



# California's Connected Millennials: Do They Travel More or Less?

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## Overview

Millennials are increasingly reported to have different lifestyles and travel patterns than their older counterparts: they postpone the time they obtain a driver's license, often choose to live in urban locations and not to own a car, drive less if they own one, and use alternative means of transportation more often. Several explanations have been proposed to explain these behaviors. However, most studies have been limited by the *lack of information on specific variables* (e.g. personal attitudes and preferences in NHTS data), or the *use of non-random samples* (e.g. convenience samples drawn from university students).

To fill this gap, this study investigates the relationships among millennials' residential location, lifestyles, travel behavior, aspirations to purchase a vehicle, and the motivations behind them, through the analysis of **behavioral and attitudinal data** collected with a detailed **online survey** created as part of the project. We collect and analyze information on personal attitudes and preferences, transportation-specific attitudes, use of communication technologies and online social media, work and study activities, commute behavior, limitations to travel, residential location, adoption of emerging technologies and *new mobility* services (e.g. bike-sharing, car-sharing, on-demand ride services such as Uber and Lyft, etc.) and their effects on the use of other modes, future aspirations and propensity to purchase a vehicle, and socio-demographics.

The survey was distributed in Fall 2015 to a sample of **millennials (18-34)** and members of **Generation X (35-50)** in California, using a quota sampling approach based on geographic region and neighborhood type. We present preliminary results from the analysis of the *California Millennials Dataset*, and discuss the next steps of the research.

## Content of the Survey

Personal Attitudes and Preferences	• e.g. social habits, lifestyles, physical activity, adoption of technology, environmental concerns
Use of Online Social Media and Adoption of Technology	• use of smartphones and ICT devices, use of online social media, adoption of e-shopping and telecommuting
Residential Location and Living Arrangements	• information about the residential location of respondents, including their home address, dwelling unit type, tenure, and living arrangements
Employment and Work/Study Activities	• information on the student and employment status
Transportation-Mode Perceptions	• e.g. overall perception, time flexibility, comfort, cost/price sensitivity, convenience
Current Travel Behavior	• commuting time and distance, use of various modes of transportation for commuting and leisure trips, and personal satisfaction with current amount of travel
Emerging Transportation Services	• awareness, adoption and frequency of use of emerging transportation and shared mobility services (bike-sharing, car-sharing, on-demand ride services such as Uber/Lyft, etc.), and motivations behind their use
Driver's License and Vehicle Ownership	• e.g. driver's licensing status, level of vehicle ownership in the household, and availability of parking
Previous Travel Behavior and Residential Location	• retrospective information about major life events in last three years, previous travel behavior and vehicle ownership, and factors affecting choice of current residential location (if they moved)
Aspirations for/Opinions about Future Mobility	• expectations about future life events and aspirations to purchase and use a car vs. use other means of travel
Socio-Demographic Traits	• e.g. socio-demographic traits of the respondents, their households, and their family members

## The California Millennial Dataset

A *quota sampling approach* was adopted to ensure that enough respondents were included from each combination of **geographic regions** of California and **neighborhood types** (predominantly urban, suburban, rural), while controlling for five demographic dimensions (*gender, age, income, race and ethnicity, and presence of children in the household*) to mirror the characteristics of the population of California.

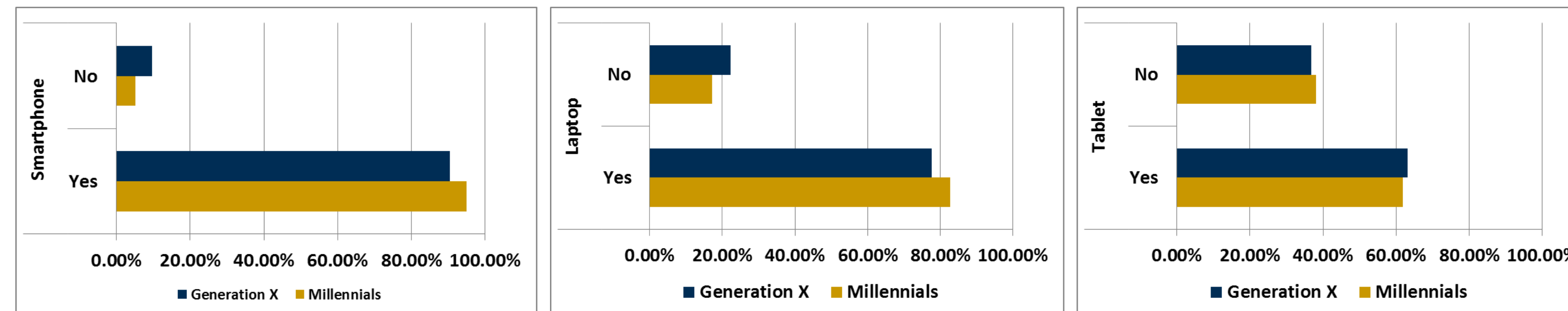
Sample Characteristics (N=2,391)

