

Travel Behavior Over Time: Bicycling / Walking Behavior and Cohort Analysis

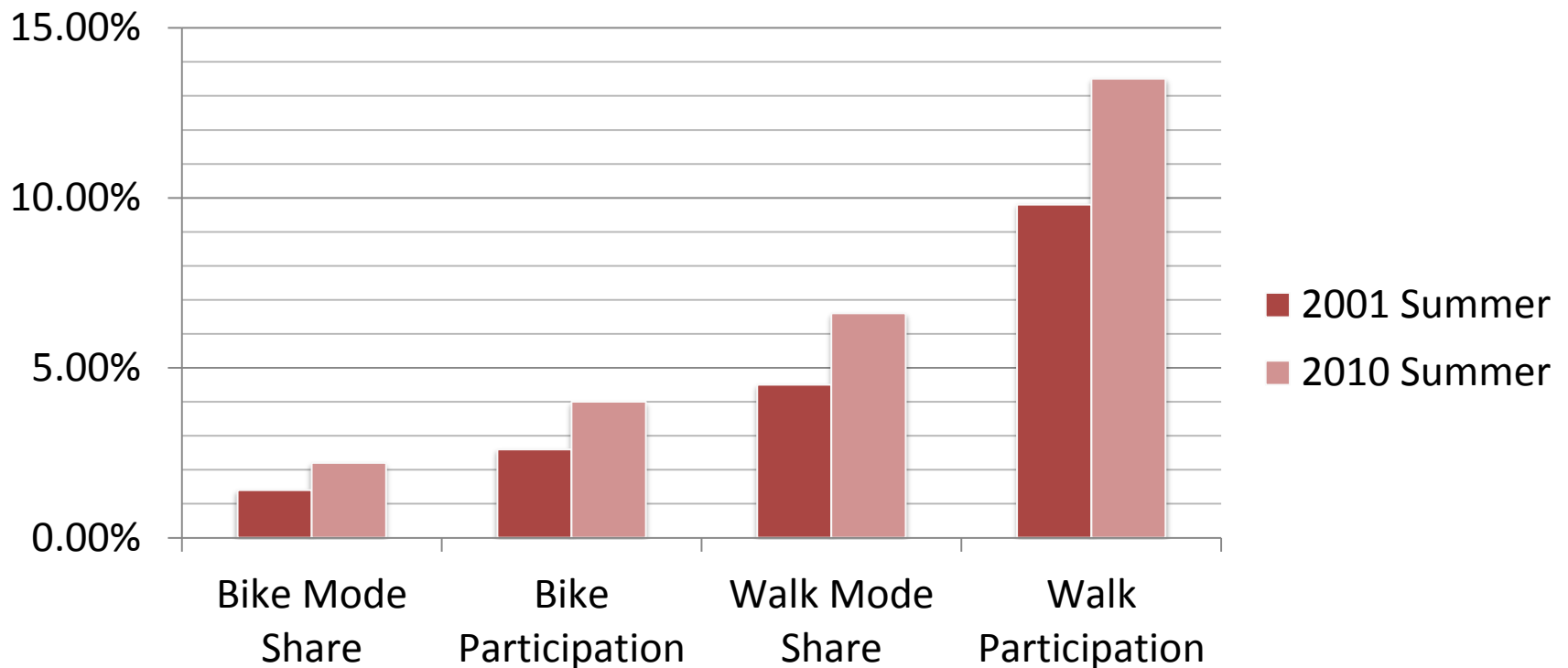
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Metropolitan Council Transportation Committee
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Biking & Walking Over Time: Increasing, Urban, Seasonal, & Multipurpose

- About 414,000 people make 1.3 million trips by walking and cycling on a typical weekday

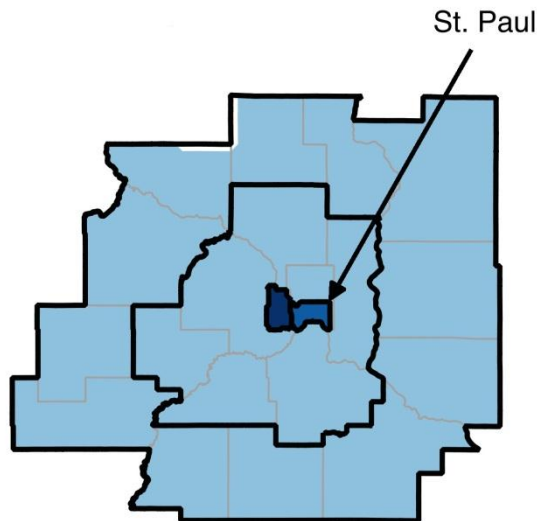
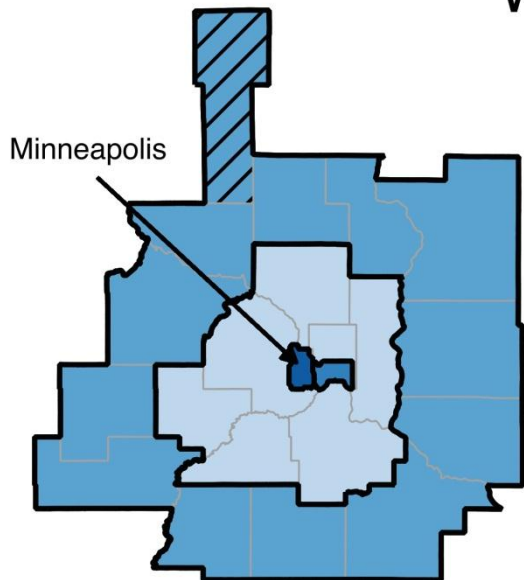


