



DATA SNAPSHOT

2

**Bucks County Senior Transportation
and Mobility Survey**

DELAWARE VALLEY
 **dvrpc**
REGIONAL
PLANNING COMMISSION

APRIL 2009



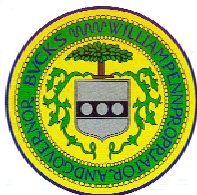
The Delaware Valley Regional Planning Commission is dedicated to uniting the region's elected officials, planning professionals and the public with a common vision of making a great region even greater. Shaping the way we live, work and play, DVRPC builds consensus on improving transportation, promoting smart growth, protecting the environment and enhancing the economy. We serve a diverse region of nine counties: Bucks, Chester, Delaware, Montgomery and

Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester and Mercer in New Jersey. DVRPC is the federally designated Metropolitan Planning Organization for the Greater Philadelphia Region - leading the way to a better future.

Our logo is adapted from the official DVRPC seal, and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole, while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

DVRPC is funded by a variety of funding sources including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the Pennsylvania and New Jersey departments of transportation, as well as by DVRPC's state and local member governments. The authors, however, are solely responsible for its findings and conclusions, which may not represent the official views or policies of the funding agencies.

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This report was completed at the request of and in cooperation with the Bucks County Area Agency on Aging (BCAAA), on behalf of the Bucks County Commissioner's Senior Task Force. BCAA assisted DVRPC with the design and distribution of the 15-question survey and with inputting responses into a database that DVRPC then used for analysis.

The Bucks County Commissioners' Senior Task Force, their Senior Mobility Subcommittee (comprised of representatives of strategic stakeholders and the general public, including SEPTA, the Bucks County Transportation Management Association, and the Bucks County Planning Commission) and BCAA recognize that the mobility and safety of older adults are regional planning priorities. The findings of this data snapshot will assist the Bucks County Senior Task Force in further defining the transportation and mobility needs and desires of the county's older residents, and will be useful in planning a future Forum that will ultimately improve mobility across all ages.

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Introduction

The number of elderly residents has increased dramatically throughout the nation and the Delaware Valley in recent years and is expected to continue to increase at a record pace. The Delaware Valley Regional Planning Commission's (DVRPC) *Getting Older and Getting Around* (report #99015) considered the accessibility and mobility needs of the region's elderly. *The Aging of the Baby Boomers: Housing Seniors in the Delaware Valley* extended that work by considering issues related to housing for the elderly and providing guidance to county and municipal officials faced with a growing suburban elderly population.

The Bucks County Commissioners' Senior Task Force and the Bucks County Area Agency on Aging (BCAAA) recognize that the mobility and safety of older adults are regional planning priorities. In 2005, a Summit on Aging was convened in Bucks County by BCAA and the Bucks County Commissioners' Senior Task Force in response to changing demographics and anticipated senior challenges. As part of the planning process for the Summit, issues identified by Bucks County's seniors were discussed, including access to transportation. The Commissioners' Senior Task Force convened a Senior Mobility Subcommittee, which was comprised of representatives from strategic stakeholder organizations and the public, including the Bucks County Transportation Management Association (TMA), the Bucks County Planning Commission, and SEPTA. The Bucks County Senior Task Force will hold a forum in 2009 to address the mobility of the county's older residents and ultimately improve mobility across all ages. In April 2007, the executive board of the Bucks County TMA formally endorsed this initiative.

In preparation for the 2009 forum, BCAA asked DVRPC to assist in the development and compilation of a survey to assess mobility issues facing the county's older adults. This report provides an assessment of that survey, undertaken in Spring 2008. This survey will be helpful in determining the immediate and long-term health and mobility concerns that define adults as they age, while also engaging local municipalities in the forum process. The intent of the survey is to gather relevant information about age, location, health, mobility, trip purpose, and transportation options in the county. With this information, BCAA can further define the needs and desires of seniors in the county.

In addition to this survey, DVRPC staff prepared *Data Snapshots 1: Bucks County Senior Mobility Assessment*, a brief synopsis and analysis of Bucks County senior demographics and transportation statistics. That publication included an overview of applicable demographics; existing senior housing and medical facilities; existing transportation facilities and services; and transportation safety, including an analysis of senior-involved crash data. That information will be used by the Bucks County Commissioners' Senior Task Force to complement this survey and will assist in determining BCAA's next steps.

Methodology

Mobility and transportation issues for Bucks County seniors were identified through a 15-question survey. Seniors were asked questions concerning their transportation habits and perceptions of the overall transportation system. Demographic questions, including age and location, were also included.

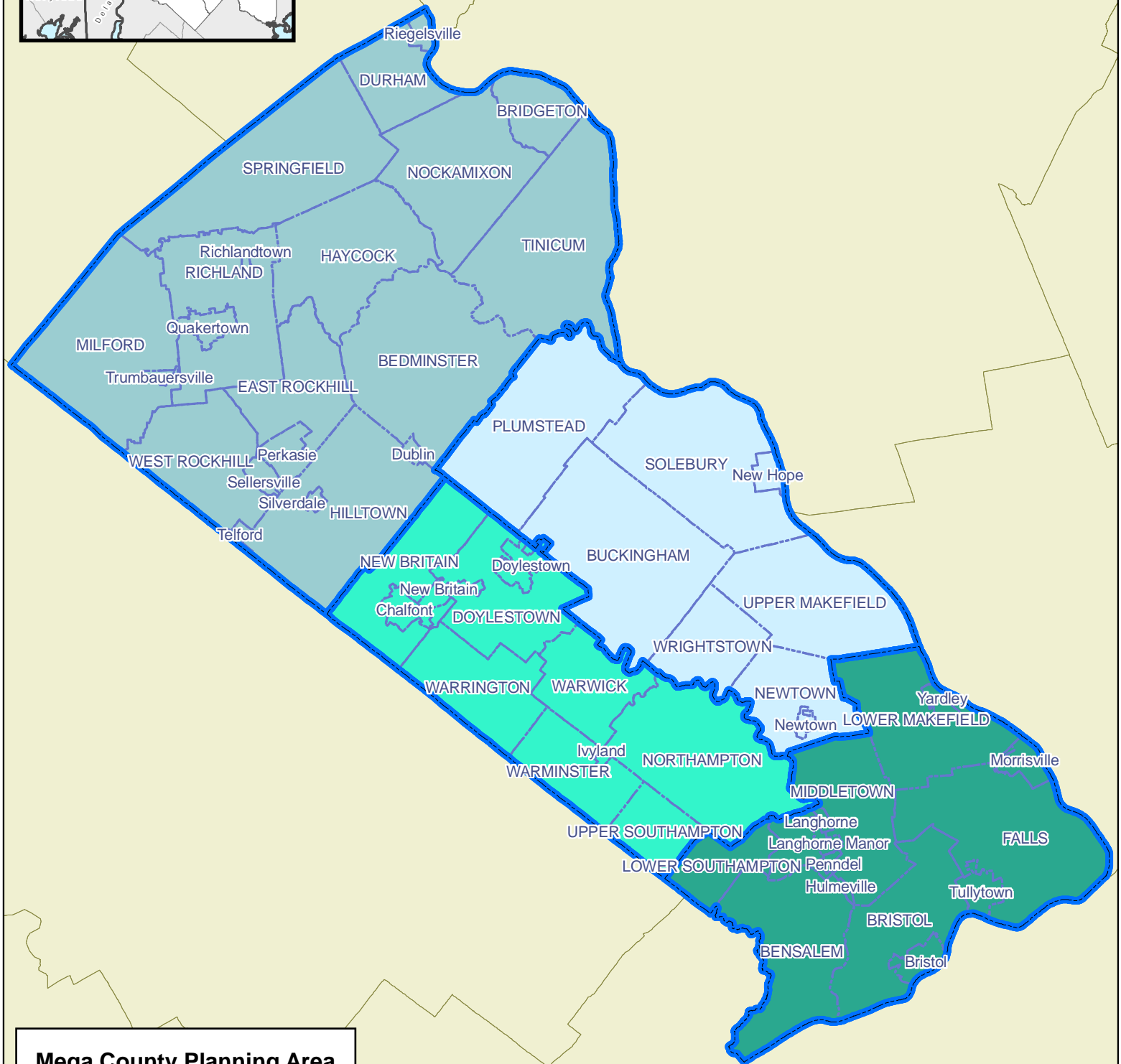
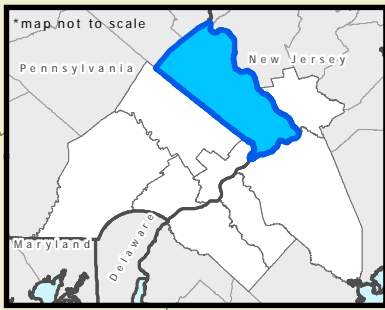
By including demographic questions in the survey, transportation and mobility answers could be correlated to age and location. The survey instrument is reproduced in Appendix A.

