Safe Mobility at Any Age Policy Forum Series
Final Report

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and

New Jersey Foundation for Aging

VTC

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Chapter 1

Introduction

Background

Over the past several decades, safe mobility has emerged as an important public policy topic. In particular, safety concerns related to driving have prompted a variety of policy responses. These include: improving the design and safety of motor vehicles; enacting and enforcing stricter penalties for driving under the influence of drugs or alcohol; enacting mandatory seat belt and child safety seat laws and creating graduated driver's license programs for young drivers. An emerging area of concern is safe mobility as it relates to older drivers.

In 2000, 1.1 million New Jersey residents were over age 65. By 2020, the number is expected to grow to 1.5 million. While New Jersey's population as a whole is expected to grow by 16 percent, the portion of the population over age 65 will grow by 39 percent with the greatest increase in the 85 and older age cohort.

"Seniors" today are living longer, more active lives. Like most Americans of all ages, most seniors travel by private automobile. In fact, according to the National Household Transportation Survey conducted in 2001, the overwhelming majority (89%) of all trips made by seniors in the United States are made by private automobile. Only 9 percent of seniors walk or bike and slightly more than 1 percent take transit.

In New Jersey, the senior population is growing in rural and suburban counties where there are fewer travel options and where driving a car may likely be the only viable means of meeting daily travel needs. Over the next two decades, New Jersey's fastest growing counties in terms of residents 65 and over will be:

- Sussex (106%)
- Hunterdon (98%)
- Ocean (70%)
- Gloucester (69%)
- Somerset (66%), and
- Burlington (65%)

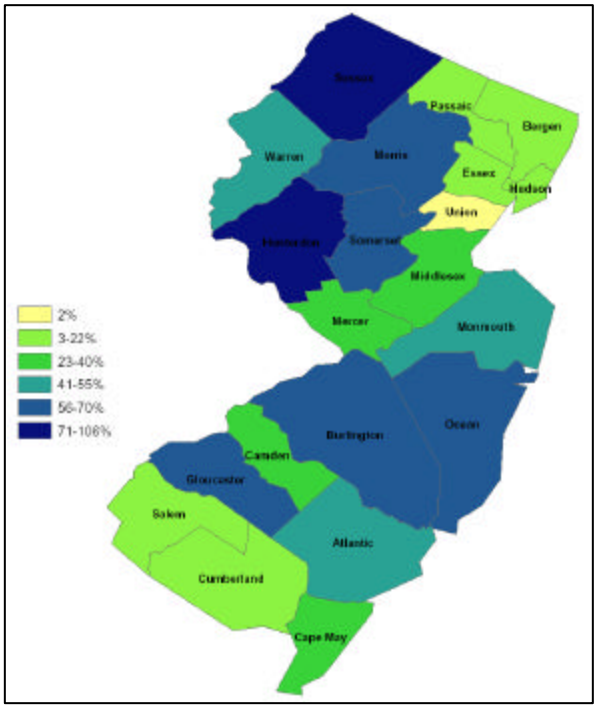

Exhibit 1: NJ Counties with fastest growing senior population

Source: US Census, NJ Dept of Labor

The counties that will receive the largest share of overall growth in senior population in the next two decades will be:

- Ocean (+79,540, or 18%)
- Monmouth (+40,577, or 9%)
- Middlesex (+37,210, or 9%)
- Burlington (+34,782, or 8%), and
- Morris (+ 34,670, or 8%)

More than half the senior population growth will occur in these five counties.

Given these demographic trends, it is clear that safe mobility for older drivers is a critical issue facing New Jersey. It has far-reaching policy implications related to public health, public safety, community development and personal autonomy.

Study Objective

The purpose of the Safe Mobility at Any Age study was to consider best practices and model programs related to safe mobility for older drivers, and to engage policy makers and practitioners in the fields of transportation, health and senior services and law enforcement in a dialogue regarding what policies and initiatives should be undertaken in New Jersey to address this critical issue.

Study Approach

As mentioned above, the topic of safe mobility has become an important national concern in recent decades, especially because safe mobility has far-reaching policy implications related to public health, public safety, community development and personal autonomy across all age groups. To gain a comprehensive perspective on this issue, the research team conducted a national literature search and review and determined that while public and private entities recognize the importance and need to address safe mobility concerns, most, like New Jersey, are in the process of searching for the most appropriate and innovative ways in which to do so.

For example, as detailed below, the State of Maryland has approached the issue of safe mobility for older drivers through means that include the integration of health, social service and motor vehicle agency functions and by linking fitness to drive screening with community mobility options through the efforts of the Maryland Research Consortium. On the national level, the United States Government Accountability Office produced a report entitled *Transportation-Disadvantaged Seniors*, which examined how the 15 federal programs designed to address the mobility of transportation-disadvantaged seniors are performing and recommended strategies for meeting currently unmet needs, such as publicizing available information on alternative transportation services and improving such services to better meet senior mobility needs. For a list of other related references utilized by the research team for this study, please refer to appendix 2.

To achieve the study objective, the Alan M. Voorhees Transportation Center at Rutgers, The State University of New Jersey, in partnership with the New Jersey Foundation for Aging, also convened and facilitated a series of policy forums that began in late 2003 and continued through 2004. Because safe mobility for older drivers is a complicated, many-sided issue, each forum brought together policy and regulatory experts from inside and outside of New Jersey to aid the discussions. Each session put issues in a New Jersey context while considering other possible working models. The sessions focused on the following topics:

- Safe mobility issues in New Jersey, New Jersey's mature driver and the *Maryland Safe Mobility Research Consortium* – December 10, 2003
- Regulatory practices and compliance issues related to licensure, functional assessment and health screening looking at risk management and liability issues as well as remedial/ restorative health programs that may enhance driver skills – February 18, 2004
- Safety perspectives addressing roadway design and signage, pedestrian safety, vehicle design and adaptive devices to enhance driver ability – April 29, 2004

- Community mobility options – June 30, 2004
- Volunteer driver programs including issues related to volunteer recruitment, screening, insurance, consumer utilization and satisfaction – September 28, 2004
- Synthesis workshop to review policy forum information and consider recommendations for systematic and integrated policy responses to facilitate safe mobility – December 16, 2004

Proceedings from each session were documented and compiled into a series of proceeding reports and posted on the Internet (www.policy.rutgers.edu/vtc/safemobility). In addition, the research team conducted a review of available literature on the topic.

Report Outline

The remainder of this report is organized into three additional chapters. Chapter 2 presents a summary of key findings gleaned from the presentations of the national and local experts that participated in the policy forum sessions. More detailed summaries of the forum presentations are included in Appendix 3. Chapter 3 presents a series of recommendations intended to address safe mobility issues in three key areas: (1) functional assessment and restorative strategies; (2) community transportation options; and (3) roadway design and safety. Finally, Chapter 4 presents a framework for implementation and calls upon a variety of stakeholders to take a leadership role in helping to ensure safe mobility at any age.

Chapter 2

Summary of Key Findings

The Safe Mobility at Any Age policy forums convened throughout 2004, addressed a range of topics related to safe mobility for older drivers. Twenty-five speakers with broad ranging expertise in the areas of functional fitness-to-drive assessment, driver's licensure, transportation planning and policy, highway and vehicle safety and design, and community transportation options provided presentations addressing safe mobility issues from a variety of perspectives. Speakers included:

- Linda Bailey, Surface Transportation Policy Project
- Tara Braddish, Hunterdon County Volunteer Driving Program
- Sue Dowling, Interfaith Network of Care
- Pam Fischer, AAA New Jersey Automobile Club
- Steve Fittante, ATC
- Katherine Freund, ITN*America*™
- Nat Giancola, American Association of Retired Persons
- Jane Hardin, Community Transportation Association of America
- Kathy Higham, New Jersey Motor Vehicle Commission
- Helen Kerschner, The Beverly Foundation
- Bob Koska, NJ TRANSIT
- Lieutenant Paul Krupa, New Jersey State Police
- Claire McLaughlin, Bacharach Institute for Rehabilitation
- Patricia Ott, New Jersey Department of Transportation
- Jennifer Palasits, JFK Medical Center, Johnson Rehabilitation Institute
- Michael Perel, National Highway Traffic Safety Administration
- Maureen Peterson, American Occupational Therapy Association
- Timothy Puglia, Wheels of Wellness
- Beth Rolland, Kessler Institute for Rehabilitation
- Naomi Rotter, New Jersey Institute of Technology
- Loren Staplin, TransAnalytics
- Wendy Stav, National Older Driver Research & Training Center at the University of Florida
- Essie Wagner, National Highway Traffic Safety Administration
- Karen Yunk, Federal Highway Administration, New Jersey Division Office

The following is a brief summary of the key points made during their presentations.

New Jersey's Mature Driver

- According to a 2002 research study, in New Jersey, crash incidence declines with the age of the driver, paralleling a reduction in miles driven. Statistically, drivers 65 and older are involved in fewer accidents per capita; however, crashes involving older drivers are more likely to result in fatalities, especially when drivers are over the age of 85. Researchers also found that:

- More accidents involving older drivers occur during daylight hours and when weather conditions are good; more crashes occur on local and private roads; and there is a high incidence of left turn crashes involving older drivers

- Older drivers are more likely to be "at fault" when involved in accidents

- Crashes involving older drivers are most often due to driver inattention, failure to yield right of way and failure to obey traffic signals

  (Rotter & McKnight 2002)

Functional Fitness-to-Drive Assessment

- The act of driving requires a variety of physical and cognitive capabilities. Researchers in Maryland have found that declines in the following "functional abilities" are significant predictors of "at-fault" crashes:
  - Visualization of missing information
  - Directed visual search
  - Information processing speed under divided attention conditions
  - Working memory
  - Leg strength and general mobility
  - Head and neck flexibility

    (Staplin 2003)

- Maryland researchers have also found that functional capacity screening can add value to traditional medical evaluation procedures and promote safe mobility by helping to identify functional loss and allow early intervention in the form of remedial/restorative assistance (Staplin 2003).

- Researchers in Maryland, Florida and other states have concluded that functional fitness to drive assessments should include screening tests in the following areas: vision, cognition, motor performance, reaction time, and roadway knowledge. They note, however, that functional assessments help to identify diminished capacity, NOT to answer whether a person can drive safely. Only clinical testing can provide a full picture of how an individual is likely to perform while driving (Staplin 2003; Stav 2004).

- Certified Driving Rehabilitation Specialists (CDRS) are occupational therapists and driving educators who receive special training to perform fitness-to-drive evaluations using medical history, physical examination, vision, cognitive and perceptual skills testing and behind-the-wheel road testing. Based on evaluation, CDRSs provide or recommend occupational therapy as well as vision and driver skills training. If a prohibition on driving is recommended, CDRSs assist the client and their family to explore community resources for alternative transportation. There are only six CDRSs practicing in New Jersey (Palasits, McLaughlin & Rolland 2004).

- The American Occupational Therapy Association (AOTA) Older Driver Initiative is designed to: (1) educate occupational therapists and promote awareness that driving is an essential activity of daily living; (2) increase awareness of the needs of older drivers; (3) promote working with older drivers as a viable practice area; and (4) develop/disseminate a "good practice" guide and continuing education materials for occupational therapists through a cooperative agreement between the National Highway Traffic Safety Administration and the Centers for Disease Control (Peterson 2004).

Fitness-to-Drive Review and Assessment in New Jersey

- New Jersey law currently requires vision testing every 10 years as a condition of driver's license renewal; however this provision of the law is not enforced. No other areas of functional capability are currently screened (Higham 2004).

- In New Jersey, the process for intervention relative to an individual's functional fitness to drive is through a Medical Advisory Board (MAB) administered by the N.J. Motor Vehicle Commission (MVC). Most referrals to the MAB are made by concerned physicians and/or family members. Referrals cannot be made anonymously. Medical reviews may result in recommendation for additional testing, reinstatement of an individual's license or temporary/permanent restrictions on an individual's driving privilege (Higham 2004).

- MVC is in the process of upgrading its capacity to proactively pursue medical reviews when license holders with long-standing medical conditions or those with time-limited suspensions come up for license renewal (Higham 2004).

Initiatives Designed to Improve Driver Skills and Enhance Safety for Older Drivers

- There are a variety of on-going programs and initiatives undertaken by a number of agencies and organizations to improve and enhance safe mobility for older drivers.

    - The ***American Association of Retired People (AARP)*** sponsors a Driver Safety Program (formerly "55 Drive Alive"), an 8-hour classroom course designed to help older drivers update their driving knowledge, sharpen driving skills, compensate for normal age-related physical changes, reduce traffic violations, crashes, and chances for injuries, and drive more safely (Giancola 2004).

    - The ***American Automobile Association (AAA)*** has undertaken a number of initiatives including the "Get There America" campaign, which encompasses the following three components: "Get there safely," which emphasizes the need to build safer roads and address high risk driving behavior; "Get there your way," which advocates for expanding transportation options and choice; and "Get there on time," which promotes various strategies designed to address roadway congestion. The organization has also developed the "AAA RoadWise Review," which encourages functional assessment of eight essential driving skills through the use of a computer-based CD-ROM which can be used in the privacy of one's home. Finally, AAA offers

"CarFit," which assesses how well participants physically "fit" in their vehicle (Fischer 2004).

- The ***National Highway Traffic Safety Administration (NHTSA)*** is focusing on increased collaboration between the medical community, social service agencies, licensing agencies, and law enforcement, and is developing model programs for: (1) motor vehicle agency and licensing activities; (2) integrated health, social service, and community-based agency activities; and (3) information and educational support for safe mobility choices by public agencies, private professionals/organizations and concerned individuals. NHTSA also researches the effectiveness of vehicle safety technology designed to enhance driver and passenger safety (Wagner 2004).

- The ***Federal Highway Administration (FHWA)*** addresses older road user safety in a variety of ways. The agency promotes safe highway design through outreach activities to state highway and transportation departments. It provides guidance documents and other resources to highway design engineers and policy-makers throughout the country. Examples include: (1) Highway Design Handbook for Older Drivers and Pedestrians; (2) Older Driver Design Workshop; (3) Revisions to the Manual of Uniform Traffic Control Devices (e.g., increased legibility distance for signs, larger street name signs, traffic signal phasing and protected left turn lanes, and turning path pavement markings); and a series of pilot projects to demonstrate the value and effectiveness of the agency's recommendations (Yunk 2004).

- The ***New Jersey Department of Transportation (NJDOT)*** is pursuing a multi-faceted safety enhancement initiative called "Safety through E's," which incorporates activities related to engineering, education and enforcement. Specific elements of the NJDOT program include: (1) a Highway Safety Task Force created in November 2002; (2) "Safety First" legislation passed in July 2003; (3) a senior safety study conducted in 2002-3; (4) safety-conscious design and engineering improvements; and (5) a Senior Safety Pilot Program, which is a partnership between NJDOT and the state departments of Health & Senior Services, Education, and State and coordinated with the Corporation for National and Community Service's Learn and Serve America program, AARP's Driver Safety Program and the Robert Wood Johnson Foundation HealthEASE initiative (Ott 2004).

Community Transportation Options

- In 2004, the Surface Transportation Policy Project, a national nonprofit organization working to ensure safer communities and smarter transportation choices that enhance the economy, improve public health, promote social equity, and protect the environment, published a report entitled *Aging Americans: Stranded without Options*. The report documented aging patterns nationally and examined the effects of driving cessation on individuals and quality of life. Among the study findings were the following:

  - One in five (21%) people aged 65 and over do not drive

- Drivers at age 70 are likely to stop driving and spend an average of 6-10 years "dependent on others to meet their transportation needs"

- Over half of all non-drivers age 65 and over stay home on any given day. This rate is three times higher than for drivers

- Non-drivers make fewer trips because they are dependent on others to meet their personal mobility needs. They make fewer trips in all categories, including trips for medical/dental purposes

Researchers concluded that driving cessation by those 65 and over results in loss of independence and isolation (Bailey 2004).

- Transportation planning and coordination activities too often fail to incorporate the unique and diverse mobility needs of older Americans (e.g., medical, work-related and social trips); however, awareness of senior mobility needs is building and coordination is happening in some places. This is evidenced by the federal "United We Ride" program, a multi-agency federal initiative designed to improve mobility, job opportunities and access to services for people who are transit dependent. Through United We Ride, states will receive $20,000-30,000 non-competitive planning grants to foster transportation coordination at the state and local level (Hardin 2004).

- In New Jersey, efforts to coordinate specialized transportation services date back to the 1980's. Funding for community transportation services comes from a variety of state and federal sources. State Casino Revenue Funds are distributed to counties based on percentage of senior and disabled population, with a minimum allocation provided to the smallest counties. No county receives more than 10 percent of available funds. In FY2005, approximately $21.5 million was allocated to counties to support transportation services for seniors and the disabled. In 2002, Casino Revenue funds supported approximately 1.7 million rides. Federal programs that support transportation services for seniors and disabled residents include: (1) 5310 Seniors and Persons with Disabilities Capital program; (2) 5311 Rural Service program; (3) Job Access Reverse Commute program; and (4) Congestion Mitigation Air Quality program. In addition, NJ TRANSIT offers a Community Shuttle program –which provides recipients with shuttle bus vehicles to address local transit access issues (Koska 2004).

