1. FOUNDATION, SCOPE, VISION

While chronological age may serve as a trigger for a variety of actions that can impact senior mobility -- more stringent driver's license renewal requirements, or preferential status on transit services -- a first principle for this committee is that 'functional age' is the best frame of reference for discussions about policy regarding older road users. Our society is aging, producing increasing numbers of older drivers and passengers, cyclists and pedestrians, and consumers of various mobility services. A lifetime of experience gives older road users excellent skills; however, advancing age and chronic medical conditions may undermine the functional abilities needed to execute those skills. Members of this Committee have been instrumental in developing and disseminating the evidence needed to shift the conversation from a person’s age to his/her functional status. Normative cognitive decline (such as processing speed) and pathological cognitive decline (such as dementia) are principal concerns, as is the increasing frailty/fragility that typically accompanies advanced age. We all age differently, and our population grows more heterogeneous the older we get. Still, decades of research have shown that losses in visual, physical, and cognitive abilities significantly predict the risk of older driver crash involvement. In addition, given the fragility of older persons, crashes more often translate to injuries and deaths among this group. The result is rates of involvement in fatal crashes by older persons that are out of proportion to miles traveled—and that have risen even in years when the overall number of highway fatalities has trended downward.

Of equal importance is the evolution of this Committee from a more narrow focus on driving to a broader emphasis on mobility. ANB60 began as the ‘Task Force on Older Drivers.’ The current title, the ‘Committee on Safe Mobility of Older Persons,’ reflects a growing awareness that, although 90% of Americans may depend on (and strongly prefer) private vehicles for community mobility, most of us will outgrow our ‘driving years’ by roughly a decade. Nevertheless, for all but those living in dense urban environments our ability to drive safely remains central to our quality of life as we age. The benefits of ‘driving safely longer’ is reflected in the work of Committee members involved in the development of engineering guidelines at the federal and state level keyed to the needs of aging road users. Forward-thinking research in this area has led to brighter pavement markings, more legible signs, safer pedestrian facilities, and scores of other enhancements that offer advantages not only to older persons but to everyone who uses our public roads. At the same time, inside the vehicle, advanced driver assistance systems offer the potential to increase safe operation of an ever-increasing number of makes and models; but older drivers must be aware of and understand how to properly use these technologies. And of course, the preservation of skills and abilities needed to drive safely with advancing age, and to effectively utilize the proliferating driver assistance features, cannot be overlooked; this draws attention to the efforts of driver rehabilitation professionals, and their increasing participation in Committee activities.

Finally, it is noteworthy that this Committee has seen a convergence in recent years between identifying research needs that support driving, and those with a goal of assisting the transition from driving to alternative transportation. While this was once conceived solely as transit and paratransit vehicles – buses and vans – our current understanding embraces options ranging from vehicles driven by community volunteers to for-profit services. Efficiency is achieved through information management, and capacity is privately, rather than publicly held. Car sharing and ride sharing are leading the way to whole new forms of community mobility for seniors, accessible through cell phones and the Internet. Such
systems may allow for a degree of customization to the needs of frail and aging users, and are economically sustainable – for those with financial resources and reasonably intact function – without continuing subsidies from public funds. Market forces suggest that non-driving options for seniors will only expand in the years ahead.

Committee ANB60’s scope is to stimulate quality research and support implementation and evaluation activities that improve programs, policies, and practices to help older persons remain safely and independently mobile in their communities. Our vision is that seniors will be better able to: 1) drive safely where they want, when they want; 2) reduce or restrict driving, including the transition from driving to alternative transportation, without a mobility penalty; and 3) have access to community mobility options they want to use, for those who cannot or choose not to drive.

