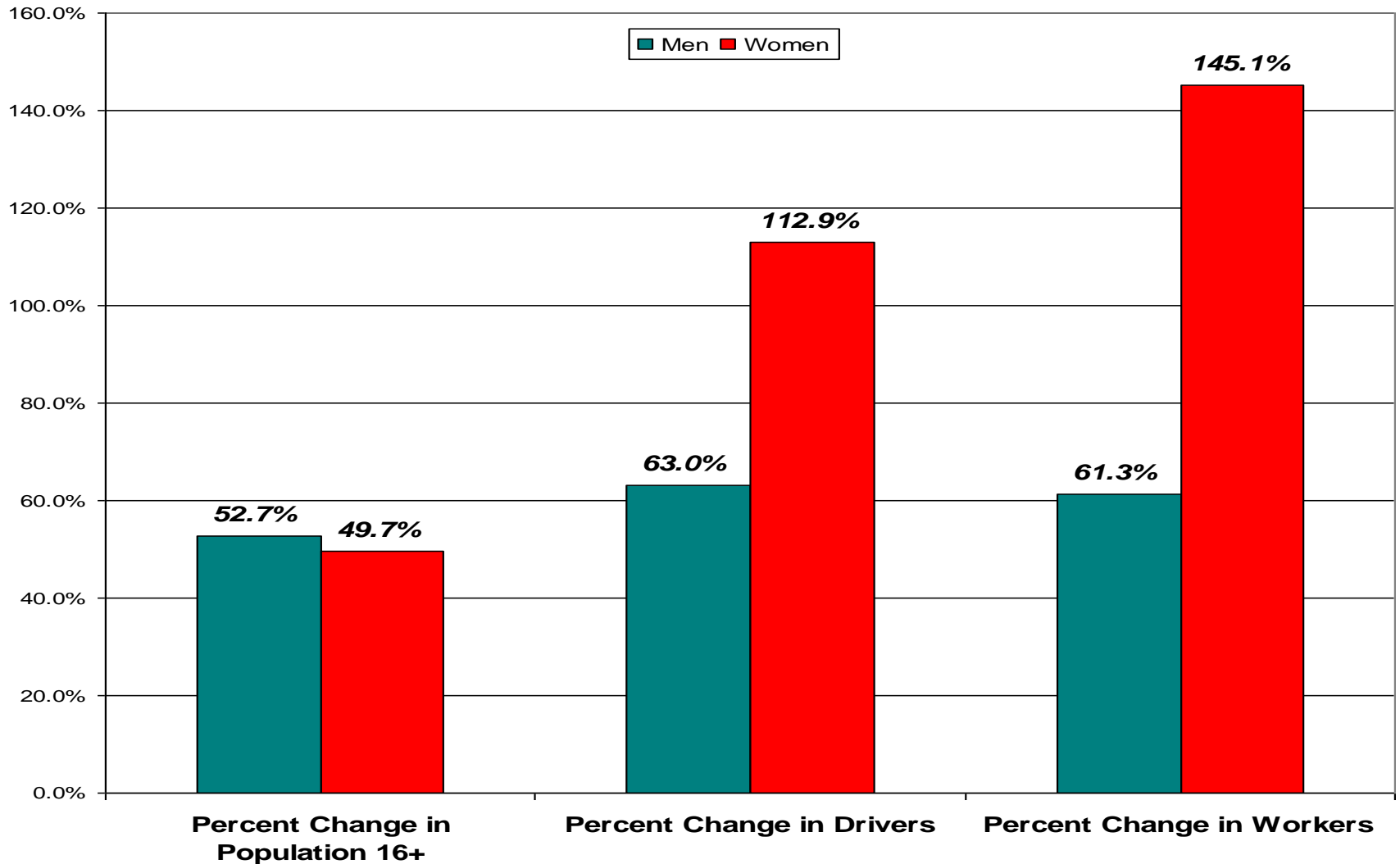
- 28 % are married with no children at home
- 26% are living alone
- 13% are other related or unrelated



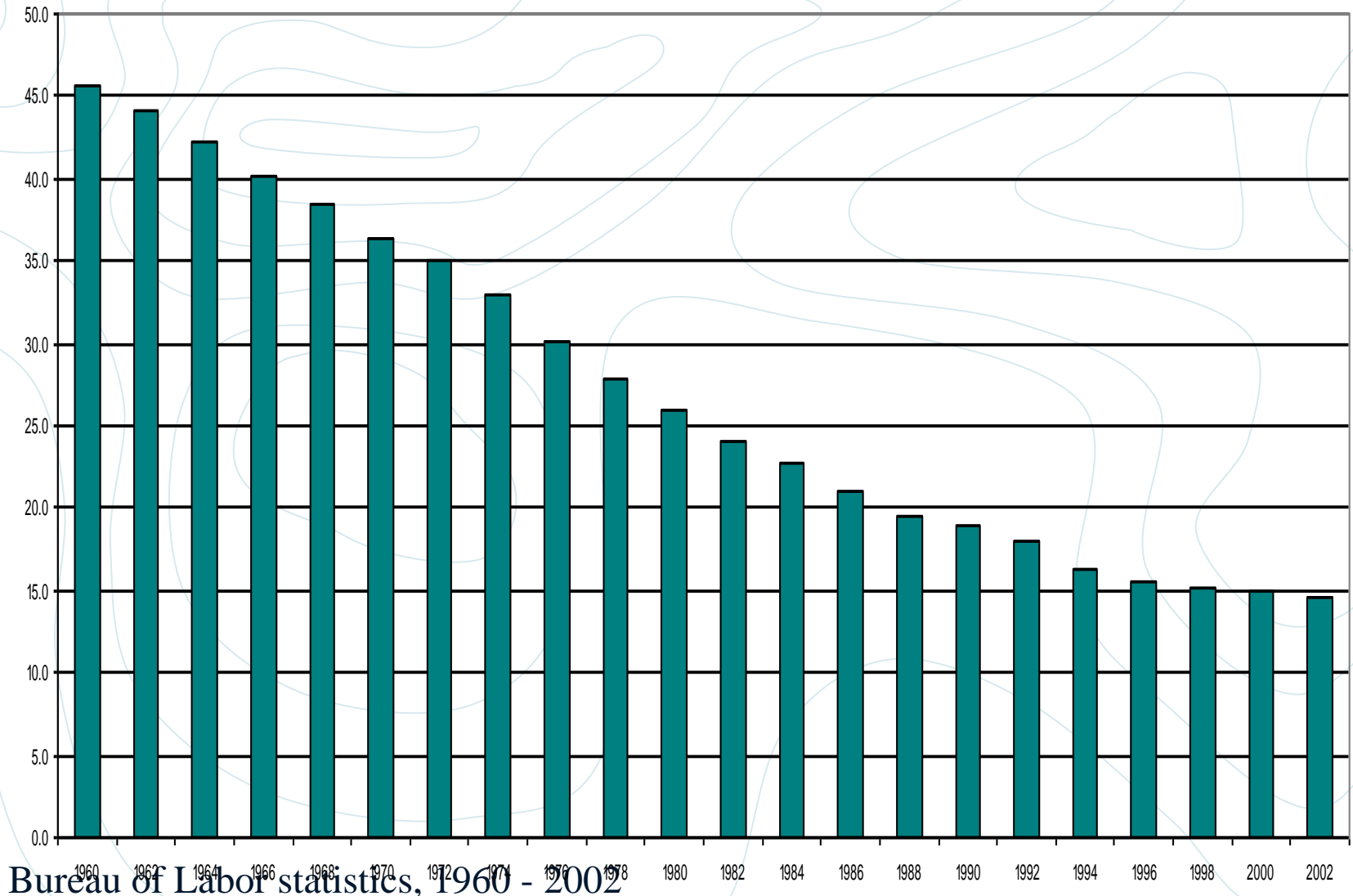
More single-person households were added than other types...1990 - 2000



The working population is changing...

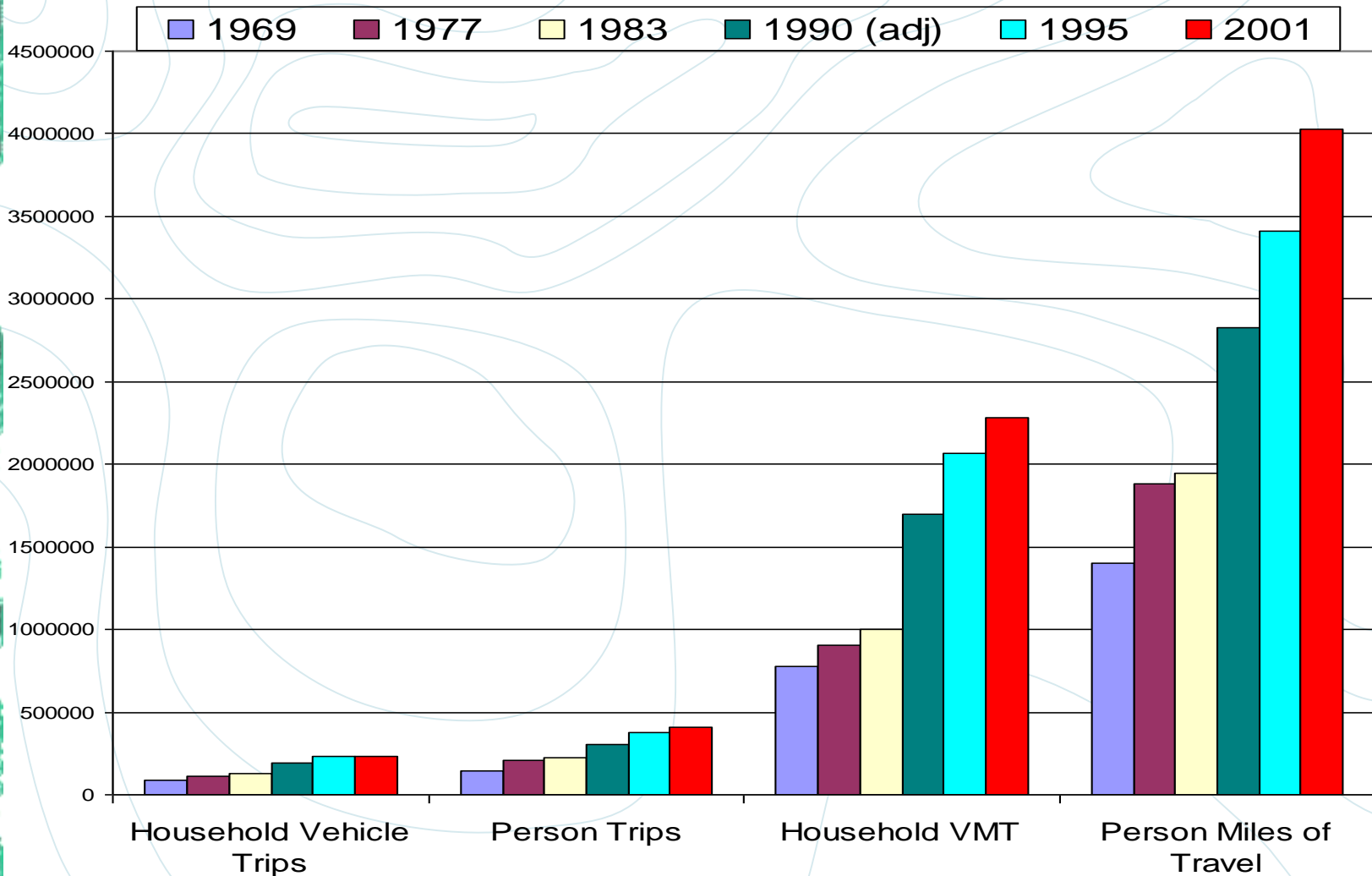


Leading to diminished difference between men and women's labor participation...



