

SUMMARY OF FINDINGS CONCERNING ELDERLY TRAVEL IN THE BALTIMORE REGION

At the direction of the Baltimore Regional Transportation Board (the federally-mandated Metropolitan Planning Organization for the Baltimore region), the Baltimore Metropolitan Council conducted two elderly travel studies. The first study documented regional elderly travel characteristics, and the causal factors which shape these characteristics. The second study documented the elderly population distribution throughout the region, and applied the findings of the first study to assist public agencies and private organizations develop ways to meet the travel needs of the region's existing and future elderly population.

These two studies are the Baltimore Region Elderly Travel Study (BRETS) which was completed in late 1999, and the Baltimore Region Naturally Occurring Retirement Communities Study (NORC) which was completed in mid 2004. The first study used telephone interviews with the elderly, detailed travel diaries, and focus group techniques to document elderly activity patterns and travel characteristics in the region. The second study used detailed demographic data from the 2000 Census to document the magnitude and intensity of the elderly population distribution in central city and suburban areas.

Prior to these studies, the only available information about elderly travel characteristics was from national level studies. Until verified locally, it was difficult to convince others that national level data was applicable to the Baltimore region.

Both Baltimore region studies have focused on the 65+ elderly population.

The only limitations of the two studies are: 1) the inability to over sample the fast growing 80+ elderly population group, 2) the level of data aggregation that prevented collection of statistically significant samples for each jurisdiction in the region, and 3) time constraints that precluded analysis of the geographic distribution of the pre-elderly Baby Boom population that will become the future elderly of the region.

Ageing Trends Affecting Elderly Travel

Demographic Transformation – The traditional age distribution of the population started to radically change in 1946 when the Baby Boom population era began. The influx of the large Baby Boom population caused the age distribution to change from a population pyramid to more of a population rectangle. Before the Baby Boom era, the number of people in the population consistently decreased as age increased. The Baby Boom restructured the age distribution of the population, and caused there to be a more nearly equal number of people throughout all but the final years of the life cycle.

Magnitude of Demographic Change - By 2030, general population of the Baltimore region will increase only 14% while elderly population will double in size. The elderly population will increase from 12% to 21% of the total population of the region by 2030. In the same time period, the elderly will make up 26% of the driving age population in the region. This demographic change will have both foreseen, and yet unforeseen consequences in the areas of transportation, health care, and economics. Trying to

maintain independent living and quality of life for the elderly over an extended period of time will be a major challenge for adult children, community organizations, and public officials.

Duration of Demographic Change – The steady increase in elderly population growth will continue unabated for almost two decades from 2010 to 2030, and residual effects will last until about mid-century when last of Baby Boom population will age their way out of life cycle. In 2030, the youngest Baby Boomers will have entered the traditional elderly age group (age 65+), and the oldest Baby Boomers will be age 84. Those who think the Great Depression and World War II were long duration events in U.S. history will have to significantly adjust their thinking to grasp the magnitude of a 3 to 4 decade age-related demographic event.

Age-Related Activity and Travel Factors

In-place Retirement Phenomenon – This pervasive and little understood sociological phenomenon known as in-place retirement (or aging-in-place) develops over a long period of time. It can begin up to three decades before retirement. For many in-place retirees, this phenomenon began without their knowledge when they made residential location decisions which were based on good schools for their now adult children. About 90%-95% of the elderly continue to age-in-place in familiar surroundings after they retire. Only about 5% of elderly move to Sunbelt retirement areas or to local retirement communities and continuing care facilities. The in-place retirement phenomenon was quantitatively documented in the BRETS. This study found that the extent of in-place retirement is relatively uniform throughout the region. The high propensity for in-place retirement was found to be unaffected by jurisdiction of residence, age of elderly, or level of elderly travel need. The transportation effects of this phenomenon occur because in-place retirees import their past activity patterns and travel characteristics into a later stage of the life cycle.

Reverse Elderly Migration – This emerging sociological phenomenon includes once-active elderly who moved elsewhere during their earlier retirement years, and who later return “home” to familiar surroundings as their health declines to be near adult children and surviving acquaintances. This phenomenon which could be characterized as “deferred in-place retirement” seems to occur once the elderly recognize their increasing dependence on others to help them meet their everyday needs, including transportation. This emerging phenomenon was documented in the 2000 Census.