Region	Millennials	Generation X
Central Valley	195	131
MTC	284	256
NorCal and Others	115	95
SACOG	197	136
SANDAG	226	167
SCAG	331	258
Neighborhood Type	Millennials	Generation X
Rural	437	333
Suburb	650	501
Urban	261	209

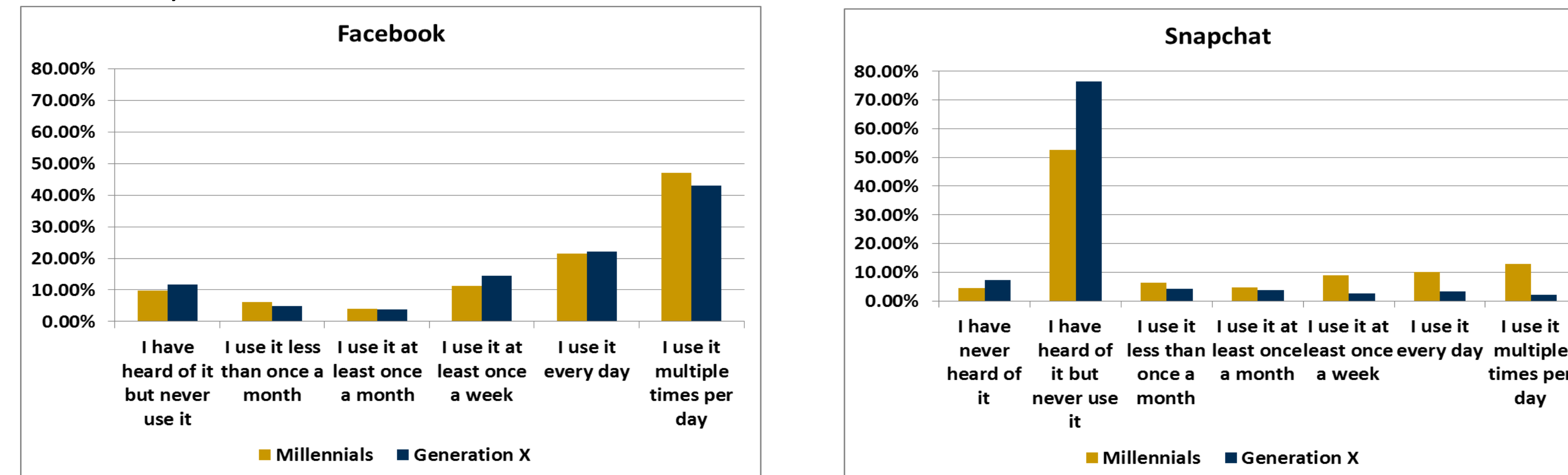


## Technology Adoption

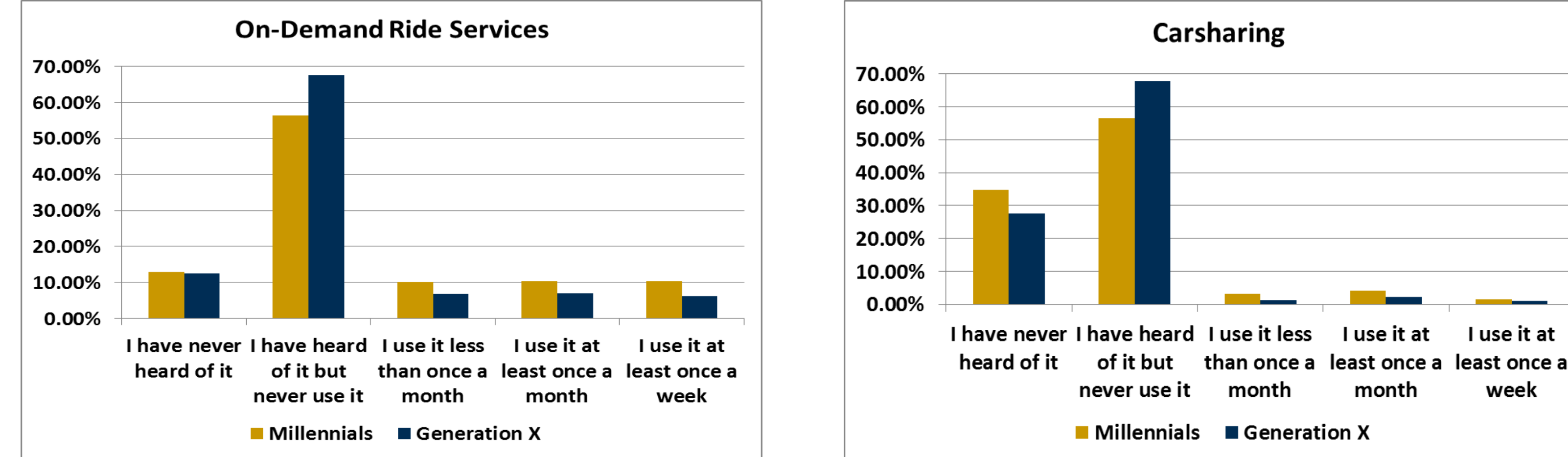
Do you regularly use a...