- Flexible route transit services (Flex-route) can enhance the quality and quantity of transportation service available in some locations. Flex-route services use smaller buses to improve routing flexibility, offer regular interval schedules to eliminate the need for advanced reservations, and provide "room" in service schedules to accommodate some route deviations to make pick-ups and drop-offs more convenient for users (Fittante 2004).

- Two flex-route shuttle services were recently implemented in New Jersey – one in Union County and the other in Warren County. The services built upon existing county transportation services and NJ TRANSIT flex-route models to increase mobility for transit-dependent individuals in both counties. In Warren County, the shuttle served Philipsburg and various retail, medical and employment destinations in the county. In Union County, the

shuttle provided connector/feeder service to passenger rail service. In both cases, shifts in senior and disabled trips from traditional demand response paratransit service to the flex route shuttles have improved county paratransit system efficiency (Fittante 2004).

- Volunteer driver programs can be used to expand transportation options for seniors who cannot or choose not to drive. Model programs have been developed and implemented throughout the country and in New Jersey. Some examples include:

  - ***ITN*America** Ô is a program developed and operated in Maine. It currently involves 50 active volunteers and uses paid professional staff to administer the program. ITN uses information systems technology to manage volunteer accounts and records, volunteer logistics (e.g., availability, location, vehicle characteristics, ride-matching, ride-sharing); and volunteer activities (e.g., driving, office work, community events.) The program: screens volunteers through an application, interview and reference process; recruits volunteers by modeling volunteer behavior, collaborating with other programs and organizations; initiating creative marketing and recognizes volunteer contributions through awards, rewards and personal acknowledgments (Freund 2004).

  - ***The Beverly Foundation Volunteer Friends Model*** is exemplified by the PasRide pilot project in Pasadena, CA. PasRide relies on a "volunteer friends" approach that uses all volunteer drivers, vehicles and staff. It requires that riders recruit those drivers. Program funds are distributed directly to riders to reimburse expenses for their drivers $2.50 per trip for intra-city travel, $0.30 per mile for intercity travel or a flat rate of $24/month for long distance travel. The program requires drivers to carry their own insurance, including excess auto liability, accidental driver and volunteer liability insurance (Kerschner 2004).

  - ***Wheels of Wellness volunteer program***, operating in Philadelphia, PA since 1959, is the oldest volunteer transportation agency in the country. The program uses a mix of volunteer drivers (40) and paid drivers (5) who fill gaps in volunteer service. It uses volunteer vehicles and the volunteer drivers must maintain automobile insurance to serve as primary coverage. Wheels of Wellness provides secondary coverage through an excess liability policy. Drivers are compensated with either a letter attesting to service for tax purposes or a per mile ($0.31/mile) reimbursement (Puglia 2004).

  - The ***Hunterdon County volunteer driver program*** operating in Hunterdon County, NJ, is designed to supplement existing county-operated transportation services. Volunteer drivers use county-owned and insured vehicles and receive no monetary compensation. Trips are limited to single-purpose medical appointments up to a maximum of two trips per month per client and trips may not exceed 75 miles one way. Volunteers are recruited through service clubs, community organizations, churches, and related groups. They must have a valid drivers license, provide references and pass a physical examination. The program averages 13-15 active volunteers at any given time (Braddish 2004).

Chapter 3

Recommendations

The following recommendations were derived from presentations and participant discussion at Policy Forums 1-6 as well as secondary sources referenced and researched during the course of the policy forum series.

Functional Assessment, Restorative Strategies, Licensing and Medical Review Board Issues

1. Implement a multi-faceted functional fitness to drive assessment and rehabilitation program in New Jersey.

a. Ensure the assessment program includes scientifically validated screening tests for vision, cognition, motor performance, reaction time and roadway knowledge, as well as a review of driver/vehicle "fit" (Stav Forum 2).

b. Disseminate self-test tools for functional screening, such as the "Driving Decisions Workbook" and those being developed by AAA (including RoadWise Review which was launched in January 2005) as a means of early detection and warning for potentially at-risk mature drivers (Fisher Forum 3; Eby et al. 2003).

c. Retrofit existing driver skill enhancement programs, such as those offered by AARP and AAA, to include functional fitness-to-drive screening tests (Participant Forum 1).

d. Establish regional "senior safety resource centers" to administer fitness-to-drive assessments and provide driver safety training, mobility counseling and other rehabilitative services for seniors to help them drive safely longer. Models include Florida's pilot program (Participant Forum 1); DriveABLE Assessment Centres, Inc. which operate in Canada (AMA 2003); and NJ Senate bill S-1226/Assembly bill A-3597 (2004-2005).

    i. Create a "mobile resource center" to expand the reach of its resources.

e. Develop rehabilitative solutions that address specific driver fitness problems such as inattention and diminished reflex time (Rotter Forum 1).

    i. Use an enhanced version of the Unified Field of View test, which helps improve attention performance (Rinalducci et al. 2003).

    ii. Train older drivers for intersection maneuvers by teaching them techniques for getting through intersections more safely (Rotter Forum 1).

f. Expand the number and use of Certified Driving Rehabilitation Specialists (CDRS) working in New Jersey. CDRSs can perform focused clinical assessments, observe the patients driving in the field, recommend and provide rehabilitative services and train patients in the use of adaptive techniques, or devices to compensate for functional deficits (Peterson Forum 2; AMA 2003).

i. Expand the use of AOTA continuing education programs related to older driver rehabilitation among OT professionals (Peterson Forum 2; AMA 2003).

ii. Reform Medicare and private insurance rules to cover functional fitness-to-drive assessments as well as rehabilitative services to address driving skill deficiencies (Participant Forum 2; AMA 2003).

2. Reform the medical review process to improve the uniformity and effectiveness of fitness-to-drive assessments and encourage the use of remedial and skill enhancing programs (Rotter, Forum 1, AMA, 2003; NJDOT, 2003).

a. Add additional physicians and other health care professionals to permit proactive medical reviews for certain drivers with time-limited suspensions (Higham Forum 2).

b. Foster greater collaboration between the Medical Advisory Board and occupational therapy professionals (Higham Forum 2).

c. Encourage the use of public-private partnerships and community-based programs, such as those being piloted in Florida, Ohio, Michigan, Maryland, New York and Virginia, to expand MVC's capacity to assess at-risk drivers and provide them with rehabilitative/restorative services (AMA 2003; NHTSA accessed 12/04).

d. Encourage physician referral (including for visual impairments) by establishing clear guidelines and simple procedures for referral (e.g., comprehensive referral forms that can be accessed online) and promoting physician awareness of these guidelines and referral procedures (AMA 2003).

i. Establish good-faith reporting laws to provide physicians and other health care professionals with immunity from breach-of-confidentiality lawsuits for physicians and others who report impaired drivers to the state licensing authority (AMA 2003; NJDOT 2003).

3. Enforce existing NJ statutes that require vision testing for license renewal and ensure that the most appropriate tests (e.g., contrast sensitivity, useful field of view) are used for the screening (Participant Forum 1; AMA 2003; NJDOT 2003).

a. Allow satellite or alternative (e.g., private physician) vision testing locations certified by the state to perform evaluations (NJDOT 2003).

4. Reform New Jersey licensing and renewal requirements to help identify at-risk drivers and provide a range of options and services intended to keep people driving as long as safely possible.

a. Shorten renewal periods (AMA 2003).

b. Require in-person renewal and mandatory reassessment of knowledge, vision and driving skills for at-risk drivers (AMA 2003; Participant Forum 6; NJDOT 2003).

c. Establish a referral process to link at-risk drivers with rehabilitation specialists to learn adaptive techniques and devices (AMA 2003).

d. Create an older driver graduated or conditional license program that reflects a driver's limits relative to safe driving (e.g., daylight only limitations, geographic limitations, etc.) (Higham Forum 2; AMA 2003; NJDOT 2003).

e. For drivers who must "retire" their license, provide a referral service and guidance related to mobility options available in their area (AMA 2003).

5. Develop and implement a comprehensive public awareness program related to functional fitness to drive concerns, assessments, services, licensing/renewal requirements, medical review process, etc. to help families, law enforcement personnel, medical professionals, social workers, and others involved with seniors to identify and assist at-risk drivers (AMA 2003; NJDOT 2003; NHTSA accessed December 2004).

a. Use senior centers, county offices on aging and AAA offices as venues for educational programs and places to distribute materials targeted to seniors and their families.

b. Implement NJDOT's Senior Safety Study recommendations related to education and outreach:

- Create an older driver website (e.g. AAA older drive website – www.seniordrivers.org). Content could include but should not be limited to information on how to buy a new vehicle with senior safety in mind, community transportation options for seniors, and safe walking tips
- Develop training in coping strategies to help seniors address the challenges of driving on congested, busy roads
- Develop intervention strategy training and workshops to help families and friends confront at-risk drivers
- Provide materials for self-assessment and evaluation of driving knowledge and skills (e.g. AAA RoadWise Review)
- Create a Senior Mobility Guidebook to provide seniors with a condensed resource regarding alternative transportations services, prices (including senior discounts), and routes
- Develop a program to evaluate the effectiveness and utility of vehicle design and technical improvements that address safety issues. These may include, but should not be limited to: seat cushions to elevate the driver and improve driving visibility; pedal extenders; wide angle (convex) stick-on mirrors for side-view mirrors; rear-view mirrors that expand vision to the left and right to reduce the blind spot; anytime running lights; automatic lighting; automatic dimming mirrors; and audible reverse warning systems (NJDOT 2003)

Infrastructure Planning and Design Strategies for Roadway and Pedestrian Safety

6. Build safer roads and reduce high risk driving through a "safety conscious" planning, engineering and design process (Fisher Forum 3, Participant Forum 6).

a. Implement a program of engineering changes and safety enhancements to improve the design and condition of roadways and intersections, especially those locations that show high accident rates in general (Rotter Forum 1). Recommended enhancements from a variety of sources include, but are not limited to, the following:

- Provide bigger and brighter traffic signs; larger legends and lettering; more contrast; less complex signage that is easier to follow
- Use redundant signing
- Provide advance guide and street name signs
- Provide overhead placement of signs and signals
- Provide brighter, larger and raised pavement markings and better delineation of curbs/medians
- Increase use of highway and street lighting
- Use retro-reflective material in signs and pavement markings
- Use raised pavement channelization
- Use rumble strips
- Improve overall intersection design
- Increase the perception reaction time (PRT) value used in highway design and operations, e.g. intersection sight distance calculations
- Provide positive offset left-turn lanes
- Create protected left-turn signals
- Eliminate misaligned intersections
- Enlarge curb radii at intersections
- Provide longer clearance intervals at signalized intersections for drivers
- Reduce sharp turns in intersections
- Create wider lanes and shoulders
- Convert two-way stop intersections into four-way stops
- Create more modern roundabouts (circular intersections)
- Use parallel entrance ramp geometry
- Create longer merge and exit lanes
- Assume slower walking speed for pedestrian signal control
- Build islands in the middle of streets to allow people to cross streets in two stages
- Increase pedestrian lighting
- Reduce vehicle speeds in communities through physical design

- Increase the transportation options of biking and walking through facility design and provision

*[**Note**: The recommendations listed above were compiled from the following sources: Forum 6 participants; April 29th safe mobility presentation by Karen Yunk; The Road Information Program (TRIP) July 2003 report entitled* Designing Roadways to Safely Accommodate the Increasingly Mobile Older Driver*; the University of Michigan Transportation Research Institute's 2003 guide entitled* Promising Approaches to Enhancing Elder Mobility*; and the Insurance Institute for Highway Safety. This list provides a representative sample of potential design recommendations, but should not be regarded as a comprehensive list. It is also important to note that certain recommendations on this list can have a positive affect on one user group while detracting from the safety of other user groups. For example, if curb radii are increased at an intersection, this can make turning easier for motorists but it also allows higher vehicle speed and increases crossing distance for pedestrians. In addition, it should also be noted that the implementation of some of these safety enhancements may have a negative impact on the capacity of intersections. Safety enhancement strategies must be considered in the context of local conditions and from the perspective of multiple user groups (e.g., motorists and pedestrians)].*

b. Implement recommended design features in new construction, reconstruction and maintenance of existing facilities, and retrofit "spot," or "quick-fix" treatments at locations identified through the NJDOT Safety Pilot Program where safety problems are present or anticipated (AMA 2003).

c. Ensure municipal, county and state engineers are familiar with and utilize FHWA's 2001 *Highway Design Handbook for Older Drivers and Pedestrians* as well as the condensed version of the handbook, entitled *Guidelines & Recommendations to Accommodate Older Drivers and Pedestrians*. These resources present design recommendations intended to accommodate the needs and limitations of older drivers. Use of the handbook also helps to promote a uniform set of design standards for safe senior mobility (Ott & Yunk Forum 3).

d. Monitor the progress of the FHWA studies and demonstration projects that will identify best practices and costs/benefits of implementing various infrastructure safety initiatives designed specifically for older persons.

7. Implement the older driver safety design and engineering recommendations made by NJDOT's Safety Task Force (Ott Forum 3).

a. Develop a financial plan for implementing the task force recommendations that addresses funding gaps and permits expansion of the senior safety pilot program.

8. Increase communication and information sharing related to older driver needs and safe road, intersection and pedestrian design among various levels of government and between agencies.

a. Inventory and disseminate information on available manuals and guidelines to all roadway design professionals at the state, county and municipal level.

b. Create a speakers bureau to "get the word out" about the safe mobility forum series recommendations and older driver design standards. Develop presentations and panel discussions for meetings and conferences (e.g., State League of Municipalities) that will reach the desired audience in the planning and engineering community.

9. Coordinate and improve the planning and engineering process to encourage informed implementation of older driver safety design enhancements at all levels (Participant Forum 6).

a. Partner with FHWA to bring the USDOT FHWA Older Driver Design Workshop to New Jersey.

i. Develop a "train the trainer" course based on the workshop and seek funding and training partners (NTI, LTAP, VTC) to publicize and deliver the course on a quarterly basis in New Jersey (Participant Forum 6).

ii. Encourage developers, engineers and others involved in infrastructure planning and design from the private and public sectors to participate in the training (Ott & Yunk Forum 3; Participant Forum 6).

b. Consider the mobility and safety needs of older citizens when constructing age-restricted housing and assisted living facilities (Participant Forum 1).

i. Increase development densities to make transit, walking and biking more viable modes of transportation and reduce the need to drive for seniors and everyone (Bailey Forum 4).

ii. Incorporate the mobility needs of older Americans into the planning of transportation projects, services, and streets. Coordinate with land use planning (Bailey Forum 4).

Community Transportation Services and Strategies

10. Adopt a set of criteria for ensuring that transportation programs and services are responsive to the needs of seniors. Transportation options should be:

a. **Available** – Transportation options and services are available where and when needed.

b. **Accessible** – Transportation options and services can be reached and used without regard to age or disability.

c. **Acceptable** – Transportation options and services meet standards for cleanliness, safety and user-friendliness.

d. **Affordable** – The costs associated with using transportation options and services are comparable to or less than driving a car.

e. **Adaptable** – Transportation options and services can be modified or adjusted to meet special needs, such as wheelchairs and other assistive devices (Beverly Foundation & Kerschner Forum 5; NASUA 2004).