2001

Walking

2010

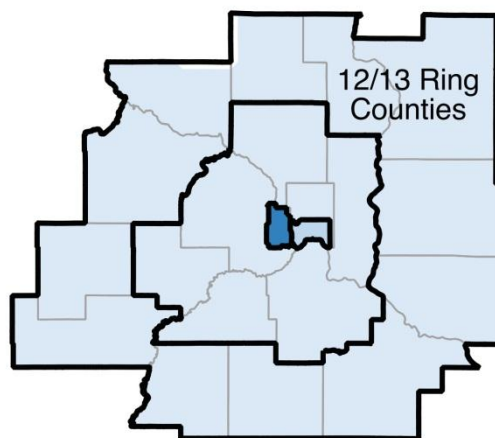
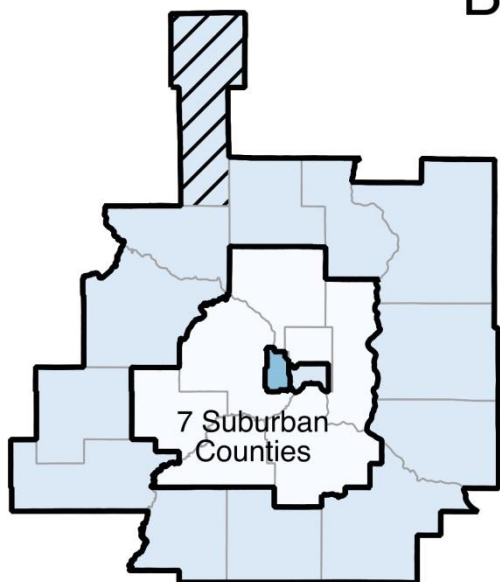
Increasingly Urban



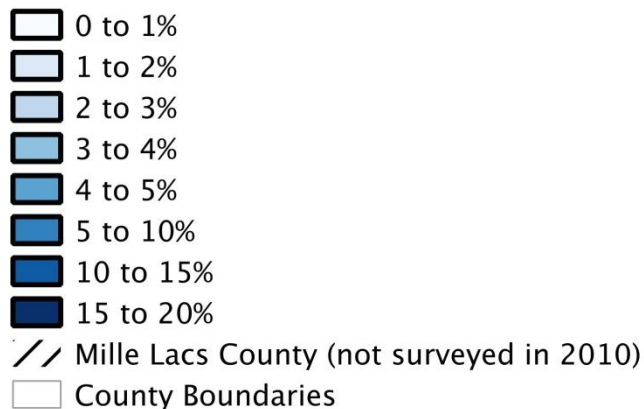
Higher rates and faster growth in walking and cycling in Minneapolis & St. Paul than suburban and ring counties