Bureau of Labor statistics, 1960 - 2002

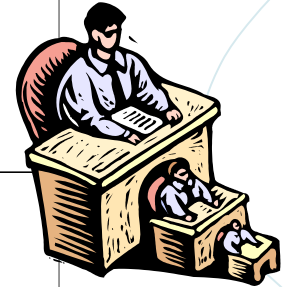
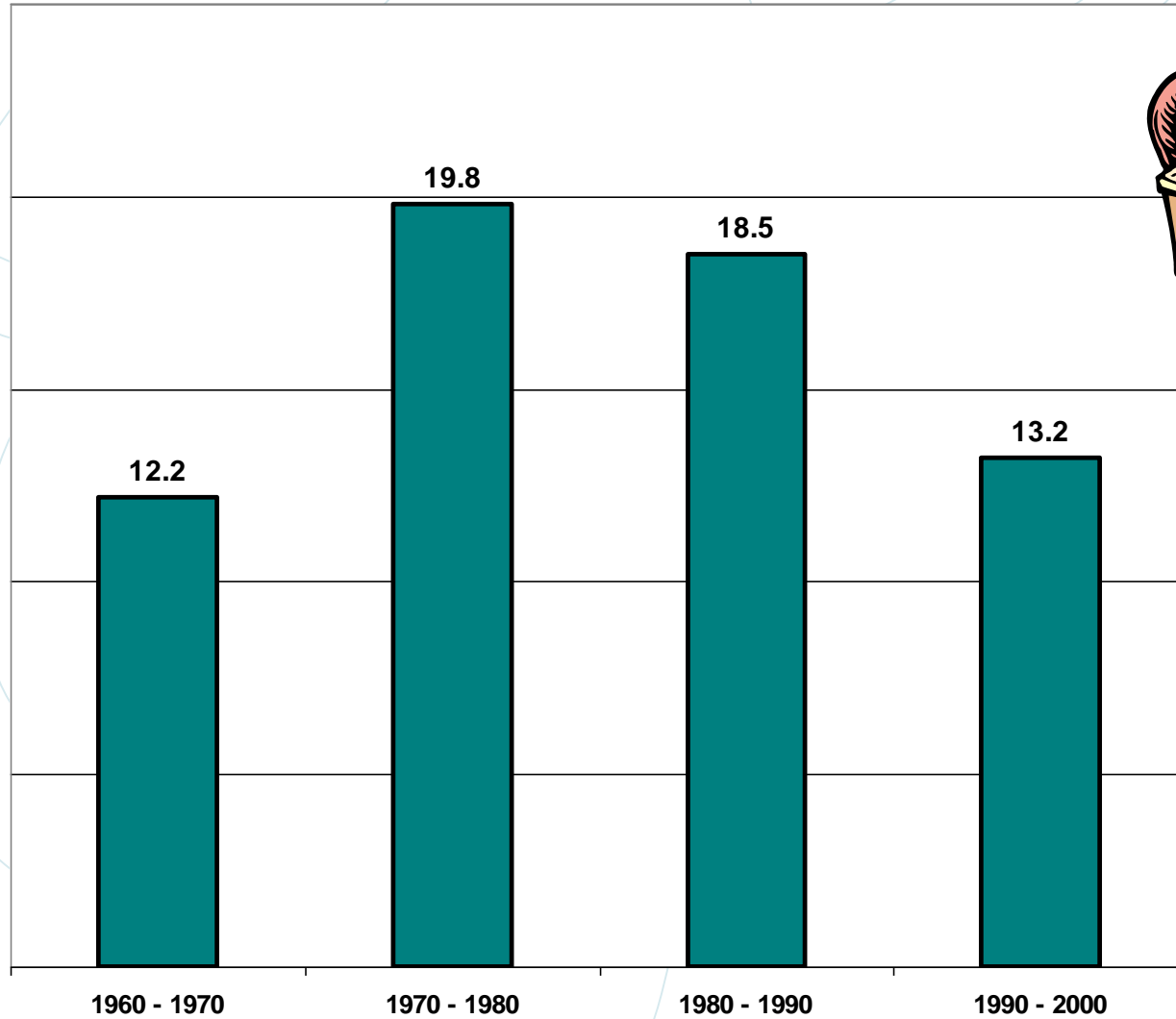
And contributing to increased miles per household and person...



NHTS/NPTS Data Series 1969-2001

But the worker boom may be over...

Millions of added workers per decade--U.S. Census





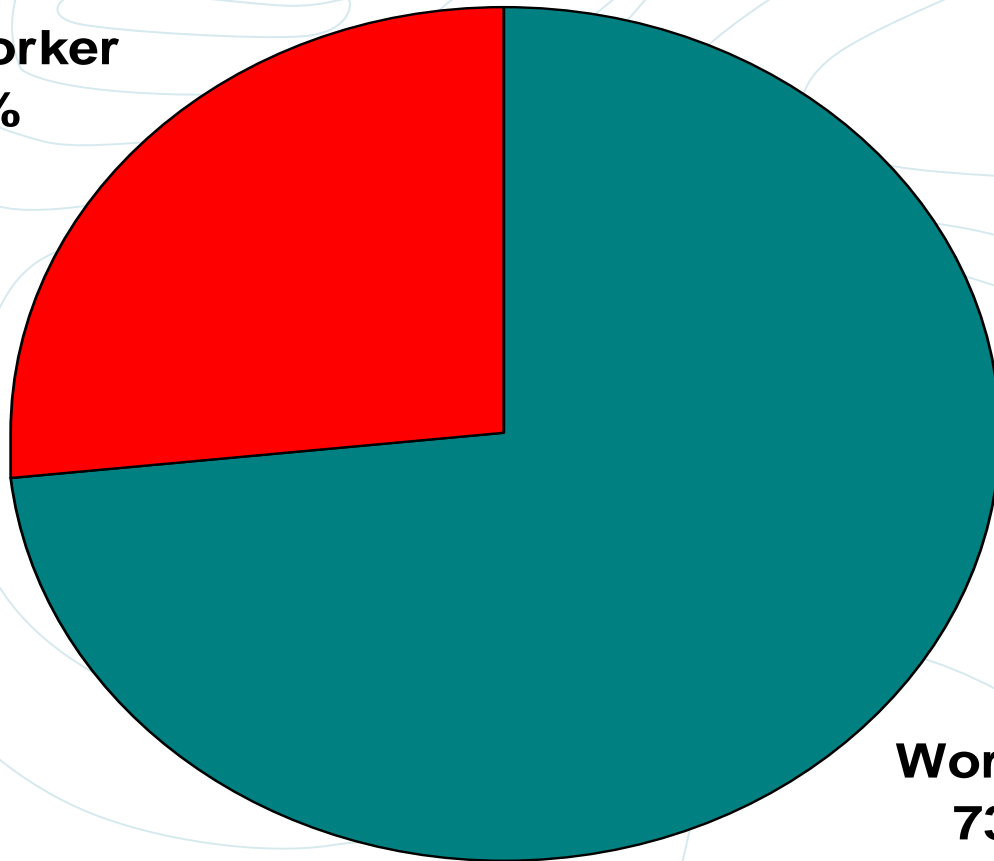
Most travel is by workers...

- ▶ Two-thirds of U.S. adults are workers (67%),
- ▶ 145 million workers compared to 71 million non-workers.
- ▶ Each worker travels on average 12 miles more per day, or
- ▶ 1.74 billion more miles a year than non-workers;
- ▶ That is 73 percent of total miles traveled in the U.S.

Percent of Total Miles by Worker Status

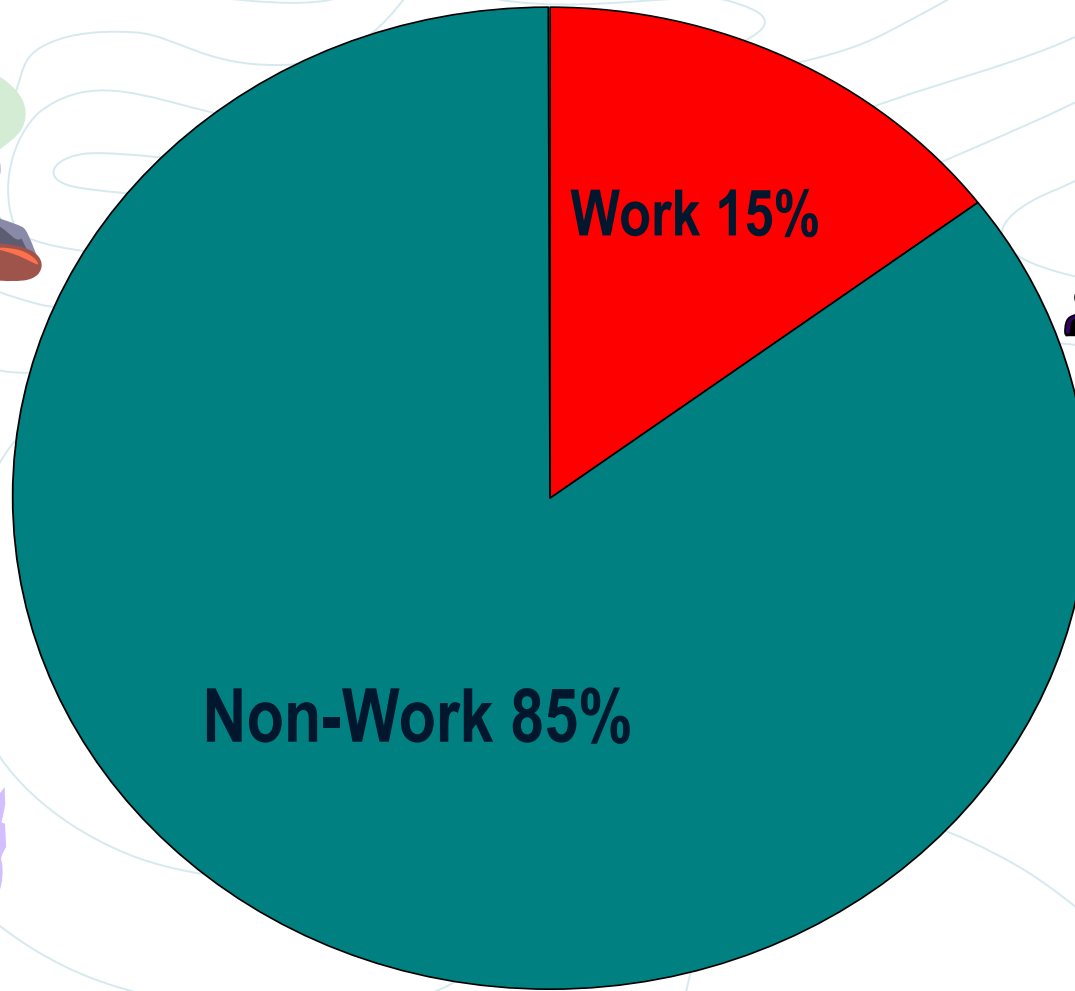
2001 NHTS

Non Worker
27%



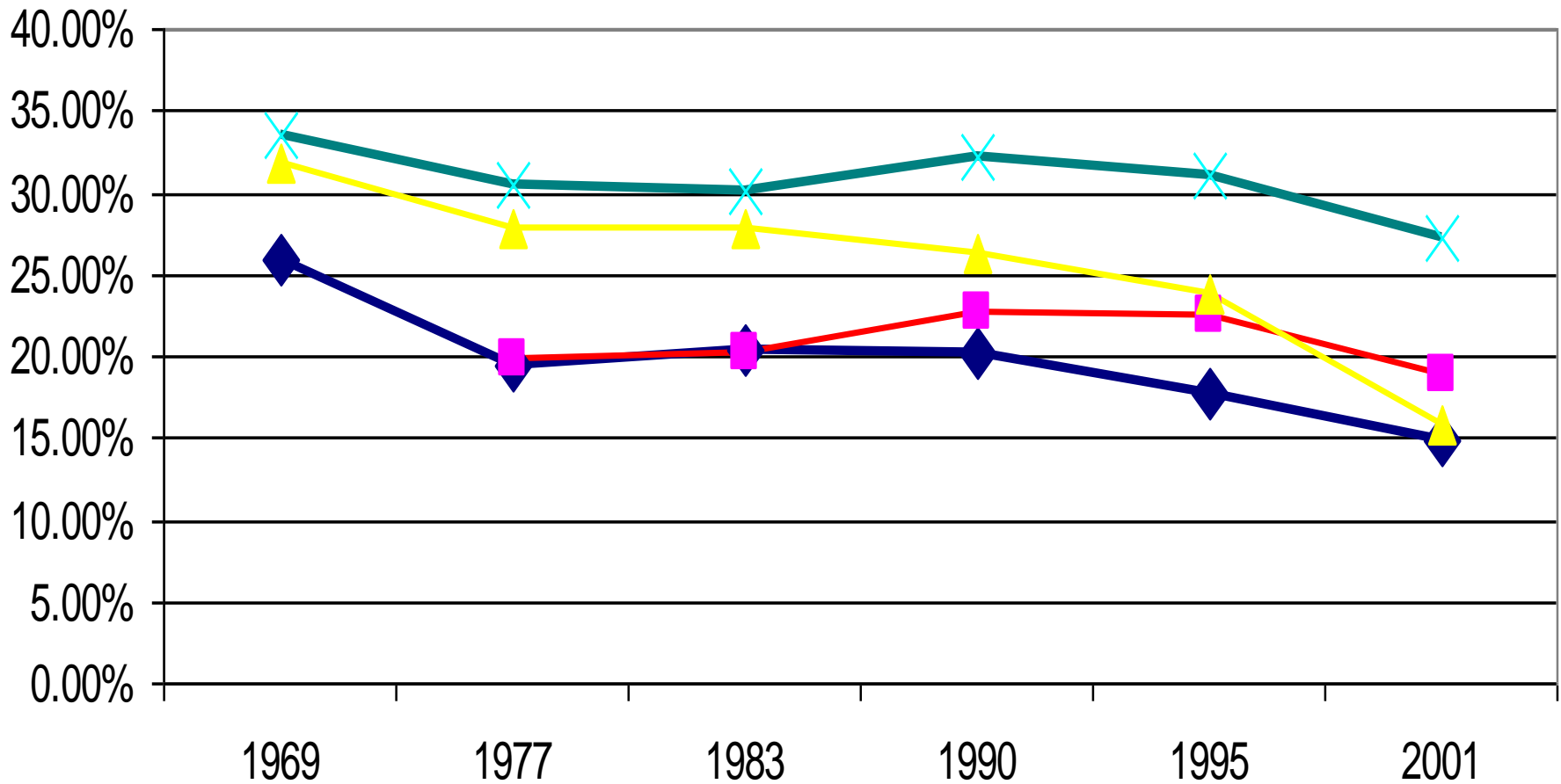
Workers
73%

But most trips are not to work....