11. Expand transportation options and choice.

a. Substantially increase investment in public transportation systems and other transportation options to expand and improve services to meet the needs of older Americans. Emphasize addressing the transportation needs of minority senior citizens and non-driving senior citizens residing in small towns and rural areas (Bailey Forum 4; GAO Report 2004).

b. Increase funding for existing specialized transportation programs that provide mobility for older persons, such as FTA's Section 5310 program, which provide capital funds for the purchase of vehicles by municipalities, counties and nonprofit organizations (Bailey Forum 4).

c. Leverage limited public funds with private funds and revenues. For example, create shuttle programs sponsored by commercial destinations such as supermarkets, malls, etc. Encourage the sale of advertising space and the use of "vehicle wrapping" to generate revenue (GAO Report 2004; Participant Forum 4).

d. Expand transportation service areas and ensure services are available after 3 p.m. and on weekends (Egan 2002).

e. Encourage better coordination among existing medical transportation providers in order to ensure service is available after 3 p.m. weekdays and on weekends, and across county and municipal boundaries (Egan 2002).

f. Expand the use of fares for specialized transportation services based on a user's ability to pay (Participant Forum 4).

g. Provide travel training for seniors on how to use public transportation and other service options (Maricopa Association of Regional Governments 2002; NJDOT 2003).

h. Expand the use of taxis to supplement existing transit services through various incentives and means including provider subsidy and/or customer voucher programs (Maricopa Association of Regional Governments 2002; NJDOT 2003; Participant Forum 6).

i. Use intelligent transit stop technologies to make the use of public transit service more user-friendly (Maricopa Association of Regional Governments 2002; NJDOT 2003).

j. Expand the use of community shuttle programs and flex-route services such as the "Sunshine Bus" in St. John's County, Florida, which provides an excellent

example of a fixed route, flexible stop, demand response service (Maricopa Association of Regional Governments 2002; NJDOT 2003; Hardin Forum 4).

k. Capitalize on AARP's and AAA's significant membership base to influence future policies and investments related to the quality and quantity of public transportation services available to older Americans (Hardin Forum 4)

12. **Implement a pilot program that creates a "senior mobility concierge" service and one-stop shop for senior mobility resources.**

    a. Consider managing the service via a central telephone system that customers could access for centralized transportation information, dispatching and scheduling services.

    b. Offer services based on a brokerage system that incorporates all providers on a regional, rather than county basis.

    c. Consider incorporating program elements from the Florida Senior Safety Resource Center which employs "mobility counselors" to help seniors cope with the loss of their driver's license.
    (Stav Forum 2; Participant Forum 2; Participant Forum 6)

13. Develop and implement a comprehensive public awareness program related to the availability, cost, and use requirements for alternative transportation services (AMA 2003; NJDOT 2003).

    a. Create an on-line and telephone-accessible resource center to disseminate information related to alternative transportation options and services (NJDOT 2003).

    b. Link to transportation management association (TMA) and Council on Special Transportation (COST) websites (Participant Forum 4).

    c. Expand the use of 2-1-1 to retrieve information on senior transportation options (Participant Forum 4).

14. Ensure that human services transportation is coordinated at all levels.

    a. Ensure that state agency efforts under the federal "United We Ride" initiative adequately address senior mobility needs.

    b. Prepare an inventory of available transportation options and services available for seniors and make this information widely available (Rotter & McKnight 2002; NJDOT 2003).

    c. Promote the use of CTAA's Senior Transportation Toolkit to assess community resources related to senior mobility (Hardin Forum 4).

d. Work with NJ TRANSIT to develop an integrated approach to senior mobility and driving cessation issues (NJDOT 2003).

e. Provide inter-agency support for informal community-based senior ridesharing services to expand service coverage and increase the number of rides provided. (NJDOT 2003).

f. Use TMAs to promote and expand travel option programs to meet senior mobility needs (Participant Forum 3).

15. Encourage seniors to use alternative transportation options before having to "retire" their driver's license (Participant Forum 4).

a. Expand the use of public transportation incentive programs (e.g. coupon-based and voucher programs).

b. Consider utilizing young volunteers (e.g., high school students) to serve as transportation companions for senior citizens utilizing alternative transportation options (Participant Forum 6).

16. Expand the use of volunteer drivers to meet the mobility needs of seniors in New Jersey (GAO Report 2004).

a. Adapt/enhance existing volunteer driver models to New Jersey, including but not limited to the models discussed at the forums.

i. Annapolis, Maryland's use of Americorp volunteers (Hardin Forum 4)

ii. Harrisonburg, Virginia's use of volunteer drivers (friends or relatives of passengers who have agreed to be tested to serve as a volunteer driver) to transport the elderly to evening social events (Hardin Forum 4)

iii. ITN*America*™ (Freund Forum 4)

iv. Volunteer Friends & PasRide in Pasadena, CA (Kerschner Forum 5)

v. Wheels of Wellness program (Puglia Forum 5)

vi. Interfaith Network of Care, Inc. – Middlesex County, NJ (Dowling Forum 5)

b. Develop/implement an enhanced or new "brand" of a county-based volunteer program based upon current best practices in New Jersey. Hunterdon County's program is one example that employs volunteer drivers using county vehicles.

Chapter 4

A Framework for Implementation

Ensuring safe mobility at any age and implementing the recommendations made in this report will require the participation and sustained commitment of many organizations, agencies and individuals. Potential implementation partners include members of the New Jersey Legislature; state agencies, including: New Jersey Department of Transportation (NJDOT), NJ TRANSIT, New Jersey Motor Vehicle Commission (MVC), New Jersey Department of Health and Senior Services (NJDHSS); counties; municipalities; a variety of nonprofit service and advocacy organizations, including: the American Association of Retired Persons (AARP), the American Automobile Association (AAA), the American Occupational Therapists Association (AOTA); medical professionals; as well as friends and family members of older drivers throughout the state. Chapter 3 of this report presents a series of 16 detailed recommendations in the areas of functional fitness-to-drive assessment, restorative strategies, licensing and medical review process; infrastructure planning and design strategies for roadway and pedestrian safety; and community transportation services. The recommendations represent an aggressive but achievable action agenda of legislative, regulatory, programmatic and policy changes necessary to ensure safe mobility for older drivers in New Jersey.

The Alan M. Voorhees Transportation Center and the New Jersey Foundation for Aging are committed to focusing attention on safe mobility as a critical public policy issue facing New Jersey. Toward that end, we will convene a ***Senior Safe Mobility Implementation Committee (SSMIC)*** to advance and monitor implementation of the recommendations. This committee will include representatives from AAA, AARP, AOTA, MVC, NJDHS, NJDHSS, NJDOT, and NJ TRANSIT and will meet two times per year.

Exhibit 2 on the following pages provides a framework for implementation by identifying which potential partners could take a leadership and/or supporting role in advancing specific recommendations.

Exhibit 2: Implementation Matrix

	Potential Leadership/Supporting Partners								
Recommendation	***NJDHSS***	***NJDOT***	***AARP***	***AAA***	***AOTA/CDRS***	***MVC***	***Legislation/ Executive Order***	***NJ Transit***	***Other***
Functional Assessment & Restorative Strategies									
1. Implement a multi-faceted functional fitness to drive assessment and rehabilitation program in New Jersey	X		X	X	X	X			
2. Reform the medical review process to improve fitness-to-drive assessments and encourage use of remedial & skill enhancing programs					X	X			Medical community
3. Enforce existing NJ statutes that require vision testing for license renewal & ensure the most appropriate tests are used for the screening						X			Law enforcement Medical community
4. Reform NJ licensing & renewal requirements to help identify at-risk drivers & provide a range of services to keep people driving longer safely						X	X		
5. Develop and implement a public awareness program related to functional fitness-to-drive concerns, assessments, services, licensing/renewal requirements, medical review process, etc.	X		X	X	X	X			SSMIC NJFA

Exhibit 2: Implementation Matrix (continued)

	Potential Leadership/Supporting Partners								
Recommendation	***NJDHSS***	***NJDOT***	***AARP***	***AAA***	***AOTA/CDRS***	***MVC***	***Legislation/ Executive Order***	***NJ Transit***	***Other***
INFRASTRUCTURE PLANNING & DESIGN STRATEGIES FOR ROADWAY AND PEDESTRIAN SAFETY									
6. Build safer roads and reduce high risk driving through planning and engineering design process		X							Counties Municipalities Developers
7. Implement the older driver safety design and engineering recommendations of NJDOT's Safety Task Force		X							
8. Increase communication and information sharing related to safe road, intersection and pedestrian design among various levels of government and between agencies	X	X	X	X	X	X	X	X	FHWA Counties Municipalities Universities Developers
9. Coordinate and improve the planning and engineering process to encourage informed implementation of older driver safety design enhancements		X							FHWA Counties Municipalities Universities Developers

Exhibit 2: Implementation Matrix (continued)

	Potential Leadership/Supporting Partners								
Recommendation	***NJDHSS***	***NJDOT***	***AARP***	***AAA***	***AOTA/CDRS***	***MVC***	***Legislation/ Executive Order***	***NJ Transit***	***Other***
COMMUNITY TRANSPORTATION SERVICES & STRATEGIES									
10. Adopt a set of criteria to ensure transportation options are available, accessible, acceptable, affordable and adaptable	**X**	**X**	**X**	**X**	**X**	**X**		**X**	Counties Municipalities
11. Expand transportation options and choices	**X**	**X**						**X**	Counties Municipalities
12. Implement a pilot program that creates a "senior mobility concierge" service and one-stop shop for senior mobility resources	**X**	**X**		**X**		**X**		**X**	TMAs
13. Develop and implement a public awareness program related to the availability, cost and use of requirements for alternative transportation services	**X**	**X**						**X**	TMAs AAA
14. Ensure that human services transportation is coordinated at all levels	**X**	**X**		**X**				**X**	United We Ride (NJCAM)
15. Encourage seniors to use alternative transportation options before having to retire their driver's license	**X**	**X**	**X**	**X**	**X**	**X**		**X**	TMAs NJFA VTC
16. Expand the use of volunteer drivers to meet the mobility needs of seniors in NJ		**X**		**X**					Municipalities Counties TMAs AARP

APPENDICES

APPENDIX A:

Abbreviations & Key Terms

AAA	1) American Automobile Association 2) Area Agency on Aging or County Office on Aging (COA) set up under the Older Americans Act of 1965. There are 21 County Offices of Aging in New Jersey within county government.
AAMVA	American Association of Motor Vehicle Administrators
AARP	American Association of Retired Persons
ADA	Americans with Disabilities Act: Passed by the Congress in 1990, this Act mandates equal opportunities for persons with disabilities in the areas of employment, transportation, communications and public accommodations. Under ADA, most transportation providers are obligated to purchase lift-equipped vehicles for their fixed-route services and must assure system-wide accessibility of their demand-responsive services to persons with disabilities. Public transit providers also must supplement their fixed-route services with paratransit services for those persons unable to used fixed-route service because of their disability.
AMA	American Medical Association
AOA	Administration on Aging, a federal office established under the Older Americans Act of 1965 to administer federal aging programs to State Units on Aging (SUA) to Area Agencies on Aging (AAA).
AOTA	American Occupational Therapy Association
APTA	American Public Transportation Association, a national, nonprofit trade association representing the public transit industry. APTA members include more than 400 public transit systems, as well as state and local departments of transportation and planning agencies, manufacturers and suppliers of transit equipment, consultants, contractors and universities.
CAA	Clean Air Act, aka FCAA. Federal law that sets national air quality standards; requires each state with areas that have not met federal air quality standards to prepare a SIP. The sweeping 1990 amendments to the CAA, sometimes referred to as CAAA, established new air quality requirements for the development of metropolitan transportation plans and programs.
CDC	Centers for Disease Control and Prevention
CDL	Commercial Drivers License
CDRS	Certified Driving Rehabilitation Specialist

COST	NJ Council on Special Transportation. This is a statewide organization with membership from public and private transit providers.
CTAA	Community Transportation Association of America
CTAP	Community Transportation Assistance Project. This program of the U.S. Department of Health and Human Services offers training materials, technical assistance and other support services for community transportation providers across the country. CTAP services are currently delivered by CTAA through the National Transit Resource Center.
Demand-Response Service	The type of transit service where individual passengers can request transportation between specific locations at a certain time. Transit vehicles providing demand-response service do not follow a fixed route, but travel throughout the community transporting passengers according to their specific requests. Can also be called dial-a-ride. These services usually, but not always, require advance reservations.
DHS	Department of Human Services
DOT	Department of Transportation. At the federal level, a cabinet agency with responsibility for highways, mass transit, aviation and ports; headed by the secretary of transportation. The USDOT includes the FHWA, the FTA and the FAA, among others. There are also state DOTs, such as NJDOT.
EIS	Environmental Impact Statement. An analysis of the environmental impacts of proposed land development and transportation projects when conducted for federally funded or approved projects per NEPA. A draft EIS (DEIS) is circulated to the public and agencies with approval authority for comment. If approved, it will be a certified Final EIS or FEIS that contains responses to public comments and ways to mitigate adverse impacts.
FAA	Federal Aviation Administration. See DOT.
FARS	Fatality Analysis Reporting System
FHWA	Federal Highway Administration
Fixed-route	Transit services where vehicles run on regular, designated, pre-scheduled routes, with no deviation. Typically, fixed-route service is characterized by printed schedules or timetables, designated bus stops where passengers board and alight, and the use of larger transit vehicles.
FTA	Federal Transit Administration
GAO	United States Government Accountability Office
HART	Hunterdon Area Rural Transit
HIPAA	Health Insurance Portability and Accountability Act of 1996
HUD	United States Department of Housing and Urban Development
IIHS	Insurance Institute for Highway Safety

ISTEA	Intermodal Surface Transportation Efficiency Act. This landmark $151 billion federal legislation signed into law in December 1991 implemented broad changes to the way transportation decisions are made, by emphasizing diversity and balance of modes, as well as the preservation of existing systems over the construction of new facilities, especially roads.
ITN*America*™	Independent Transportation Network
IVHS	Intelligent Vehicle Highway Systems. Also known as "smart cars," "smart streets" and even "smart buses," it promises to move the daily commute from the era of the Flintstones to the age of the Jetsons, from frustration-filled gridlock to computer-guided navigation. The term refers to a wide range of advanced electronics and communications technologies applied to roads and vehicles. Designed to improve safety and productivity, IVHS also can have a positive impact on air quality by cutting congestion. When the term is applied to transit, it is called APTS; in commercial trucking, it is referred to as CVO.
JARC	Job Access Reverse Commute
LTAP	Local Technical Assistance Program of the New Jersey Center for Advanced Infrastructure and Technology
MAB	Medical Advisory Board of the New Jersey Motor Vehicle Commission
Modal Split	A term which describes how many people use alternative forms of transportation. Frequently used to describe the percentage of people using private automobiles as opposed to the percentage using public transportation.
MPO	Metropolitan Planning Organization
MRO	Medical Review Officer. An accredited physician who can review the results of drug and alcohol tests for transit employees. An MRO is mandatory for certain transit agencies under the USDOT Drug and Alcohol Regulations. The definition and qualifications for a MRO are included in 49 C.F.R. Part 40.
Multimodal	Refers to the availability of multiple transportation options, especially within a system or corridor. A concept embraced in ISTEA, a multimodal approach to transportation planning focuses on the most efficient way of moving people or goods from place to place, be it by truck, train, bicycle, automobile, airplane, bus, boat, foot or even a computer modem.
MVC	Motor Vehicle Commission
NARC	National Association of Regional Councils. The nationwide organization for MPOs, Councils of Governments (COG) and other such entities, is based in Washington, D.C.
NEPA	National Environmental Policy Act of 1969. See EIS
NHS	National Highway System. An approximately 155,000-mile network required under ISTEA to provide an interconnected system of principal routes to serve major travel destinations and population centers, was designated by Congress in 1995. It picks up

	where the Interstate Highway System left off.
NHTS	National Household Travel Survey
NHTSA	National Highway Traffic Safety Administration
NJCAM	New Jersey Council on Access and Mobility
NJCOST	New Jersey Council on Special Transportation
NJDHSS	New Jersey Department of Health and Senior Services
NJDOT	New Jersey Department of Transportation
NJFA	New Jersey Foundation for Aging
NJMVC	New Jersey Motor Vehicle Commission
NJT	NJ TRANSIT
NODRTC	National Older Driver Research and Training Center
NTI	National Transit Institute
OAA	Older Americans Act. Federal law enacted in 1965 to establish a network of services and programs for older people. This network provides supportive services, including transportation and nutrition services, and works with public and private agencies that serve the needs of older individuals.
OT	Occupational Therapist
Paratransit	Types of passenger transportation that are more flexible than conventional fixed-route transit systems, but more structured than the use of private automobiles. Paratransit includes demand-response transportation services, subscription bus services, shared-ride taxis, car pooling and van pooling, jitney services and so on. Most often refers to wheelchair-accessible, demand-response van service.
Public Transit – in region	NJ TRANSIT, Port Authority Trans-Hudson (PATH), Port Authority Transit Corporation (PATCO), Amtrak, Metropolitan Transportation Authority (MTA), and Southeastern Pennsylvania Transportation Authority (SEPTA)
Section 9	The section of the Federal Transit Act (formerly known as the Urban Mass Transportation Act of 1964), as amended, that authorizes grants to public transportation systems in urbanized areas (population greater than 50,000) for both capital and operating programs based on formulas set out in statute.
Section 13(c)	The section of the Federal Transit Act, as amended, related to labor protection that is designed to protect transit employees against a worsening of their position with respect to their employment as a result of grant assistance under the Act.
Section 15	The section of the Federal Transit Act, as amended, that authorizes the USDOT to gather statistical information about the financing and operations of public transportation

	systems, based upon a uniform system of accounts and records.
Section 16	The section of the Federal Transit Act, as amended, that declares the national policy to be that elderly persons and persons with disabilities have the same right as other persons to utilize public transportation facilities and services, and that special efforts shall be made in the planning and design of public transportation facilities and services so that effective utilization by elderly persons and persons with disabilities is assured.
Section 16(b)	The subsection of the Federal Transit, as amended, that authorizes grants to nonprofit corporations and associations for the specific purpose of assisting them in providing transportation services that meet the special needs of elderly persons and persons with disabilities for whom public transportation services are unavailable, insufficient or inappropriate.
Section 18	The section of the Federal Transit Act, as amended, that authorizes grants to public transit systems outside urbanized areas, based on formulas set out in statute; the funds go initially to the Governor of each state.
Section 5307	The section of the Federal Transit Act that authorizes grants to public transit systems in all urban areas. Funds authorized through Section 5307 are awarded to states to provide capital and operating assistance to transit systems in urban areas with populations between 50,000 and 200,000. Transit systems in urban areas with populations greater than 200,000 receive their funds directly from FTA.
Section 5309	The section of the Federal Transit that authorizes discretionary grants to public transit agencies for capital projects such as buses, bus facilities and rail projects.
Section 5310	The section of the Federal Transit Act that authorizes capital assistance to states for transportation programs that serve the elderly and people with disabilities. States distribute Section 5310 funds to local operators in both rural and urban settings that are either nonprofit organizations or the lead agencies in coordinated transportation programs.
Section 5311	The section of the Federal Transit Act that authorizes capital and operating assistance grants to public transit systems in areas with populations of less than 50,000.
SIP	State Implementation Plan. Metropolitan areas prepare local and regional areas prepare local and regional SIPs showing steps they plan to take to meet federal air quality standards (outlined in the CAA).
SOV	Single-Occupant Vehicle. A vehicle with one occupant, the driver, who is sometimes referred to as a "drive alone."
SSMIC	Senior Safe Mobility Implementation Committee
STIP	State Transportation Improvement Program. Covering a seven-year span and updated every two years, the STIP lists what transportation projects will be funded when by the state.
STPP	Surface Transportation Policy Project. A diverse coalition representing transportation, planning, architectural, energy, environmental and historic preservation interests whose goal is to develop a national transportation policy that, in its words, "better serves the environmental, social and economic interests of the nation."