Patterns in suburban and ring counties are similar

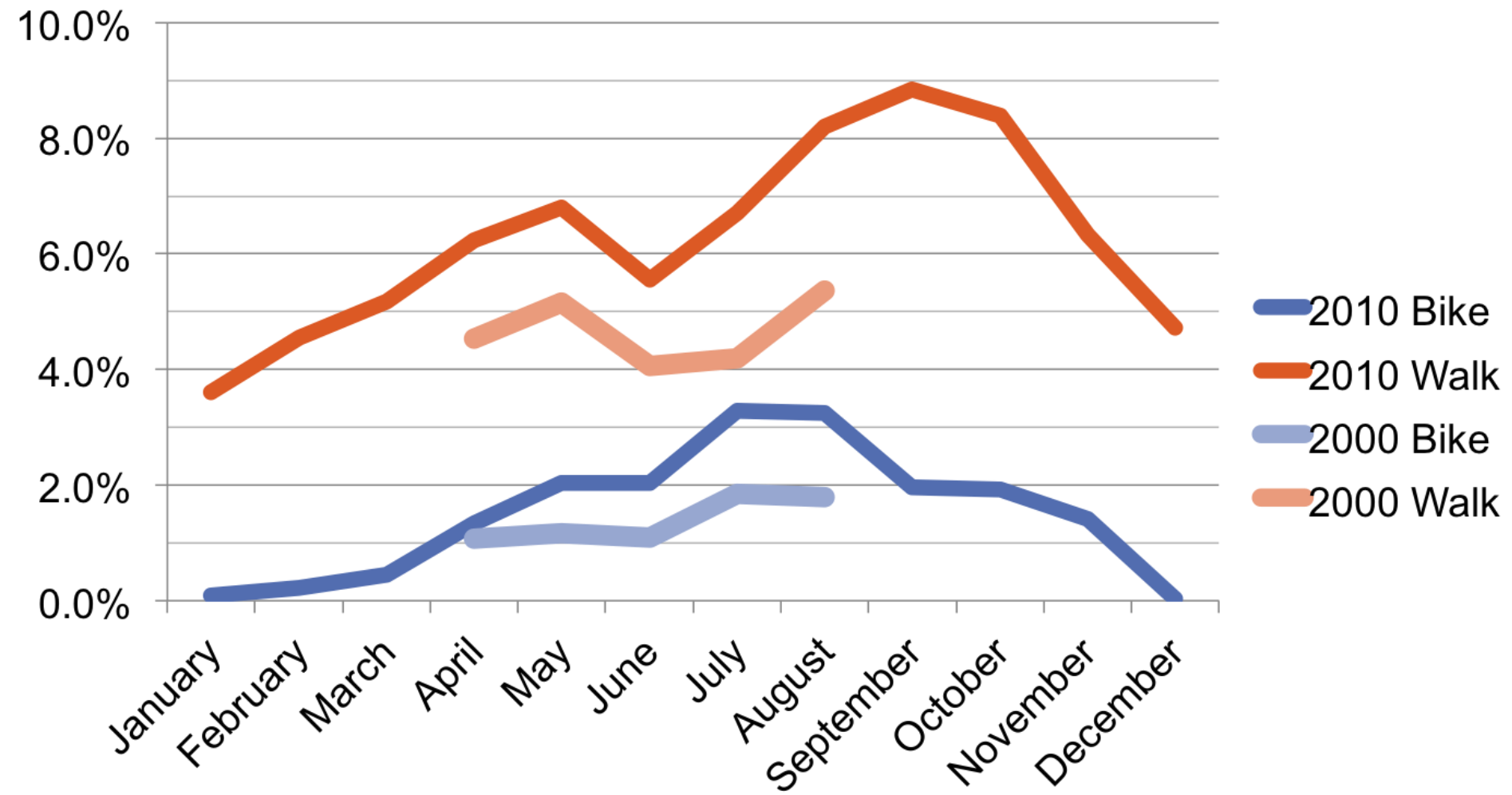
Bicycling



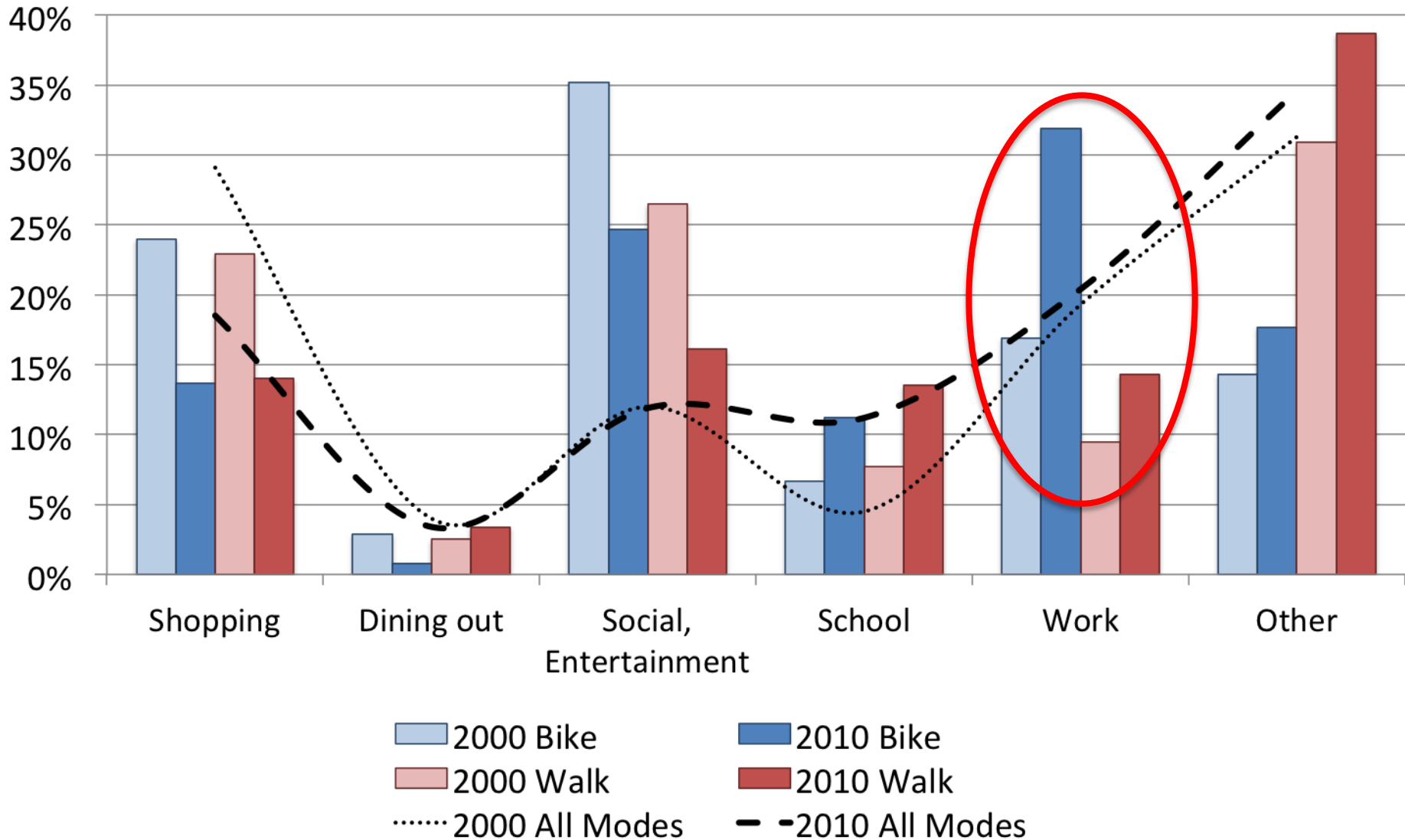
Summer Mode Share



Seasonality affects bicycling more than walking

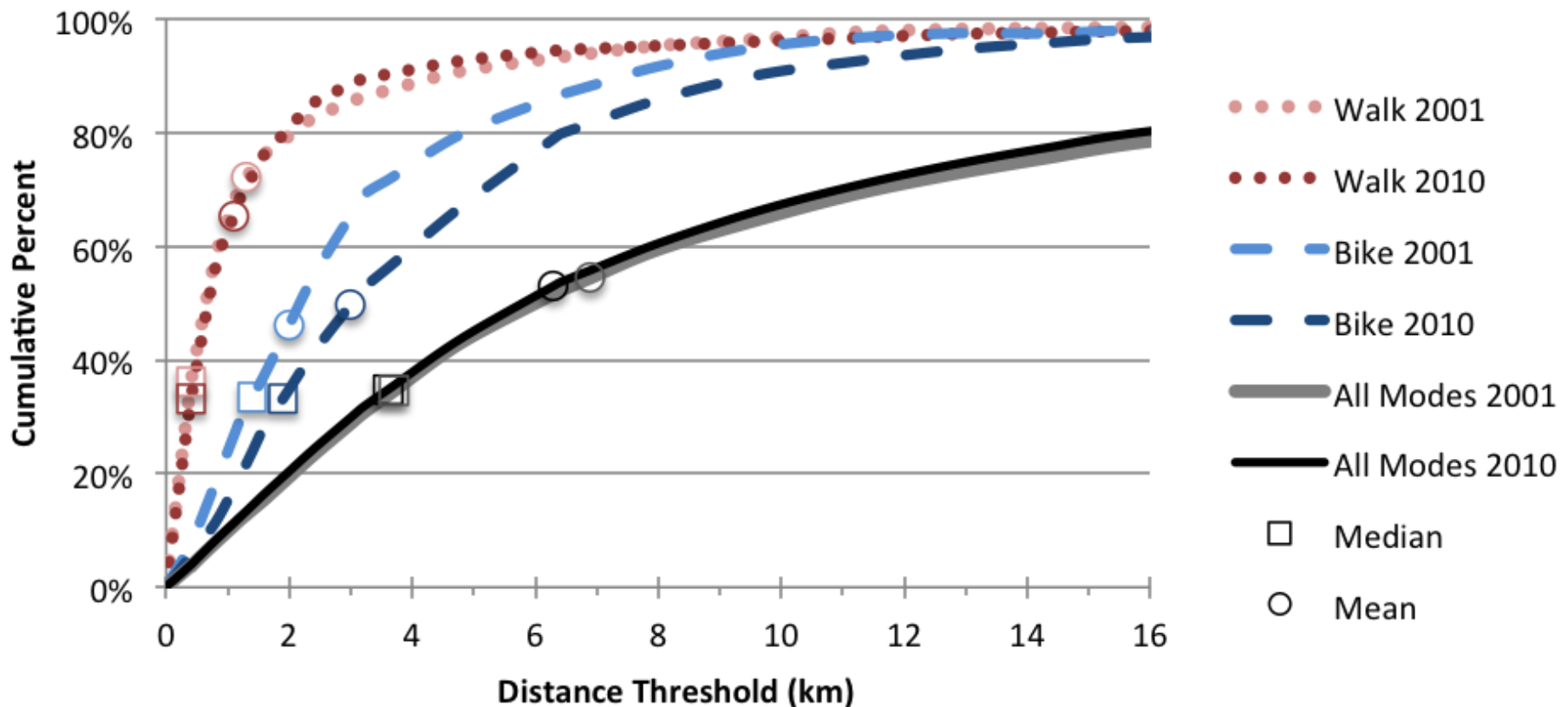


Bicycling increasingly used for commuting, among other changes



Other highlights

- Infrastructure growth in Minneapolis
- Persistent, increasing gender gap in cycling
- Trip distances are increasing



