Title: The relationships between social networks, activity patterns, and driving behavior

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To date there has been some research on the impact of social interaction on activity patterns and travel behavior, and to a lesser degree also on the impact of social interaction of driving behavior. Wafa et al (2010) found that activity pattern and travel behavior do have an effect on driving behavior and crash involvement. This paper expands this idea by adding the social interaction factor and how it impacts both travel patterns and driving behavior and risk exposure. It focuses on the multi-way complex relationships between socio-demographic characteristics, social interactions, activity participation and travel patterns, and driving behavior using structural equation approach.

The study is based on a unique data set currently being collected as part of a larger study on the factors affecting the high rates of the Israeli Arab population involvement in inter-city road crashes. The study includes an initial telephone survey of 600 respondents, of which hundred respondents will be asked to participate in a more detail face to face survey. The telephone survey will, among other purposes, identify violators' drivers and will ensure sufficient violators' driving participants among the 100 participants in the face to face survey. The participants in the face to face survey will be asked to carry a GPS for a period of couple of weeks. At the end of this period an interview will be conducted where questions seeking further details on the travel patterns identified by the GPS will be asked including the purpose of each trip and with whom was it made, in addition to various questions about driving behavior, driving violation and crash involvement, social interaction at different circles (close family within the household, relatives, friends, and work colleagues) and various attitudinal questions.

Social interactions questions will try to identify personal networks by asking about relationships with close family (parents, children, and siblings), relatives (cousins and other), friends and work colleagues. Questions will identify frequency of visits and other communication (phone, email) and type of relationships (attitude/support) as well as social norms within these circles. The survey will focus on one village in the Galilee Region in Northern Israel so it is expected that various respondents will be both egos, those the survey is concentrate on and alters, those who have relationships with them (Carrasco and Miller, 2009), so we could analyze the impacts of various types of alters and their social network on egos.

It is expected that better understanding of the social structure and daily life will improve our understanding of driving behavior, which can guide policy makers to direct efforts in improving driving behavior to specific populations with specific characteristics, and identify the importance of social norms and interactions.