STPs	Supplemental Transportation Programs for Seniors
TANF	Temporary Aid to Needy Families. Created by the 1996 welfare reform law, TANF is a program of block grants to states to help them meet the needs of poor families. It replaces AFDC, JOBS, Emergency Assistance and some other preceding federal welfare programs. Because of TANF-imposed time limits, states try to place TANF recipients in jobs as quickly as possible, often using program funds to pay for transportation, child care and other barriers to workforce participation.
TDM	Transportation Demand Management. Low-cost methods to reduce demand by automobiles on the transportation system, such as telecommuting, flextime and ridesharing.
TEA	Transportation Enhancement Activities. An ISTEA-created funding category. Ten percent of STP monies must be set aside for projects that enhance the compatibility of transportation facilities with their surroundings. Examples of TEA projects include bicycle and pedestrian paths, restoration of rail depots or other historic transportation facilities, acquisition of scenic or open space lands next to travel corridors, and murals or other public art projects.
TEA-21	Transportation Equity Act for the 21st Century. The successor legislation to ISTEA, this 1998 law authorized approximately $217 billion for highways, highway safety and public transportation through Fiscal Year 2003.
TIP	Transportation Improvement Program. This is primarily a spending plan for federal funding expected to flow to the region from all sources for transportation projects of all types.
TMA	1) Transportation Management Association. Organizations set up to inform and work with employers or other entities to reduce vehicle trips within certain areas. 2) Transportation Management Area. A region subject to certain planning requirements under ISTEA. Any urbanized area with a population of more than 200,000 automatically is a TMA.
TMAC	Transportation Management Association Council of New Jersey
TRB	Transportation Research Board
TSM	Transportation Systems Management. Low-cost improvements to make the transportation system work more efficiently, such as traffic signal coordination.
UMTA	Urban Mass Transportation Administration
USDHHS	United States Department of Health and Human Services. Funds a variety of human services transportation through AOA, Head Start, Medicaid and other programs.
USDOT	United States Department of Transportation. The federal cabinet-level agency with responsibility for highways, public transit, aviation and ports; headed by the secretary of transportation. The DOT includes the Federal Highway Administration and the Federal Transit Administration, among others. There are also state DOTs, such as NJDOT.

User-Side Subsidy	A transportation funding structure in which qualified users (usually economically disadvantaged persons) are able to purchase vouchers for transportation services at a portion of their worth. The users then may use the vouchers to purchase transportation from any participating provider. The vouchers are redeemed by the provider at full value with the funding agency.
VMT	Vehicle Miles Traveled. The more cars there are on the road at the same time in the same area, the worse congestion will be. This term helps pin down the numbers. Reducing VMT can help ease traffic congestion and improve air quality.
VTC	Alan M. Voorhees Transportation Center

APPENDIX B:
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APPENDIX C:
Summary of Proceedings

The following are summary proceedings for five of the *Safe Mobility at Any Age* policy forums held on the following dates:

- Forum 1: December 10, 2003
- Forum 2: February 18, 2004
- Forum 3: April 29, 2004
- Forum 4: June 30, 2004
- Forum 5: September 28, 2004

In addition, this appendix includes the full report for Forum 6, held on December 16, 2004. Please refer to the Voorhees Transportation Center website http://policy.rutgers.edu:16080/vtc/safemobility/index.html to access the full meeting reports for the first five forums listed above.

SUMMARY PROCEEDINGS
December 10, 2003

Grace Egan, Executive Director of the New Jersey Foundation for Aging, Don Borowski, Director of Driver Management and Regulatory Affairs at the NJ Motor Vehicle Commission, and Martin Robins, Director of the Alan M. Voorhees Transportation Center, discussed the importance of safe mobility as it relates to older drivers and suggested that the issue has far reaching policy implications related to public health, public safety, community development and personal autonomy.

The Honorable **Bob Smith**, a New Jersey state senator representing the 17th District, outlined legislation (S-2202) that he co-sponsored with Senator Andrew Ciesla (10th District). This legislation would establish three senior citizens safe driving health centers. Senator Smith noted several key elements of the legislation, including a provision that will enable the centers to provide confidential fitness-to-drive evaluations for seniors. The bill also provides for incentives, such as a 10 percent reduction on auto insurance rates, to encourage seniors to voluntarily seek fitness-to-drive assessments.

The New Jersey Context

Jon Carnegie, Assistant Director of the Alan M. Voorhees Transportation Center, provided an overview of safe mobility issues by reciting some quick facts about transportation and travel in New Jersey.

- New Jersey has 8.4 million residents AND is the most densely populated state in

the nation, with 1,100 persons per square mile.[1]

- New Jersey has more than 5.9 million licensed drivers.[2]
- New Jersey drivers travel more than 68 billion miles per year on 36,000 miles of state, county and local roadways.[3]
- Public transit users in New Jersey take more than 222 million bus and rail trips per year. [4]
- More than 320,000 crashes occurred on New Jersey roads in 2002. Of those, more than 83,000 involved personal injury and 730 involved a fatality.[5]

These statistics illustrate the significance of safe mobility as an important public policy topic in New Jersey. The concept of safe mobility is broad and can encompass a variety of policy responses, organized into three general categories:

- Safe mobility for everyone
- Safe mobility in terms of young drivers
- Safe mobility in terms of older drivers

Over the past several decades, safe mobility concerns and policy responses have manifested themselves in a variety of forums on a variety of topics, including a number that apply across the board to all age groups. Mr. Carnegie gave the following examples:

- Improvements to motor vehicle design and manufacture to enhance safety for drivers and passengers. One of many examples is the significant improvement made in safety restraint systems, including seat belt and air bag technology
- Adopting and enforcing more stringent penalties for driving while under the influence of drugs and alcohol
- Passing laws requiring mandatory seat belt use, and in some states like New Jersey, mandating the use of child safety seats

Mobility for young drivers in particular has become a growing concern in many states. He stated that for a variety of reasons, young drivers, account for a disproportionate number of crash incidents. According to the National Highway Traffic Safety Administration, nationally, 16-year old drivers have crash rates three times higher than 17-year old drivers, five times higher than 18-year olds, and two times greater than drivers over the age of 85. In response to these troubling statistics, he noted that in at least 11 states, including New Jersey, legislators had enacted multi-staged "graduated drivers license" programs. Early evaluations of graduated license programs in several states and countries demonstrate a 5-15 percent reduction in crashes for drivers between the ages of 16 and 19.

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[1] 2000 Census
[2] NJ Motor Vehicle Commission
[3] New Jersey Department of Transportation
[4] NJ Transit
[5] NJ State Police Report

Mr. Carnegie also provided information on the changing demographics of the senior population, as follows:

- 89 percent of all trips made by seniors are made by private automobile. Only 9 percent of seniors walk or bike and slightly more than 1 percent take transit[6]

- As in the United States as a whole, the effect of the aging baby boomer generation continues to be felt demographically. New Jersey's senior population is growing. In 2000, 1.1 million New Jersey residents were over age 65. By 2020, the number is expected to grow to 1.5 million. While New Jersey's population as a whole is expected to grow by 16 percent, the portion of the population over age 65 will grow by 39 percent, with the greatest increase in the 85 and older age cohort

- Finally, New Jersey's senior population is growing in rural and suburban counties where there are fewer travel options and where driving a car may likely be the only viable means of meeting daily travel needs. Over the next two decades, New Jersey's fastest growing rural and suburban counties in terms of residents aged 65 and over will be:

    - Sussex (106%)
    - Hunterdon (98%)
    - Ocean (70%)
    - Gloucester (69%)
    - Somerset (66%)
    - Burlington (65%)

  Further, the counties that will experience the largest share of overall growth in senior population in the next two decades will be:

    - Ocean (+79,540 or 18%)
    - Monmouth (+40,577 or 9%)
    - Middlesex (+37,210 or 9%)
    - Burlington (+34,782 or 8%)
    - Morris (+ 34,670 or 8%)

  More than half the growth will occur in these five counties.

Mr. Carnegie concluded by suggesting these factors must play a role in shaping New Jersey's policy responses designed to ensure safe mobility for older drivers.

[6] National Household Transportation Survey conducted in 2001

The Mature Driver in New Jersey

Dr. Naomi Rotter, professor of management at the New Jersey Institute of Technology, presented the findings of a study that she and Dr. Claire McKnight, associate professor of civil engineering at City College of New York, completed in 2001 for the NJ Department of Transportation. Entitled *The Mature Driver: Safety and Mobility Issues*, the study investigated whether New Jersey's mature drivers are at an increased risk of injury and fatalities to themselves and others.

Dr. Rotter remarked that New Jersey's seniors are slightly older than the U.S. population and the proportion of the state's senior population 85 years and older ("older-olds") was growing rapidly – 94 percent from 1980 to 2000 vs. 38 percent nationally. The number of licensed drivers 85 years old and older increased by 26 percent between 1996 and 2000.

Dr. Rotter reported the following general findings, which apply to all drivers, not just mature drivers: crash incidents generally decline with age; more crashes occur during daylight hours and during good weather conditions; and more accidents occur on local and private roads.

Mature drivers in New Jersey do not present an increased crash risk to other drivers. However, to the extent they do present risk, older drivers appear to be primarily a risk to themselves in that there is a slight increase in fatalities past the age of 65. She attributed this finding to the increased frailty of older-old drivers, suggesting that such a problem might best be remedied through redesigning automobiles to address the needs of frail drivers, rather than by necessarily changing policies regarding licensure.

Crashes involving older drivers in New Jersey, like the rest of the country, are more frequent during daytime versus nighttime hours. Older drivers are less likely than younger drivers to be in accidents when weather and road conditions are poor; but somewhat more likely to be involved in crashes on local roads than on state or interstate highways. Such a pattern suggests that older drivers are attempting to limit the potential for crashes by avoiding driving situations and conditions that put them at greater risk.

Older drivers in New Jersey, as elsewhere, show a greater propensity to be involved in left-turn crashes than younger groups. Data indicates that driver inattention, failure to yield right of way and failure to obey traffic devices are the contributing circumstances most frequently cited in crashes involving older drivers. Three potential remedies that might be appropriate to address these findings are:

1. Training older drivers for intersection maneuvers and giving them techniques for getting through the intersection safely
2. Redesigning intersections that show high accident rates in general
3. A human engineering approach with some device that could warn drivers of oncoming cars and whether they can get through the intersections safely

Dr. Rotter's study also examined licensing issues related to older drivers, as well as medical issues and fitness-to-drive considerations in the context of how other states have addressed these issues. To accomplish this, the research team surveyed practices in other states, which resulted in the

following findings:

- 32 states, including New Jersey, have no restrictions regarding older drivers
- 13 states have accelerated license renewal cycles
- 7 states restrict mail renewal, some for reasons other than age
- 3 states have age-related vision test requirements
- 2 states have age-related road testing
- Utah has a special licensing program for drivers with medical conditions
- Several states have mandated reporting of medical conditions
- California, Maryland and the Center for Applied Gerontology at the University of Alabama are experimenting with fitness-to-drive programs

Dr. Rotter concluded her remarks by suggesting that any policy agenda to address safe mobility for mature drivers should include:

- Solutions for specific driver fitness problems
- A program of engineering changes and safety enhancement to improve the design and condition of roadways and intersections
- Reforms to the medical review process to improve the uniformity and effectiveness of fitness-to-drive assessments, and to encourage the use of remedial and skill enhancement programs

One area that emerged from the study as appropriate for additional analysis is the medical review policy in each of the states. It seemed clear that this policy allows states to evaluate the fitness-to-drive of older drivers without using age as a screening criterion. However, there is variability as to how the process is initiated, whether there is mandatory physician reporting, whether there is confidentiality of reporting, how the medical review process works, and finally if there are alternatives to suspending or restricting licenses. An examination of the medical review policy in all states would provide a knowledge base for good practice here in New Jersey.

The Maryland Experience

Dr. Loren Staplin, principal partner in the firm TransAnalytics, described Maryland's safe mobility initiatives. Dr. Staplin described the philosophical underpinning of Maryland's approach to safe mobility for older drivers as follows: recognizing functionally impaired driving as a public health and safety issue; integrating health, social service and motor vehicle agency functions; and linking fitness-to-drive screening with community mobility solutions.

Dr. Staplin explained that the key health factors which result in an increased risk for crash incidents are: functional declines in critical abilities important to certain driving tasks, such as visual, cognitive, physical and perceptual abilities; increased incidence of disease and pathology; and more extensive use of multiple medications.

For illustrative purposes, he noted that the biggest predictor of nursing home entrance was the amount of time since the individual had lost their driving license, suggesting a relationship between losing one's license and declining medical and psychological condition. He added that in most parts of the United States, losing one's ability to drive severely impacts quality of life, which may hasten physical and mental decline.

In Maryland, safe mobility for older drivers is treated as a preventive care issue as well as a public health and safety issue. For instance, functional fitness screening can be used as an early detection method to uncover potential health issues that may not be discovered by diagnostic tests until conditions worsen. The Maryland model is focused on helping older drivers drive safer longer, as opposed to preventing crashes.

The Maryland Research Consortium is a multidisciplinary team representing over 25 state and national organizations and private sector partners. It was established in 1996 to coordinate efforts to more fairly and accurately identify high-risk older individuals, and to help those who need to improve their skills, change their habits, or find better alternatives to driving. The consortium's mission is "to create and offer a program of safe mobility for Maryland's older drivers" and its vision is "to become the national model for safe mobility for life."

The consortium's four key performance areas and goals are:

- Identify and assess the ability of functionally at-risk drivers
- Counsel and provide rehabilitation services to those with functional limitations so they remain safely mobile, and identify providers of these services
- Ensure the availability of feasible, affordable and desirable transportation options for those who cannot continue to drive
- Inform and educate the public about functional fitness-to-drive issues

Maryland's Medical Advisory Board reviews potentially at-risk drivers who are referred to the board by themselves or through the court system, law enforcement, family/friends or medical referrals. "Products and policy contributions" from the Maryland pilot program include:

- The functional areas identified as significant predictors of "at-fault" crashes are:
  - Visualization of missing information
  - Directed visual search
  - Information processing speed under divided attention conditions
  - Working memory
  - Leg strength and general mobility
  - Head and neck flexibility
- Functional capacity screening adds value to traditional medical evaluation procedures;
- Functional capacity screening can be conducted cost-effectively at a DMV office and can help save money by reducing the need for more expensive road and written tests to determine fitness; and
- Identifying functional loss can promote safe mobility by allowing earlier intervention.

Dr. Staplin concluded that any policy response aimed at addressing functional capacity loss and its implications for safe driving will only be successful if approached as a way to "promote safe mobility," not by promoting safety and preventing crashes. He further stressed the need to remain ahead of the "demographic curve" on this issue. Safe mobility may not be a crisis today, however, it will be in the not so distant future.

SUMMARY PROCEEDINGS
February 18, 2004

The panel of speakers assembled for the second policy forum presented information related to the status of the Medical Advisory Board in New Jersey; best practices in functional assessment and health screening; the American Occupational Therapy Association's (AOTA) older driver initiative; driver rehabilitation and remediation programs in New Jersey; and the AARP Driver Safety Program.