Implications

- Geographic variation suggests different performance goals for urban, suburban, and rural areas
- TBI is a more complete measure than ACS, but does not capture recreational bicycling and walking
- Mode share masks higher rates of participation in walking and cycling

Cohort Analysis of Travel Behavior

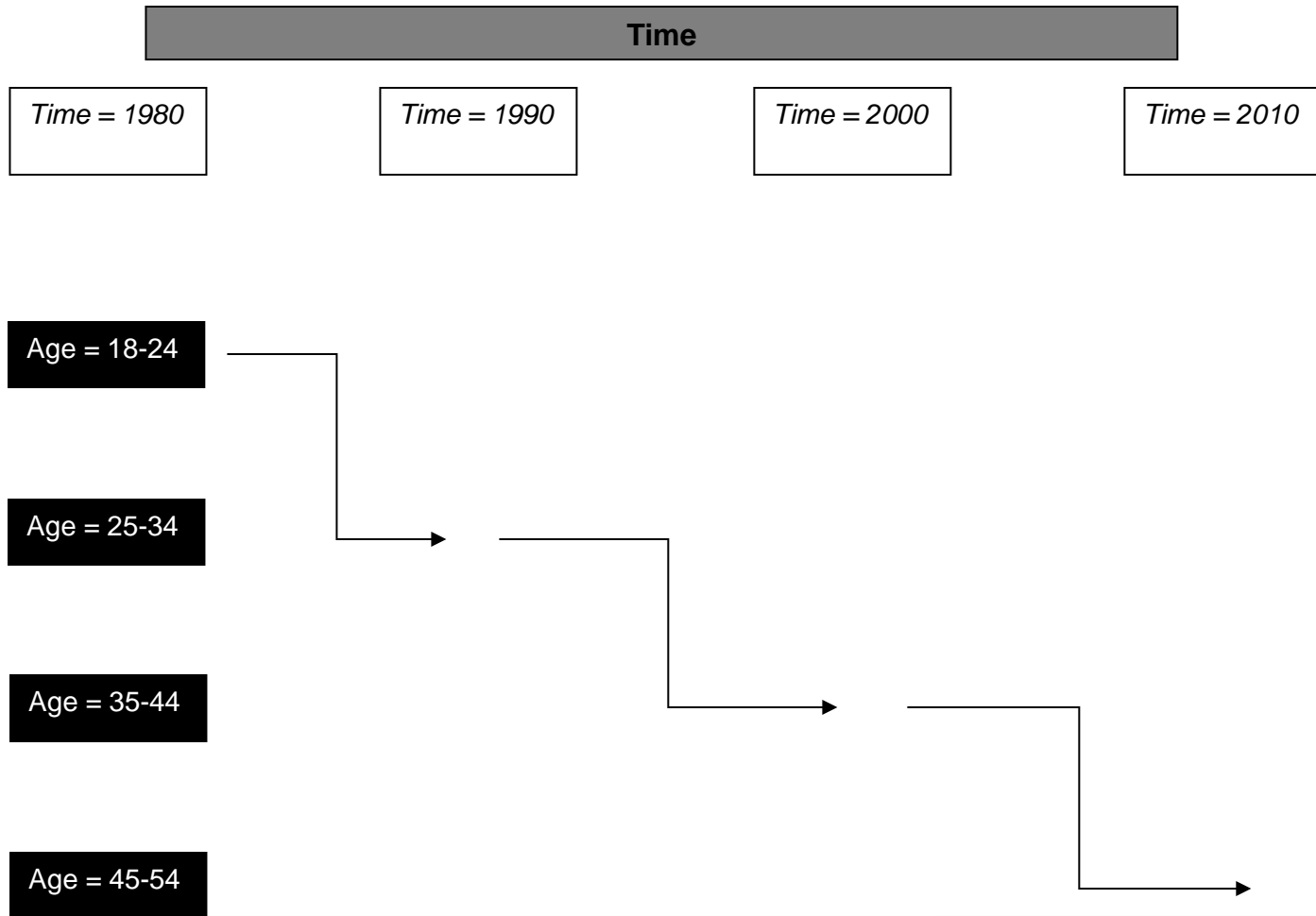
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What is a cohort?