The survey was distributed by BCAA to county residents and at area senior centers. A copy of the survey also appeared in local papers and an electronic version of the survey was available at the BCAA web site.¹ Residents could complete the survey from January 21 through April 19, 2008. Over 1,850 surveys were completed during the three months that the survey was available.

Understanding the mobility issues that each individual community faces is very important, but given the limited number of responses, it was not possible to obtain statistically accurate municipal level for this analysis. The finest level of geography that the survey can be accurately analyzed is the mega county planning area (MCPA). Each MCPA contains several municipalities, as illustrated in Figure 1.1, and has been used in prior planning studies to divide the county into smaller sub-areas. Bucks County is divided into four MCPAs: A – Upper Bucks, B – South Central Bucks, C – North Central Bucks, and D – Lower Bucks. The aggregation into four mega-county planning areas was based on the character of development and the availability of alternative transportation services. Appendix B identifies the municipalities located within each MCPA.

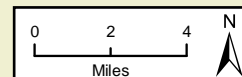
¹ www.buckscounty.org/government/departments/HumanServices/Aging/TransportationStudy

Figure 1.1 : Mega County Planning Areas



Mega County Planning Area

- A: Upper Bucks
- B: South Central Bucks
- C: North Central Bucks
- D: Lower Bucks
- Municipality



Survey Analysis

Question 1: What is your age?

This basic question begins the survey. It asks respondents to indicate their age, beginning with 55 years and increasing in five-year cohorts to 85 years and older.

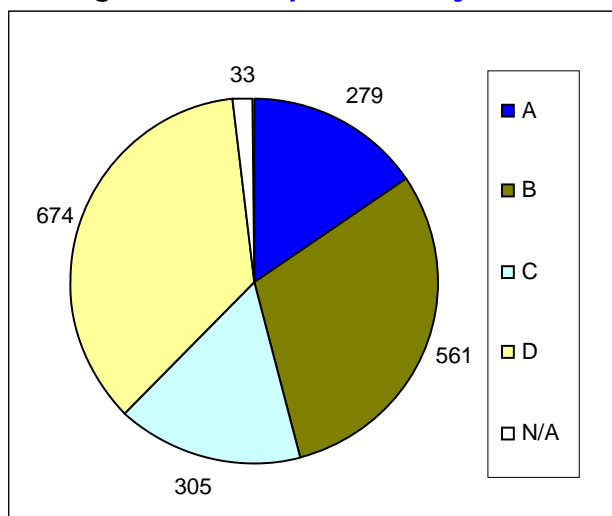
Table 1.1: Respondent Age by MCPA

Mega CPA	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85 +	N/A	Total
A: Upper Bucks	25	20	39	40	39	53	54	8	279
B: South Central	27	41	82	89	96	87	129	10	561
C: North Central	18	22	28	44	56	72	59	6	305
D: Lower Bucks	33	39	57	100	129	165	137	15	674
Not determined	4		4	5	2	10	7	1	33
Total	107	122	210	278	322	387	386	40	1,852

Source: DVRPC Survey, 2008.

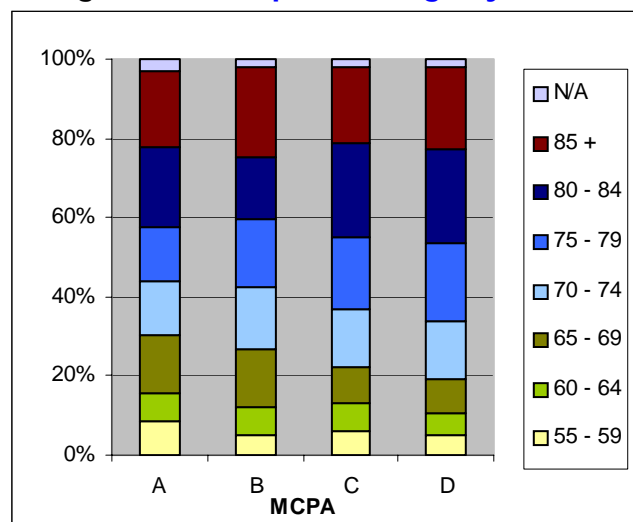
Over 1,850 respondents completed the survey, with South Central and Lower Bucks containing the greatest number of respondents, as illustrated in Figure 1.2. More residents age 75 years and older (60 percent of all responses) responded than did residents age 55 to 70 years. The greatest individual representation was those 85 years and older. Knowing the approximate age of the respondent allows the analysis of other answers for specific age groups, since a 55-year old respondent may have a different response than one who is 85 years or older. Age distribution in each MCPA is relatively even, with Lower Bucks containing slightly older respondents. Figure 1.3 illustrates the number of respondents by age and MCPA.

Figure 1.2: Respondents by MCPA



Source: DVRPC Survey, 2008.

Figure 1.3: Respondent Age by MCPA



Source: DVRPC Survey, 2008.

Question 2: Where do you live? – by Municipality and Zip Code

Question 2 asks respondents to list their municipality and zip code, thereby placing respondents in a specific location. Tables 2.1 and 2.2 illustrate community and zip code responses by MCPA, and Figure 2.1 illustrates the location of zip codes in Bucks County. Each entry was coded by both municipality and zip code when provided. In the vast majority of cases, this information enabled the responses to also be coded to a specific MCPA. Unfortunately, not all respondents provided both their zip code and a municipality. In terms of zip codes, one zip code can cover several municipalities, and, vice versa, a municipality may contain more than one zip code. If only the zip code was provided (but not the municipality) and that code covered more than one municipality, then the entry was coded to the zip code and the appropriate MCPA if possible (but not to a municipality).