Suburbanization of Elderly Population – This demographic trend was first documented in the 1980 Census which found that for the first time in U.S. history that there were more elderly living in the suburbs than in central cities. This trend is largely caused by the in-place retirement phenomenon, and is not the product of elderly migration to the suburbs after they retire. By 2030, about 81% of the region’s elderly population will live in dispersed, low density suburban areas where public transportation and paratransit services are limited and very expensive to provide.

Increase in Life Expectancy – By 2030, some experts state that life expectancy could increase by up to 6 years just when elderly driving and ambulatory abilities are likely to be reduced by age-related physical and cognitive impairments. Such health and mobility

limitations could adversely affect the ability of the elderly to live independently, and to maintain their prior quality of life during these “extra” years.

Differences in Life Expectancy – Life expectancy differences (currently about 7 years) between male and females could reduce travel options for surviving female spouses. While this life expectancy differential may be reduced through advances in health care, it is unrealistic to expect that it will be eliminated in the foreseeable future. Therefore, when male spouses die, surviving spouses will lose their own backup travel option, and could become more dependent on others to meet their travel needs.

Changing Family Structure – Divorce rates (currently at 40%-50% levels), and an increase in non-traditional families could limit transportation and care options for an aging family member. Who assumes responsibility for an aging family member from a prior marriage or remarriage, or when potential family caregivers live far away? This is no small problem when you consider that elder care can be a consuming 24/7 proposition. Fragmented family structure, smaller family sizes, and geographically dispersed family members can reduce the number of available providers of transportation and life-support services for aging family members.

Attitudes Toward Public Transportation – The youngest participants in the BRETS focus group activities were Depression-era elderly who stated that they grew up using public transportation. However, they indicated that they had not used public transportation for many years. They pointed out that they do not ride transit during rush hour periods because of crowded conditions, or at night. As a result, the only time when the elderly could ride public transportation is during the off-peak period when service can be reduced with longer headways, truncated or turnback routes, and lengthened transfer times between routes. The utility of public transportation to the upcoming Baby Boom elderly population could be even more limited since they spent most of their lives in an automobile-dominated culture. Focus group participants expressed their concerns that transit and paratransit services were time consuming and unreliable. From a practical standpoint, security concerns and exposure to inclement weather conditions that are associated with the curb-to-curb service characteristics of public transportation and paratransit are deterrents to elderly use of transit options. Life-maintenance shopping trips which produce bulky and heavy bags make it difficult for the elderly to use curb-to-curb transit options. Incontinence conditions among the elderly can also be a deterrent to both transit and paratransit use. This age-related medical problem can be especially difficult on longer trips, or trips that involve transfers.

BALTIMORE REGION ELDERLY TRAVEL STUDY

Documenting Elderly Activity Patterns & Travel Characteristics

The BRETS documented the activity patterns of the elderly in the Baltimore region. These activity patterns determine the travel characteristics and travel needs of the elderly. The following are the major findings of the BRETS.

Trip Types – The trips made by the elderly can be grouped into five categories together with their respective percentages of all elderly trips: Socialization-Related 30%, Shopping-Related 27%, Miscellaneous 20%, Life Maintenance-Related (includes medical trips) 15%, and Employment-Related 7%. Socialization-related trips account for

the largest percentage of elderly trips which strongly suggests that these trips are an essential part of the quality of life of the elderly. Unfortunately, socialization trips are sometimes regarded by others as being non-essential trips.

How the Elderly Travel – The current elderly population is heavily dependent, by choice or circumstance, on travel by automobile. It is expected that this automobile dependence will be even greater among the upcoming Baby Boom elderly who grew up in a more automobile-oriented culture than their older elderly counterparts who grew up using streetcars and buses. The elderly in both the central city and suburbs are committed to automobile travel. Over 90% of all elderly trips are made by automobile – as drivers (58%), or as shared ride passengers (34%). Trips made by walking, bicycle, or wheelchair account for 5% of the trips made by the elderly. Trips by transit / paratransit and taxicab make up only 2% of elderly trips.

Trip Frequency and Method of Travel – Elderly who get out of their homes daily drive (50-60%), and walk (30%). Elderly who get out several times a week, still drive (50-60%), but walk less (10-20%), and are more dependent on others for trips (20%). Elderly who get out weekly or less frequently, drive less (10-20%), walk less (10-20%), and are heavily dependent on others for trips (70%). Elderly who get out daily, or several times a week make limited use of transit (10% or less). Elderly who get out weekly or less frequently do not use transit. As the frequency of getting out decreases, the dependence on others (family, friends, or other individuals) for trips increases significantly. As tripmaking decreases, the ability of the elderly to live independently and to maintain an acceptable quality of life is jeopardized.