Medical Advisory Board in New Jersey

Kathy Higham, manager of the NJ Motor Vehicle Commission's (MVC) Driver Review Unit, began by making clear that, by law, the MVC staff cannot discriminate based upon age, and that requests for a medical review or a re-examination cannot be made anonymously. Given the lack of anonymity, it is usually a combination of physician and family who will request a medical review. Other sources for requests, most commonly, are received from the courts or from physicians in hospitals or rehabilitation centers.

There is some discussion underway in New Jersey for restricted licenses that limit driving, for example, to daylight hours only, or within a certain geographic location. Another area MVC is upgrading is medical reviews. The MVC wants to add another four physicians to the Medical Advisory Board (MAB), which now has eight physicians. With a larger board, MVC could proactively request medical reviews. By law, drivers who suffer blackouts, convulsions or seizures face an automatic one-year license suspension. Ms. Higham noted that the American Medical Association's position on ethical responsibility directs physicians to report unsafe drivers to the MVC. The MAB reviews the medical information about a driver, will review medical test results, and can recommend reinstatement or request further or other testing.

Best Practices in Functional Assessment and Health Screening
Identifiers of High-Risk Drivers: An Occupational Therapy Perspective

Wendy Stav, PhD, OTR/L, CDRS, who directs the National Older Driver Research & Training Center at the University of Florida, provided an overview of assessment options, discussed what government wants, explored the realities of safety thresholds, and introduced attendees to her newly formed national center.

Assessments for the older driver should include vision, cognition, motor performance, reaction time, and roadway knowledge. Dr. Stav also emphasized that there are differences between older drivers and rehabilitative clients, and that there is no standardization across tools or results.

Dr. Stav then reviewed the kinds and quality of various tests currently in use. For example, for vision, the standard "Snellen Chart" (Eye Chart) is most common. But this test does not assess areas of vision that are important for driving, such as periphery acuity and visual depth perception. She reviewed the OPTEC series test, the Keystone Vision Tester, Perimetry Testing and Visual Perception tests.

Dr. Stav reviewed the available cognitive assessment tools, identifying the "Trails A and B" as a

good and standard test. She said the "ACLS Leather Lacing" tool was a longstanding and very superior cognition assessment tool, but one not generally used today. The "Digit Symbol" tool identifies shifting attention, while the "Stroop" evaluates selective attention. The UFOV, or "useful field of vision," is a tool that carries a per/test fee and therefore can be expensive for unlimited use, particularly at a high volume venue such as a motor vehicles agency. Other tools for cognition include map skills and problem solving scenarios.

Motor/Sensory assessments include the "Functional Quick Screen," manual muscle testing, a dynamometer, a diadochokokineses, which tests bilateral movement, posture and stature assessment, and proprioception/kinesthesia of the lower extremity -- a natural result of aging in which a loss of awareness of lower limbs occurs.

Reaction time assessments break down into three different aspects: a combination of sensory awareness, cognitive processing and execution of a motor response.

Driver/vehicle fit is an important aspect peculiar to elder driving, and is not typically a consideration for the general rehabilitating population. Commonly small drivers in large vehicles, the elderly can prevent injury through proper positioning and appropriate use of vehicle safety features.

The key point that Dr. Stav made regarding assessments and clinic testing is that these will *NOT* produce a definitive answer as to whether or not a person can drive safely. Clinic testing, however, *WILL* provide a picture of how the client will likely perform in the vehicle.

Federal and state governments are looking for a "silver bullet"-- cheap, reliable, fast and non-biased tests. Dr. Stav noted that validated tools cost money to test, and added that using untrained non-professionals will not result in reliable use of the tools. She cautioned the forum attendees that there are examples of equally non-reliable computerized tests as well.

Dr. Stav briefly outlined a study she conducted as part of the Elder Mobility Project to address the realities of safety thresholds in South Florida. The study included a comprehensive program of education, assessment, feedback and counseling, and mobility management. Entering 323 healthy elderly drivers in a voluntary program, results from all assessments were collected. It should be noted that crashes are rare occurrences, and that safety thresholds do not capture "near misses" or "causing accidents," which may be a much richer source of information concerning functional abilities. Some of the conclusions are that increased age does not necessarily relate to decreased performance, and that the discrepancies are significant between "normal" and safe performance (e.g. corrective lenses are "normal" for many drivers.) Questions raised by the study include:

- Are older driver stereotypes correct?
- Have we identified the wrong assessments?
- Are the tools valid to assess driving?
- Are the tools sensitive enough? Or too sensitive?
- Are these large segments of the older population really at risk?
- Do we need a paradigm shift from crash risk to driving performance?

Dr. Stav concluded her remarks with an update on the National Older Driver Research and Training Center (NODRTC) and she also spoke of the Florida Safety Resource Center, which is being

developed to link people online with a mobility counselor to deal with the loss of their driver's license and to access social services.

Older Driver Initiative

Maureen Peterson, MS, OTR, FAOTA, of the American Occupational Therapy Association (AOTA), introduced forum attendees to the Older Driver Consensus Conference, which was held in December 2002. It was designed to help occupational therapists and other health professionals meet the growing demands of older drivers, and to create an action blueprint for AOTA to identify strategies to close the gaps between the anticipated needs for professional staff experts and the existing shortage of driver rehabilitation and testing specialists.

Occupational therapy is the focus because OTs work with clients to engage in meaningful "occupations" – everyday activities with family, community and leisure that give meaning to a person's life. They also are trained to address basic functional assessment issues.

Driving is defined by occupational therapists as an *instrumental activity of daily living* tied closely to both the perception and the reality of independence. Occupational therapy works towards independence or identifying alternative solutions/adaptations. The Older Driver's Consensus Conference identified several steps geared towards educating occupational therapists, promoting awareness of driving as within the scope of general practice skills, increasing awareness of the needs of older drivers, promoting working with older drivers as a viable practice area, developing fieldwork opportunities and continuing education materials, and gaining funding. A cooperative agreement exists between NHTSA and the CDC to develop a good practices guide. Ten different projects are also underway and are to be completed in 2004.

Driving Rehabilitation - The NJ Context

New Jersey has six Certified Driving Rehabilitation Specialists (CDRS) who work in seven geographically dispersed rehabilitation centers. **Beth Rolland, Claire McLaughlin and Jennifer Palasits**, three OT/CDRS, outlined the training and function of Certified Driving Rehabilitation Specialists.

A CDRS evaluates the potential to drive, assesses performance on the road, and provides training if necessary behind the wheel. Extensive training, national testing and continuing education, demonstration of skills and fieldwork currently are required for the CDRS certification. CDRS are required to maintain a level of service consistent with the Code of Ethics and Practice Standards of the national organization, and to maintain all privacy standards as outlined by HIPAA.

A pre-driver evaluation includes a clinical assessment of driving and medical history, physical condition, vision and cognitive/perceptual skills. This is followed by a behind-the-wheel evaluation of skills on the road in various traffic environments. There are several possible outcomes arising from such an evaluation, as well as various therapeutic interventions for vision or driver training, and physical or occupational therapy. CDRS can recommend driving with physician approval, or a ban on driving either permanently or for a specified period before re-evaluation. When a prohibition on driving is recommended, CDRS will assist the client and family members with adjustments and explore community resources for alternative transportation.

AARP Driver Safety Program

Mr. **Nat Giancola** introduced the AARP defensive driving course, "55 Drive Alive," now called the Driver Safety Program, which he stressed can be taken at any age and will result in a reduced insurance premium. He said New Jersey has 160 volunteers who last year assisted in graduating 12,000 drivers. At a cost of $10 per person, with a resulting reduction in insurance costs, Mr. Giancola identified the program as a valuable driver-training tool.

Guest Commenters

Two participants presented additional comments to the forum prior to the question and answer session. Herb Hoebler, suggested the idea for a ***voluntary elder corps,*** an intergenerational concept modeled on the Peace Corps.

Dr. Errol Rummel, Director of Low Vision Care Center, a neuro-optometric clinic at the Bacharach Rehabilitation Center in Pomona, New Jersey, pointed out the value of ***neuro-optometry*** as a key assessor of visual issues related to driving as they focus on neurological impairment through head injury.

SUMMARY PROCEEDINGS
April 29, 2004

The panel of speakers assembled for the third policy forum spoke on the topic of vehicle and roadway safety and design.

American Automobile Association of America (AAA) Senior Driver Programs

Pam Fischer, vice president of the AAA New Jersey Automobile Club, explained that the goal of AAA's senior driver programs is to help seniors stay mobile for as long as safely possible. To accomplish this goal, AAA offers a host of senior mobility activities and services. Ms. Fisher stated that AAA opposes the use of age as a sole criterion for driver testing; but noted that AAA does support vision testing on a regular basis and skills testing when warranted. Ms. Fischer added that AAA supports New Jersey Senate bill S-1226, which promotes the creation of senior driving health centers.

Ms. Fisher explained that the AAA initiatives focusing on safe mobility for older drivers are designed to address three elements of traffic safety: the driver, the vehicle and the road. With regard to the road, through its "Get there safely" initiative, AAA promotes building safer roads and reducing high risk driving. Through its "Get there your way" initiative, AAA advocates for expanding transportation options and choice; and through its "Get there on time" initiative, AAA promotes various strategies designed to address roadway congestion.

With regard to the driver, AAA is working on developing a new functional assessment tool that can be used in the privacy of one's home, either online or via CD-ROM. Finally, with regard to the vehicle component of traffic safety, AAA is involved with a program entitled CarFit, which provides assessments for participants on how well they physically "fit" in their vehicle, as injury can be prevented through proper positioning and appropriate use of vehicle safety features.

New Directions in Older Driver Safety and Mobility – National Highway Traffic Safety Administration (NHTSA)

Essie Wagner, program analyst for the Safety Countermeasures Division at NHTSA, reported that NHTSA's mission is to save lives by promoting safe, secure and efficient automobile travel. Ms. Wagner provided the following facts related to older drivers:

- Older drivers have fewer crashes than do younger drivers, in part, because older adults tend to drive fewer miles
- Older drivers are more likely to die in a vehicle crash than their younger counterparts and driver fatality rates overall are not improving for senior citizens based on the most recent data (1998-2002)
- The mode of transportation frequented most by the elderly is that of driver of a motor vehicle

Ms. Wagner explained that NHTSA's approach to ensuring safe mobility for older drivers involves the medical community, social service and licensing agencies, and law enforcement working with and responding to the needs of the public. She noted that increased collaboration among these parties must be encouraged.

Michael Perel of the NHTSA Office of Applied Vehicle Safety Research reported that his work and research at NHTSA focuses on crash avoidance. He noted that older drivers are faced with a host of limitations, including slower response time, problems with glare and vision, restricted head/neck movement, problems with focusing closely and difficulties attending to multiple tasks. He stressed that older drivers need to pay attention to car design when purchasing a new vehicle or re-evaluating their current one as compatible vehicle design is critical to enhancing senior driver safety.

Mr. Perel explained that NHTSA receives many complaints about glare from older drivers. As a result, the agency recently investigated issues related to the color and horizontal intensity of High Intensity Discharge (HID) headlights versus halogen lights. Based on the study, NHTSA determined that drivers' attention appears to be attracted to the blue color and brightness of many HID lights and therefore are more apt to look into the light source, causing discomfort and increasing glare recovery time. Whether or not driver exposure to intensity from different beam patterns affects glare recovery time is currently under investigation, as is the issue of headlamp aim.

Mr. Perel provided an overview of the positives and negatives associated with new technologies designed to improve driver safety. Included in his overview was the following:

- **Infra-red night vision enhancement systems (NVES)** – This technology, which is currently available as an option on some automobiles uses infrared (IR) cameras to supplement the visibility provided by standard headlamps during night driving. Preliminary findings from a study examining object detection while driving with an NVES demonstrated that for older drivers without oncoming glare, pedestrian detection distance increased, but not the percent of pedestrians detected. For detecting pedestrians in the presence of oncoming glare, NVES did not help older drivers. In all, older drivers used NVES less often than did younger drivers.
- **Adaptive forward lighting** – This technology adjusts the position of vehicle headlight

beams to conform to roadway design and operating environment. An NHTSA study is underway. Initial indications are that this technology holds promise but significant further investigation is needed to determine potential negative effects on on-coming traffic/drivers.

- **Curved driver-side mirrors** – This technology is used extensively in Europe, but not in the Unites States. It involves the use of curved or aspheric mirrors to increase field of view. Preliminary findings from an NHTSA study indicate that curved/aspheric mirrors improve detection of adjacent vehicles for all drivers, including older drivers. However, NHTSA researchers noted that many drivers took a long time to acclimate to the technology because aspheric mirrors shrink the reflective image.
- **Advanced vehicle crash warning technologies** – This technology includes a variety of applications that provide forward crash warnings, lane change/blind spot warnings, rear object detection, road departure warnings and intersection collision warnings. Field testing of these applications is ongoing. Advanced information and telematics systems were also briefly discussed, but Mr. Perel stressed that improving safety was not the primary goal of such systems and that elements of such systems can, in fact, be distracting to drivers.

Older Road User Program and Roadway Design Guidelines – Federal Highway Administration (FHWA)

Karen Yunk of the FHWA New Jersey Division Office provided an historical overview of FHWA programs and activities focusing on the older road user. She noted numerous publications, including the recent *2001: Revised Highway Design Handbook for Older Drivers and Pedestrians, 2003: Guidance for Implementation of the AASHTO Strategic Highway Safety Plan* and the 2004 pocket guide, *Travel Better, Travel Longer*.

Ms. Yunk reported that, in 40 states, FHWA offers a one-day older driver design workshop developed for engineers, design consultants and others in the transportation field. The workshop focuses attention on age-related cognitive and physical changes and illustrates safety conscious design examples through handbooks and case studies.

Ms. Yunk noted that FHWA recognizes that drivers experience visual, mental and physical changes as they age. As a result, the agency has sought to provide a variety of countermeasures to accommodate these changes, including bigger and brighter traffic signs, increased use of highway lighting, brighter pavement markings and delineation of curbs/medians, redundant signing, protected operations, increased perception-reaction time in intersection sight distance calculations, eased parallel entrance ramp geometry and slower walking speed assumptions when designing pedestrian signal control.

The most recent FHWA *Manual on Uniform Traffic Control Devices (MUTCD)* was the 2003 Edition, which included several changes, such as increased letter height standards for sign legibility at a distance, larger street name signs and turning path pavement markings. She noted that three demonstration projects were then in progress to evaluate the effectiveness of older road user guidelines.

Safety Initiatives – Perspectives from the New Jersey Department of Transportation (NJDOT) and New Jersey State Police

Patricia Ott, director of traffic operations for the NJDOT, described the department's efforts with regard to traffic safety in general and senior driver safety in particular, specifically emphasizing engineering, education and enforcement. She noted that 13 percent of the New Jersey population is 65 or older, while 15 percent of the state's drivers are 65 or older.

Ms. Ott reported that a Highway Safety Task Force was established in New Jersey in 2002 and has developed and implemented various strategies aimed at improving traffic safety. She further noted that the state's *Safety First* legislation, enacted in July 2003, resulted from the task force's work and included the Safe Corridor program, equipment violation penalties, and penalties for out-of-state overweight trucks.

With specific regard to senior drivers, Ms. Ott reported that in 2002-2003, the NJDOT conducted a senior safety study that examined policy initiatives to improve transportation for New Jersey's senior population. The study focused on developing strategies to help accommodate the special needs of seniors and improving the overall level of highway safety. Various recommendations resulted from the study, one of which was a senior safety pilot program.

Ms. Ott reported that the pilot program had focused on a partnership between the NJDOT and the departments of Health & Senior Services, Education and State, as well as other public and private organizations. She expressed her hope that the pilot initiative would develop into a continuing program.

Ms. Ott described several NJDOT engineering improvements which have helped and will continue to help the senior population. They include: enhanced signing and striping/pavement markings, signal improvements, lighting enhancements and geometric improvements to roads and intersections (e.g. curbing, sidewalks).

The final speaker was **Lieutenant Paul Krupa** of the New Jersey State Police who provided an overview of fatal accident statistics, noting that 99 of the 419 total driver fatalities in 2002 were victims aged 65 and older.

With regard to driver re-examination, Lt. Krupa reported that family members and medical professionals submit most requests for re-examinations. He displayed a table depicting the number of drivers re-examined in a given year and the number of those re-exams given due to involvement in a fatal accident. For example, in 2003, 739 drivers were re-examined, of whom 425 were retested due to involvement in a fatal accident. Over half of those involved in a fatal accident were senior citizens (298 of 425 re-examined). Lt. Krupa did not elaborate on what portion of the 314 drivers examined for other reasons were seniors. Lt. Krupa concluded by pointing out that N.J.S.A. 39:3-10c, requires that every driver pass a vision screening test every 10 years as a condition for license renewal. He observed that this law, which is already on the books but not enforced, should be considered by the group when it develops policy recommendations.