NHTS 2001 – Percent of all Trips

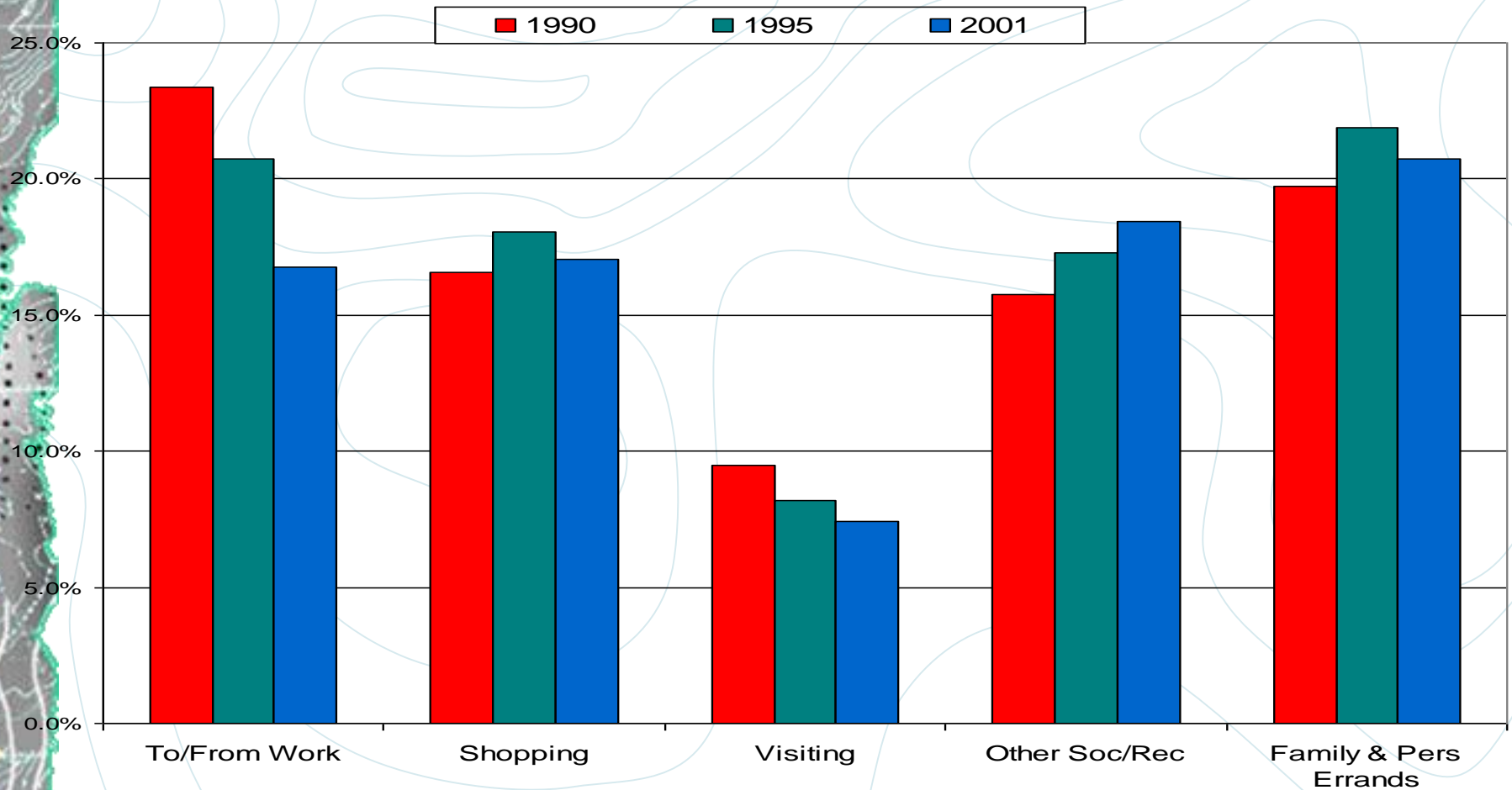
Commuting as a proportion of all travel is declining...



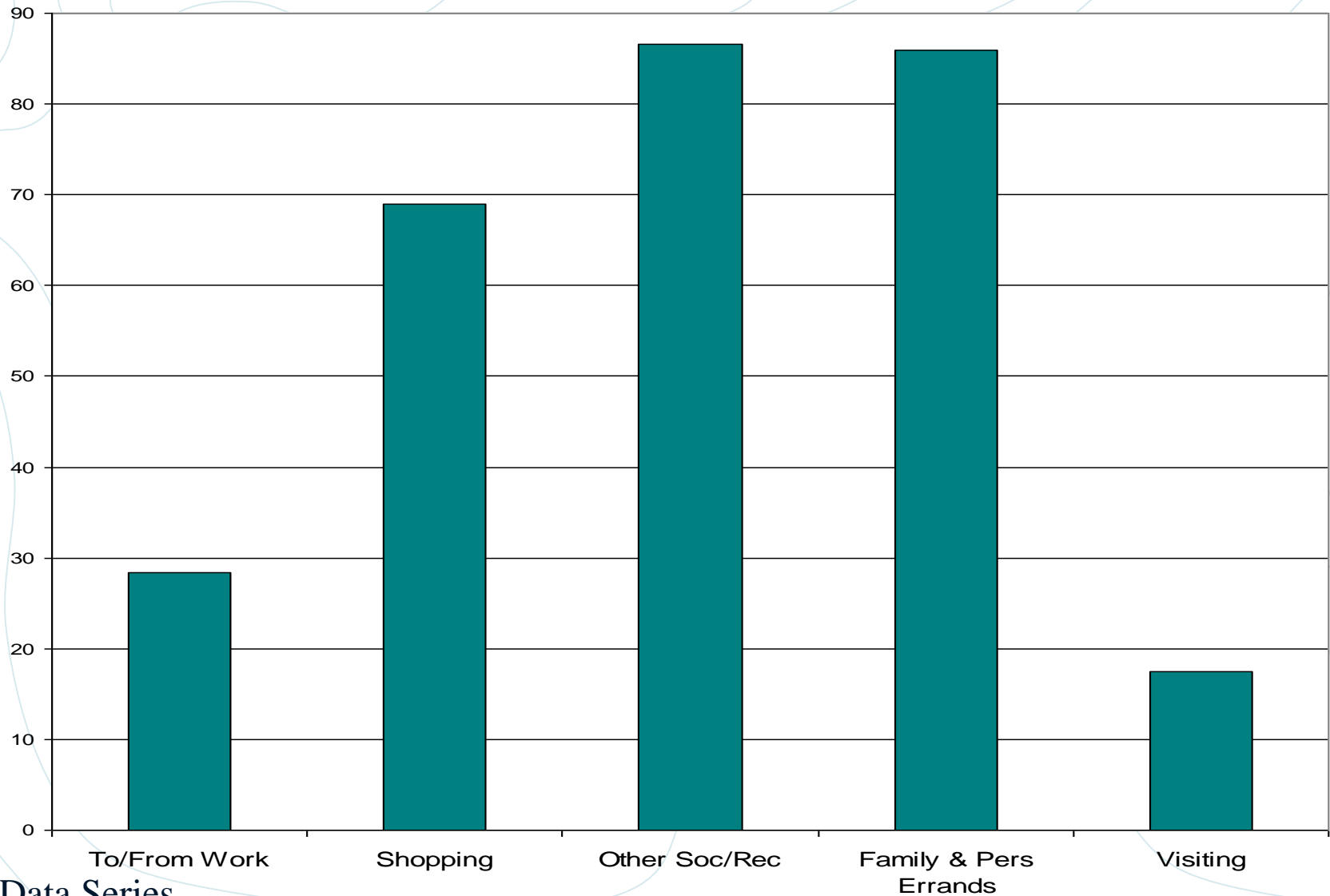
NPTS/NHTS Series

◆ Person Trips ■ Person Miles of Travel ▲ Vehicle Trips × Vehciles Miles of Travel

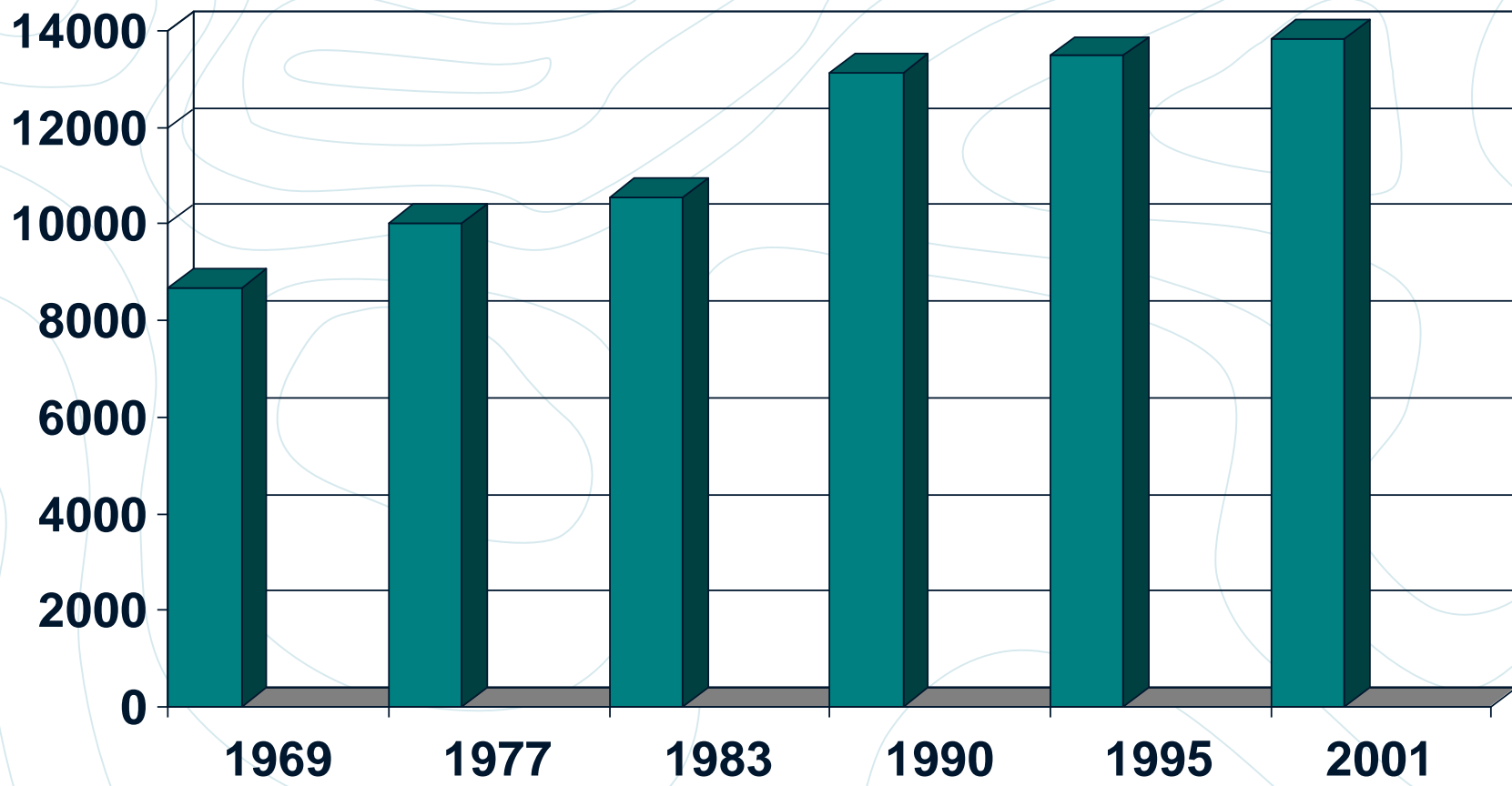
While shopping, errands and recreation are increasing...