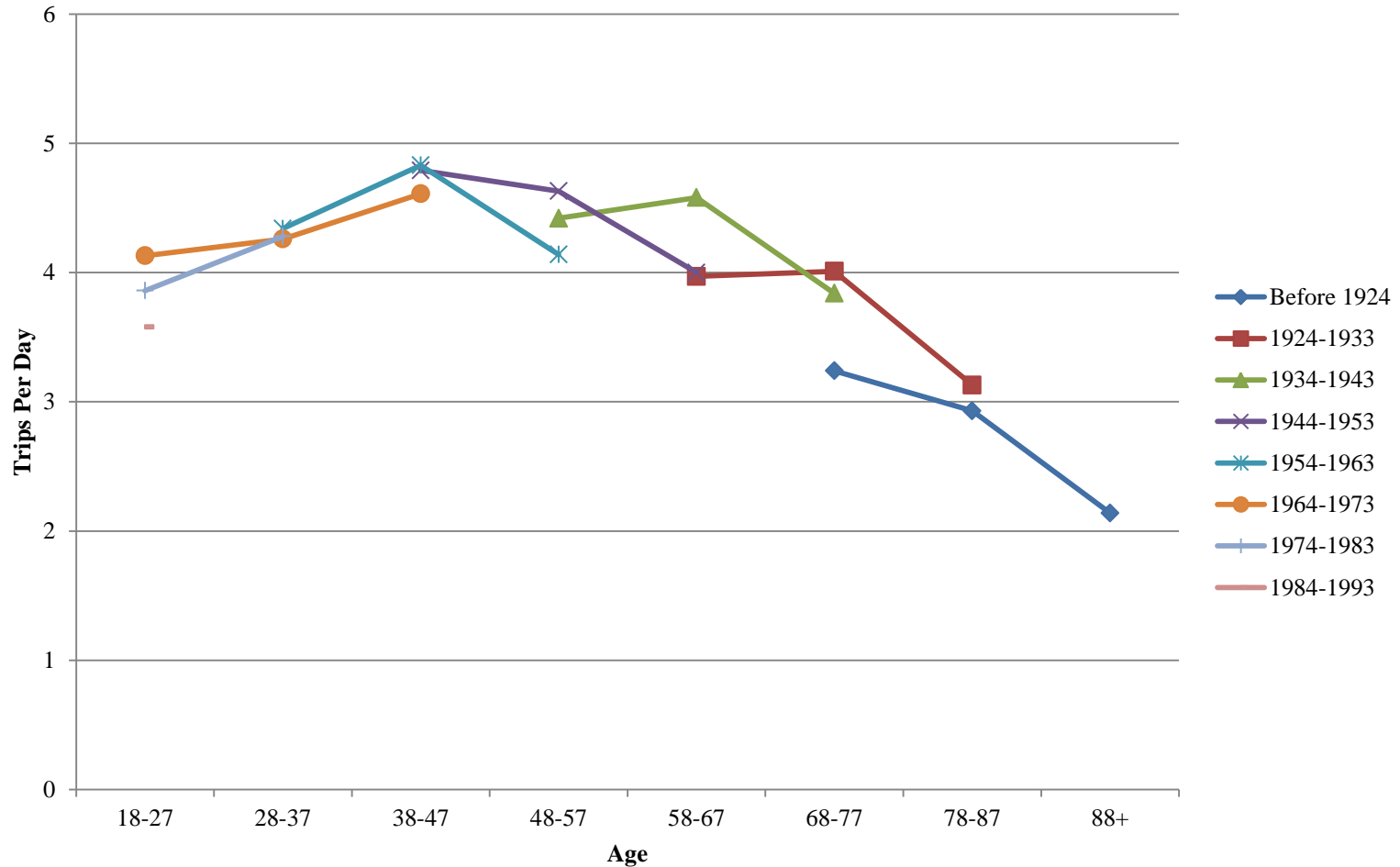
“A ‘cohort’ is defined as a group with *fixed membership*, individuals of which can be identified as they show up in surveys. The most obvious example is an age cohort, (e.g. all males born between 1945 and 1950).”