SUMMARY PROCEEDINGS
June 30, 2004

The panel of speakers assembled for the fourth policy forum presented information related to the need for public transportation options for aging Americans; national direction in providing community transportation alternatives; New Jersey's approach to local community transportation; and "best practices" in community transportation from New Jersey.

Aging Americans: Stranded Without Options, The Need for Public Transportation

Linda Bailey, a policy analyst with the Surface Transportation Policy Project (STPP), presented findings from the report – *Aging Americans: Stranded Without Options*, which the STPP prepared in cooperation with the American Association of Retired Persons (AARP).

Ms. Bailey reinforced that over the next 25 years, the number of Americans 65 and older will grow substantially. She noted that the fragility and self-limitation of many aged drivers reduces driving as an option for this group.

Through focus groups, STPP confirmed that feelings of isolation and loss of independence often plague those who no longer drive. This finding is not surprising. STPP found that on any given day over half of non-drivers age 65 and over stay home, frequently foregoing or reducing social, religious, shopping and/or medical trips.

Ms. Bailey highlighted disparate impacts with regard to race among those aged 65 and older who stay home on a given day. For example, while 22 percent of whites stay home on a given day, 36 percent of African Americans and 38 percent of Asian Americans do so. Reasons identified for these disparate impacts include the findings that minorities are more likely to be non-drivers, are less likely to live in a household with a car, and are more likely to live below the poverty line. Ms. Bailey also noted that older African Americans and Latinos are twice as likely as their white peers age 65 and older to use public transportation.

Ms. Bailey indicated that rural areas are more affected than small towns and urban/suburban areas because non-drivers 65 and over residing in rural areas have fewer potential options in terms of transit and walking. With regard to New Jersey, Ms. Bailey reported that according to the National Household Travel Survey (NHTS), 27 percent of NJ residents age 65 and older are non-drivers and of that group, approximately 53 percent stay home on a given day. She noted that New Jersey's 53 percent figure was slightly less than the national average of 54 percent.

Ms. Bailey suggested that there are ways to change the current situation for older citizens seeking mobility solutions in the United States. For example, walking, transit and bicycling are used more frequently as a viable means of transportation by older residents in Manheim, Germany than in the United States. Ms. Bailey emphasized that the characteristics of livable communities like Manheim can help to decrease isolation. She noted that STPP's research suggests that the percent of older non-drivers staying home is reduced as community density increases. In addition, as community density increases, so does the rate of public transit use and walking on a given day by those 65 and older.

Ms. Bailey concluded her presentation with the following recommendations:

- Substantially increase investment in public transportation systems to expand and improve services to meet the needs of older Americans
- Increase funding for existing specialized transportation programs that provide mobility for older persons, such as FTA's Section 5310 program
- Incorporate the mobility needs of older Americans into the planning of transportation projects, services, and streets. Coordinate with land use planning
- Improve coordination among human service agencies and between those agencies and public transportation agencies
- Improve streets by providing for safe walking and bicycling
- Urge states to adopt federal guidelines for designing safer roads for older drivers and pedestrians
- Preserve the flexibility of state and local governments to spend federal transportation funds on improving public transportation, pedestrian and bicycle paths and other alternatives that will meet the mobility needs of older Americans
- Support the "Transportation Enhancements" program, which is the only federal source of support for pedestrian and bicycle safety projects and facilities

National Directions in Community Transportation Alternatives

Jane Hardin, senior transportation specialist at the Community Transportation Association of America (CTAA), reported the following with regard to current and future trends:

- Coordination amongst agencies and organizations is a necessary and inevitable trend that is encouraged by the federal government
- The AARP is becoming involved with the issue of senior citizen transportation needs and its significant membership base can wield great influence over future policies and investments related to the quantity and quality of public transportation options available to older Americans
- Awareness is increasing amongst community officials, planners and others with regard to issues involving older drivers
- Policy-makers are beginning to recognize the importance of and need for volunteer initiatives (e.g. volunteer drivers, schedulers) as an important component of our community transportation network. Although there are administrative costs associated with volunteer initiatives, such programs allow for more services. Ms. Hardin added that they are most successful when funds can be acquired to reimburse volunteer drivers for their mileage and/or gasoline expenses. Securing insurance for volunteer drivers is another issue that can be difficult, but not impossible
- Ms. Hardin provided an example of what she considers a superb demand response transit system, which operates in the 609-square mile service area of St. Johns County, Florida. The system includes paratransit services as well as a service called the Sunshine Bus, which operates on a schedule/route but also makes stops when flagged by pedestrians

The State's approach to Community Transportation in New Jersey

Bob Koska, director of NJ TRANSIT Local Community Transportation programs, suggested that the principal challenge to providing local community transportation services is to find ways to make the diverse funding streams work together to create a flexible, effective, and easy to use system of community transportation services. He explained that NJ TRANSIT is the grantee of federal funding for New Jersey's local community transportation programs and administers these federal grant programs, as well as similar state initiatives.

Mr. Koska noted that most local community transportation programs focus on providing transportation for seniors and persons with disabilities and that since the 1980's, there has been increased coordination amongst transportation programs. For example, in 1980, the Office of Special Services was created at NJ TRANSIT to work with counties on their transportation programs and required coordination plans in order to receive funding. This strengthened the county role in transportation. Mr. Koska reported that recent reorganization at NJ TRANSIT has brought all community transportation-related programs into a single organizational "home." Mr. Koska also noted that selection for all transportation programs is made by multi-agency interdisciplinary groups and all applications require coordination with other services.

With regard to the Casino Revenue Fund, Mr. Koska provided the following facts:

- Casinos pay a tax of 8 percent on their gaming revenue. The taxes are dedicated to programs for seniors and persons with disabilities
- It was projected that the casinos will generate $384 million in taxes for the fund in 2005, bringing the total dollars available in the fund to an estimated $478.8 million
- With regard to transportation assistance, 85 percent of the funds are allocated to counties, up to 10 percent is set aside for program administration, and the balance is used for NJT accessibility
- The total 2005 allocation was $25,287,000, of which over $21 million was allocated to counties
- New Jersey counties provide approximately 4 million trips per year, with 1.6 million charged to the Casino Revenue program

Mr. Koska then provided specific information about other local community transportation programs:

- *Sec. 5310 Senior and Persons with Disabilities Capital program* – Applications for this initiative are accepted in the fall of each year. The criteria for acceptance and issuance of a vehicle include extent and urgency of need, utilization and appropriateness of service, extent of coordination, and cooperation and operating plan. MPOs have oversight over the application process.
- *Sec. 5311 Rural services* – Applications for this program are accepted in the spring of each year and there is MPO oversight over the process.
- *Job Access Reverse Commute (JARC)* – Applications are sought from counties, TMAs and others to provide employment-related transportation services to low-income residents and others. Generally, MPOs solicit applications and make recommendations to NJT. Services from this program are targeted to welfare-to-work participants.

- *Community shuttles* – NJT requests applications for this program on a periodic basis. The program is targeted to communities with transit access issues.
- *Local Initiatives (Sec. 5309 earmarks)* – There is no competitive application process for these funds, which are congressionally earmarked. No services/vehicles are yet in operation for this program.
- *CMAQ* – This source of federal funding is allocated by formula to the state each year. Applications for this program are received by MPOs or NJDOT/NJT (e.g., Transit Village initiative). MPOs rank and select projects which are targeted to unmet local service needs.

Mr. Koska emphasized that all of these grant programs are designed as reimbursement programs, so that the funding agencies (including NJT) can be sure that funds are used as intended.

Community transportation alternatives that work: 'Best Practices' from New Jersey

Steve Fittante, Northeast regional manager for ATC**,** a transit service planning/management firm, focused on his experiences in designing flexible bus services in New Jersey to meet the needs of senior citizens and other transit dependent groups.

ATC strives to design flexible services which combine the advantages of both fixed route and demand response systems. For example, a flexible service can include elements of door-to-door and passenger assistance characteristics of a demand response service with the certainty and trip productivity of a fixed route service. Mr. Fittante noted that flexible route services require smaller buses to improve routing flexibility, frequent regular service to eliminate the need for reservations, and enough room in the schedule to accommodate some route deviations.

Mr. Fittante reported on his experiences with flexible route services in two New Jersey counties – Warren, a rural county which offers little public transit and has small urban centers, and Union, an urban county with considerable rail and bus transit and which encompasses a major city and numerous suburban communities.

Both counties leveraged funding from various sources (e.g. JARC, Casino Revenue) to initiate and expand small flexible route services. While each county's service plan had distinct operational characteristics, both provided connections to NJT bus and rail routes, which Mr. Fittante described as a critical component to both service expansion efforts.

With regard to utilizing excess seating capacity on service vehicles, funding grantors of both programs accepted the concept of coordination and serving other client groups. This practice resulted in increased efficiency and contributed to further service expansion in Warren County through application of fare revenue. *(Note: Union County did not charge fare for its flexible service).*

Comparing Warren shuttle trips by destination at the start of the service in 2001 to 2003, Mr. Fittante noted the marked increase in shopping/recreational and work trips. Comparing Warren shuttle trips by client category in 2001 to 2003, an increase was observed in the number of riders from the general public and the senior/disabled population. With regard to the Warren shuttle's efficiency, Mr. Fittante reported that trips per revenue hour increased in the time period between 2001 and 2003.

More recently, the Warren shuttle program service has expanded to include Saturdays and evenings, in an effort to meet life mobility needs.

Warren shuttle results for May 2004 showed an increased average weekday ridership of 229 and an average Saturday ridership of 56. The average trips per hour were 6.44 and senior/disabled ridership accounted for 18.7 percent of trips. Farebox recovery was 5.2 percent and 36 percent of trips were to employment and education destinations.

Mr. Fittante also discussed the Union county rail feeder demonstration initiative, which allows Union County paratransit to act as a feeder to the NJT Raritan Valley Line. This demonstration project reduced total expense and travel time for supported employment participants and could have similar applications for senior transportation. Mr. Fittante added that this demonstration reduced the costs of operating a paratransit trip by approximately 40 percent.

SUMMARY PROCEEDINGS
September 28, 2004

The panel of speakers assembled for the fifth policy forum, spoke on the topic of volunteer driver programs to provide transportation for senior citizens and disabled persons.

Surviving without Driving: Creating Sustainable Transportation for Seniors

Katherine Freund, executive director of the Independent Transportation Network (ITN), explained that ITN is a non-profit organization located in Maine that addresses the mobility needs of the aging population by offering transportation services via automobile with paid or volunteer drivers 24 hours per day/7 days per week. The program is sustained through rider fares and financial support from local donors, not government subsidies.

ITN blends the benefits of personal transportation with some of the efficiencies of public transit by promoting ridesharing and advance trip scheduling. The organization has just completed the first phase of its three-phase core project, which was to create an economically sustainable model for meeting the transportation needs of the aging population.

ITN passengers are charged by the mile for their trips. For the reporting period July 1, 2003 to June 30, 2004, total revenue from 15,274 rides was $117,158. Paid drivers provided 65 percent of those rides and volunteer drivers were used for 35 percent. ITN considers volunteers an extremely valuable resource. In its fiscal year ending June 30, 2004, ITN had 50 active volunteers, 29 of whom were male and 21 female. The mean age of volunteers was 58 and the median age was 63. The total number of volunteers ever recruited for the program was 232 and 20 new volunteers (15 active) were recruited last year.

Volunteers are offered reimbursement ($0.25 per mile) for the miles driven with a passenger in the vehicle. In the past fiscal year, 68 percent of the volunteers opted to redirect their reimbursement back to the program. For miles driven with no passenger in the vehicle (e.g. to/from passenger trips), volunteers earn transportation "credits/miles," which they can opt to save as a type of transportation "social security" to be used when they need rides as they age, or they can opt to donate or assign their earned credits to other individuals or ITN programs. Miles can be donated to

other ITN customers, to a favorite group, family/friend and/or to the Community Road Scholarship or the Road Scholarship Fund.

The Community Road Scholarship offers a community the opportunity to acquire transportation credits for their residents if they work with ITN to recruit new volunteers. The Road Scholarship Program offers credits to low-income riders. For the period July 1, 2003 to June 30, 2004, 46 percent of volunteers opted to donate their transportation credits to ITN.

Through technology ITN maximizes the use of volunteers. Typically the driver drops off/picks up the rider. The driver then services other riders in the available time between pick up/drop off of the initial rider. Riders in need of an escort for the entire duration of their trip are permitted by ITN to travel with a companion, free of charge.

ITN also uses technology to manage volunteer information effectively, providing detailed volunteer accounts with information pertaining to the number of miles driven, credits earned, reimbursements given and donations made to the Road Scholarship program. In addition, volunteer availability and attributes/characteristics of volunteers (e.g. vehicle type, volunteer location, personality etc.) are recorded. The ITN databases manage this information.

ITN actively recruits volunteers and markets their program in a variety of ways, including its "Look who's Driving Now" program and a Volunteer of the Year Award. The former involves ITN's recruitment of a prominent citizen such as a legislator or sports figure to serve as a volunteer driver. ITN also collaborates with other organizations, such as AAA and local communities to recruit volunteers.

The volunteer application process requires completion of an application, a personal interview and submission of three references. Volunteer drivers must have three years of driving experience, pass a road test and have a clean driving record. ITN checks vehicle registration and insurance information and makes sure the volunteer's vehicle is appropriate for the clients to be served (e.g. vehicle condition, door height, etc).

ITN strives to retain its volunteers by rewarding and acknowledging their service with programs and practices such as giving annual awards and holding events such as the trash can turkey roast. Ms. Freund emphasized that volunteer drivers are an essential element of senior citizen transportation initiatives. Marketing, recruiting and recognition of program volunteers are part of an on-going process and should be built into an organization's structure. Maintaining a professional staff and utilizing information system technology are also cost effective and valuable for volunteer coordination efforts.

Volunteer Friends: Innovations, Challenges, and Adaptations

Helen Kerschner, Ph.D., is executive director at the Beverly Foundation, which is a non-profit organization located in Pasadena, California, with 25 years of research experience on issues related to improving the quality of life for senior citizens. Senior mobility is the foundation's main focus and it strives to develop and promote new and/or innovative strategies for achieving "senior friendly" mobility and transportation options.

Ms. Kerschner noted that the 65-84 age cohort and the 85+ population are expected to increase 50 and 52 percent respectively by 2030, from the 2000 population figures. Thus, the need for viable senior transportation options is escalating and will continue to do so in the foreseeable future. In this environment, she reported that the Beverly Foundation has defined the five "A's" of senior friendly

transportation as Availability, Accessibility, Acceptability, Adaptability and Affordability. The Beverly Foundation has explored a variety of strategies to address the five "A's" through initiatives such as the Innovations study, focus groups and the STAR search survey.

From the STAR surveys, the foundation obtained a wealth of valuable information about current Supplemental Transportation Programs. For example, 61 percent of the trips provided by these programs are for medical appointments, with social activities accounting for 42 percent of trips. Nearly three quarters (71 percent) of the programs surveyed offer door-to-door service and 19 percent offer curb-to-curb service. Forty two percent of programs use paid drivers only, 34 percent rely upon volunteers only and 20 percent use both volunteers and paid drivers. With regard to vehicles, 50 percent of the programs surveyed use vans, 42 percent autos, 29 percent buses and six percent taxis. Finally, 47 percent of programs surveyed can provide escorts.

Ms. Kerschner also described the ***PasRide*** initiative, an 18-month Beverly Foundation pilot program in Pasadena, California. The program, which was completed in August 2003, involved design and implementation of a new transportation service for seniors.

PasRide was developed with a "Volunteer friends" approach to transportation, which is a low cost, low maintenance, consumer driven, senior friendly approach to providing transportation to seniors. The primary components of the model include a sponsor (community agency), partners (local service organizations), riders (seniors) and drivers (friends of riders). Riders make their reservations directly with volunteer drivers whom they recruit themselves. The vehicles used to provide service are owned by the volunteer drivers. Volunteer staff is used to administer the program which has limited program infrastructure.

The model "empowers" seniors by giving them the funds to reimburse their drivers. No rider fees are charged, drivers are screened, service is available daily and provided door-to-door or door-through-door. Overall, the volunteer friends model is premised upon, and the PasRide system is guided by, the five A's of senior friendly transportation mentioned above – availability, accessibility, adaptability, acceptability and affordability.

To participate in the PasRide program volunteer drivers must possess their own insurance and carry excess auto liability, accidental driver and volunteer liability insurance. Trip reimbursement methods are as follows: $2.50 per trip for intra-city travel, $0.30 per mile for inter-city travel and a flat rate of $24 per month for long-distance travel.