Table 2.1: Municipal Responses by MCPA

MCPA A Upper Bucks		MCPA B South Central Bucks		MCPA C North Central Bucks		MCPA D Lower Bucks	
Bedminster	5	Center Square	1	Buckingham	93	Bensalem	81
Bridgeton	1	Chalfont	12	Buckingham Springs	6	Bristol	172
Dublin	2	Churchville	1	Caversville	1	Bristol Borough	2
Durham	2	Doylestown	227	Danboro	1	Bristol Twp.	29
East Rockhill	4	Doylestown Boro	17	Furlong	2	Cornwell Heights	1
Erwinna	1	Doylestown Twp.	29	George School	1	Croyden	1
Haycock	18	Holland	9	Mechanicsville	2	Croydon	3
Hilltown	12	Ivyland	4	New Hope	41	Fairless Hills	23
Milford	15	Jamison	5	Newtown	68	Falls	95
Milford Square Pike	1	Lower Southampton	1	Newtown Borough	9	Fallsington	2
Nockamixon	7	New Britain	14	Newtown Twp.	5	Feasterville	5
Ottsville	5	New Britain Borough	1	Penns Park	3	Grundy House	1
Ottsville/Tinicum	1	New Britain Twp.	1	Plumstead	18	Hulmeville	3
Perkasie	24	Northampton	42	Plumsteadville	2	Langhorne	18
Pipersville	2	Richboro	9	Point Pleasant	3	Langhorne Manor	2
Quakertown	102	Southampton	14	Solebury	33	Levittown	29
Revere	1	Upper Southampton	10	Upper Makefield	9	Lower Makefield	35
Richboro	1	Warminster	49	Washington Crossing	1	Lower Southampton	16
Richland	31	Warrington	66	Wrightstown	4	Middletown	80
Richlandtown	5	Warwick	48			Morrisville	40
Riegelsville	1					Neshaminy	1
Sellersville	6					Pendell	3
Silverdale	1					Southampton	1
Springfield	5					Trevose	3
Telford	12					Tullytown	6
Tinicum	10					Yardley	19
West Rockhill	1						
Total	277		560		302		671

Source: DVRPC Survey, 2008. Includes only the 1,810 responses for which it was possible to determine the respondent's municipality or community. In cases where the same name applies to both a borough and a township (New Britain, for example), respondents did not always indicate whether they lived in the township or the borough; responses were coded to the borough or township if the information was provided but were otherwise assigned to the general place name.

If only the municipality was provided (but not the zip code) and that municipality contained more than one zip code, the entry was coded to the municipality and the larger MCPA (but not the zip code). Thus, while it was almost always possible to record the respondent location at the larger MCPA level, it was not always possible to determine the exact municipality, community, or zip code. The totals for tables 2.1 and 2.2 therefore differ, both from each other and from the total in Table 1.1.

Communities with the greatest number of responses include Doylestown Township and Doylestown Borough (273), Bristol Township and Bristol Borough (203), and Quakertown (102). Over 43 percent of all the respondents live in the five zip codes that each have over 100 responses, including Doylestown: 18901 (267), Quakertown: 18951 (162), New Hope: 18938 (131), Fairless Hills: 19030 (123), and Morrisville: 19067 (113).

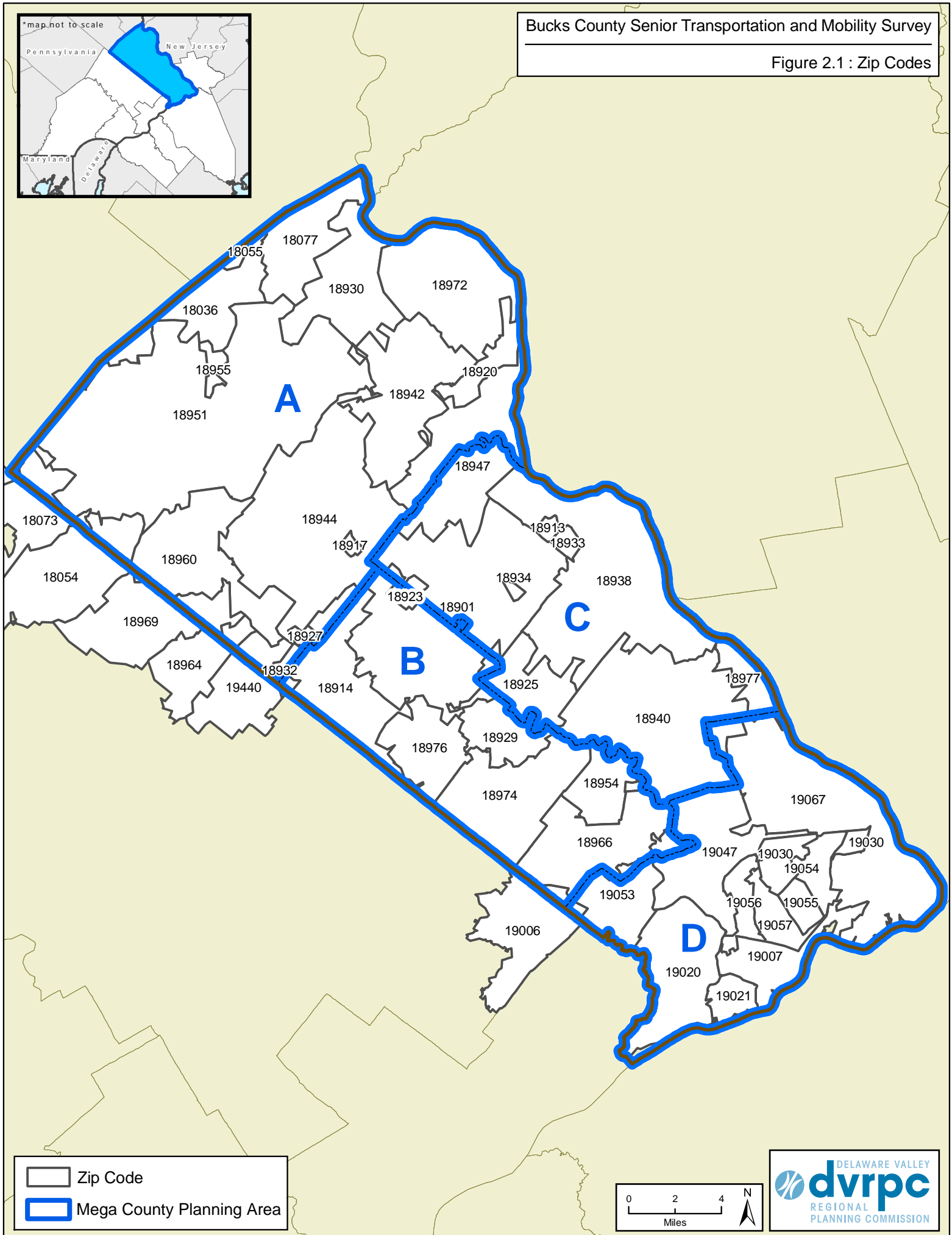
Significantly more respondents live in South Central and Lower Bucks, but at least one zip code with over 100 respondents can be found in each MCPA. Combined with nine other zip codes that are home to more than 50 respondents, over 75 percent of the respondents live in 14 zip codes (less than 20 percent of all Bucks County zip codes).