Trip Destinations – The widely dispersed travel destinations of the elderly are associated with the in-place retirement phenomenon. These travel destinations which were developed over a period of years, if not decades, are a produce of the activity patterns that in-place retirees imported from the past into a later stage of the life cycle. The relationship between many of these elderly trip destinations and their ability to be served by fixed route public transportation is purely coincidental.

Trip Lengths – The average elderly trip (5.70 miles) is about 33% shorter than the length of the average non-work trip in the region. Even though the elderly make shorter trips, 93% of all elderly trips are well beyond walking distance (more than 3 blocks), and require travel in a vehicle to and from scattered destinations.

Travel by Day – Elderly trips vary by day and by time of the week with significant differences occurring between weekday trips (72%) and weekend trips (28%). Elderly trips increase from Monday to Wednesday, then decline through Sunday. 65% of elderly socialization-related trips occur on weekdays, but 35% occur on weekends when transit and paratransit service options are less available or unavailable.

Number of Trips – Elderly make an average of 3.50 trips/day with a maximum number of trips on Wednesdays (4.69 trips/day). The number of elderly trips is the lowest on Sundays (2.93 trips/day). While the number of daily trips made by the elderly is less than those made by younger people, these reduced trips are essential to the ability of the elderly to live independently, and to maintain their quality of life.

Levels of Elderly Travel Need – There are three documented levels of elderly travel need.

- High Travel Need – Approximately 8% of the elderly are in the “High Travel Need” category. The elderly in this category have multiple, reinforcing travel disabilities, and can need door-to-door transportation service (often with lift-equipped vehicles), as well as a travel companion to meet their mobility needs. The level of High Travel Need is the same for the elderly in both suburban and central city areas.
- Moderate Travel Need - Approximately 13% of the elderly in suburban areas, and 26% of central city elderly are in the “Moderate Travel Need” category. This group of elderly has milder, non-reinforcing travel disabilities. The elderly in this category could use transit and flexible route, non-lift equipped, community-base transportation services to meet their mobility needs. The significant difference in Moderate Travel Need between suburban and central city elderly does exist, but is not yet fully understood.
- Low Elderly Travel Need - Approximately 79% of the elderly in suburban areas, and 65% of central city elderly have no significant travel disabilities. This large group in the “Low Travel Need” category is able to drive or travel whenever and wherever they please without reliance on others. This elderly group is not dependent on transit, paratransit, or community-based transportation services to meet their mobility needs. The significant difference in Low Travel Need between suburban and central city elderly does exist, but is not yet fully understood. However, it must be recognized that age-related changes in physical and cognitive abilities can occur at any time, and can increase the level of elderly travel need.

Significance of Elderly Travel Study Findings – The BRETTS was one of the first regional elderly travel studies in the U.S. Its findings have been independently confirmed by similar elderly travel studies conducted by other organizations including the Oregon Department of Transportation (1999), Orange County California Transportation Authority (2000), Beverly Foundation (2001), AARP (2002), University of Arizona / Brookings Institution (2003), and the Surface Transportation Policy Project (2004). It should also be noted that the BRETTS documented that for many types of elderly travel data there were close statistical correlations with information in the then current 1995 National Personal Transportation Study (later known as the National Household Travel Survey).

Relevance of Elderly Travel Study Findings Elsewhere – The Baltimore region has long been regarded by market researchers as having demographic characteristics that are very similar to many other areas in the U.S. In addition, the attitudes, opinions, and behavior of Baltimore region residents have been found to mirror mindsets throughout much of the nation. Therefore, it was not surprising when a national level peer review panel recognized the wider potential applicability of the findings of the BRETTS. As a result of this scholarly peer review process, the BRETTS was selected for presentation at the Transportation Research Board conference in Washington in 2001.

BALTIMORE REGION NATURALLY OCCURRING RETIREMENT COMMUNITIES (NORC) STUDY

Documenting Elderly Residential Patterns and Travel Needs

The NORC study was the logical next step in documenting elderly travel needs in the Baltimore region. From the BRETTS, the scope and extent of elderly activity patterns and travel characteristics in the region were identified. However, that study did not specifically define where the elderly lived, and did not identify elderly residential patterns that could help document existing and future elderly travel needs. The first study documented the existence and magnitude of the in-place retirement phenomenon in the region, but did not quantitatively describe its geographic scope and extent.