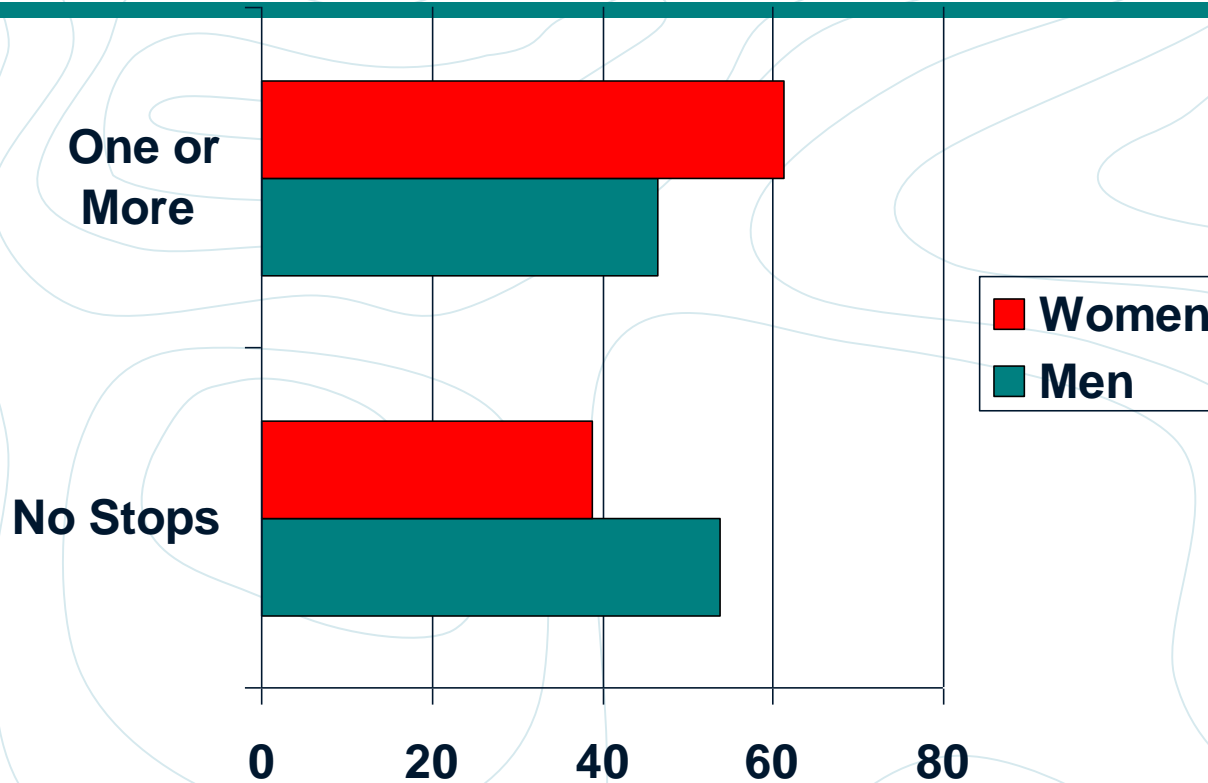
Since 1990 the average American added nine trips for other purposes for every added work trip...



Contributing to the increased miles per driver...



But the work trip is still the anchor of daily travel for many workers who trip chain...



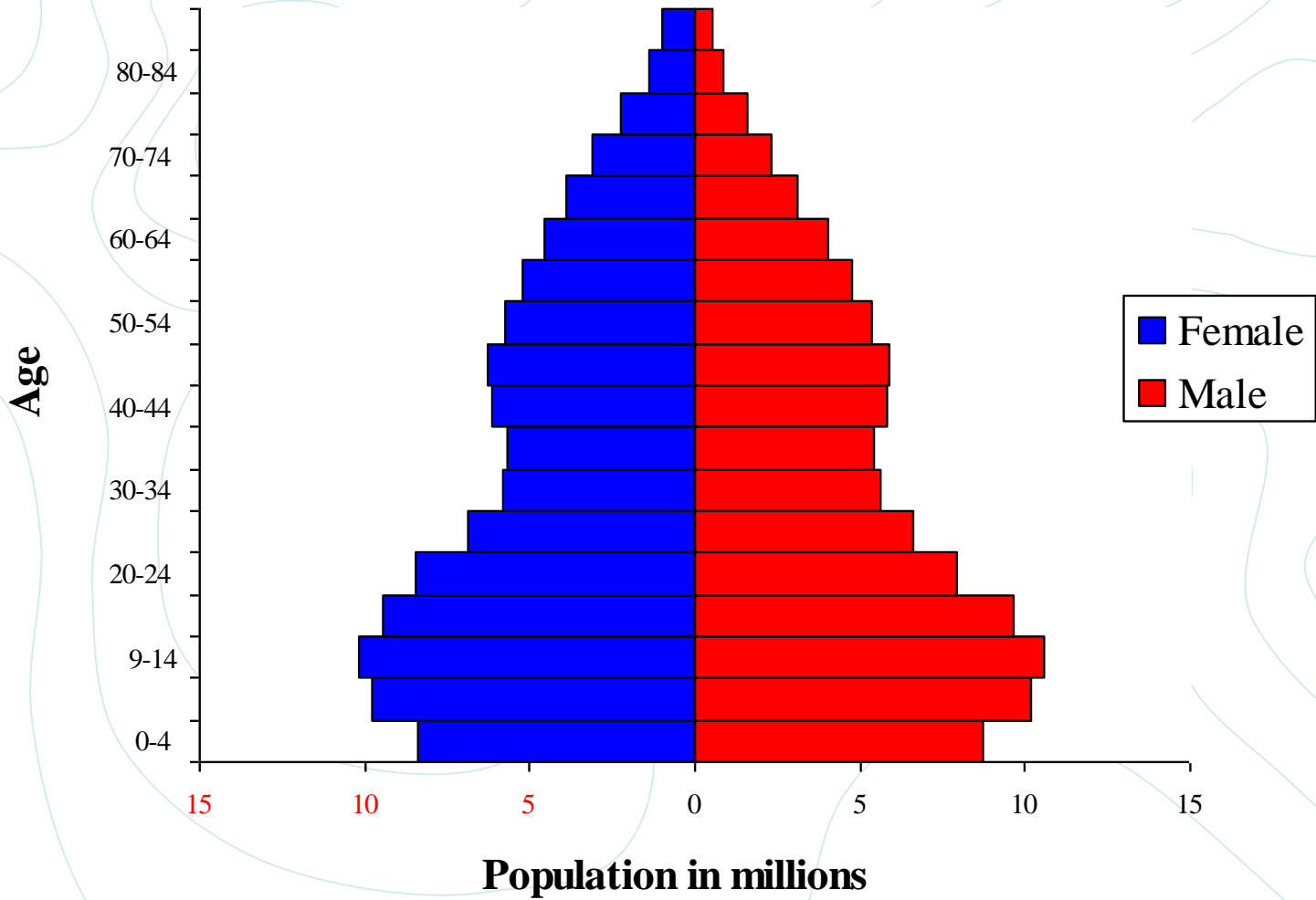
Percentage of workers who stop on the way home from work

1995 NPTS

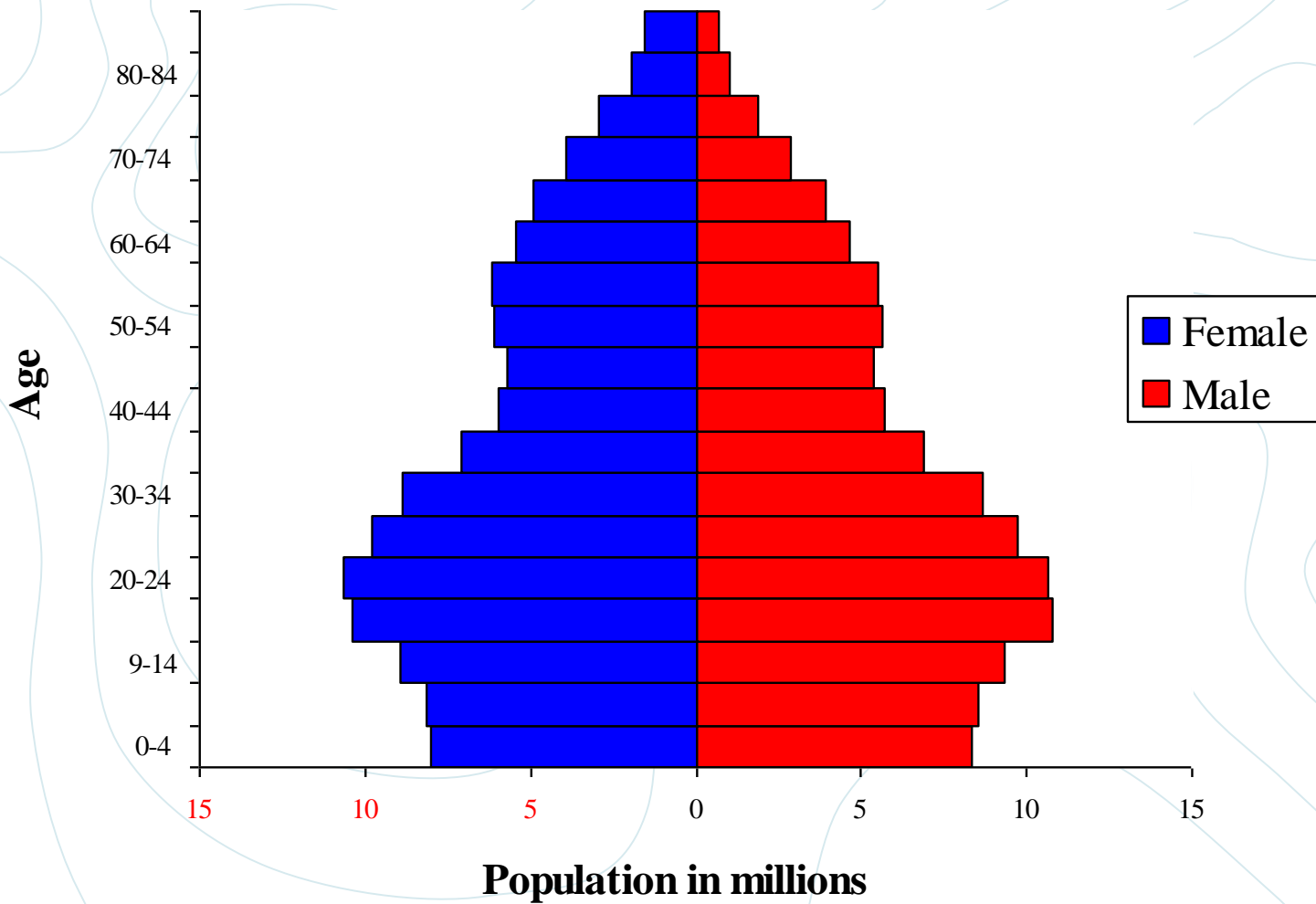
Will non-work travel continue to grow ?

- **When will baby boomers retire?**
- **Will they travel like the current elderly?**
Higher education, better health, and more wealth than current elderly leads most people to think NOT
- **How will the impending change effect miles, modes, and safety?**