Table 2.2: Zip Code Responses by MCPA

MCPA A Upper Bucks			MCPA B South Central Bucks			MCPA C North Central Bucks			MCPA D Lower Bucks		
18036	Coopersburg	1	18901	Doylestown	267	18901	Doylestown	4	18930	Kinterville	1
18073	Pennsburg	3	18902	Doylestown	6	18902	Doylestown	31	18940	Newtown	2
18077	Riegelsville	1	18914	Chalfont	23	18912	Buckingham	6	19007	Unknown	1
18081	Springtown	3	18921	Ferndale	1	18913	Carversville	1	19006	Bristol	54
18917	Dublin	3	18925	Furlong	4	18916	Danboro	1	19020	Bensalem	79
18920	Erwina	2	18929	Jamison	15	18925	Furlong	3	19021	Croydon	15
18921	Ferndale	3	18954	Richboro	17	18931	Lahaska	1	19030	Fairless Hills	123
18927	Hilltown	4	18966	Southampton	63	18934	Mechanicsville	4	19047	Langhorne	64
18930	Kinterville	2	18974	Warminster	92	18938	New Hope	131	19053	Trevose	27
18942	Ottstown	14	18976	Warrington	67	18940	Newtown	86	19054	Levittown	58
18944	Perkasie	30	19053	Trevose	5	18943	Park	5	19055	Levittown	37
18947	Pipersville	5				18946	Pineville	1	19056	Levittown	39
18951	Quakertown	164				18947	Pipersville	8	19057	Levittown	58
18953	Revere	2				18949	Plumstead	3	19067	Morrisville	113
18954	Richboro	1				18950	Pleasant	7			
18955	Richland	11				18956	Rushland	1			
18960	Sellersville	13				18963	Solebury	4			
18962	Silverdale	1				18977	Crossing	5			
18969	Telford	12									
18972	Black Eddy	3									
Total			278			560			302		
									671		

Source: DVRPC Survey, 2008. Includes only the 1,812 responses for which it was possible to determine the respondent's zip code. '18902' does not appear on Map 2 but is a Post Office Box number located within Doylestown Borough.

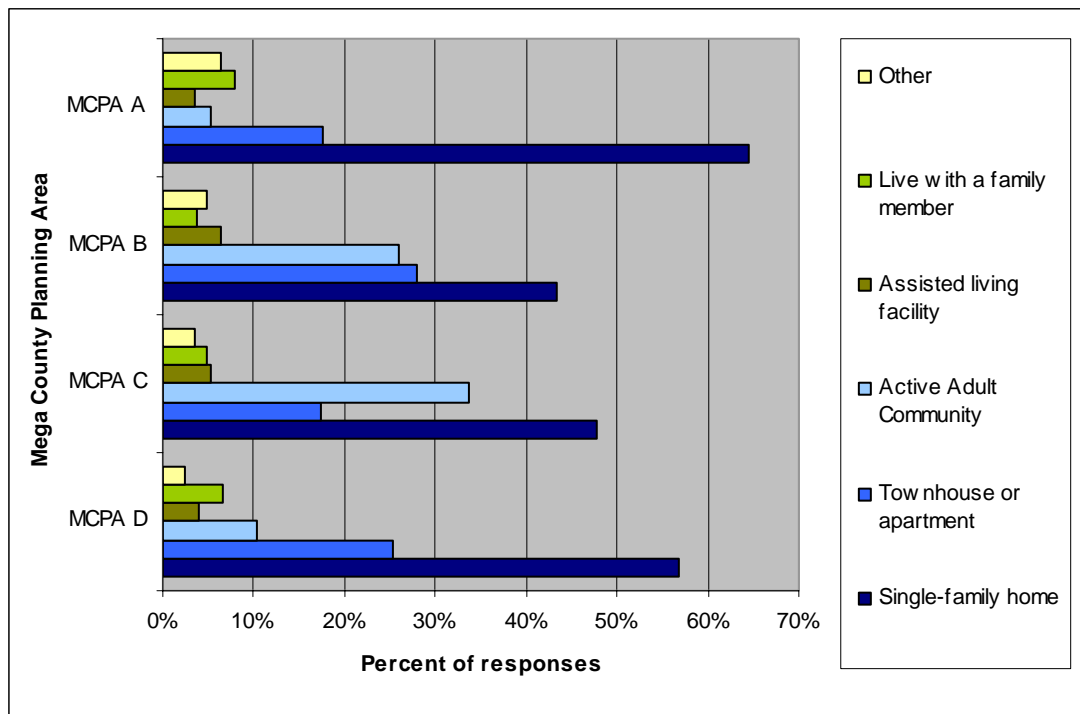
Figure 2.1 : Zip Codes



Question 3: What type of residence do you live in?

Question 3 inquires into the type of housing in which the respondent resides. Survey respondents were provided with six potential alternatives, and each respondent could check as many choices as applied. For example, forty-eight respondents indicated both “Single-Family Home” and “Active Adult Community,” while 39 respondents indicated both “Single-Family Home” and “Live with Family Member.” Seventeen respondents left this question blank. Figure 3.1 illustrates the percent of respondents who chose each housing type by mega county planning area. Because each respondent could choose more than one answer, the percentages for each planning area add to more than 100%.