2. FUTURE OUTLOOK STATEMENT

The priorities of the Committee on Safe Mobility of Older Persons in the short and longer terms will be driven largely by the continuously evolving focus of, and initiatives undertaken by, its three subcommittees: ANB60(1) – Aging, Gender and Transport; ANB60(2) – Medical Advisory Boards and Driver Licensing; and ANB60(3) – Senior Mobility Options. These are dynamic, self-selected groups, each chaired by a Member of the standing committee, that share more narrowly defined interests within the broader scope of ANB60. It is at the subcommittee level that ideas for presentations at the TRB Annual Meeting often originate and are brought to fruition; and where planning and organizing special events such as the mid-year meetings have taken place in recent years. The conception, development and production of the 2016 TRB eCircular E-C211, *Taxonomy and Terms for Stakeholders in Senior Mobility*, was disproportionately the result of work by Subcommittee ANB60(2).

Accordingly, the future outlook will be framed by the inputs each subcommittee Chair has thoughtfully provided. After a statement of key issues, the priorities of each subcommittee may be outlined with some specificity for the next 1-3 years, and by a broader narrative for the longer term.

a. KEY ISSUES

**Aging, Gender and Transport – ANB60(1)**

This subcommittee addresses the range of current and emerging gender-related issues (differences and convergences) in transport. Past research suggested that there were substantial gender differences in licensure and driving practices that have the potential to negatively impact on overall health and the safe mobility of women in particular. More recent trends suggest that new gender-related differences are emerging, however the impacts on transport, health and safe mobility are poorly understood. Going forward, this subcommittee will be primarily concerned with emerging gender differences as they relate to: 1) licensure and driving patterns; 2) crash and injury risk; 3) transport utilization (all modes including private vehicle, service vehicles, public transport, and active travel [walking, bicycle, etc.]); 4) attitudes, preferences, confidence in and access to use of transport options; 5) attitudes, preferences and confidence in use of various new technologies; and, 6) overall safe mobility.

**Medical Advisory Boards and Driver Licensing – ANB60(2)**

This subcommittee addresses the evaluation of fitness to drive with particular emphasis on the older driver. However, since medical conditions that may affect driving can occur at any age, the subcommittee’s scope is not limited exclusively to the evaluation of older drivers. Currently, the subcommittee is primarily concerned with: 1) the identification of drivers whose medical condition renders them
unfit to drive; 2) exploring means that enable drivers with a loss of function to continue driving for as long as possible; and 3) the provision of medical expertise on the effects of medical conditions on fitness to drive to licensing authorities.

**Senior Mobility Options – ANB60(3)**

This subcommittee’s focus is to strengthen the current transportation environment of the aging population and better prepare for its transportation future through research into technology, resources, logistics, education and policy for dignified, consumer-oriented, mobility options. The scope of subcommittee interests is presently defined by: 1) the development of sustainable transportation activities to support aging in-community; 2) effective communication with all audiences (e.g., seniors, families, healthcare providers, service providers, policy makers, communities) about transportation options; and, 3) supporting the transition from the driver’s seat to the passenger seat for older adults as appropriate, as part of a comprehensive transportation plan.

**b. PRIMARY FACTORS INFLUENCING SAFE MOBILITY OF OLDER PERSONS OVER THE SHORT (1-3 years) AND LONGER (4-7 years) TERM**

**ANB60(1) Short Term Priorities:**
- Monitor and document gender differences in national and international trends (retrospective and prospective) in licensing rates, driving exposure, vehicle ownership, and other measurable and available indices of mobility.
- Document and monitor emerging trends in driving patterns and practices, driving reduction and cessation.
- Examine crash data to confirm emerging gender-related trends in crash and injury risk.
- Examine gender differences in utilization of transport modes other than the private vehicle (access, awareness, acceptance, use).
- Understand gender differences as they relate to new systems to support use of transport options other than the private vehicle.
- Understand gender differences as they relate to current and emerging in-vehicle technologies (design issues, awareness, acceptance, use, safety benefits)

Over the longer term, it is important to recognize that women are the majority of the older population in almost all nations, comprising approximately two-thirds of all adults aged 80 years and older, and this trend will continue in the coming decades. Men and women face difference circumstances and challenges as they age and there are many gender issues related to socioeconomic factors, health and transport. Further, there are rapid changes in, worldwide, regarding the future of transport options and utilisation, including reduced use of the private car, development of in-vehicle technologies and automation of vehicles, and emergence of viable, affordable and sustainable alternatives. Issues within these trends will define the Subcommittee priorities in the coming years. We will need to better understand gender issues in the extent of acceptance of increasing autonomous and assistive features in vehicles, and systems that support use of alternative transport modes; support best-practice design to ensure safe driving and use of alternative transport; and identify societal and other changes that can extend safe mobility for women and for all older persons.