How often do you use...



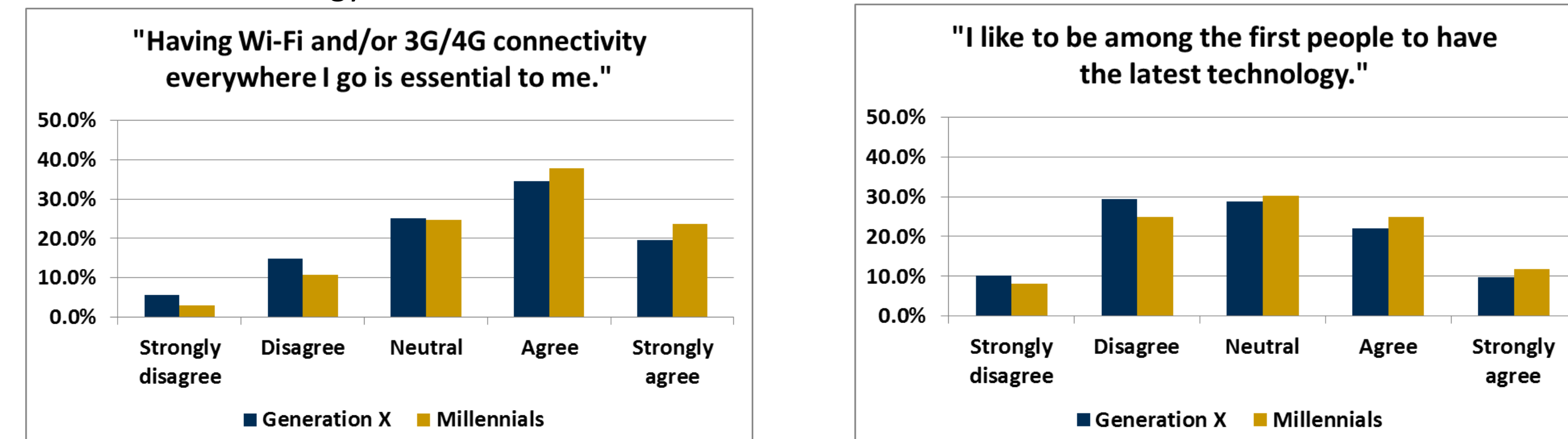
Are you familiar with...



