



### Research Questions

- (1) For the journey to work commute, both at the U.S. national and metropolitan scales, what is the probability of a commuter choosing to drive a car, truck, van, or motorcycle, or to ride a train, bus, bike, or walk as her or his primary means of transportation? How is this probability changing over time?
- (2) What are the significant socio-economic (age, educational level, marital status, race, gender, income, homeownership status) and spatial (residency time) predictors of journey to work modal choice patterns at the national and metropolitan levels? How are these socio-economic and spatial predictors changing over time?

### Research Methods

We specifically consider questions from the “Journey to Work” section of the American Housing Survey (AHS) and examine stated patterns in mode choice by looking at the national and metropolitan level data from 1997-2007 for commuters between the ages of 16 and 65 years. The AHS is a panel of a fixed sample of about 50,000 homes, collected every other year. Out of 432,362 respondents in our sampled age group, 275,864 (63.80%) report on their journey to work modal choices, some of which are repeatedly observed over time. The sample contains about 24.52% college graduates, 55.21% married individuals, 80.83% whites, 11.40% blacks, 4.31% Asians, 51.43% females, and 29.05% renters. The average household income is \$ 71.24K (nominal). Average residency time is 8.07 years.

We are estimating three mixed-effect models both at national and metropolitan geographical scales: (1) multinomial logistic regression model with robust errors; (2) multinomial probit regression model with robust errors; and (3) mixed logit model with transformed errors.

RESEARCH INITIATIVE:

Social Dynamics of Journey to Work Commute Patterns Across U.S. Metropolitan Areas, 1997-2007: Evidence from the American Housing Survey

FACT SHEET

Preliminary findings from the national-level multinomial logistic regression model with robust errors