**ANB60(2) Short Term Priorities:**
- In-vehicle information technologies as a means of enabling continued driving for those drivers with functional limitations.
- Effects of medical conditions on fitness to drive of older drivers, especially cognitive limitations.
- Improved evaluation of the medical aspects of fitness to drive.
- Improved screening of drivers with functional limitations, particularly those with mild cognitive limitations.
o Improving awareness of the effects of medical conditions upon driving amongst health professionals.
o Medication use and fitness to drive, particularly interactions between different medications (polypharmacy).
o Medical advisory boards and medical review of fitness to drive - Model structure and procedures.
o Driving cessation and the necessity of learning how to use alternative means of transportation will affect more drivers given the demographic predictions for the next twenty years.

Over the longer term, it is noteworthy that the first baby-boomers will reach the age of 75 in 2021. Statistics show that two-thirds of drivers aged 75 have at least one of the medical conditions that have been shown to influence driver fitness. Furthermore, the increase in the number of drivers aged 75 or over means that there will be a substantial increase in drivers with cognitive problems that are often difficult to detect and whose effect upon fitness to drive can be subtle. Consequently, licensing agencies, supported by health professionals, will have to devote increased time and effort to the detection of the cognitively-limited older driver.

ANB60(3) Short Term Priorities:
o Facilitating the transition from driving to non-driving.
o Autonomy of the older transportation consumer.
o Economic impact of loss of mobility on older adults.
o New business models such as ride and car sharing, transportation network companies, volunteer transportation services, etc.
o Building community collaboration and support of mobility options for older adults.
o Identifying data necessary for better understanding the issues surrounding older adult mobility options.
o Establishing criteria of assessing mobility options for older adults.
o Mobility options for transportation users with medical conditions and disabilities.
o Health and wellness implications of providing or not providing senior mobility.
o How to inform policy makers about the benefits and costs of providing or not providing senior mobility.
o How to most effectively share current research with older adults.
o The relationship between transportation and aging in-community.
o Improved understanding and strategies to improve senior mobility in rural areas.
o Senior mobility and multi-cultural diversity.
o Impact of connected and automated vehicle technology on aging drivers.
o Acceptance and trust of new and emerging technology among older adults.
o Education and training for older adults to utilize new technologies to safely improve mobility.

All of the short-term issues and needs are likely to persist beyond 3 years. In the longer term, however, this subcommittee will also consider how to reach a point where transportation is no longer the number one concern of seniors’ caregivers. This may result from increasingly bringing goods and services to older adults as opposed to older adults needing to travel to obtain goods and services. We also see a potential role in facilitating a systems approach (e.g., identifying gaps in services and addressing those gaps) to senior mobility that supports the acquisition and maintenance of mobility-related skills among older adults. Finally, it will be important to increase our understanding and optimization of the role of social capital in senior mobility (e.g., volunteerism).
3. PLAN FOR COMMITTEE ACTIVITIES, PRODUCTS AND MEMBERSHIP NEXT THREE YEARS

a. Changes in Committee/Subcommittee membership/leadership

In 2018, a rotation is scheduled in which approximately one-third of current ANB60 Members will be replaced; the longest serving are the candidates for rotation. A new Committee ANB60 Chair also will be named in 2018. Subcommittee membership is expected to remain relatively stable over the short term, with changes in leadership occurring only if/when a sitting Chair is rotated off of the parent committee.

b. Projects, activities, and products the Committee will undertake to address key issues identified above.