Figure 3.1: Housing Type by MCPA

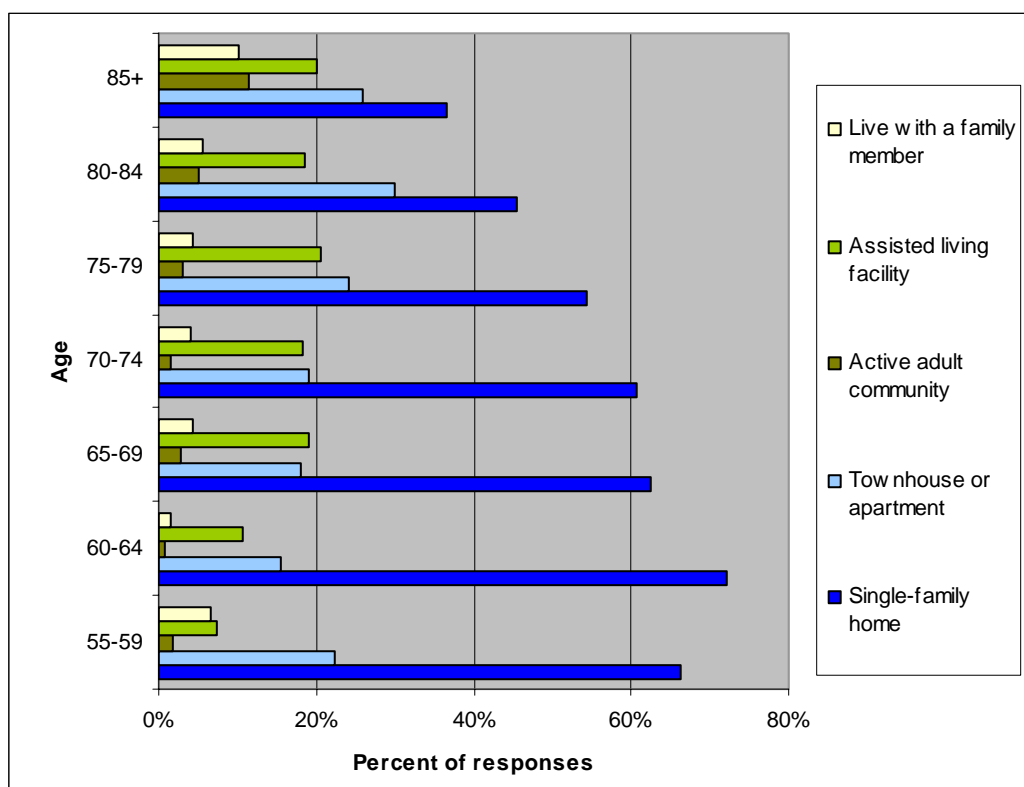


Source: DVRPC Survey, 2008. Because each respondent was allowed to choose as many options as applied, the percentages for each MCPA total more than 100%.

Over half of the total respondents (52 percent) indicated “Single-Family Home”, followed by “Townhouse or Apartment” (24 percent), and “Active Adult Community” (18%). Eleven percent of the respondents live in an assisted living facility or live with a family member. Of the 74 ‘other’ respondents (four percent), 27 live in condos and 10 in mobile homes. The largest percentage of respondents in all MCPAs lives in single-family homes, although the percentage varies from 43% in MCPA B (South Central Bucks) to over 65% in MCPA A (Upper Bucks). The greatest disparity between MCPAs was in “Active Adult Community”: five percent of the Upper Bucks respondents chose that response compared to 34 percent of North Central Bucks respondents. This is likely due to the availability of active adult communities in those locations.

Figure 3.2 illustrates the percent of respondents who chose each housing type by age. As expected, the percentage of respondents living in single-family homes generally decreases as age increases. Even over age 85, however, 37 percent are still living in single family homes, although many also indicated that they are living with a family member. Conversely, the percentages of those living in a townhouse, apartment, or active adult community generally increase as age increases. Beginning at age 65, approximately 20 percent of each age group lives in an assisted living facility.

Figure 3.2: Respondent Age by Housing Type



Source: DVRPC Survey, 2008. Because respondents were allowed to choose more than one response, percentages for each age group total more than 100%.

Question 4: How long have you lived in your residence?

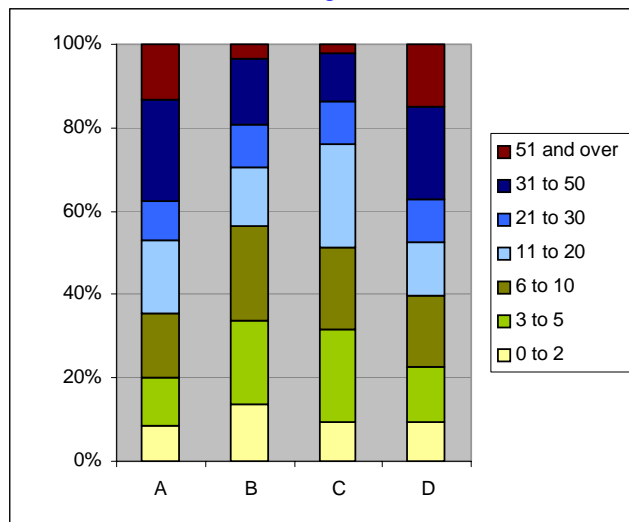
The length of time that a respondent has resided in his or her current dwelling is asked in Question 4. Twenty-seven respondents left this question blank.

Table 4.1: Years Living In Current Home by MCPA

Mega CPA	Under 3 years	3 to 5 years	6 to 10 years	11 to 20 years	21 to 30 years	31 to 50 years	51 years and over	No Answer
A: Upper	8%	11%	16%	18%	9%	24%	14%	1%
B: South Central	13%	20%	23%	14%	10%	16%	3%	1%
C: North Central	9%	22%	19%	24%	10%	11%	2%	2%
D: Lower	9%	13%	17%	13%	11%	22%	14%	2%
Not determined	18%	12%	21%	15%	9%	9%	12%	3%
Total	11%	16%	19%	16%	10%	18%	9%	1%

Source: DVRPC Survey, 2008.

Figure 4.1: Years Living in Current Home by MCPA



Source: DVRPC Survey, 2008.

Over 840 respondents, or 46 percent, have lived in their current residence for less than 10 years. As time in residence increases beyond 10 years, the overall percentage of responses tends to decrease: 16 percent at 11 to 20 years, 10 percent at 21 to 30 years, and 9.5 percent each from 31 to 40 and 41 to 50 years, and 18 percent for the 20-year period between 31 to 50 years. Additionally, nine percent of the respondents have lived in their homes for over 51 years, including 10 respondents who have lived in their homes for over 70 years. Aging in place is clearly occurring for some residents in Bucks County.

The number of years that the respondents have lived in their current homes varies between MCPAs. Over 35 percent of the

respondents in Upper and Lower Bucks resided in their current homes for over 31 years, compared to fewer than 20 percent of the respondents from South and North Central Bucks. Over 55 percent of the respondents from South Central Bucks have lived in their current home for ten years or less.

Question 5: How many vehicles do you own?

Vehicle ownership is asked in question 5, with choices ranging from zero to three or more vehicles. Over thirty respondents left this question blank.

Table 5.1: Number of Vehicles Owned by MCPA

Mega CPA	0 Vehicles	1 Vehicle	2 Vehicles	3 Vehicles	No answer
A: Upper	25%	44%	24%	4%	2%
B: South Central	25%	42%	29%	3%	2%
C: North Central	22%	51%	23%	3%	1%
D: Lower	27%	55%	15%	2%	1%
Not determined	33%	42%	24%	0%	0%
Total	25%	48%	22%	3%	2%

Source: DVRPC Survey, 2008.

Almost half of the respondents who answered the question (48 percent) are single-vehicle owners, and 22 percent own two vehicles. Twenty-five percent of the respondents do not own a vehicle. Slight differences are evident at the MCPA level. Lower Bucks has the highest percentage of one-vehicle households (with 55 percent) and South Central Bucks has the lowest, with 42 percent. Two-vehicle households are inverted, with South Central Bucks containing 29 percent and Lower Bucks containing 15 percent.

Respondent age does have some bearing on vehicle ownership. The majority of respondents in every age group except 85 years and older own at least one vehicle, as illustrated in Table 5.2. Two-vehicle ownership decreases with each age group (from 49 percent at 60 to 64 years to five percent at 85 years and older) but this relates at least in part to decreasing household size with increased age.