NORC Definition – In the 2004 study, a NORC (Naturally Occurring Retirement Community) is defined as a geographic area (neighborhood or community) that contains elderly residents (age 65+) that have retired in-place. This term NORC was first developed in the 1980s by Dr. Michael Hunt of the University of Wisconsin, and is now widely used in the fields of gerontology, sociology, and social services. Technically, a NORC area is a census block group, or a cluster of census block groups (NORC cluster) that contains elderly residents.

Study Data – This study used age-stratified demographic data from the 2000 Census to document the magnitude and intensity of elderly population distributions in central city and suburban areas. The census data used in this study includes elderly residents that live in retirement communities and continuing care facilities.

Elderly Age Groupings – The 2000 Census data was grouped into three elderly age categories: Young elderly (65-69), Middle Elderly (70-79), and Old Elderly (80+).

Elderly Population Intensities – The number of elderly living in NORC areas was broken down into three levels: Low Intensity (0-249 elderly), Moderate intensity (250-499 elderly), and High intensity (500+ elderly).

NORC Area Elderly Population Characteristics – An initial analysis of the geographic distribution of the existing elderly population revealed what appeared to be an almost random pattern throughout the region. 63% of the elderly live in low intensity NORC areas. 26% live in moderate intensity NORC areas. Only 11% live in high intensity NORC areas. It should be noted that the elderly live in most of the 1,869 census block groups (NORC areas) in the region.

Considering recent land development trends, it is strongly suspected that many of the upcoming Baby Boom elderly may retire in place in what are now low intensity NORC areas toward the outer fringe of the region.

NORC Area Age Distributions – 63% of the young elderly live in low intensity NORC areas. 69% of the middle elderly live in low intensity NORC areas. 55% of the oldest elderly residents (age 80+) live in low intensity NORC areas. The latter finding was a particularly disturbing because it is the oldest elderly residents who have or could soon have travel-related disabilities that require door-to-door travel options which are currently in short supply, or do not exist in scattered, low intensity NORC areas.

NORC Cluster Elderly Population Characteristics – A more refined analysis which grouped NORC areas into NORC clusters revealed that there are geographically defined

concentrations of the elderly population that can serve as the basis for providing improved travel options and support services for elderly residents. The study found that there are 29 NORC clusters in the region which contain 90% of the existing elderly population. Anne Arundel and Baltimore Counties contain 7 NORC clusters each. Baltimore City contains 6 NORC clusters, and Carroll, Harford and Howard Counties contain 3 NORC clusters each. The elderly populations of these NORC clusters vary widely from 1,000 to over 29,000 elderly residents. The percentage of elderly living in defined NORC clusters ranges from 62% in Carroll County to 93% in Baltimore County, and 100% in Baltimore City.

NORC Cluster Elderly Travel Needs – In the 29 NORC clusters, there are 22,000 elderly with high travel needs, 47,000 with moderate travel needs, and 203,000 with low travel needs.

Significance of NORC Study Findings – This study defined the location of 29 NORC clusters throughout the region that contain elderly populations that have retired in-place with different levels of elderly travel needs. These defined NORC clusters contain community organizations and faith-based groups that can be organized to help provide travel options and support services for elderly residents.

Relevance of NORC Study Findings Elsewhere – While the specific quantitative findings of the NORC study are unique to the Baltimore region, the methodology of the NORC study, and general spatial trends which were identified in the study can be applied elsewhere. The findings of the NORC study and the BRETS have been presented to the Maryland Department of Aging, Maryland Research Consortium, Maryland Coordinating Committee on Human Service Transportation, Baltimore County Department of Aging, Howard County Commission on Aging, and the Baltimore City Commission on Aging and Retirement Education, and the Baltimore Regional Transportation Board. The findings of the NORC study have been used in Harford County to support elderly housing proposals, and in Howard County to help develop a community-based transportation service known as Neighbor Ride. The procedures of the NORC study are currently being used in Northern Virginia to define elderly population concentrations that can serve as the basis for the development of elderly-friendly growth policies.

Conclusions

The coming era of significant elderly travel needs has been well documented by studies conducted by the Baltimore Regional Transportation Board, and other research organizations. These studies have helped to identify transportation strategies that could assist future elderly residents to live independently, and maintain their quality of life for a longer period of time. Implementation of effective elderly travel options is expected to be an ongoing challenge for elected officials, community organizations, and transportation planners.