Lessons learned from PasRide include the following:

- Liability and risk must be determined from the "get-go"
- Insurance costs do not need to be a barrier to action
- A transportation service does not have to be expensive
- It is not necessary to purchase vehicles or hire staff
- Riders can recruit their own drivers and schedule rides
- Volunteer friends are willing to drive when someone asks them
- A variety of partners and advisors contribute to the agenda
- A program like PasRide needs to supplement – not replace - existing transportation services

Volunteers are typically family members, friends and neighbors who drive riders from point to point and/or play the role of escort, help schedule rides or train other drivers. Once recruited, volunteers

generally stay with the program. Potential volunteers can be recruited from a variety of sources, including religious groups, senior centers, social service agencies, volunteer groups and agencies, universities, local government, and public and paratransit services.

In order to successfully recruit a volunteer base, it is valuable to understand the motivations of volunteers, such as a desire to meet people. It is also important to make clear what will be expected of volunteers. For example, volunteers must use their personal vehicles and carry mandatory insurance. Drivers must also be made aware that they need to share documentation, such as their driving record, with the sponsoring agency. If door-to-door service or door-through-door service is expected, volunteers need to be made aware of that expectation.

Management of volunteers is also crucial. Ms. Kerschner recommended that potential volunteers be screened as part of any application process. She added that volunteers accepted into a program should be given training and a handbook about the program.

The Beverly Foundation's website at ***www.beverlyfoundation.org***, offers the Senior Transportation Options Repository (STORe), which offers a wealth of information on senior mobility topics, and the Volunteer Friends TurnKey kit, which offers generic materials to be used in planning, implementing and evaluating a volunteer friends transportation initiative.

Wheels of Wellness – Volunteer Division

Timothy Puglia, of Wheels of Wellness, located in Philadelphia, PA, reported that Wheels was founded in 1959 to provide free, non-emergency medical transportation for the needy ill and disabled and is the oldest and largest volunteer transportation agency in the country. The organization began by using only volunteer drivers but, since the late 1960's, it has increasingly relied upon paid drivers. Currently, Wheels has 40 volunteer and five paid drivers. No distinction is made between paid and volunteer drivers in terms of scheduling rides, except that volunteer drivers are permitted to choose the times and areas in which they would prefer to drive. Paid drivers fill the gaps in service. All riders using Wheels services must be ambulatory.

Funding for the organization comes from a variety of sources, including the United Way, fundraising events, foundations and businesses/industry. Volunteer drivers must have a clean driving record and exhibit compassion for their riders. They must also use their personal vehicle at their own cost. Volunteer drivers are not required to receive training, unless they are medical assistance drivers. Wheels does not want to discourage potential volunteers by requiring training. However, all volunteers are given training materials and are invited to attend training sessions if they desire. When a volunteer begins work, he/she must go on a ride-along with another driver.

Volunteer compensation includes either a letter attesting to the individual's service to be used by the individual for tax purposes or mileage reimbursement ($0.31 per mile). Mr. Puglia reported that most volunteers choose to take the tax letter. Drivers must have a personal auto insurance policy as their primary coverage. Wheels provides secondary coverage, which is an umbrella policy that covers costs over and above that of the driver's own policy. In Wheels' 40+ years of operation, there have been only two insurance claims.

Hunterdon County Volunteer Driving Program

Tara Braddish, executive director of the Hunterdon Area Rural Transit (HART) Transportation Management Association (TMA), explained that Hunterdon County has approximately 122,000

residents, 32 percent of whom are seniors. The county has no public transportation or taxi service and is predominately rural/suburban. In 1985, all special needs transportation funding was pooled by the county Department of Human Services to fund the LINK bus system. LINK offers demand and modified fixed route service for in-county travel to all county residents. Approximately 30 vehicles are used to provide over 700 trips daily.

In the early 1990's, the Hunterdon County Volunteer Driver program was initiated by the county's Office on Aging to supplement the services offered by LINK. Eight volunteers from the Men's Rotary Club initially staffed the program. When conceived, it was determined that the primary unmet need was transporting seniors to medical appointments. As a result, the Volunteer Driver program principally provides trips for seniors and disabled residents who need medical treatment either in or outside Hunterdon County on weekdays. Two county vehicles are available for the program which is limited to assisting two clients per day. Currently, the program operates with an average of 13-15 volunteers. Other program guidelines are as follows:

- Trips are provided only to riders unable to use the regular LINK service
- Trips are provided for medical transport only
- Volunteer trips are strictly "single purpose" - no stops, except to pick up prescriptions
- Clients must be ambulatory, no wheelchairs
- Limit of two trips per month per client
- An insured county vehicle is provided for use by the volunteer drivers
- Volunteers must have a valid driver's license
- Volunteers must have a physical exam by the county doctor
- Scheduled trips may not exceed 75 miles one way
- Suggested donations for service are $2 in-county, $4 out of county
- Clients are responsible for any parking and toll costs

Volunteers are generally recruited from service clubs, community organizations, religious groups and the county Office on Aging. Interested volunteers not affiliated with an organization may volunteer by providing two character references. All interested volunteers must complete an application and the county Department of Human Services then requests an MVC license check to determine eligibility. Once driving credentials are verified, eligible volunteers must agree to have a physical examination with the county physician prior to being selected and placed on the program's "call list." Volunteer orientation begins with review of the program's "9-point policy," which outlines the program's purposes and various county guidelines.

Use of the service has been growing, from 169 hours of service and 17 unduplicated clients in 2000 to 409 hours of service and 44 unduplicated clients in 2003. More recently, through August 2004, 314 hours and 38 unduplicated clients were logged.

Volunteer Insurance and Risk Management

Sue Dowling, is executive director of the Interfaith Network of Care, Inc., which is a volunteer organization in Middlesex County, NJ, that provides personal and social support to those coping

with disabilities, chronic conditions and other age-related disabilities. The organization has 250 total volunteers, with 55 active volunteer drivers. Ms. Dowling is the program's only full-time employee, with one part-time volunteer coordinator also working for the Interfaith Network of Care.

The organization purchases secondary insurance from CIMA Companies, Inc. The organization pays approximately $2,500 to $3,000 annually for volunteer insurance. For volunteer appreciation, they also provide oil changes for their volunteers' vehicles, which costs approximately $850 annually. In the organization's eight-year history, they have had no claims made against their insurance policy. In terms of advice to those seeking volunteer driver insurance, organizations should review their current insurance plans and then determine what additional coverage is needed. In addition, volunteer drivers should be made aware of any limitations on the organization's insurance coverage.

SUMMARY PROCEEDINGS
December 16, 2004

Jon Carnegie, assistant director of the Alan M. Voorhees Transportation Center, welcomed participants and provided a context for the final *Safe Mobility at Any Age* policy forum, by reviewing presentation highlights from the previous five policy forums. Mr. Carnegie explained that this session was designed as a synthesis workshop and he charged attendees with the task of developing a series of recommendations for legislative, programmatic, administrative and other policy changes needed to ensure safe mobility for older drivers in one of three topical work groups. The work groups were as follows:

Work Group 1: Functional Assessment and Restorative Strategies

Work Group 2: Infrastructure Planning and Design Strategies for Roadway and Pedestrian Safety

Work Group 3: Community Transportation Services and Strategies

To assist with their charge, a list of potential recommended actions were developed and circulated by the project team to each work group for further review and discussion. These recommended actions were derived from previous forum presentations, participant discussions and secondary sources referenced and researched during the course of the policy forum series. Work group facilitators focused on engaging participants in discussion on the potential recommended actions in an effort to determine the following:

1. What are the ***best practices and/or innovations*** that we should pursue in New Jersey? Are the appropriate best practices and/or innovations included on the current list of recommendations?
2. What ***roles and responsibilities*** should different agencies, organizations and individuals play in seeking to implement the recommended actions?
3. What ***resources*** will be needed to implement the recommended action?
4. How do the recommended actions ***relate to the other areas*** of focus?

Work Group 1: Functional Assessment & Restorative Strategies

Grace Egan, executive director of the New Jersey Foundation for Aging, facilitated this work group. The group discussed a variety of topics related to functional assessment and restorative strategies, prior to and while engaging in a critique of the recommendations provided by the project team. Some of the issues discussed included the following:

- The status of NJ MVC license renewal procedures, such as required visual examinations and practices related to this topic utilized in states such as California and Maryland
- NJ MVC Medical Advisory Board current and potential future policies and practices
- Assistance strategies for aged drivers who relinquish their driver's license
- Potential functional self-assessment tools

Specific comments on the working draft of recommendations are as follows:

1. Consider supporting senior safety resource centers. (S-1226)
    a. Establish regional "senior safety resource centers" to administer fitness-to-drive assessments and provide driver safety training, mobility counseling and other rehabilitative services for seniors to help them drive safely longer. Models include Florida's pilot program (Participant, Forum 1) and DriveABLE Assessment Centres, Inc., which operates in Canada (AMA, 2003); and legislation (S-1226/A-3597), sponsored by Senators Smith and Madden, and Assemblyman Dancer. The bill calls for NJDOT to develop a comprehensive transportation plan to assess the transportation needs and driving practices of senior citizens and to develop strategies to promote their safety and well-being in using the streets and highways. The bill would also establish senior citizen safe driving health centers, appropriate $3 million through an $8 levy on motor vehicle violations and reduce automobile insurance premiums for seniors using centers.
        i. Use a multifaceted fitness-to-drive assessment at the regional centers that includes screening tests for vision, cognition, motor performance, reaction time and roadway knowledge, as well as a review of driver/vehicle "fit" (Stav, Forum 2)
        ii. Create a "mobile resource center" to expand the reach of its resources.
    b. Disseminate self-test tools for functional assessment such as "Driving Decisions Workbook" and those being developed by AAA (RoadWise Review) as a means of early detection and warning for potentially at-risk mature drivers (Fisher, Forum 3; Eby et al. 2003).
    c. Expand the number and use of Certified Driving Rehabilitation Specialists (CDRS) working in New Jersey. CDRSs can perform focused clinical assessments, observe patients driving in the field, recommend and provide rehabilitative services, and train patients in the use of adaptive techniques or devices to compensate for functional deficits. (Peterson, Forum 2; AMA, 2003).

i. Expand the use of AOTA continuing education programs related to older driver rehabilitation among OT professionals (Peterson, Forum 2; AMA, 2003).

ii. Reform Medicare and private insurance rules to cover functional fitness-to-drive assessments as well as rehabilitative services to address driving skill deficiencies (Participant, Forum 2; AMA, 2003).

2. Reform the medical review process to improve the uniformity and effectiveness of fitness to drive assessments and encourage the use of standardized tests for remedial and skill enhancing programs (Rotter, Forum 1, AMA, 2003; NJDOT, 2003).

b. Add additional physicians to permit proactive medical reviews for certain drivers with time-limited suspensions (Higham, Forum 2).

c. Foster greater collaboration between the Medical Advisory Board, CDRS and occupational therapy professionals (Higham, Forum 2).

d. Encourage the use of public-private partnerships to expand MVC's capacity to assess at-risk drivers and provide them with rehabilitative/restorative services (AMA, 2003).

e. Encourage physician referral (including for visual impairments) by establishing clear guidelines and simple procedures for referral (e.g., comprehensive referral forms that can be accessed online) and promoting physician awareness of these guidelines and referral procedures (AMA, 2003).

i. Establish good-faith reporting laws to provide immunity from breach of confidentiality lawsuits to physicians and others who report impaired drivers to the state licensing authority (AMA, 2003; NJDOT, 2003).

3. Enforce existing NJ statutes that require vision testing, upgrade vision standards (peripheral vision) for license renewal and ensure that the most appropriate tests (e.g., contrast sensitivity, useful field of view) are used for the screening (Participant, Forum 1; AMA, 2003; NJDOT, 2003).

a. Allow satellite or alternative (e.g., private physician) vision testing locations certified by the state to perform evaluation (NJDOT, 2003).

4. Reform NJ's licensing and renewal requirements to help identify at-risk drivers and provide a range of options and services intended to keep people driving longer and more safely.

a. Shorten renewal periods (AMA, 2003)

b. Require in-person renewal and education for MVC renewal employees to help identify risk factors for drivers.

c. Make reassessment of knowledge, vision and minimum driving skills mandatory for at-risk drivers (AMA, 2003; NJDOT, 2003)

d. Establish a referral process to link at-risk drivers with rehabilitation specialists to learn adaptive techniques and devices and on road evaluations. (AMA, 2003)

e. Create a graduated or conditional license program for older drivers that reflects a driver's limits relative to safe driving (e.g., daylight-only limitations, geographic limitations, etc.) (Higham, Forum 2; AMA, 2003; NJDOT, 2003).

f. For driver's who must "retire" their license, provide a referral service to a website similar to Florida which offers a counseling component or United We Ride website and guidance related to mobility options available in their area (AMA, 2003).

5. Develop and implement a comprehensive public awareness program related to functional fitness-to-drive concerns, assessments, services, licensing/renewal requirements, medical review process etc. to help families, law enforcement personnel, medical professionals, social workers, and others involved with seniors to identify and assist at-risk drivers giving priority to MD/OD, COA, AAA, and AARP driving programs. Stress early warning of impairing conditions (AMA, 2003; NJDOT, 2003).

   a. Use senior centers as a venue for educational programs and places to distribute materials targeted to seniors and their families, DHSS, Link.

   b. Create web-based information with links to include DHSS caregivers site, NJ Triad, COAs, and TMAs.

   c. Support the recommendations of NJDOT's Senior Safety Study, such as creating a senior transportation website and developing information sources to help the consumer determine the effectiveness and utility of vehicle design and technical improvements that best address their safety concerns.

Work Group 2: Infrastructure Planning and Design Strategies for Roadway and Pedestrian Safety (including land use issues)

This work group was facilitated by Pippa Woods, a project development specialist at VTC. Participants focused attention on reviewing and editing the infrastructure planning and design strategy recommendations provided by the project team, as follows:

1. Build safer roads and reduce high risk driving through planning and engineering design process (Fisher, Forum 3).

   a. Implement a program of engineering changes and safety enhancements to improve the design and condition of roadways and intersections, especially those locations that show high accident rates in general (Rotter, Forum 1).

      i. The following specific recommendations for infrastructure design which accommodate the visual, mental and physical changes the senior population experiences are compiled from these sources: April 29th safe mobility presentation by Karen Yunk; The Road Information Program (TRIP) July 2003 report entitled *Designing Roadways to Safely Accommodate the Increasingly Mobile Older Driver*; the University of Michigan Transportation Research Institute's 2003 guide entitled *Promising Approaches to Enhancing Elder Mobility*; and the Insurance Institute for Highway Safety. During the work group meeting, it was clarified that the following list provides only a representative sample of potential design recommendations, rather than a definitive list. Other recommendations were entered into the list during the course of discussion.

It is also important to note that certain recommendations on this list can have a positive affect on one user type while detracting from the safety of other user types. For instance, increasing curb radii can make a turn easier and more gradual for a vehicle, but create a negative consequence by allowing higher vehicle speeds through the turn and increasing crossing distance for pedestrians. Recommendations must be considered within the context of the areas where they are being proposed and the impacts on competing transportation modes need to be considered. Recommendations that are implemented should not focus solely on the needs of the vehicle, but should be balanced against the design needs of other user groups. Specifically, it was noted that pedestrian needs should be very seriously considered during the design phase of all projects.

Recommendations include, but are not limited to, the following:

- Provide bigger and brighter traffic signs; larger legends; larger lettering; more contrast; less complex signage that is easier to follow
- Use redundant signing
- Provide advance guide signs and street name signs
- Provide overhead placement of signs and signals
- Provide brighter, larger and raised pavement markings and better delineation of curbs/medians
- Increase use of highway and street lighting
- Use retro-reflective material in signs and pavement markings
- Use raised pavement channelization
- Use rumble strips
- Improve overall intersection design
- Increase perception reaction time (PRT) in design and operations, e.g. intersection sight distance calculations
- Provide positive offset left-turn lanes
- Create protected left-turn signals
- Eliminate skewed junctions, align intersections
- Enlarge curb radii at intersections
- Provide longer clearance intervals at signalized intersections for drivers
- Reduce sharp turns in intersections
- Create wider lanes and shoulders
- Convert two-way stop intersections into four-way stops
- Create more roundabouts (circular intersections)
- Use parallel entrance ramp geometry
- Create longer merge and exit lanes
- Assume slower walking speed for pedestrian signal control
- Build islands in the middle of streets to allow people to cross streets in two stages
- Increase pedestrian lighting
- Reduce vehicle speeds in communities through physical design
- Increase the transportation options of biking and walking through facility design and provision

b. Implement recommended design features in new construction, reconstruction and maintenance of existing facilities, and retrofit "spot," or "quick-fix" treatments at locations identified through the NJDOT Safety Pilot Program where safety problems are present or anticipated (AMA, 2003).

c. Ensure municipal, county and state engineers are familiar with and utilize FHWA's 2001 *Highway Design Handbook for Older Drivers and Pedestrians* as well as the condensed version of the handbook, entitled *Guidelines & Recommendations to Accommodate Older Drivers and Pedestrians*. These resources present design recommendations intended to accommodate the needs and limitations of older drivers. Use of the handbook also helps to promote a uniform set of design standards for safe senior mobility (Ott & Yunk, Forum 3).

d. Coordinate with FHWA to bring its Older Driver Design Workshop to New Jersey. Develop a "train the trainers" course, seek New Jersey funding and training partners (NTI, LTAP, VTC) to deliver, publicize and offer the training on a quarterly basis in New Jersey for engineers, design consultants and others involved in infrastructure planning and design (Ott & Yunk, Forum 3). Incorporate programs developed locally, such as the "Walk Safely Seniors," incorporating effective pedestrian and traffic safety programs.

e. Follow and track the progress of the FHWA studies and demonstration projects which will identify best practices and costs/benefits of implementing various infrastructure safety initiatives designed specifically for older persons.