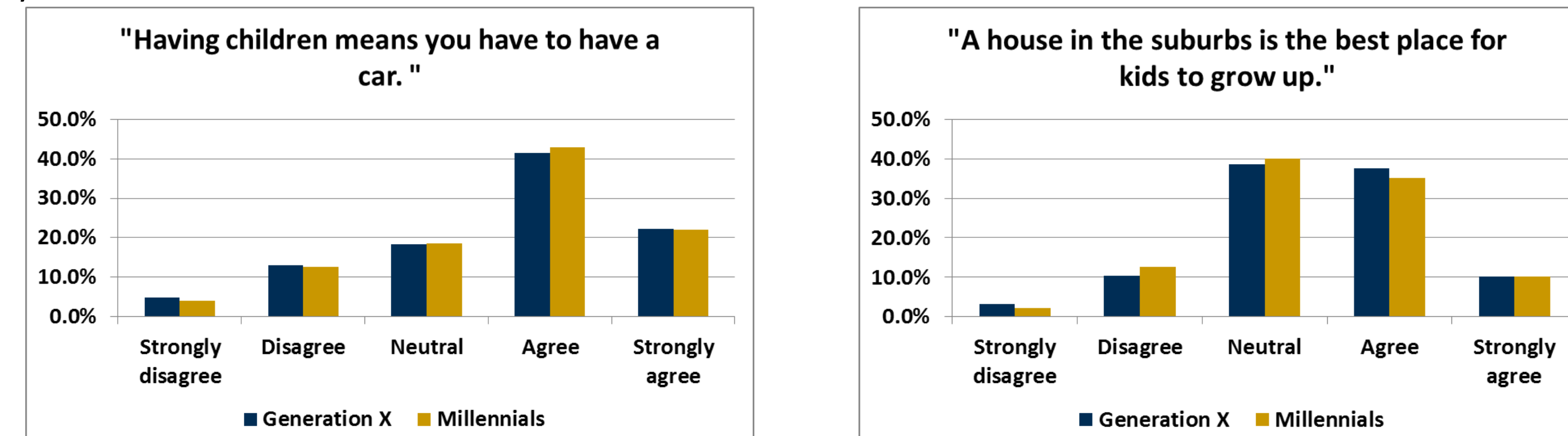
## Millennials' Attitudes

**Personal attitudes and preferences** controlled for through the agreement with 60+ *attitudinal statements* related to several dimensions, measured on a 5-level Likert Scale, from Strongly Disagree to Strongly Agree:

Use of Wi-Fi and Technology:

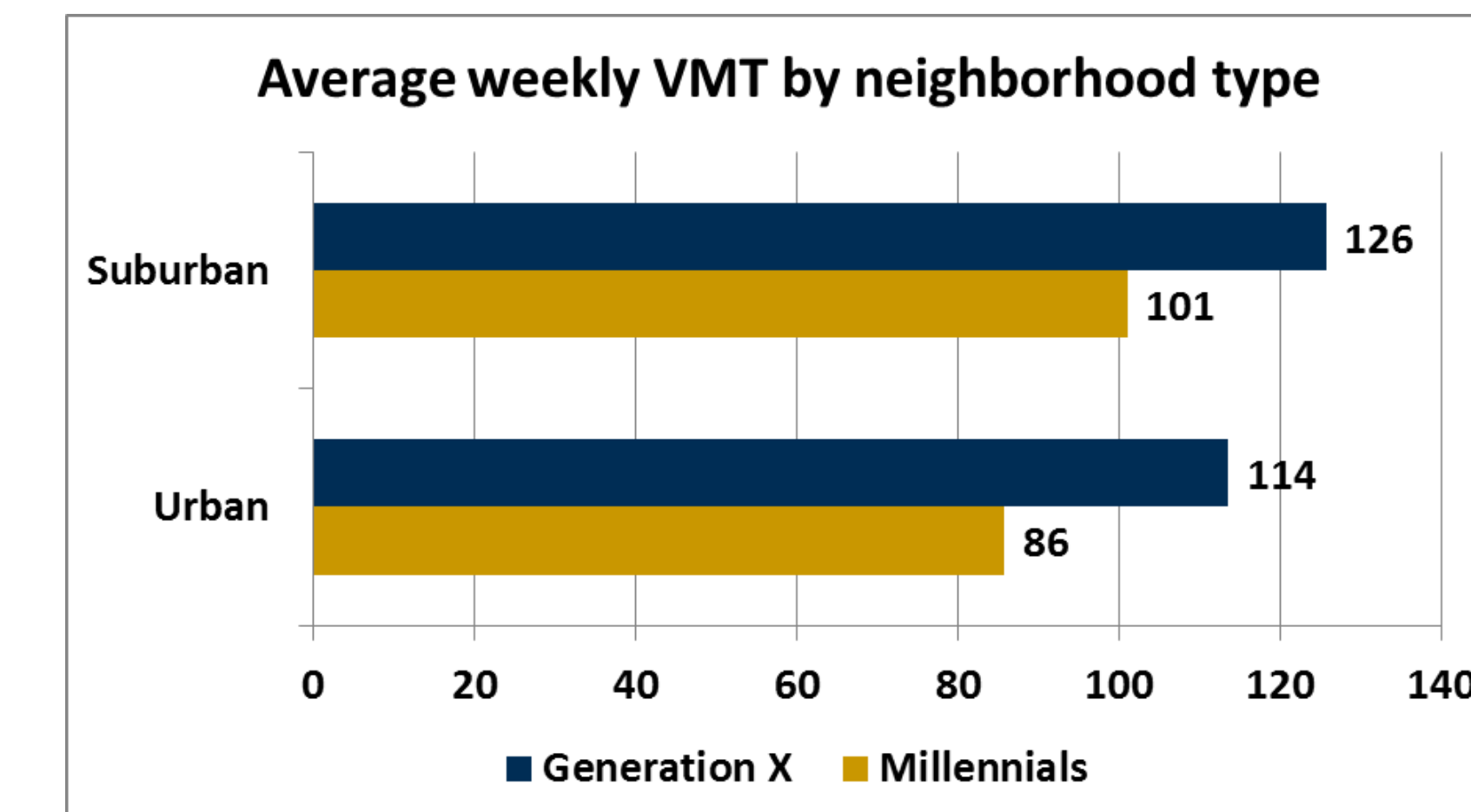


Family life:



## Vehicle Ownership

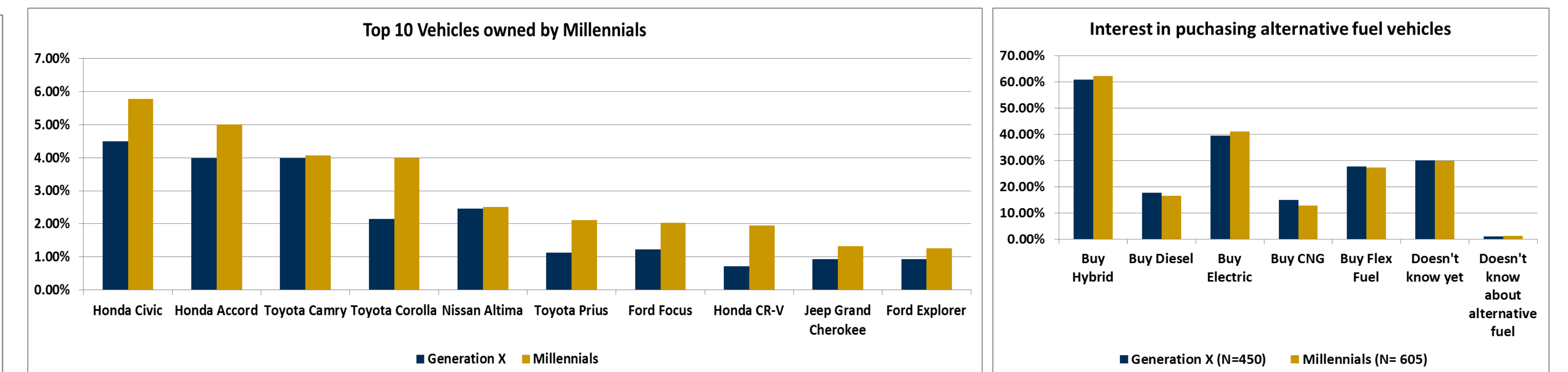
Millennials drive fewer miles per week than Gen X members. This difference holds also when controlling for geographic region and neighborhood type.



N=2,082, weighted sample



N=2,335, weighted sample



## Preliminary Findings, and Next Steps

Consistent with expectations, millennials are found to:

- **Drive less:** Millennials have weekly VMTs that are about 18.83% lower than those of Gen X. Similarly, a larger percentage of millennials (13.72% vs. 7.57% among Gen Xers) does not have a driver's license (yet).
- **Use social media more often:** Millennials log in to Facebook and Snapchat more often than their Generation X counterparts.
- **Adopt technology:** Millennials have a higher interest in always being connected and are more likely to desire the latest and greatest, in terms of technology.
- **Adopt shared mobility services:** A larger proportion of Millennials has at least tried once (and they report a more intense use of) new transportation services such as Zipcar, Uber, Lyft, etc.
- **Have similar attitudes on family life as Gen X:** While this may be a product of following in their parents footsteps, Millennials and Gen X share very similar opinions about how to raise a child.

In the next stages of the research, we will explore how millennial's behaviors relate to...

- **Stage in life** (e.g. being married, presence of children, student status, etc.)
- **Geographic location** (e.g. urban vs. suburban locations, accessibility by mode, etc.)
- **Economic conditions and household characteristics/living arrangements**
- **Personal attitudes, preferences and lifestyles**

We will investigate the *relationships behind the observed trends*, and the role of the various groups of factors in affecting millennials' residential location and mobility-related choices.

*Relevance for planning and modeling implications: will these trends continue in future years, or are they mainly part of lifecycle effects? What is the impact of the adoption of shared mobility services on the use of other modes?*

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