The percentage of households with no vehicle increases with age: 17 percent at 75 to 79 years, 31 percent at 80 to 84 years, and 52 percent at 85 years and older. Over 315 respondents aged 80 years or older do not own a vehicle, representing 83 percent of all zero-vehicle owners. This analysis illustrates that many residents over 80 years of age must rely on others, either through mass transit or rides from family or friends, for their mobility needs.

Table 5.2: Respondent Age by Vehicle Ownership

Age	0 cars	1 car	2 cars	3 cars
55 - 59	15%	29%	47%	9%
60 - 64	2%	44%	49%	6%
65 - 69	11%	41%	43%	5%
70 - 74	16%	48%	32%	5%
75 - 79	17%	60%	22%	2%
80 - 84	31%	60%	9%	1%
85 +	52%	43%	5%	0%
Total	25%	49%	23%	3%

Source: DVRPC Survey, 2008. Includes only those respondents who provided an answer to question 5 regarding vehicle ownership.

Question 6: What is your current health?

Question 6 aims to identify the overall health of the respondents. Respondents could choose from one of five health levels, ranging from 'Excellent' to 'Poor'. Ten respondents left this question blank.

Table 6.1: Perception of Health by MCPA

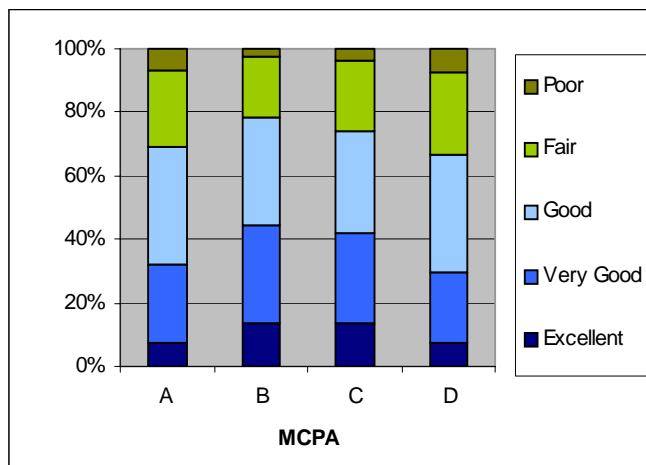
Mega CPA	Excellent	Very Good	Good	Fair	Poor	No answer
A: Upper	7%	25%	37%	24%	7%	0%
B: South Central	14%	30%	34%	19%	3%	0%
C: North Central	13%	29%	32%	22%	4%	0%
D: Lower	7%	22%	37%	26%	7%	1%
Not determined	3%	36%	36%	15%	9%	2%
Total	10%	26%	35%	23%	5%	1%

Source: DVRPC Survey, 2008.

Over 70 percent of the respondents felt that they were in better health ('Excellent' to 'Good') than in worse health ('Fair' or 'Poor'). 'Good' health had over 35 percent of all responses, the highest percentage of responses for this question. Upper and Lower Bucks had higher percentages of respondents in poor to fair health (at 31 and 33 percent) compared to South Central and North Central Bucks (with 22 and 26 percent), as illustrated in Figure 6.1.

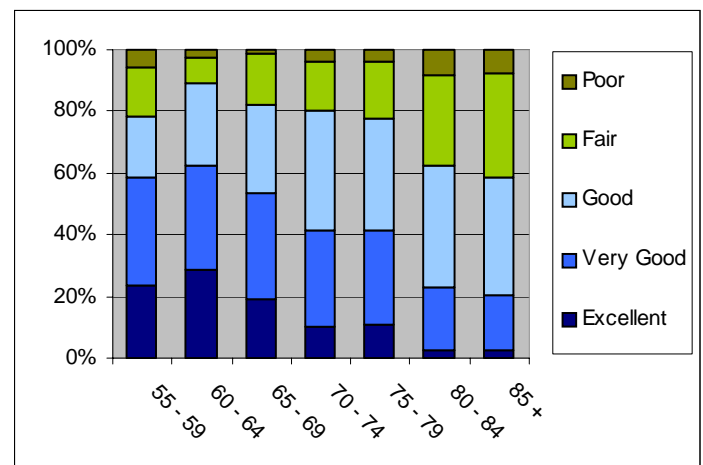
Health and age can also be correlated, with health declining to the 'Fair' to 'Poor' categories as age increases. These two categories represent only 10 percent of those aged 60 to 65 years but increase every year, reaching 42 percent in the age 85 and over category, as illustrated in Figure 6.2. Those age 55 to 59 years is an anomaly, where those in 'Fair' to 'Poor' health comprise 22 percent of the respondents in the cohort, and may suggest that the survey respondents in this category are not representative of those aged 55 to 59 years in Bucks County.

Figure 6.1: Respondent Health by MCPA



Source: DVRPC Survey, 2008.

Figure 6.2: Respondent Health by Age



Source: DVRPC Survey, 2008.

Question 7: Do you drive?

Question 7 asks about driving participation, with an option to indicate daytime driving only. Eighty-three respondents left this question blank.

Table 7.1: Driving Participation by MCPA

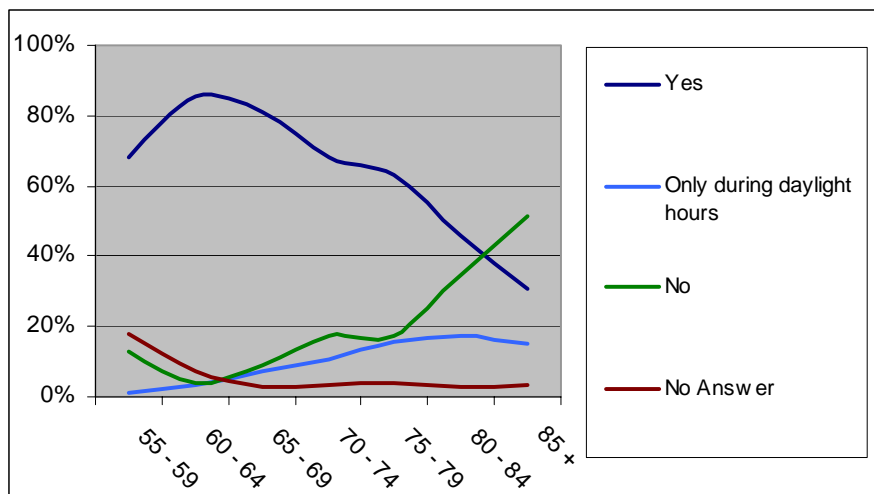
Mega CPA	Yes	Only during daylight hours	No	No answer
A: Upper	57%	12%	27%	4%
B: South Central	57%	11%	27%	5%
C: North Central	58%	16%	22%	4%
D: Lower	55%	12%	27%	5%
Not determined	55%	9%	33%	3%
Total	57%	12%	27%	4%

Source: DVRPC Survey, 2008.

The majority of the respondents who answered the question drive (57 percent) and an additional 12 percent drive only during daylight hours, while 27 percent of the survey respondents categorize themselves as non-drivers. Upper, South Central, and Lower Bucks have similar participation rates in all three categories. North Central Bucks has a higher percentage of respondents who only drive during daylight hours (16 percent) and a lower percentage of respondents who do not drive at all (22 percent).