Source: Deaton 1985

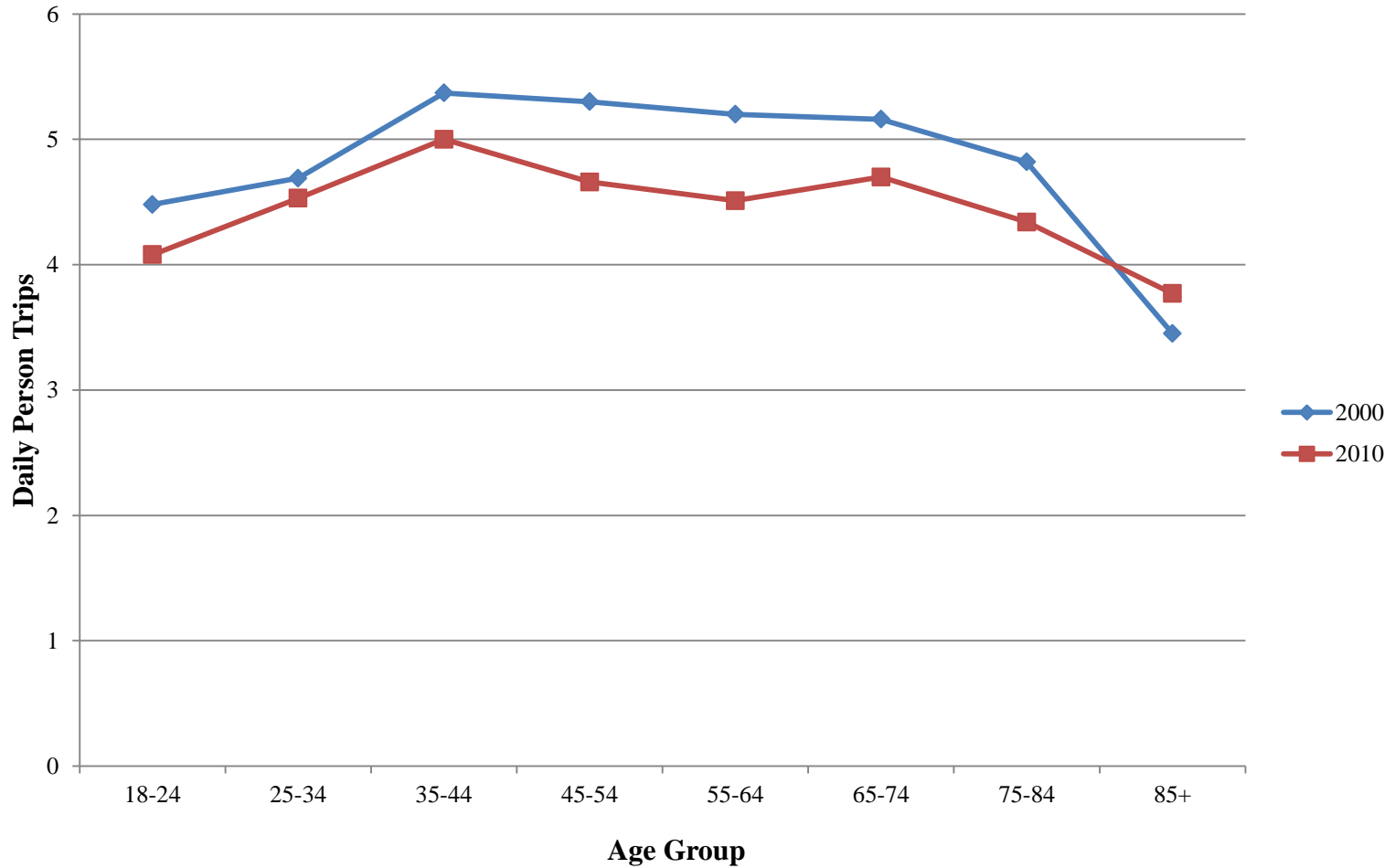
Cohort Dynamics



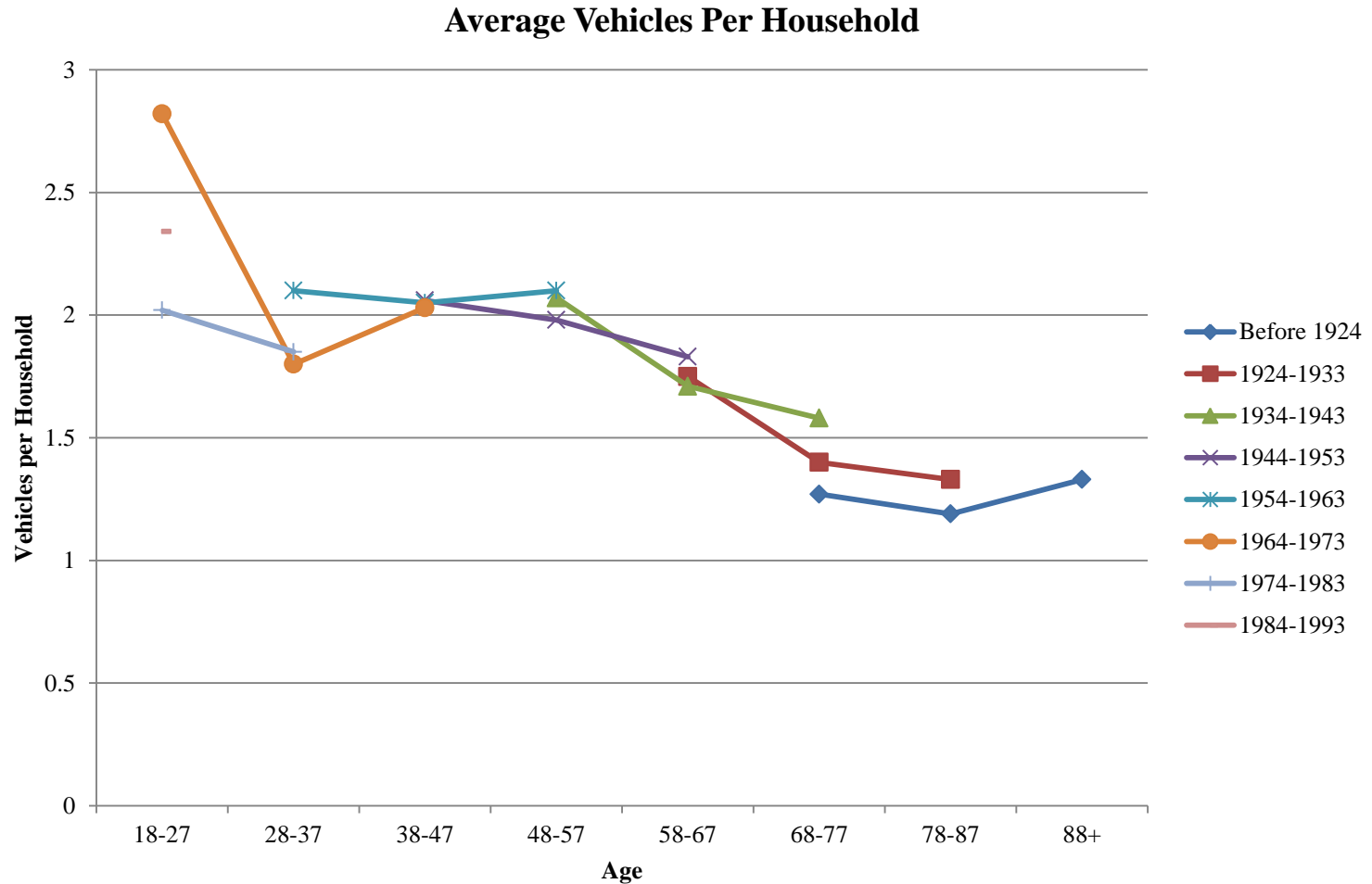