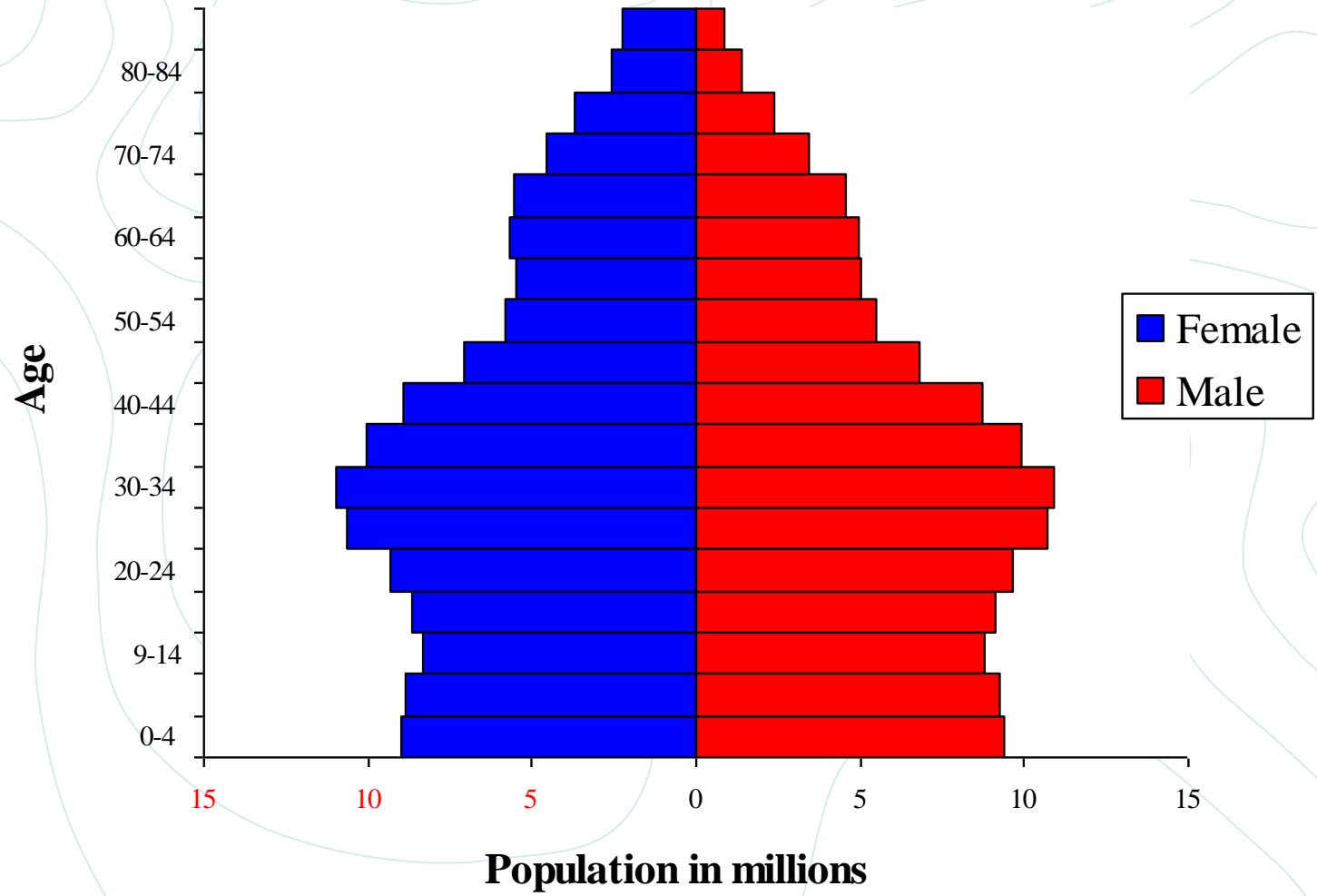
Population Pyramid: 1970



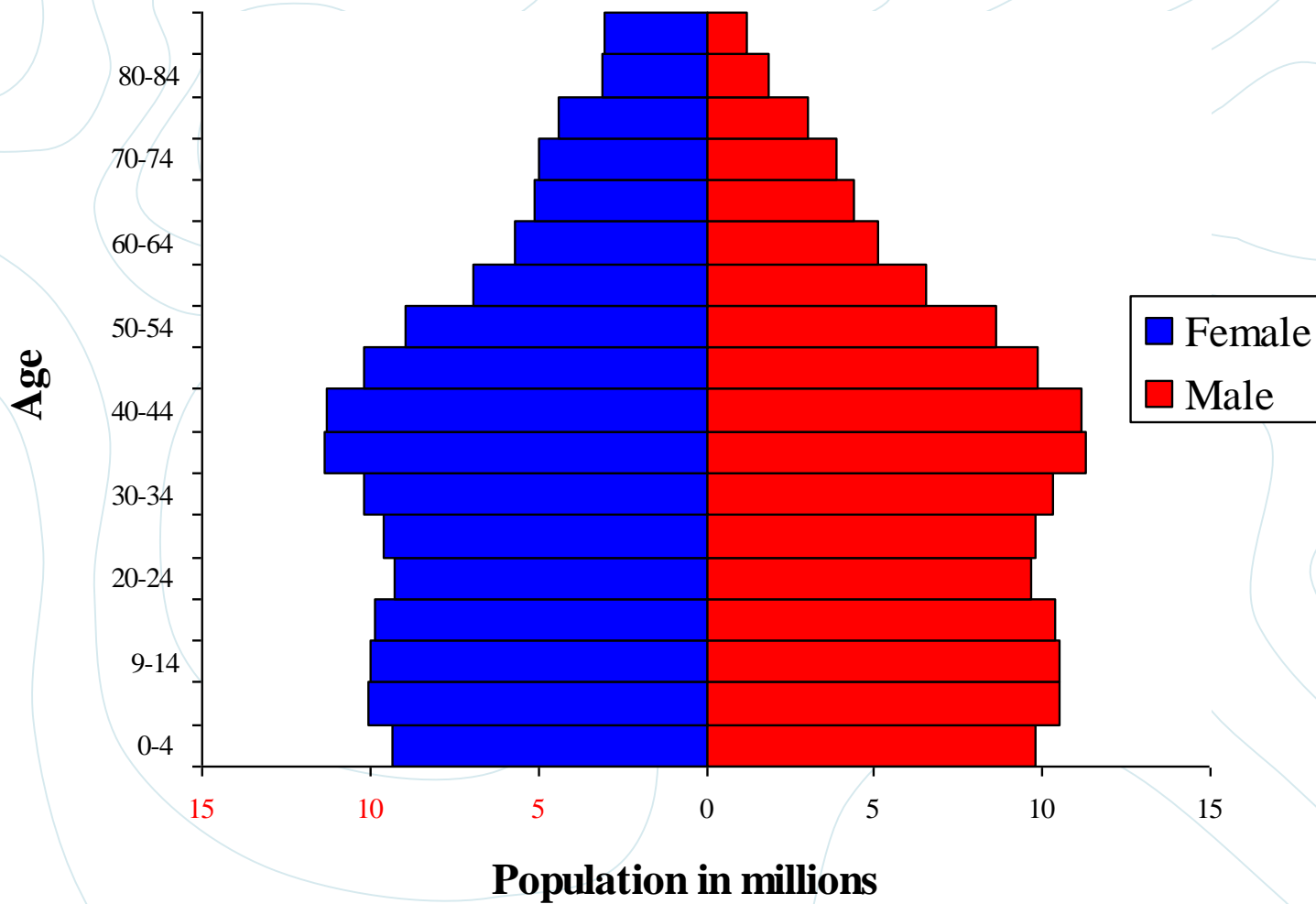
Population Pyramid: 1980



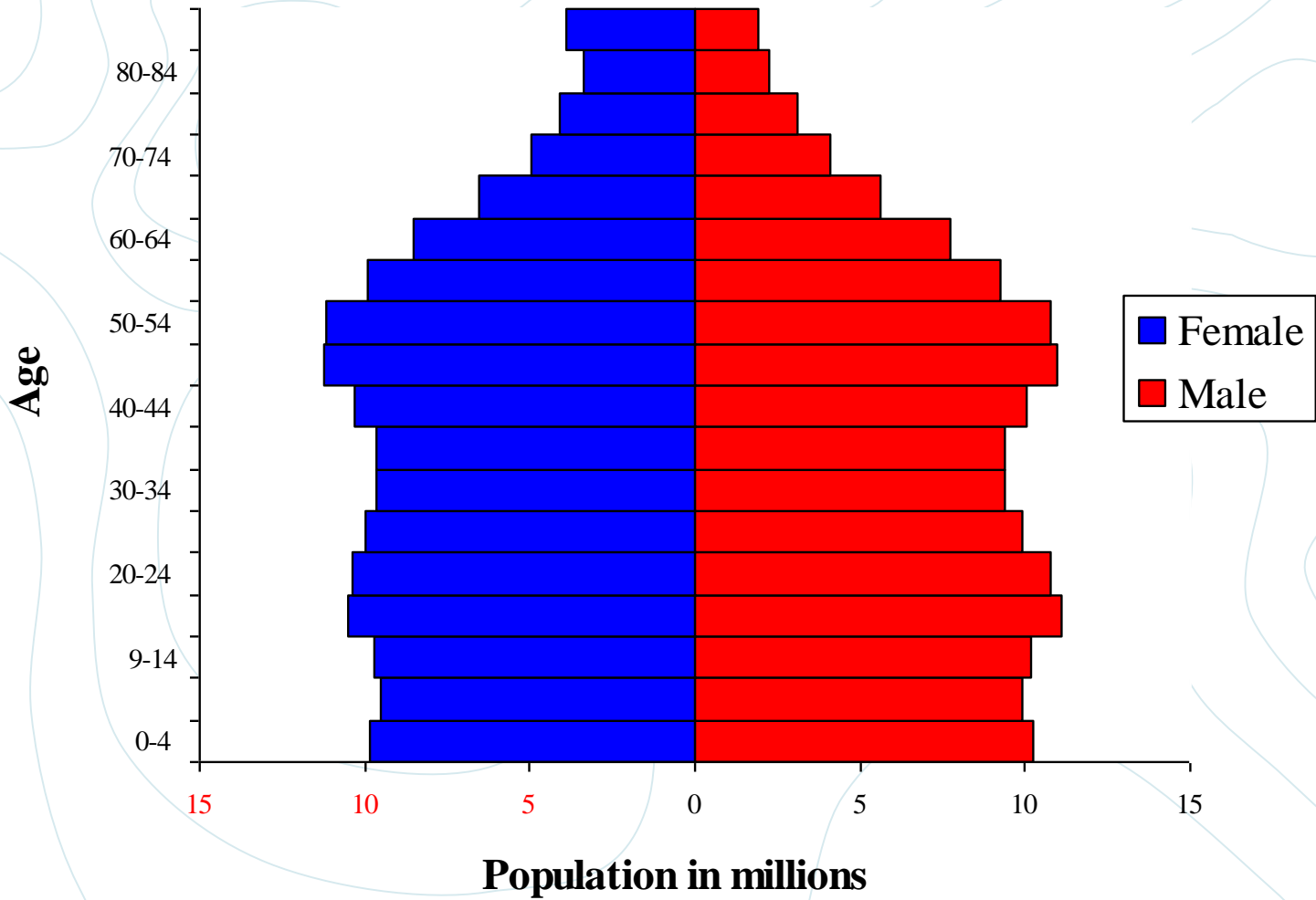
Population Pyramid: 1990



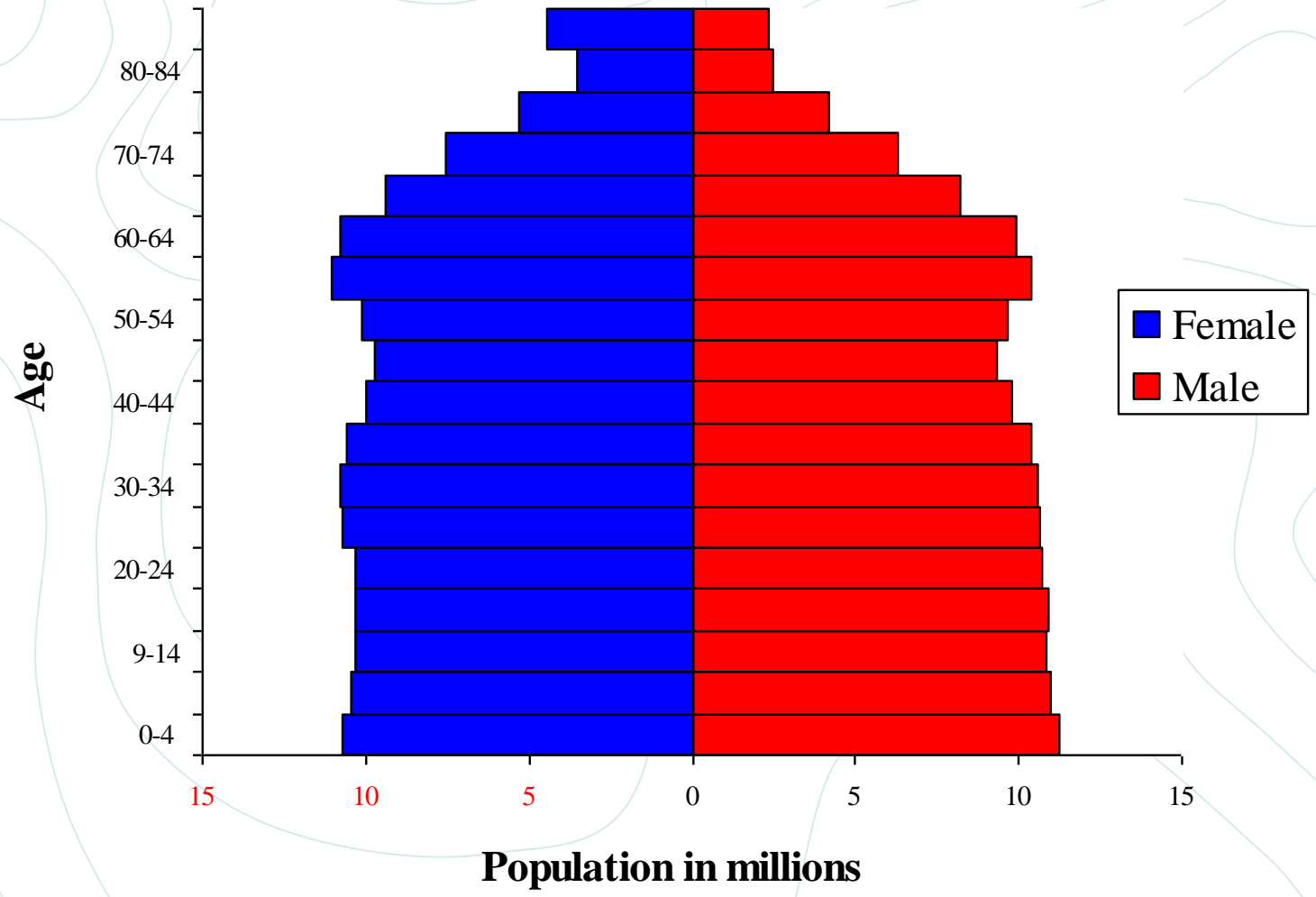
Population Pyramid: 2000



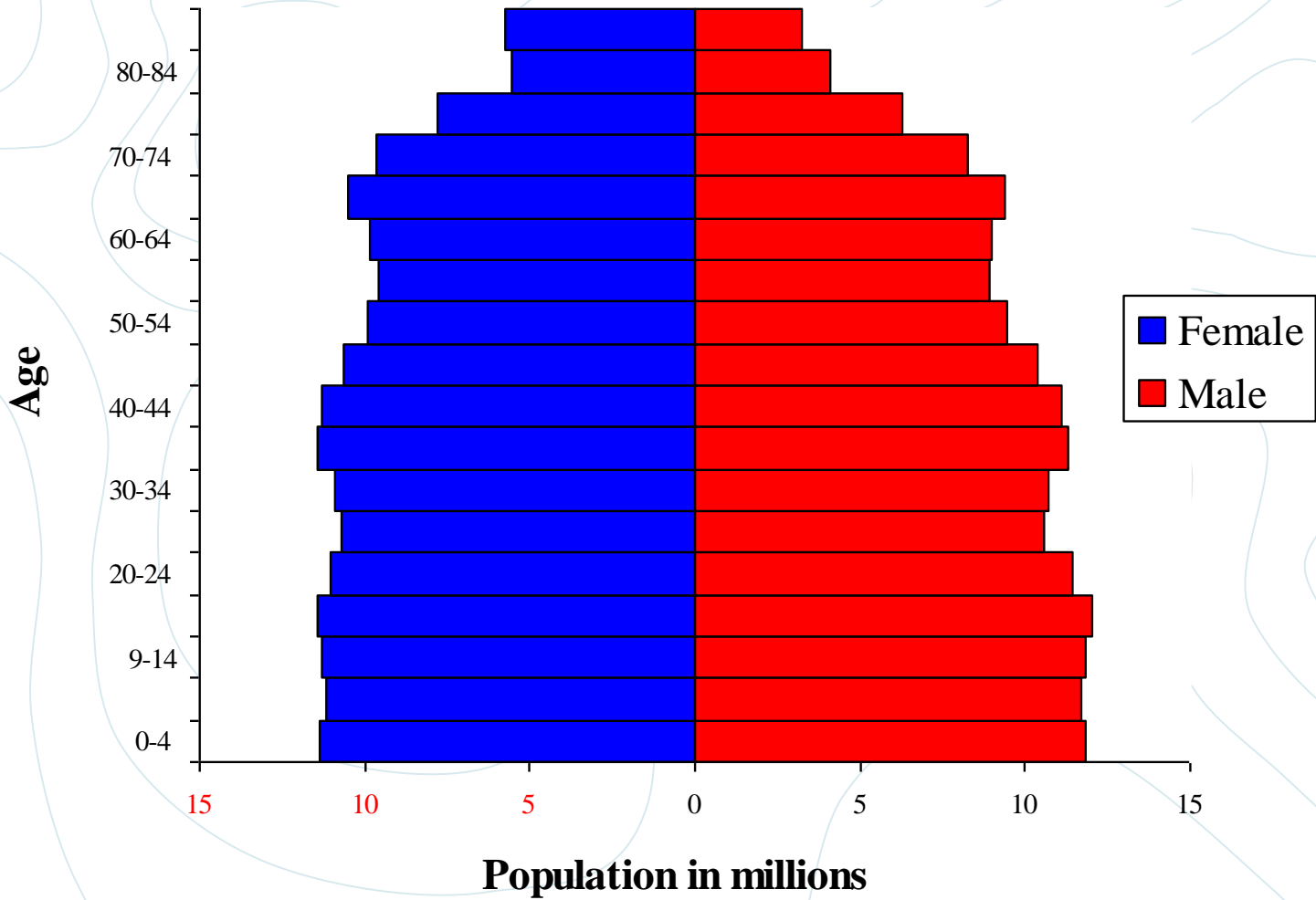