Driving participation decreases with age. At age 60 to 65 years, 85 percent of the respondents drive, with only three percent driving 'only during daylight hours,' as illustrated in Figure 7.1. By age 85 years, the percentage of respondents who drive is reduced to 31 percent, while 15 percent only drive during the day. The percentage of those who do not drive tends to double every five years.

Figure 7.1: Driving Participation by Age



Source: DVRPC Survey, 2008.

Question 8: Thinking about the activities in a typical day, will you experience any limitations in driving a car in the foreseeable future?

Question 8 inquires into future driving limitations and provides three possible answers. Over 371 survey respondents left this question blank, resulting in an 80 percent response rate.

Table 8.1: Driving Limitations by MCPA

Mega CPA	I am already experiencing some limitations.	I will probably have some limitations soon.	No, I don't think I will have any limitations driving a car.	No Answer.
A: Upper	24%	16%	40%	17%
B: South Central	20%	17%	41%	21%
C: North Central	20%	23%	41%	16%
D: Lower	20%	15%	44%	22%
Not determined	33%	9%	39%	18%
Total	21%	17%	42%	20%

Source: DVRPC Survey, 2008.

Although 42 percent of the respondents do not think that they will have any foreseeable limitations driving a car, 38 percent have limitations now or believe that they will be limited in the future. In Upper, South Central, and Lower Bucks, 15 to 17 percent of respondents felt that they would have some limitations soon, while North Central Bucks was slightly higher, at 23 percent. Other variations within the MCPAs are minor.

Driving limitations should also be correlated with driving participation (Question 7), and is illustrated in Table 8.2. For those who indicated that they drive, 65 percent also indicated that they don't believe they will have any limitations driving a car in the future while 23 percent felt that they would probably have some limitations soon. Of the 493 respondents who indicated that they do not drive, 38 percent indicated that they are experiencing limitations now, but more importantly, 53 percent left this question blank. It is very likely that the respondents who do not drive and left question 8 blank are in reality "experiencing some limitations" and responding to those limitations by not driving at all.

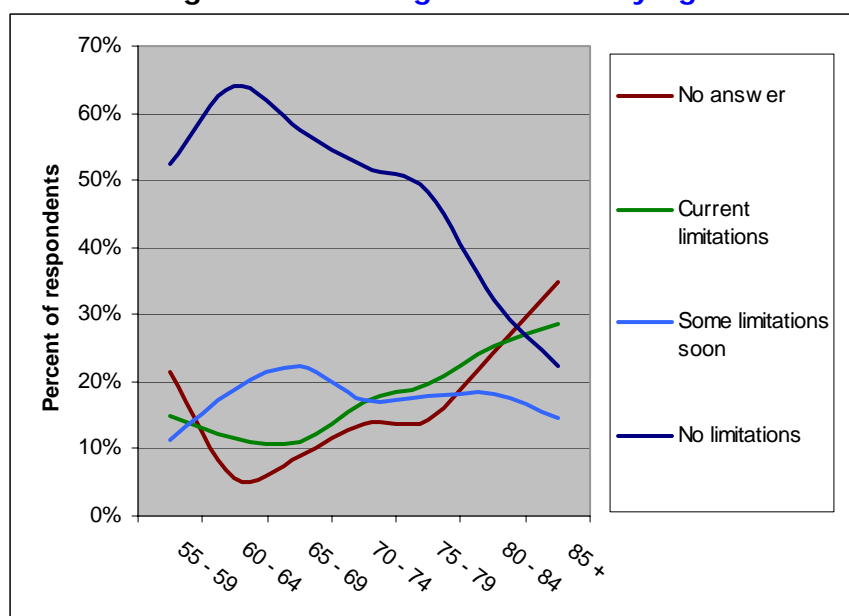
Table 8.2: Driving Participation by Driving Limitations

Driving Participation	I am already experiencing some limitations.	I will probably have some limitations soon.	No, I don't think I will have any limitations driving a car.	No answer regarding limitations.
No, I don't drive	38%	3%	6%	53%
Only during daylight hours	39%	25%	26%	9%
Yes, I drive	10%	23%	65%	3%
No participation answer	4%	6%	13%	77%
Total	21%	17%	42%	20%

Source: DVRPC Survey, 2008.

Driving limitations can also be correlated with respondent age. As age increases, so do driving limitations, as illustrated in Figure 8.1 and Table 8.3. The number of blank responses increased from six percent for ages 60 to 64 to 36 percent for those 85 years and older. Sixty four percent of the respondents age 60 to 64 years did not think that they will have driving limitations, 19 percent indicated that they will have limitations soon, and 11 percent indicated that they were already experiencing limitations. At age 75 to 80 years, the number of respondents who did not think that they will have driving limitations dropped below 50 percent while those indicating that they will have limitations soon increased to 18 percent. For those aged 85 years and older, only 22 percent felt that they did not have limitations, while 28 percent reported already experiencing limitations. Again, this number may actually be higher, as one-third of the respondents 85 years and older did not provide an answer to this question.

Figure 8.1: Driving Limitations by Age



Source: DVRPC Survey, 2008.

Table 8.3: Driving Participation by Age

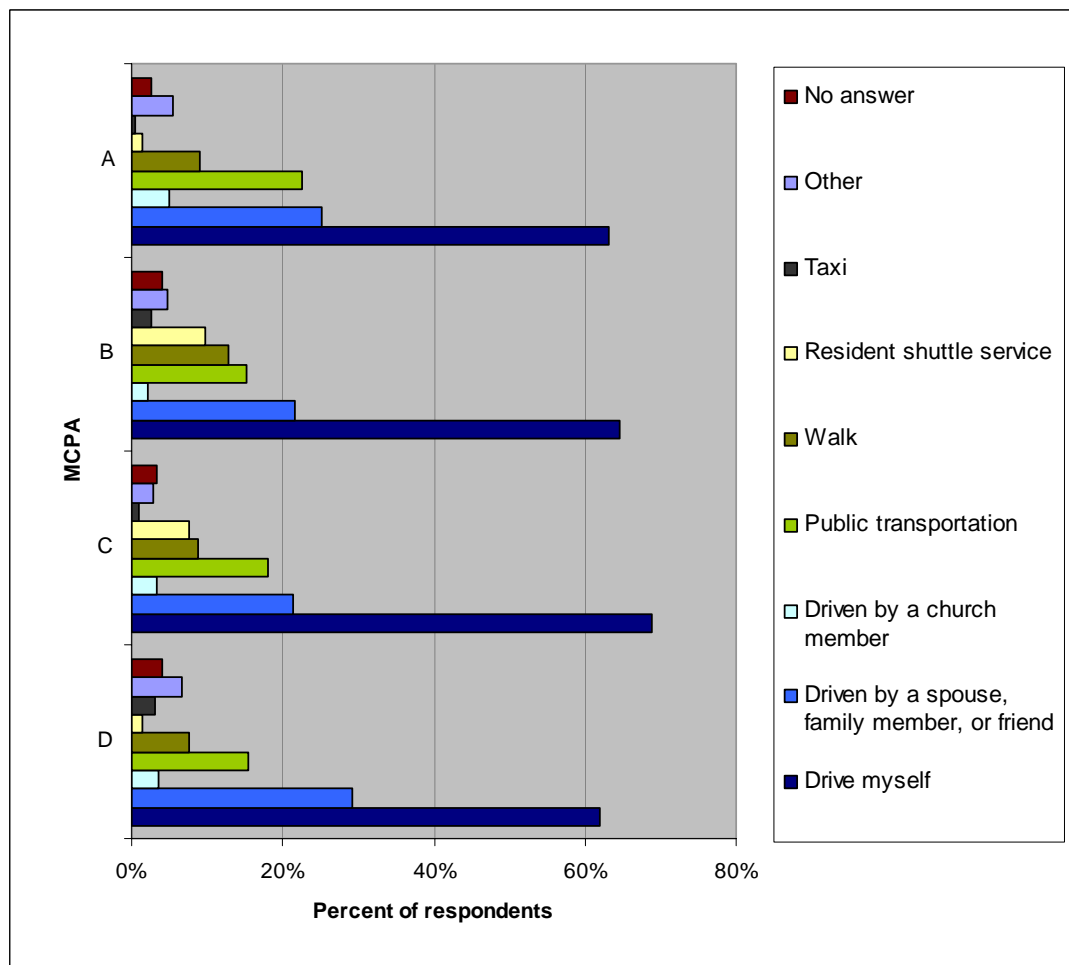
Age	No answer	Current limitations	Some limitations soon	No limitations
55 - 59	21%	15%	11%	52%
60 - 64	6%	11%	19%	64%
65 - 69	9%	11%	22%	58%
70 - 74	14%	17%	17%	52%
75 - 79	14%	20%	18%	48%
80 - 84	25%	25%	18%	32%
85 +	35%	28%	15%	22%
Not determined	23%	35%	10%	33%
Total	20%	21%	17%	42%