Person Trips per Day by Cohort



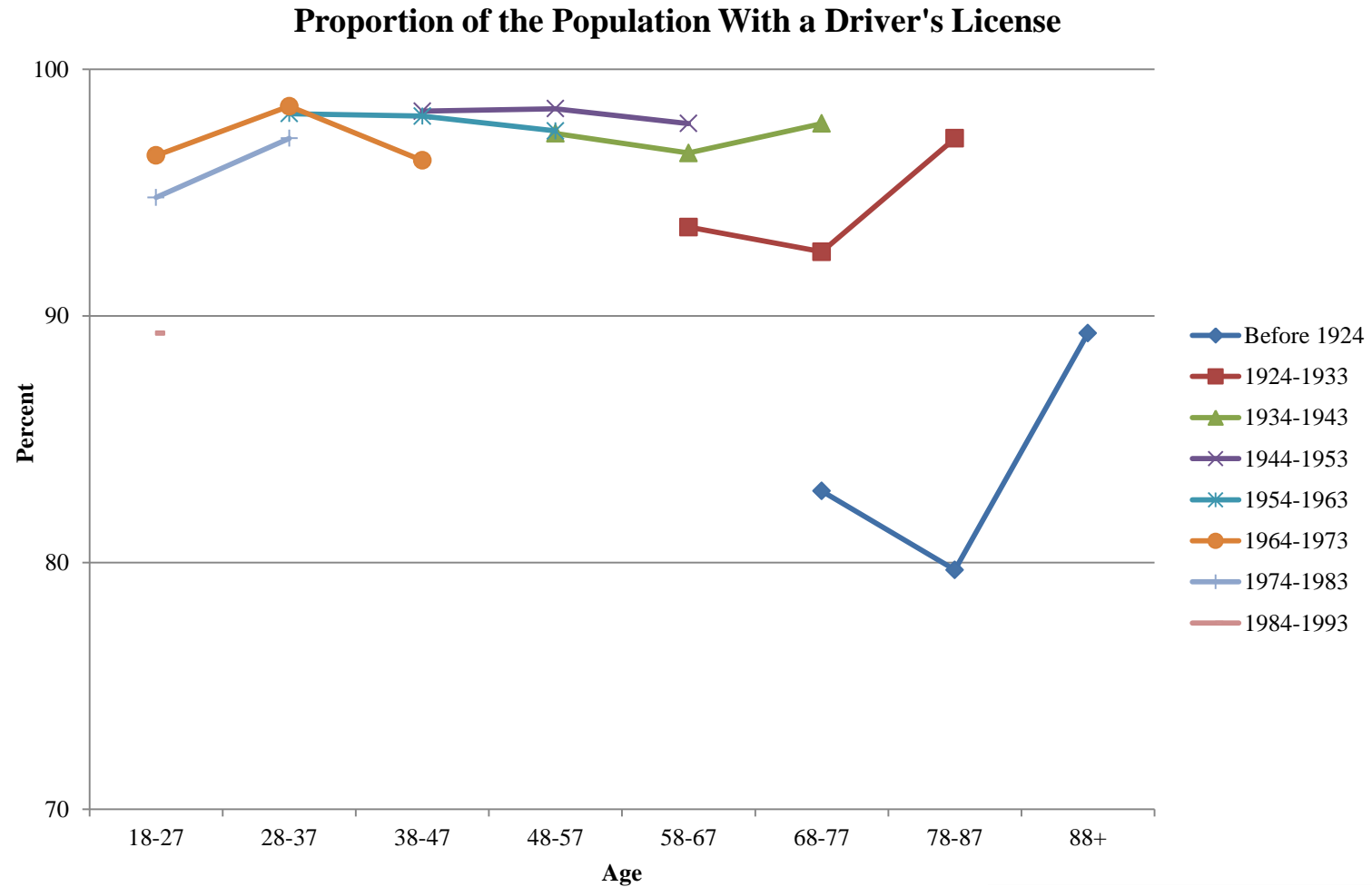
Trip Rates by Age (2000 and 2010)