Figure 1. Mode choice over time

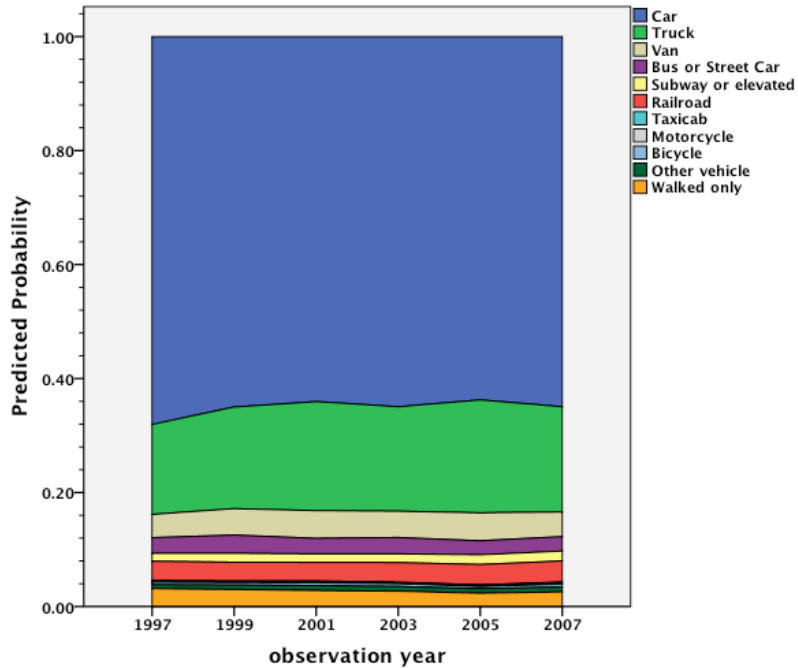


Figure 2. Mode choice and age

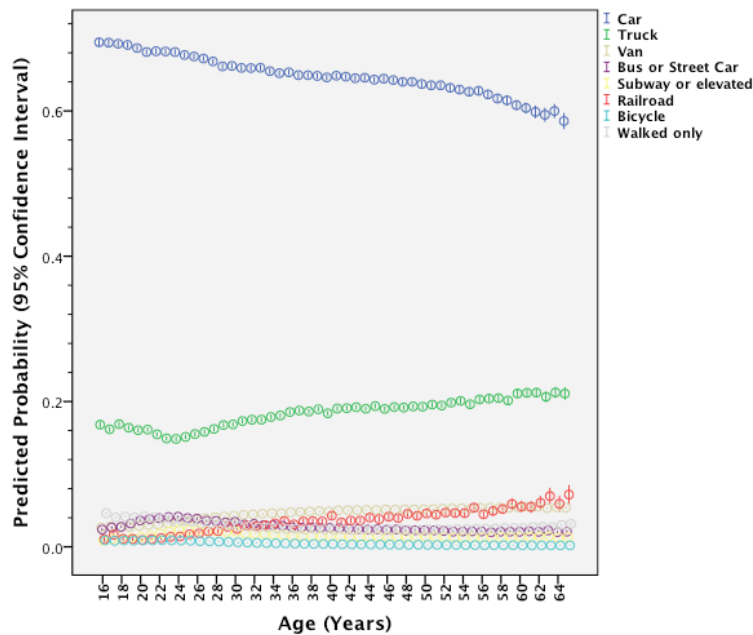




Figure 3. Mode choice and gender

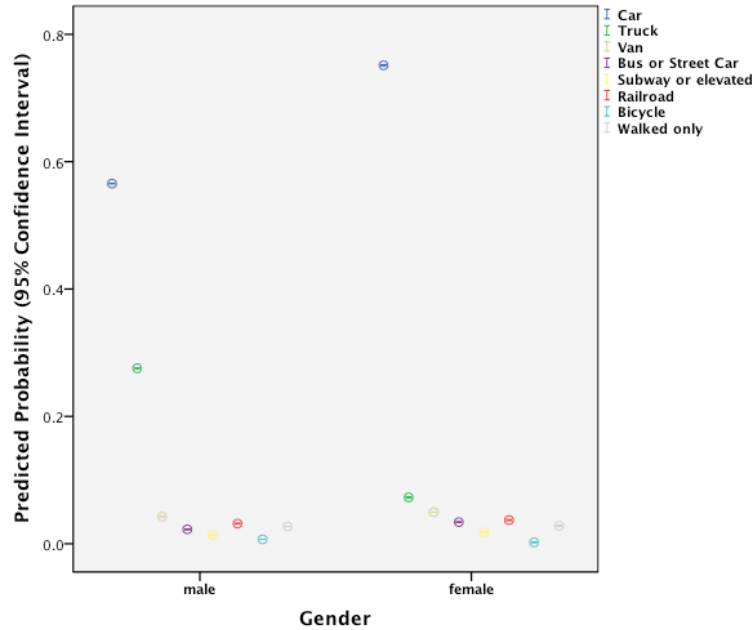
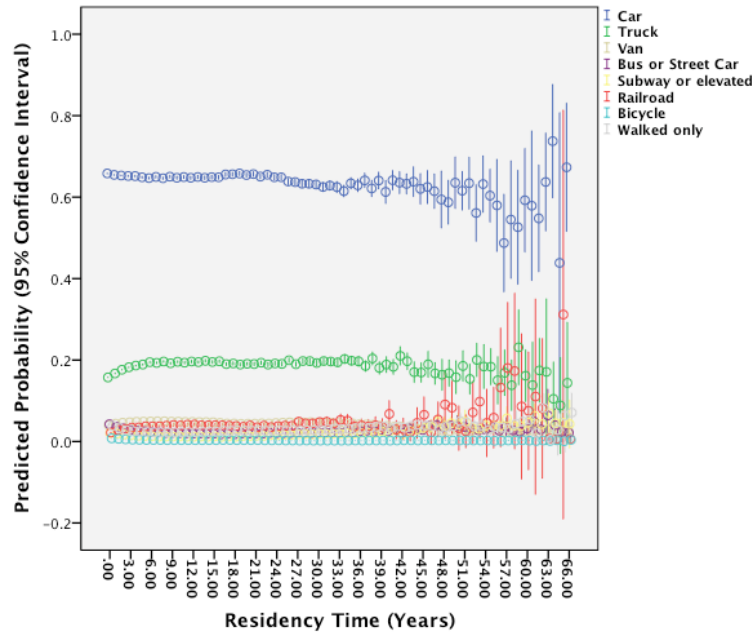


Figure 4. Mode choice and residency time



RESEARCH INITIATIVE:

Social Dynamics of Journey to Work Commute Patterns Across U.S. Metropolitan Areas, 1997-2007: Evidence from the American Housing Survey

FACT SHEET

Figure 5. Mode choice and race

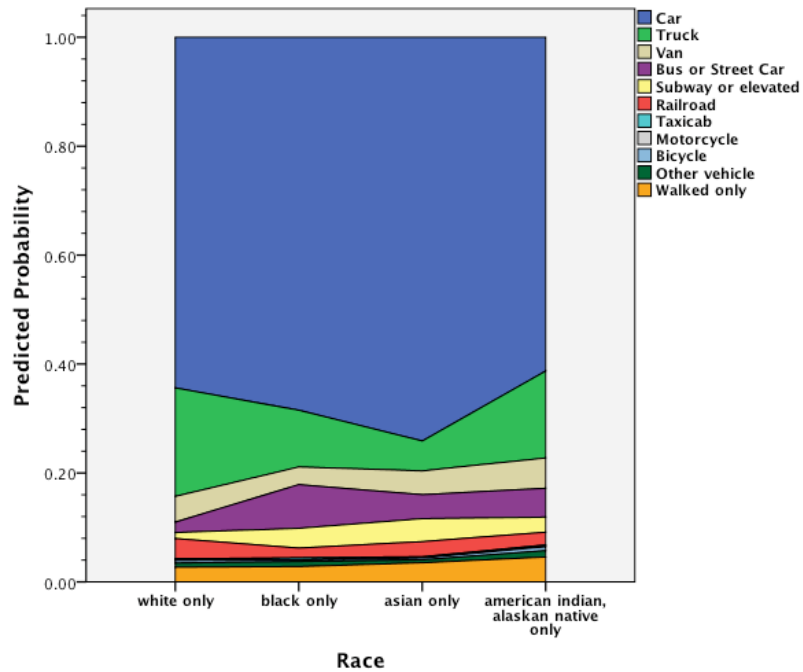


Figure 6. Mode choice and income