Committee ANB60, in consultation and cooperation with its three Subcommittees, plans to develop lecture and poster sessions at the TRB Annual Meetings. With past history as a guide, two lecture sessions and a poster presentation are anticipated each year. In each case, the session themes will be driven by the number and quality of papers submitted to TRB each year for review by the Committee, as well as by initiatives at the Subcommittee level. In addition, ANB60 will seek to partner with other standing committees to sponsor cross-cutting sessions at the Annual Meeting; one such session is planned in 2018.

When a particular issue demands a more in-depth discussion to develop a shared perspective among (a subset of) Committee Members/ Friends and/or to articulate research needs associated with that issue, the time available during the Annual Meeting of the main Committee and its Subcommittees may be inadequate. In this case, a mid-year meeting will be scheduled, typically spanning a full day or more and including participation by industry representatives, clinicians, other service providers, etc., as well as researchers.

It is expected that Committee ANB60 Members and Subcommittee members will continue to provide strong support for – and in many years to organize and lead – TRB Human Factors Workshops held in conjunction with the Annual Meeting. Conferences/workshops on special topics of interest may also be organized in partnership with academic institutions or professional groups/associations, through Subcommittee initiatives.

As required, Members may be selected, generally on a volunteer basis, to participate in a working group to produce a position paper or eCircular on a given topic. The development of a White Paper on gender differences in acceptance and use of different transport modes (including driverless, ride-share, car-share vehicles, public transport, active travel modes) was discussed at the 2017 meeting of Subcommittee ANB60(1) and a working group will be formed to prepare this paper.

As opportunities arise, Committee/Subcommittee members will draw attention to and promote discussion of key issues through participation as editors/contributors to special editions of professional journals.

Liaisons with other TRB standing committees will be strengthened where there is overlap with the scope and vision of ANB60. These include but are not limited to AND10, Road User Characteristics; AND20, User Information Systems; AHB30, Vehicle Highway Automation; AHB15, Intelligent Transportation Systems; ABE60, Accessible Transportation and Mobility; APO20, Emerging and Innovative Public Transport and Technologies; and ANB45, Operator Education & Regulation.
c. Strategies to encourage significant involvement by the Committee’s Young Members, state DOT members and other key constituents during committee meetings and other times.

In recent years, Committee ANB60 has included at least three Young Members and three State/Provincial DOT Members on its roster, and expects to maintain or increase this level of involvement in the immediate future. Other key constituencies include national organizations that develop programs and policies affecting senior mobility; both AAA and AARP are presently and will continue to be represented in the Committee’s membership.

d. Committee communication activities and efforts to provide assistance and technology transfer to the transportation community

Committee ANB60 produces and distributes a newsletter twice a year (Spring/Summer and Fall/Winter) that covers news from the field (projects, partnerships, and training); current research initiatives; and information about upcoming conferences, meetings, and events. A committee website (http://crag.uab.edu/safemobility/) also provides access to current and previous newsletter; minutes from Committee meetings; Research Needs Statements generated by the Committee; the ANB60 roster; links to Human Factors Workshops sponsored by the Committee; and other news. An extensive listserv maintained by the Committee is used to distribute announcements of general interest; going forward, anyone who visits www.myTRB.org and signs up as a friend to ANB60 will be added to the listserv.

e. Proposed activities including maintenance of the Research Needs Database and ways to identify research use and implementation

This Committee will encourage and solicit the submittal of Research Needs Statements by its membership in conjunction with scheduled meetings, such as the mid-year meetings, and on an ad hoc basis. Each Subcommittee is expected to vigorously participate in this activity, which includes conducting periodic review of existing statements for continued relevance and needed updates. Outdated and irrelevant Research Needs Statements will be archived; and ones that have led to funded studies, where a research outcome has led to improved practice, will be brought to the attention of our TRB liaison for consideration for a ‘Research Pays Off’ acknowledgement.