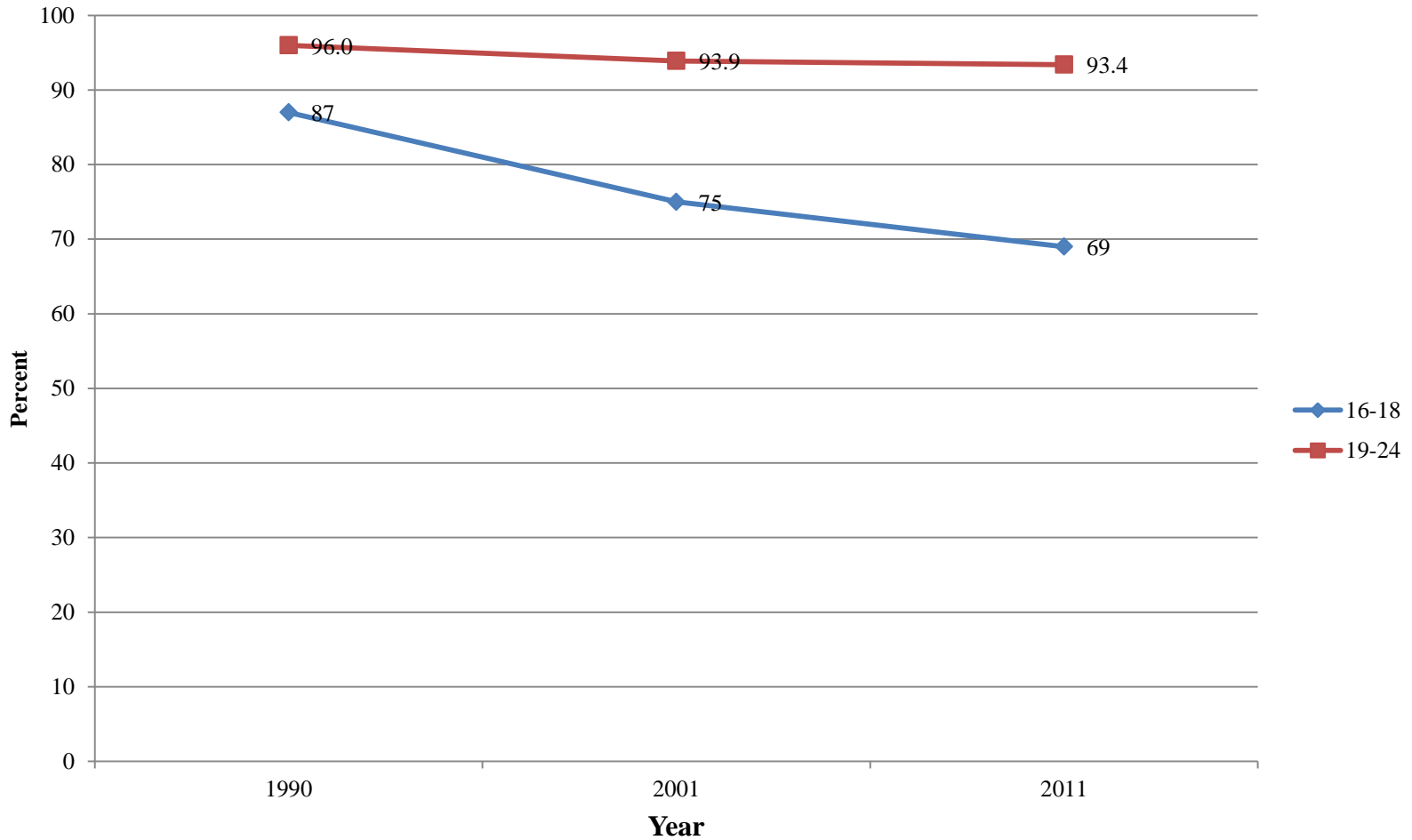
Vehicle Ownership by Cohort



Licensure Rates by Cohort



Licensure Rates for Younger Individuals



Millennials

- Lower trip rates
 - But not out of line with other groups
- Lower vehicle ownership
 - Difference is still small
- Preference for density?
 - No evidence yet
- Other factors
 - Race/ethnicity

Summary

- Findings consistent with other recent studies
 - Trip Rates / VMT (US, UK / Europe)
 - Male-specific declines
 - Licensure rates (US, UK)
 - Car ownership (various)
- Importance of demographics
 - Aging of population
 - Structure of population
 - Secular decline in travel (fuel price effect?)
- Importance of economics
 - Employment rates (especially younger adults)
 - Income trends
 - Labor force participation