Population Pyramid: 2010



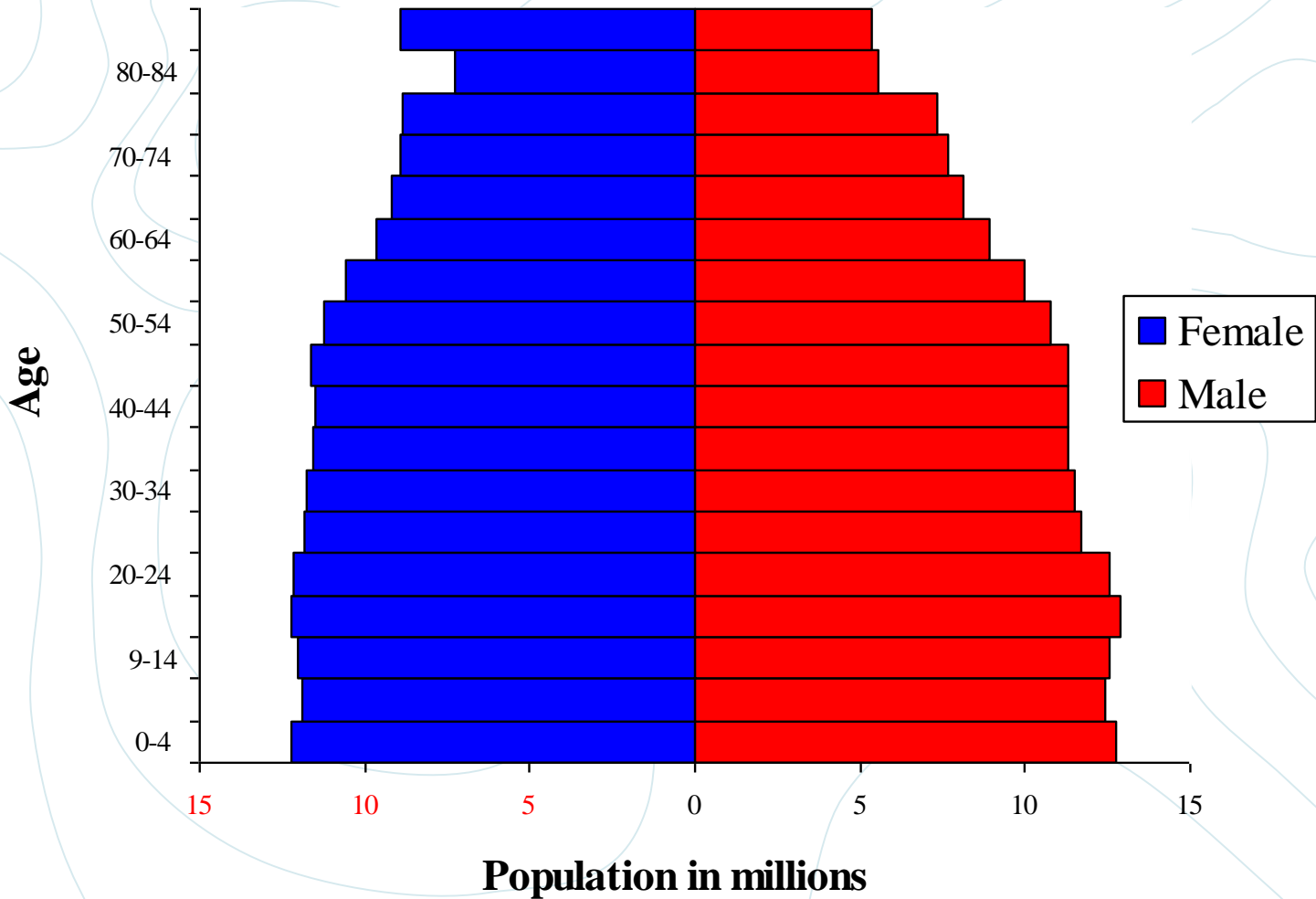
Population Pyramid: 2020



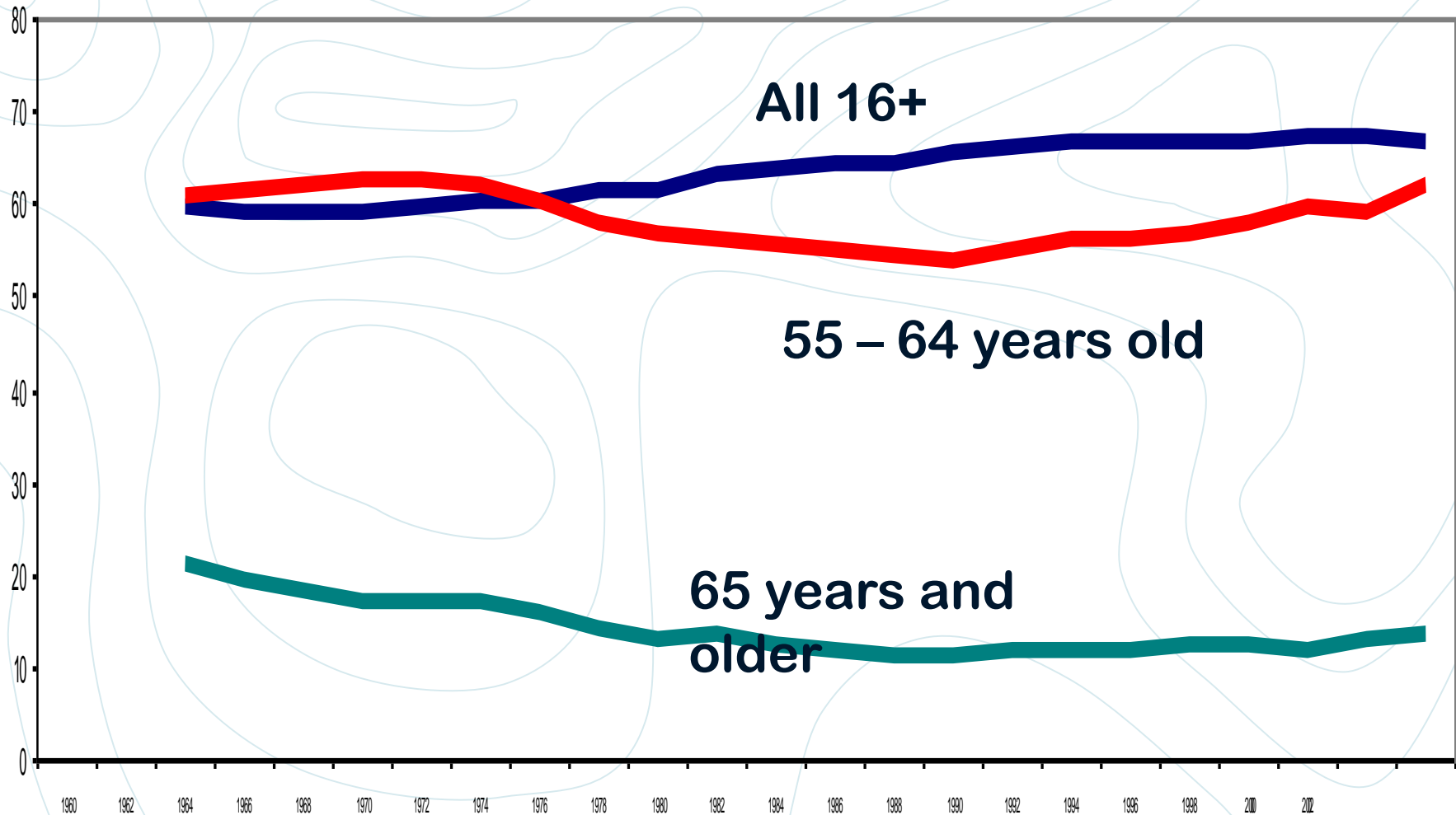
Population Pyramid: 2030



Population Pyramid: 2040

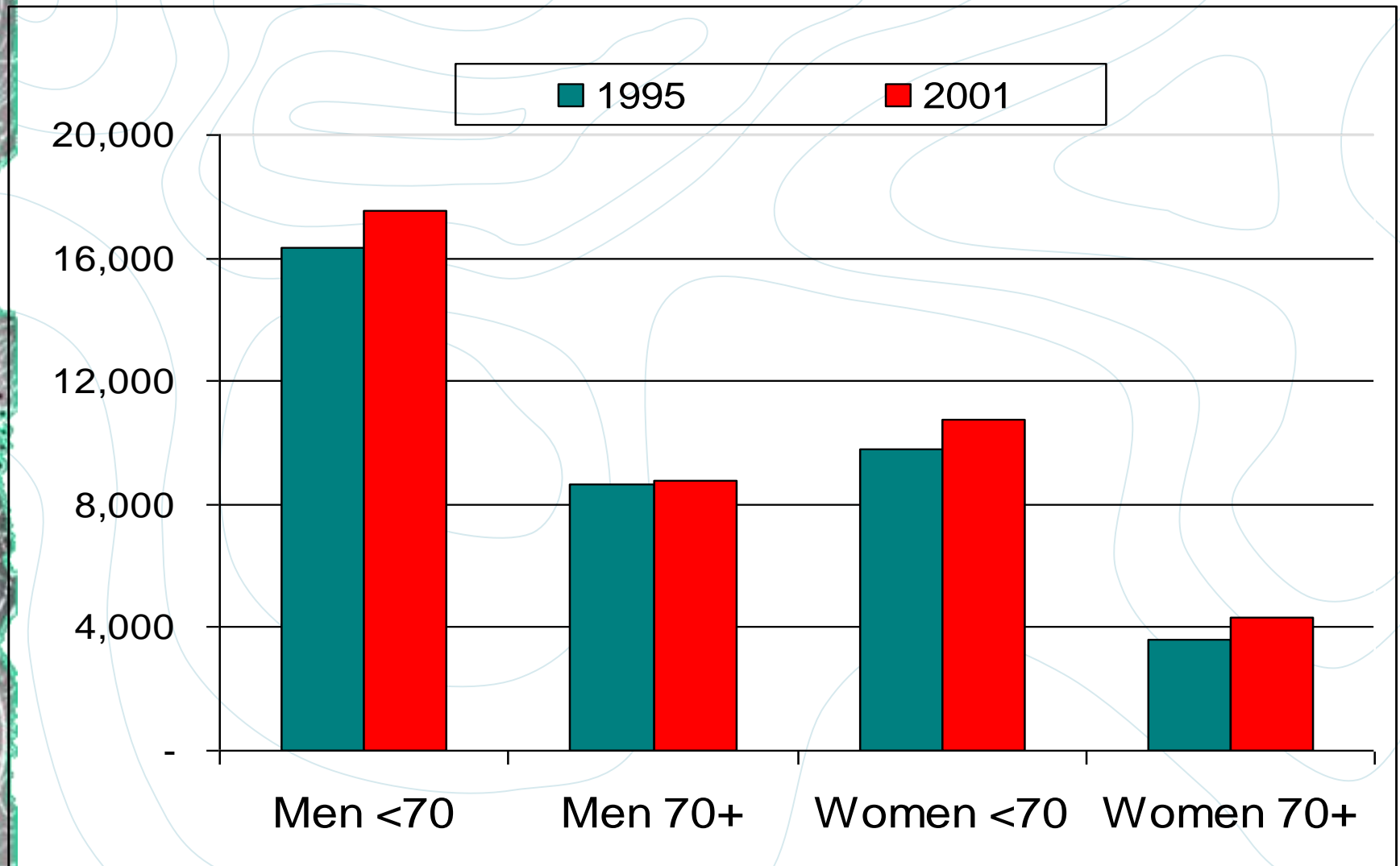


When will the baby-boomers really stop working?

