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 times 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 sample (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, geographic location and neighborhood type, driver's license and vehicle ownership, residential location, adoption of emerging technologies and new mobility services, (e.g., bike-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 2,082 Millennials (18-30) and members of Generation X (30-50) in California, using a quota sampling approach based on geographic region and neighborhood type. We present preliminary results from the analysis of the California Millennium Dataset, and discuss the next steps of the research.

Content of the Survey
Personal Attitudes and Preferences
- Use of New Transportation Technology: In particular, the adoption of emerging technologies in travel behavior (e.g. transportation services, 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, 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.

Technology Adoption

Vehicle Ownership

Millennials' Attitudes

Preliminary Findings, and Next Steps

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

Millennials’ Attitudes

Milestones

Family Life:
- "Have children means you have to have a car."
- "Children is the best place for kids to grow up."

Technology Adoption

Are you familiar with...

How often do you use...

Millennials vs. Gen X

Personal attitudes, preferences and lifestyles
- Have similar attitudes on family life as Gen X:
  - More intense use of) new transportation services such as Zipcar, Uber, Lyft, etc.
  - Adopt shared mobility services
  - Adopt technology:
    - Use of Wi-Fi and Technology:
      - "Having Wi-Fi and/or 4G connectivity everywhere is it’s essential to me."
      - "I love to be among the first people to have the latest technology."

The California Millennium Dataset
A quota sampling approach was adopted to ensure that enough respondents were included from each combination of geographic region of California and neighborhood type (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=2,211)

Vehicle Ownership

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.
- Adapt 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.

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 millennials' 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 lifestyle

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.

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