New **E**ngland
University
Transportation
Center

NE University Transportation Center
77 Massachusetts Avenue, E40-279
Cambridge, MA 02139
Phone: 617-253-0753
Fax: 617-258-7570
http://utc.mit.edu/

Principal Investigator:	Joseph F. Coughlin	**Co-Principal Investigator:**	
Title:	Director, NEUTC	**Title:**	
University:	Massachusetts Institute of Technology	**University:**	
Email:	coughlin@mit.edu	**Email:**	
Phone:	617-253-4978	**Phone:**	

Final Report

Project Title:

A Multimodal Approach to Meeting Older Adult Transportation Needs

Project Number:	Project End Date:	Submission Date:
MITR20-3	April 30, 2013	August 10, 2013

Project Description

America is graying and, therefore, the aging of the population will require rethinking everything. Transportation infrastructure, vehicles and future demand must respond to the aging of the nation's largest generation. This study conducted an assessment of current demographic trends as well as a secondary analysis of transportation studies to better understand the changes needed, the potential shortfalls and the opportunities to ensure that an older America remains a nation on the move.

Method

This study conducted a literature review of mass media, gerontology and transportation to capture current thinking on the transportation needs of an aging society. In addition to consulting demographic trend data, conceptual frameworks were developed to visualize the challenges ahead as well as potential targets of policy innovation.

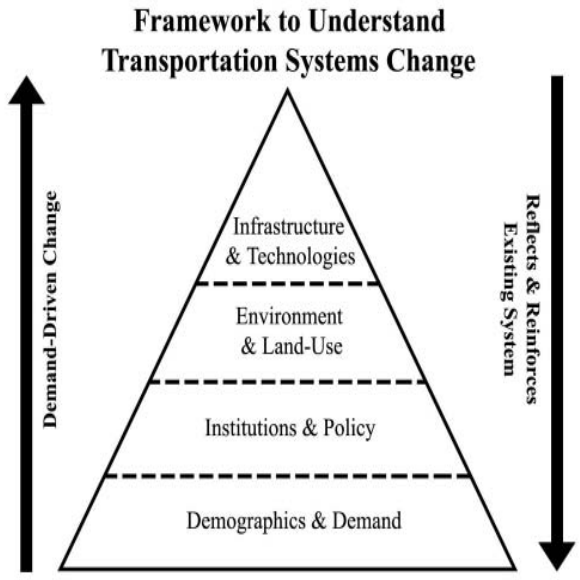
Findings

In addition to aging, the following top line demographic trends were identified:

- One baby boomer is turning 63 every 7 seconds; age-wise the United States is forecasted to become a nation of *Floridas* in nearly 20 years.
- Immigration, both internally and from abroad, is changing the geography of economic opportunity, mobility demands, and population growth.
- Changing ethnic and racial mix is introducing new household composition patterns and preferences for transportation options.
- A new generation of educated and professional women will place different demands on the system, requiring it to be robust enough to enable their complex trip-making as well as their unique safety needs.

However, in addition to these demographic trends there were also qualitative observations about transportation planning and aging across the nation. While considerable planning and investment has been made to address the growing needs of the disabled, there was generally a fragmented approach to understanding and projecting the needs of an aging population. The aging population may not be disabled, but they may be isolated, should they choose or are no longer able to drive.

A structured bias in the current planning structures and institutions was presented. As seen in the adjacent figure, a series of changes across the transportation enterprise will be necessary to realize real innovations to keep an aging America on the move.



These changes include anticipation of demographic changes that include more than numbers of older adults; they also include greater expectations for seamless on-demand mobility where transportation options are few. In addition, greater integration between institutions will be necessary, e.g., coordination between Area Agencies on Aging and local transit authorities. Environment and land use planning may include energy and environmental factors but should also emphasize livability features. For example, do current zoning rules facilitate land use and developments that provide access as well as the intensity and density of activities to support quality of life across the lifespan? Finally, how should innovations in infrastructure and vehicles be integrated into the totality of transportation systems planning for an aging society, e.g., traffic signalization, signage, transit options, intelligent vehicles, etc.

Conclusions

Findings of this meta-analysis suggest a disconnect between the demographic realities of an aging America and the current alignment of transportation institutions charged with planning and operations. Moreover, beyond the graying of America, a number of other demographic factors are indicating significant quantifiable and qualitative changes in future transportation demand. A systems approach that begins with demography but is reflected across the transportation enterprise is recommended.

Outputs

Results of this work were presented at:

- *Impact of Changing Demographics on the Transportation System*, held at the National Academies, Washington, DC, October 2008
- "Demographics, Destiny & Anticipating the Future of the Transportation System," in Public Works Management & Policy, Joseph Coughlin & Curtis Tompkins, April 2009