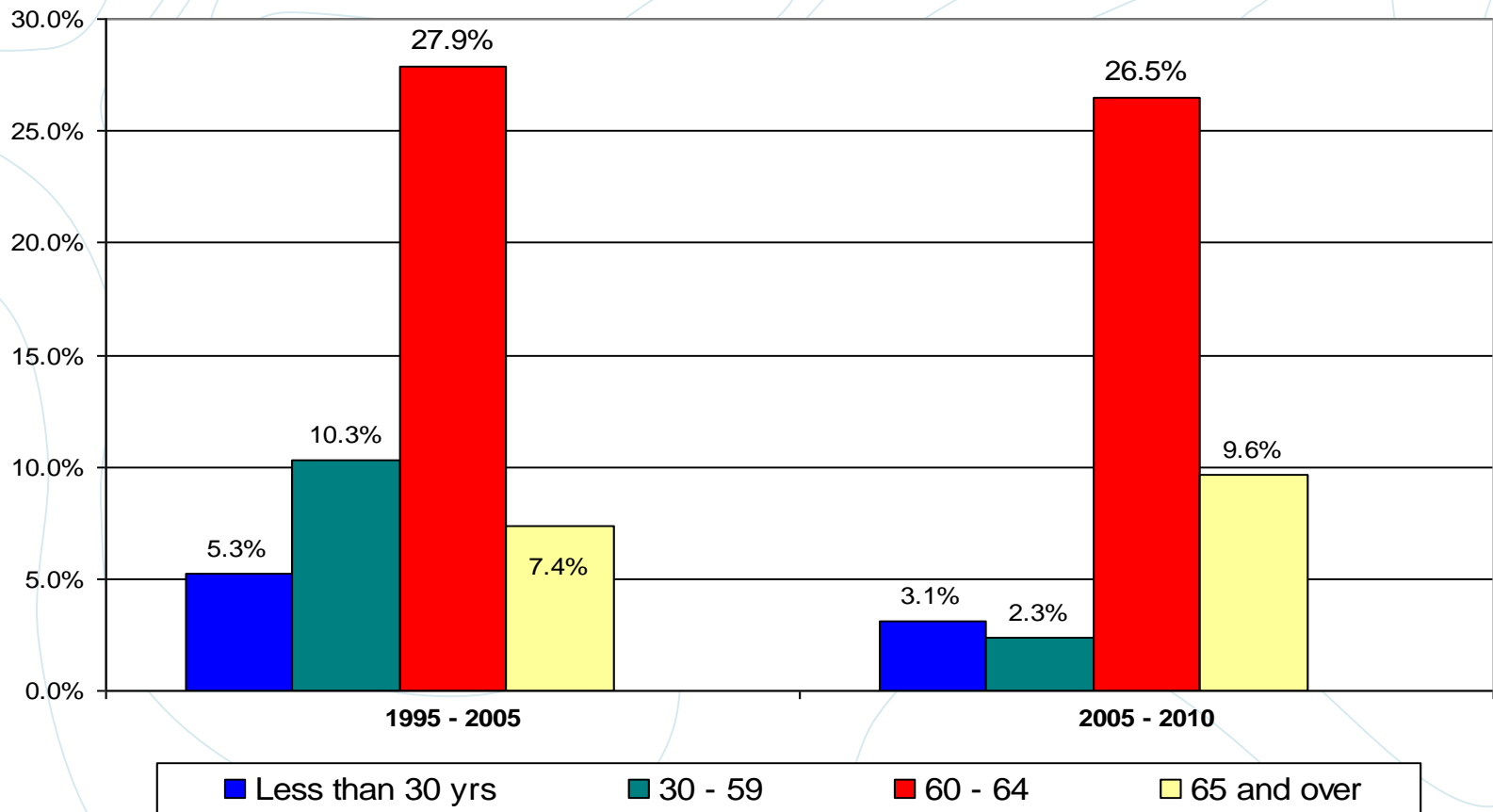


Bureau of Labor Statistics, Labor Force Participation 1960 - 2002

Older drivers are already traveling more miles than previously...



The force of so many added people will dramatically increase travel by older Americans...