2. Fully implement the recommendations of NJDOT's Safety Task Force related to older driver safety (Ott, Forum 3).

    a. Identify financial plan associated with the Task Force recommendations to ascertain needs and gaps in existing funding for the senior safety pilot program.

3. Increase communication and information sharing related to safe road, intersection and pedestrian design among various levels of government and between agencies. A list of manuals and guidelines should be produced and distributed to all roadway design stakeholders as a reference.

4. Coordinate and improve the planning and engineering process and encourage informed municipal and developer implementation.

    a. Incorporate private and public sector segment to the Train the Trainer course noted above in 1d. Concepts and best practices in land use coordination will be included to:

        i. Consider the location of age-restricted housing developments in relation to the traffic and transportation impacts they will incur (Participant, 2003).

        ii. Increase development densities to make transit, walking and biking a more viable mode to transportation for seniors and everyone (Bailey, Forum 4).

        iii. Incorporate the mobility needs of older Americans into the planning of transportation projects, services, and streets. Coordinate with land use planning (Bailey, Forum 4).

        iv. Design professionals need to be trained on the needs of seniors. Workshops and other educational outlets need to be provided so that it is clear to

designers the needs of seniors and what design remedies exist for improving transportation modes for seniors.

b. Develop a panel on elder design standards, safe mobility forum results for the upcoming League of Municipalities conference and other conferences that will reach the desired audience in the planning community, e.g. the APA conference.

Work Group 3: Community Transportation Services and Strategies

Mr. Carnegie facilitated this work group. Discussion among participants focused on best practices/innovations in the topic area that should be considered for implementation in New Jersey, as well as roles, responsibilities and needed resources associated with those actions. The context for the group's discussion was the Beverly Foundation's "5 A's of Senior Friendly Transportation" – Availability, Accessibility, Acceptability, Affordability and Adaptability. Highlights of the group's discussion are as follows:

Recommendations

1. Address problems with coordination (e.g. United We Ride initiative) and improve overall mobility management by creating a brokerage network of seven to eight regional call centers throughout the state, which would offer services including centralized reservations, scheduling and dispatch in a seamless manner to customers. The following components/characteristics of such a network were discussed. The initiative:
    a Would be designed so that the broker matches the most appropriate provider for the specific trip and destination
    b Should begin with the coordination and centralization of information. NJ TRANSIT or another agency (e.g. NJDOT) could serve as the one stop for transportation information (providing the link to regions). The benefits of following a private model (e.g. person-to-person approach) for information sharing was discussed as particularly user friendly
    c Could reduce overhead costs through regionalization
    d Should utilize technology, such as automated software, to facilitate trip planning
    e Should include school transport, Medicaid
    f Could involve vehicle fleet consolidation in the future. It was repeatedly noted that there would likely be statewide resistance to consolidation efforts, particularly at the municipal levels. However, the example of Woodbridge and Sayreville's successful transportation integration was noted
    g Could minimize the boundaries in which communities currently provide transportation (e.g. make those boundaries more "fuzzy") and eliminate redundancies
    h Could be linked in some manner to the currently operating "211" information number
    i Should expand the TMA ride-share to seniors and give TMAs a broader responsibility as mobility brokers

j Would be designed so that individual counties would retain their ability to increase their operational funding if they so desired

To pursue a brokerage model as described above, the group noted that the following must be considered:

a. Provide legislation or education to force/encourage coordination/consolidation of services (as a demonstration)

b. Cultivate a leadership network to advance the action agenda

c. Create and publicize program participation incentives for non-profit organizations, such as consolidated purchasing of fuel and/or vehicles, no gas tax and pooled insurance

d. Create and publicize program participation incentives for private sector providers, such as taxi companies. For example, taxi service should be included in the pool of eligible providers utilized by brokers. A provider-side subsidy program should also be considered, in addition to a customer voucher program

e. Consider utilizing school buses. Discussion on this recommendation raised various concerns including vehicle availability, acceptability among the senior population, access requirements and disparate safety issues

f. Consider utilizing smart card technology for eligibility as it is universal and transferable

g. Ensure adherence to the "TURF" principle (Try to Unify Related Funds) when seeking program funding. For example, Medicaid, JARC, Casino Revenue and other potential funding sources should be made aware of the initiative and included at the discussion table

Other Suggested Community Transportation Action Items

2. Expand overall transportation options for seniors in the state (e.g. TMA ridesharing, ITN*America*). For example, services such as AccessLink are not options in all communities, since certain areas do not offer traditional public transit for AccessLink to shadow.
3. Expand accessibility of taxi service to the targeted populations by requiring through the taxi medallion purchase and renewal process that a certain portion of any given company's vehicle fleet be accessible (e.g. wheelchair, scooters, other assorted aid devices.) Examples of cities with accessible taxi service include Chicago and San Francisco.
4. Expand "escorted" transportation services
    a Search and review existing models
    b Consider door-through-door model
    c Extend the ability of personal aides to use their own vehicles or those of seniors to provide transportation to their clients (e.g. homemaker agency/services or Office on Aging programs)

d Create a personal assistant program for the elderly. One such option to consider would be a "buddy-sharing" model. The transit "buddy" could teach seniors how to use transit by accompanying them on trips. Such a program would help decrease the fears, concerns and stigma many seniors associate with public transportation and would thus help to make it more acceptable to the senior population as a viable travel option

5. Publicize information about public transportation in locations where senior citizens will have direct and easy access to the information
6. Create and sustain connections. For example, services must be pedestrian friendly and include necessary amenities such as sidewalks, accessible curbs, shelters, signs, information, etc.
7. Increase the interest and involvement of multiple players in this field by expanding focus to the larger population of the transportation disadvantaged, not solely senior citizens
8. Expand the use of NJT vouchers/passes to enable transfers from paratransit
9. Create more "mobility hubs," especially in non-urban centers, and make them more hospitable
10. Ensure planning coordination includes transit operation considerations
11. Use fare establishment/increase as a way to expand service:
    a Provide a mechanism for free or reduced fare rides based on a means test
    b Charge no fare for Title 3 trips (permitted under Older Americans Act)
    c Suggested fare/donation
        - Linked to a tangible pass or ticket
        - Mail-in donation request
        - On-board donation request
12. Consider a volunteer network
    a. Utilize comprehensive screening mechanism for drivers
    b. Do not overextend volunteers. Specifically, be careful of high volume transportation needs (e.g. 3 to 4 times per week) in comparison to lower volume needs (e.g. 2 to 3 times per month)
    c. Ensure the volunteer network is integrated with the larger system
    d. Consider the obstacles faced by the Greater Mercer Transportation Management Association's "Careful" program
    e. Incorporate other markets into community transportation, such as the young. The youth market should not be overlooked as potential participants in a companion program for seniors. In addition, a focus on the young is also critical because this population can benefit now and in the future by becoming familiar and comfortable with public transit at this early stage of their lives.
13. Learn from and build upon practices already underway for a program of demonstrations in the following areas:

a Brokerage/concierge
b Flex-route
c Volunteer network
d Taxi service
e Ride share

Transportation Management Associations, counties, the Federal Highway Administration and state agencies should be involved to varying degrees in the projects listed above. Although funding issues were not directly discussed, it was suggested by one participant that a one-cent gas tax be implemented, with funds directed to community transportation initiatives for the transportation disadvantaged.

APPENDIX D:

Forum Attendee Listing

First Name	Last Name	Affiliation
John	Adair	Somerset County Division of Transportation
Elizabeth	Adams	Warren County Division of Senior Services
Karen	Alexander	Issacs Center
Rosemarie	Anderson	Delaware Valley Regional Planning Commission
Donna	Ankison	
Morteza	Ansari	Keep Middlesex Moving, Inc.
Barbara	Antoniszyn	The Elder Care Companies, Inc.
Marilyn	Askin	AARP
Carolann	Auger	Somerset County AAA
Jeff	Bashe	United Way of Morris County
Bill	Beans	New Jersey Department of Transportation
Howard	Berger	Senior Citizens Advisory Board
Rose	Berger	American Red Cross of Central New Jersey
Peter	Bilton	Greater Mercer TMA
Donald	Boeri	Casino Revenue Fund Advisory Commission
Harriet	Bogdanoff	CWW
Johnathan	Bonanno	American Red Cross - Bergen
Donald	Borowski	New Jersey Motor Vehicle Commission
Andrea	Boulton	Middlesex County Department on Aging
Tara	Braddish	Hunterdon Area Rural Transit
Elise	Bremer-Nei	NJDOT, Bureau of Bicycle & Pedestrian Programs
Sandra	Brillhart	Greater Mercer TMA
Bradley	Brown	
Kathleen	Carmello	Union County Paratransit
Jon	Carnegie	Voorhees Transportation Center
Margaret	Chester	Middlesex County AAA
John	Ciaffone	TransOptions, Inc.
Bill	Cicchetti	State Chiefs of Police Association
Alex	Cisneros	NJ TRANSIT
Adele	Clark	Greater Mercer TMA
Serena	Collado	Somerset Medical Center

John	Connors	Hudson County AAA
Richard	Dalfonzo	Monmouth County Office on Aging
Flora	Davis	Community Without Walls
Beth	DeAngelo	Parsons Brinckerhoff
Martin J.	DeNero	Mercer County TRADE
Maria	DiMaggio	NJ Housing & Mortgage Finance Agency
Joanne	DiNapoli	Meridian Health System
Kathy	Diringer	NJDOT, Bureau of Policy
Rosemarie	Doremus	Hunterdon County AAA
Chris	Dorey	
Sue	Dowling	Interfaith Network of Care, Inc.
Grace	Egan	NJ Foundation for Aging
Sandra D.	Elliott	Meridian Health System
Alexis	Eventoff	Alzheimers Association
Lois	Favier	NJ Foundation for Aging
Meghan	Fehlig	Parsons Brinkerhoff
Pam	Fischer	AAA - NJ Automobile Club
Steven	Fittante	County of Middlesex
Susan	Franson	American Red Cross
Katherine	Freund	ITN*America*™
Marilu	Gagnon	Intergenerational Services
Anthony	Gambilonghi	Middlesex County Planning Board
Barbara	Geiger-Parker	NJ Brain Injury Association
Nat	Giancola	AARP - Driver Safety Program
Roderick	Gilmore	New Jersey Department of Transportation
John	Glascock	The Elder Care Companies, Inc.
Lois	Goldman	North Jersey Transportation Planning Authority
Caroline	Granick	Middlesex County Planning Department
Pearl	Greenstein	SANJ
John	Hainsworth	Cross County Connection TMA
Janet	Hansen	Rutgers CAIT – LTAP
Holly	Hardaway	Occupational Therapy Consultants, Inc.
Susan	Harris	Metro Transport at Daughters of Israel Nursing Home
Victoria	Hasser	Saint Barnabas Ambulatory Care Center
James	Healy	New Jersey Department of Transportation

Marianne	Herman	Hunterdon County
Hope	Hezel	Morris County Department of Human Services
Larry	Higgs	Courier News
Kathy	Higham	New Jersey Motor Vehicle Commission
William	Hoffman	Federal Highway Administration - New Jersey Division
Daniel	Imperatrice	Somerset Medical Center
Rosaria	Ippolito	Meadowlink Commuter Services
Ray	Jacek	New Jersey Department of Transportation
Habtewold	Kassa	Meadowlink TMA
Elaine	Katz	Kessler Foundation
Helen	Kerschner	Beverly Foundation
Robert	Klein	Union County Division on Aging
Katherine	Klotzburger	The Silver Century Foundation
Madaline	Koenan	Warren County Division of Senior Services
Debra	Kole	New Jersey League of Municipalities
Robert	Koska	NJ TRANSIT
Paul	Krupa	New Jersey State Police - Law & Public Safety Division
Joan	Kuntne	Middlesex County Area Wide Transportation
Geoffrey	Lane	UMDNJ/UBHC
Jennifer	Lane	New Jersey Department of Transportation
Walter	Lane	Somerset County Planning Board
Peggy	Lanni	City of Bayonne Office on Aging
Lillian	LaSalle	Mercer County Office on Aging
Edward	Lipiner	Passaic County Planning Department
Andrea	Lubin	Voorhees Transportation Center
Rina	Lubliner	Metro Transport at Daughters of Israel Nursing Home
Jerome	Lutin	NJ TRANSIT
Roger	Maher	Township of Washington Police
Pam	Maiolo	AAA Mid-Atlantic
Ashley	Marchowsky	Atlantic County Intergenerational Services
Aram	Mardekian	New Jersey Department of Transportation
Christian	Marquez	Chilton Sports Medicine & Rehabilitation
Lynne	Mason	St. Lawrence Rehabilitation Center
Dale	McCants	Interfaith Caregivers
Claire	McKnight	City College of New York

Clare	McLaughlin	Bacharach Institute for Rehabilitation
Carrie A.	Monagle	St. Lawrence Rehabilitation Center
Marco	Navarro	Robert Wood Johnson Foundation
Richard	Nead	Kessler Driver Rehabilitation
Henry	Nicholson	County of Monmouth Department of Transportation
William	O'Donnell	New Jersey Foundation for Aging
Ken	Oexle	United Way of Morris County
Marhaba	Omer	New Jersey Department of Transportation
Scott	Oplinger	NJDOT, Traffic Engineering & Safety
Patricia	Ott	NJDOT, Traffic Engineering and Safety
Jennifer	Palasits	JFK Johnson Rehabilitation Institute
Jill	Parham	CAIT-LTAP
Michael	Perel	NHTSA, Vehicle Safety Research
Miriam	Pickman	Alder Women's League
Patricia	Polansky	NJDHSS, Division Of Aging & Community Services
Stephanie	Potapa	New Jersey Department of Transportation
Frank	Power	Bergen County Division of Senior Services
Tim	Puglia	Wheels of Wellness
Nancy	Reger	
Rick	Remington	Voorhees Transportation Center
Martin	Robins	Voorhees Transportation Center
Javier	Robles	NJDHS, Division of Disability Services
Beth	Rolland	Kessler Institute for Rehabilitation
Naomi	Rotter	New Jersey Institute of Technology
Errol	Rummel	Rummel Eye Care
Barbara	Rutan	Monmouth County Office on Aging
Julie	Salvi	The Elder Care Companies, Inc.
Kim	Sarik	Princeton Healthcare Systems
Maria	Schultheis	Kessler Medical Rehab Research & Education Corp.
Catherine	Scott	Atlantic County Senior Citizens Advisory Board
Kathleen	Seaman	NJDHSS, Division of Aging & Community Services
Denise	ShaLonis	Overlook Hospital
Gina	Sine	New Jersey Motor Vehicle Commission
Ronnie	Siriani	NJ TRANSIT
Karen	Smith	Somerset Medical Center

Robert	Smith	New Jersey Senate - District 17
Patricia	Snyder	New Jersey Department of Transportation
Loren	Staplin	TransAnalytics, LLC
Wendy	Stav	University of Florida National Older Driver Center
Andrew	Swords	New Jersey Department of Transportation
Lynn	Thornton	NJ Association of Senior Center Directors
Erin	Toomey	Somerset County Office of Aging
Judy	Truman	Cumberland County Office on Aging & Disabled
Kim	Van Pelt	New Jersey Foundation for Aging
Michael D.	Van Stine	Workforce21
Theresa	Vansant	Cumberland County Office on Aging & Disabled
Hope	Vega	New Brunswick Dial-A-Ride
George	Ververides	Middlesex County Department of Planning
Robert	Vilak	Ocean County
Nicholas	Vitillo	NJDOT, Research
Herman	Volk	Office of Smart Growth
Charles	Volpe	Warren County Division of Senior Services
Aruna	Wadha	Somerset Medical Center
Kevin	Wegner	JFK Johnson Rehabilitation Institute
Carl	West	Mercer County AAA
Erma Polly	Williams	New Jersey Division of Addiction Services
Caroline	Willner	Warren County Division of Senior Services
Pippa	Woods	Voorhees Transportation Center
Karen	Yunk	Federal Highway Administration - New Jersey Division
Diane M.	Zane-Stephens	S.C.U.C.S., Inc.