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## "TRACKING TRANSPORTATION TRENDS: GEN Y, SUBURBS, AND AUTOMATED DRIVING"

ABSTRACT: Historically the US has been an automobile-driven, suburbanizing nation. According to four national surveys (taken in 1990, 1995, 2001, and 2009), private vehicles accounted for $88-91 \%$ of the person miles and $83-89 \%$ of the person trips (per person) (Santos 2011). In 2001, 93\% of all US households owned at least one vehicle (National Research Council 2009). The 2010 Census indicates US suburban residents now outnumber their city neighbors roughly 2:1. Yet, many predict a very different future, considering new preferences of Gen Y, new transportation options (e.g. car / ride sharing), and new technologies (e.g. automated driving). This talk attempts to make some sense of all of these trends, with several data visualizations of the past, and a few predictions thrown in for fun.

BIO: In his twenty-two years in the automotive and telecommunication industries, Ken has produced twenty-five scholarly publication and sixteen patents. Ken's current research focus is sustainable mobility systems and US urbanization and transportation patterns. Earlier in his time at Toyota, Ken worked on advanced safety systems, leveraging synergies in communication, sensing, and computation. Credited with coining the term VANET, Ken was a founder and two-year $(2004,2005)$ General Co-Chair of the Vehicular Ad-hoc Networks (VANET) workshop. Ken earned M.S. and Ph.D. degrees in Electrical Engineering from the University of Notre Dame, and a B.S.E. (summa cum laude) in Electrical Engineering from the University of Michigan, Ann Arbor.