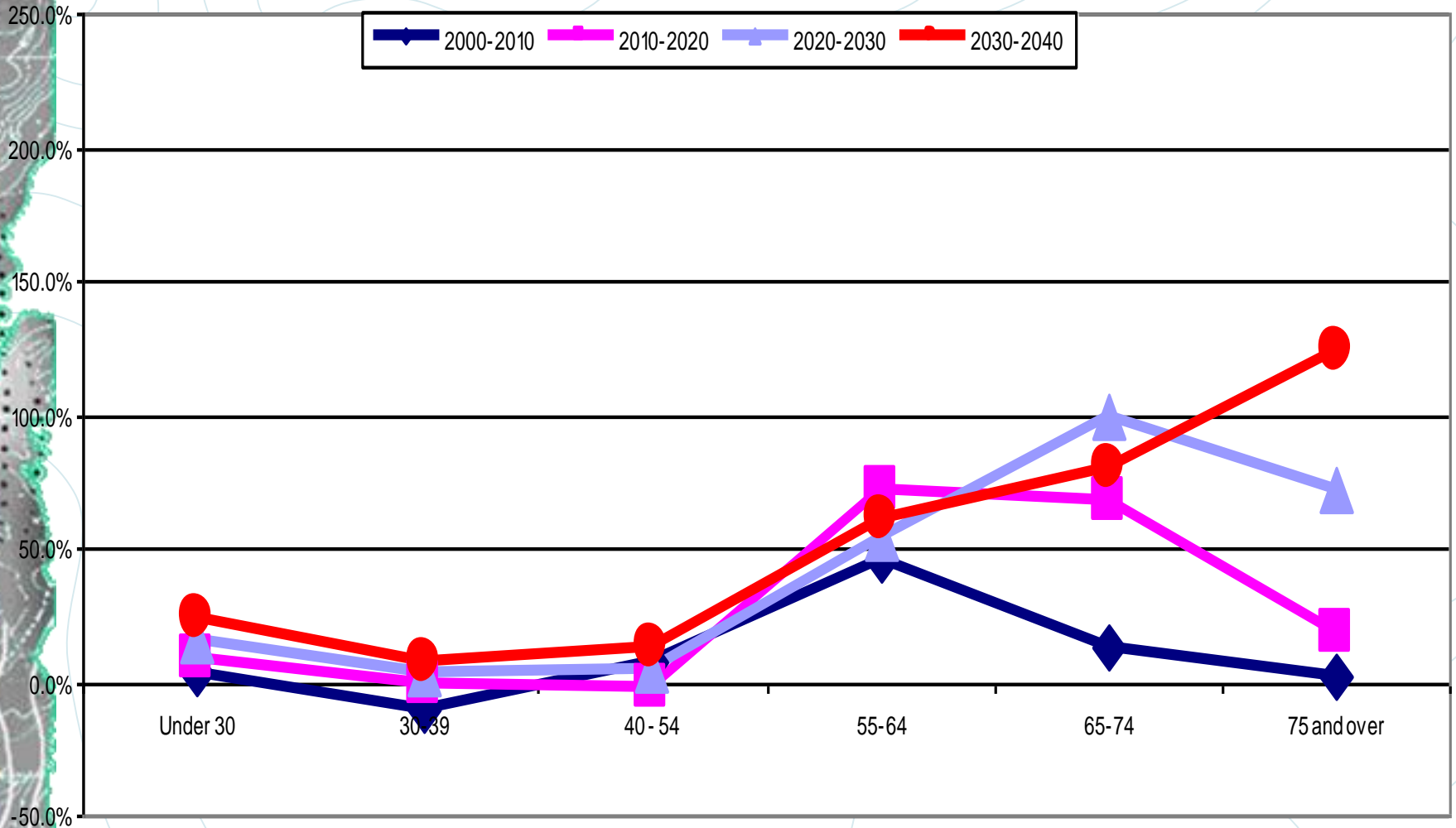


NHTS Miles*Change in Projected Population

Increase in Women's Driving Miles Indexed to 2000

Percent Change in Total Miles Attributed to Each Age Group

Assuming Current Average Driving Rates

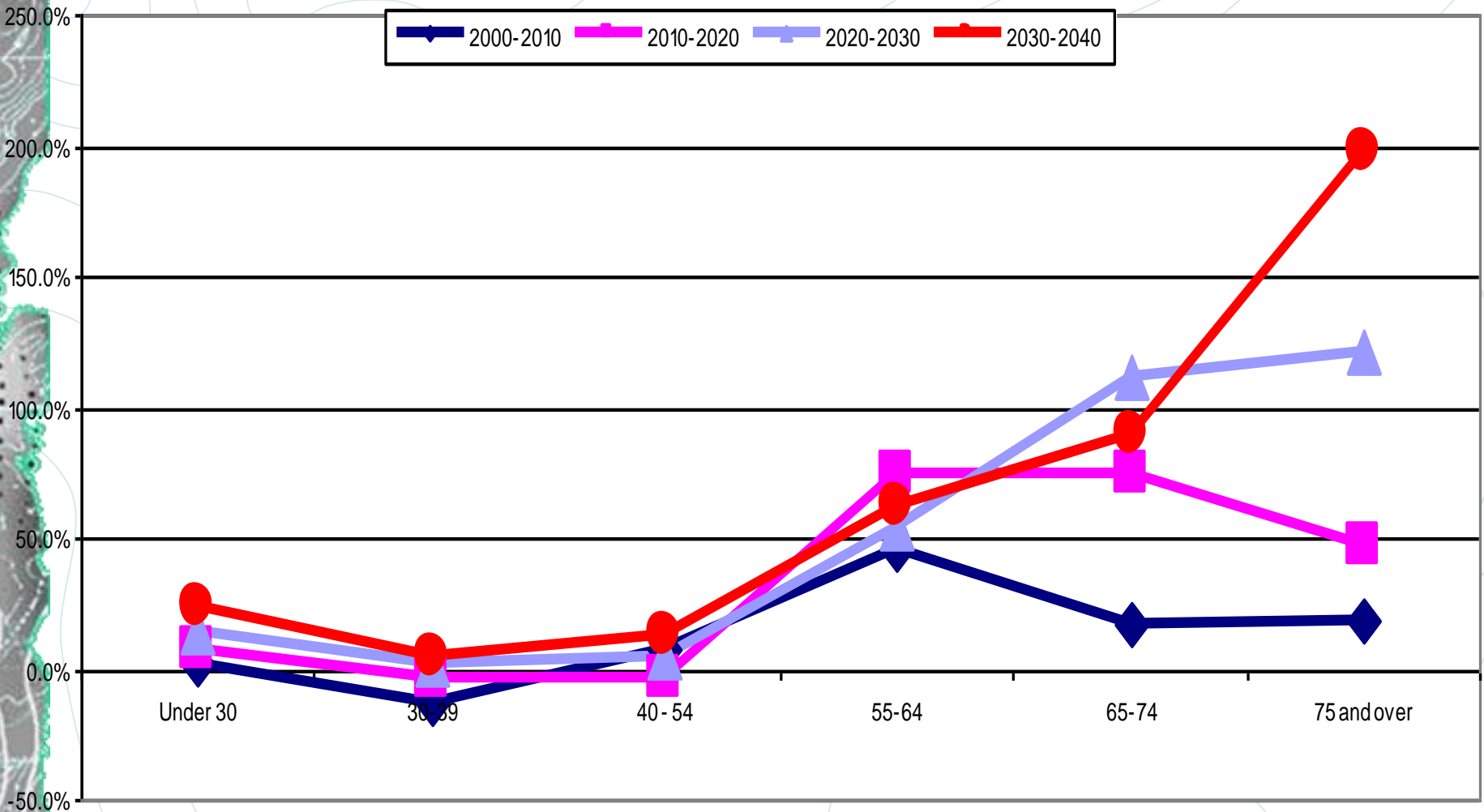


Population Projections from U.S. Census
Average Annual Miles from 2001 NHTS

Increase in Men's Driving Miles Indexed to 2000

Percent Change in Total Miles Attributed to Each Age Group

Assuming Current Average Driving Rates



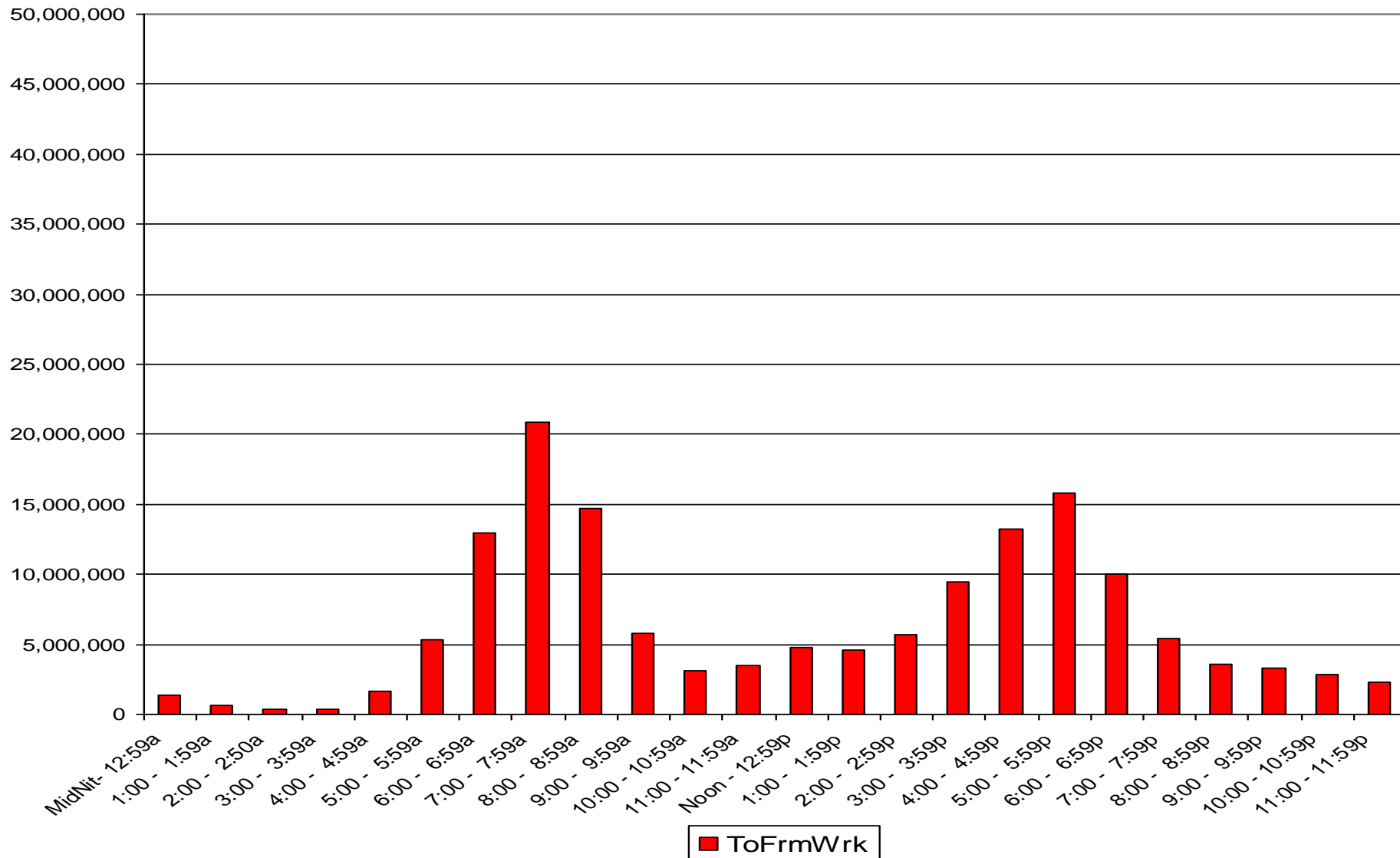
Population Projections from U.S. Census
Average Annual Miles from 2001 NHTS



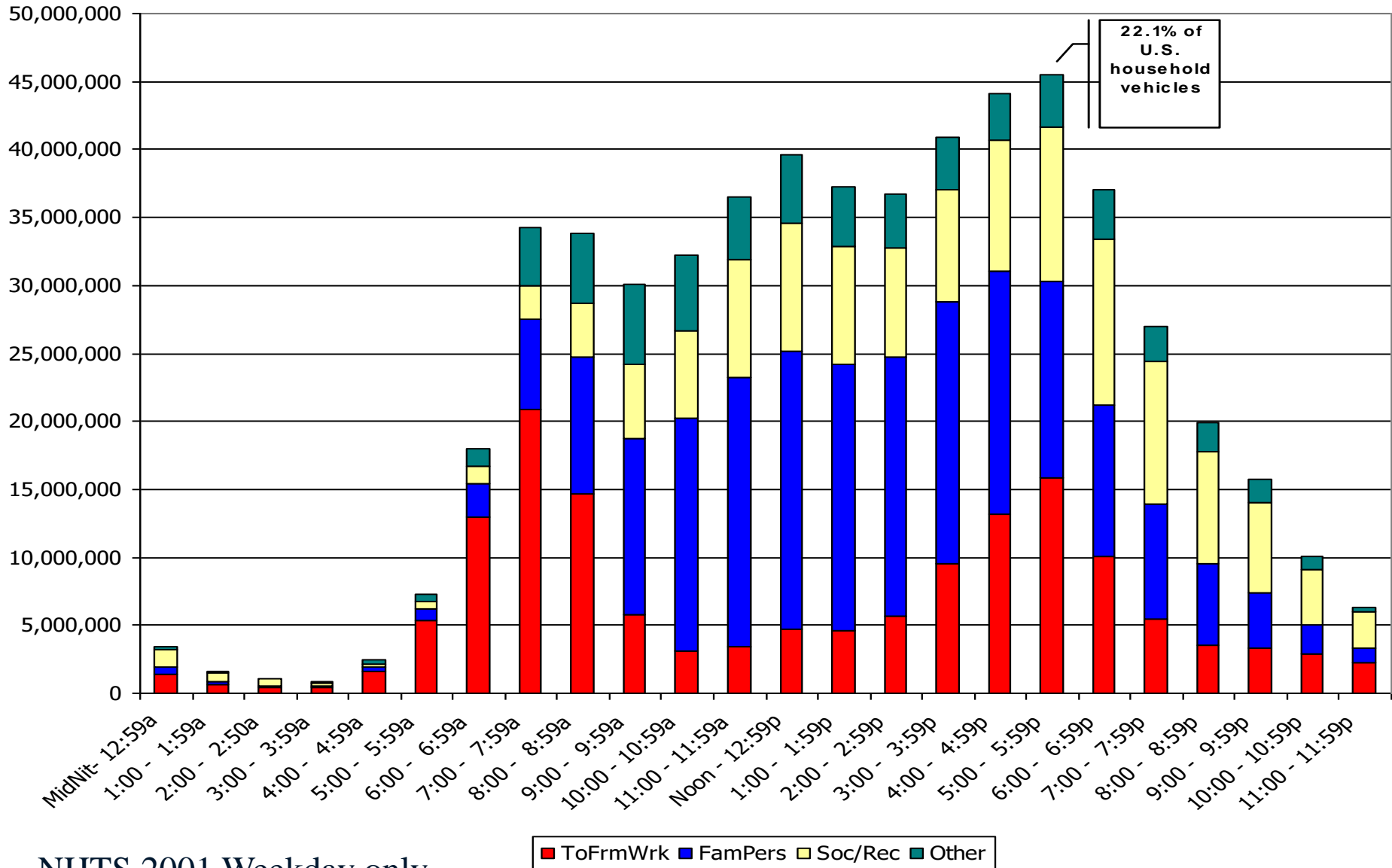
Growth in non-work travel changes
the daily landscape of congestion...

**Increased travel for non-work purposes is often
discretionary travel that can be at any time of
day, on any day of the week.**

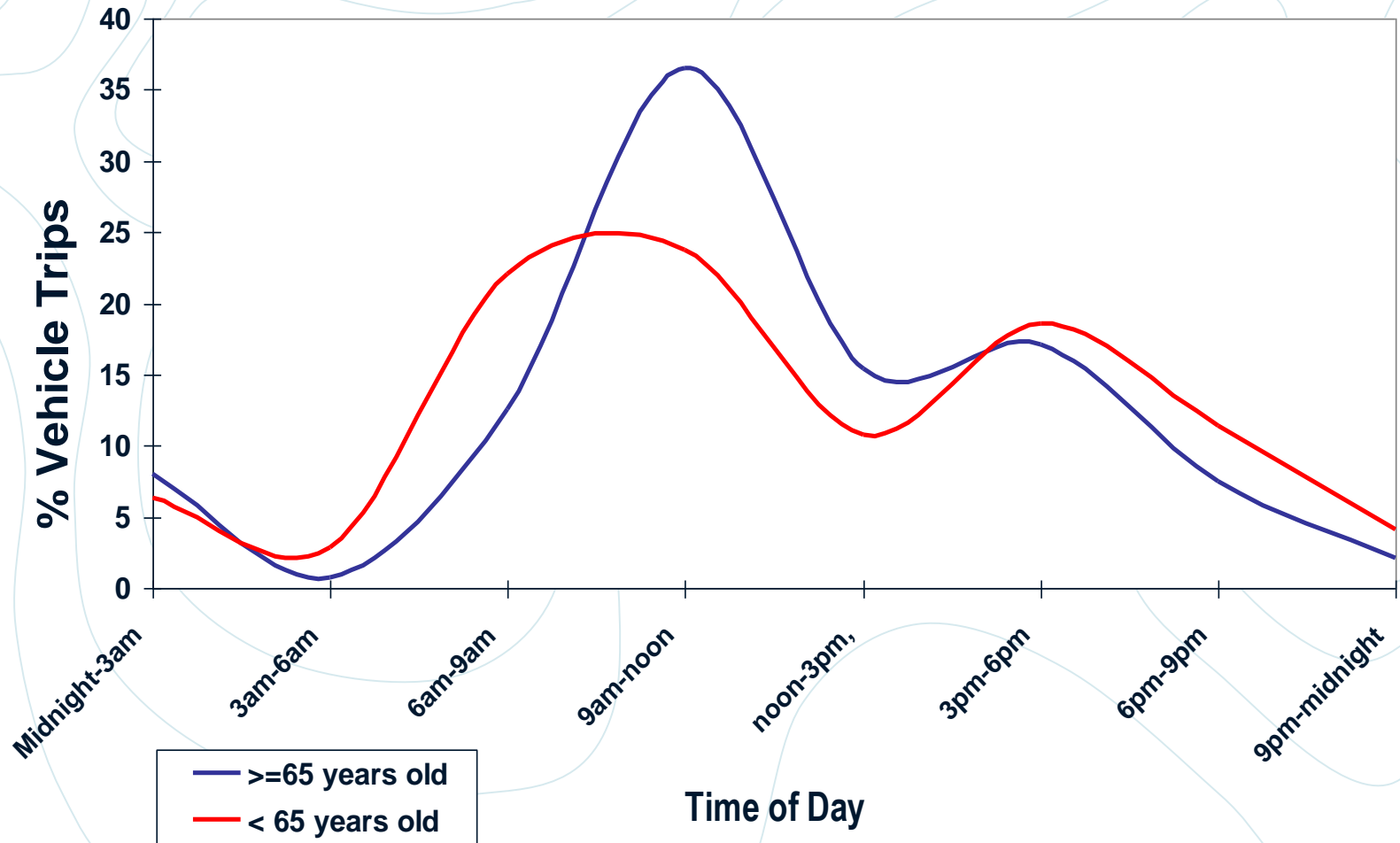
Current weekday commuting...



All vehicles in motion— The Changing Landscape of Daily Travel



**Older drivers have different travel patterns.
For instance, older people tend to travel
during less-congested hours.**



NHTS 2001, courtesy of Pat Hu, ORNL

What will the future hold?

- **As the population ages work trips per household will continue to decline and work trips as a proportion of travel will decline further.**
- **The trend toward single person households means the dispersal of household supporting trips (grocery, dry cleaners, etc) adding to the growth in non-work travel.**
- **The effects of economic changes, technology, sprawl and congestion on non-work and discretionary travel require further research, especially at small geography, to untangle these issues.**