Source: DVRPC Survey, 2008.

Question 9: What type of transportation do you usually use to run errands?

Transportation mode is one of the more important questions on the survey, since it further gauges mobility in the region. Respondents were able to choose from eight options, and each respondent could choose more than one answer. Sixty-eight respondents left this question blank. Figure 9.1 illustrates the percent of respondents who chose each transportation mode by mega county planning area. Because each respondent could choose more than one answer, the percentages for each planning area add to more than 100%.

Figure 9.1: Transportation Mode by MCPA



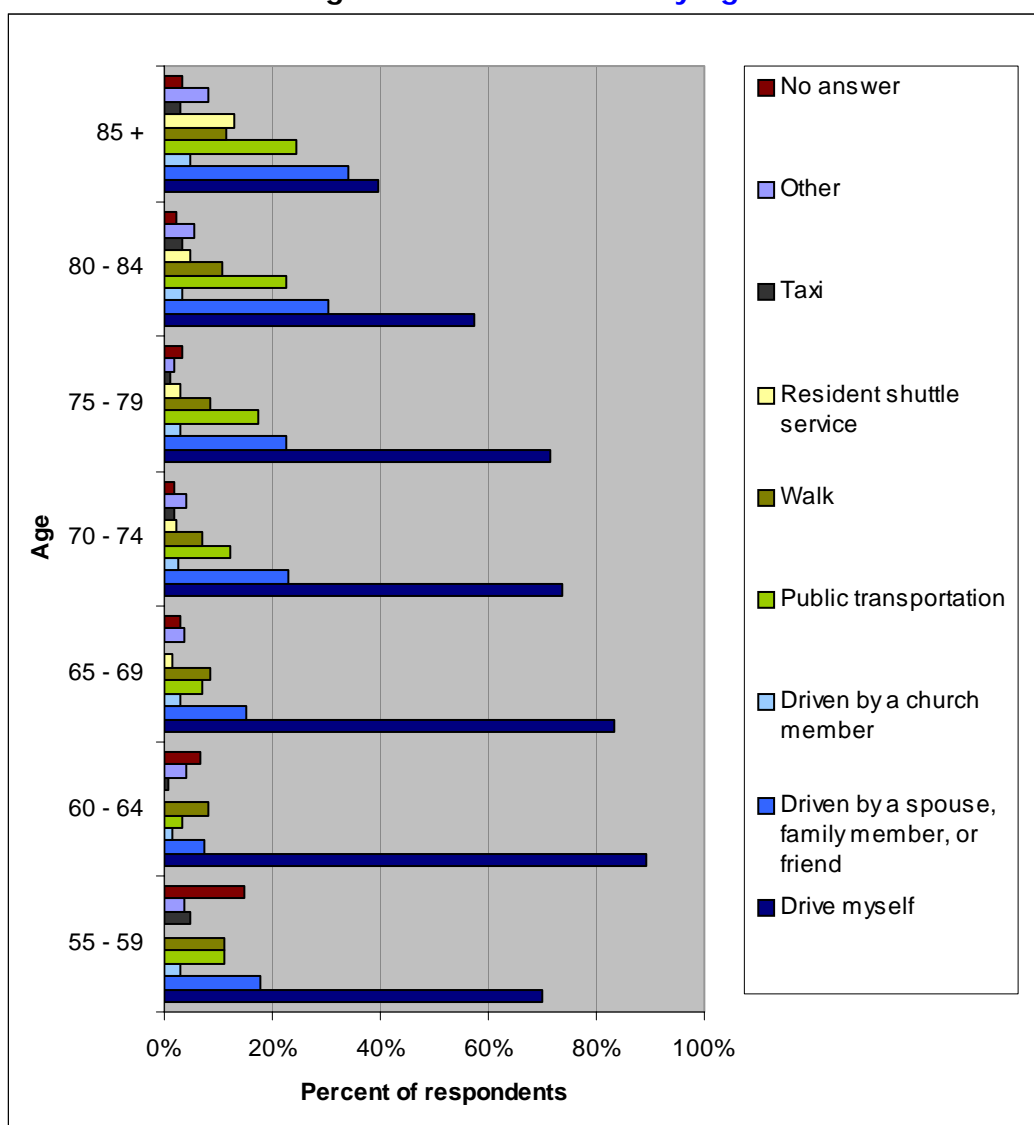
Source: DVRPC Survey, 2008. Because each respondent could choose more than one answer, the percentages for each planning area total more than 100%.

The majority of respondents in all planning areas indicated that they drive themselves, followed by a family member or friend, public transportation, and walking. While the number of respondents who drive themselves is relatively consistent among MCPAs (ranging between 60 and 70 percent) other transportation modes differ. Public transit use was reported to be the highest among residents of MCPA A (Upper Bucks). Although traditional public transit is not available in the vast majority of this area, many residents (particularly in Quakertown) chose 'public transit' but are likely referring to the services available through Bucks County Transport (BCT), a private, non-profit corporation providing shared-ride transportation services.

In all MCPAs, very few respondents indicated that they use a resident shuttle service, a religious service, or a taxi. While these last three categories only comprise 10 percent of all respondents, it is imperative to recognize that these lesser-used modes may be the only transportation service available for those residents. Expansion and improvement of public transit and shuttle services may also increase the number of seniors utilizing these services as an alternative to driving.

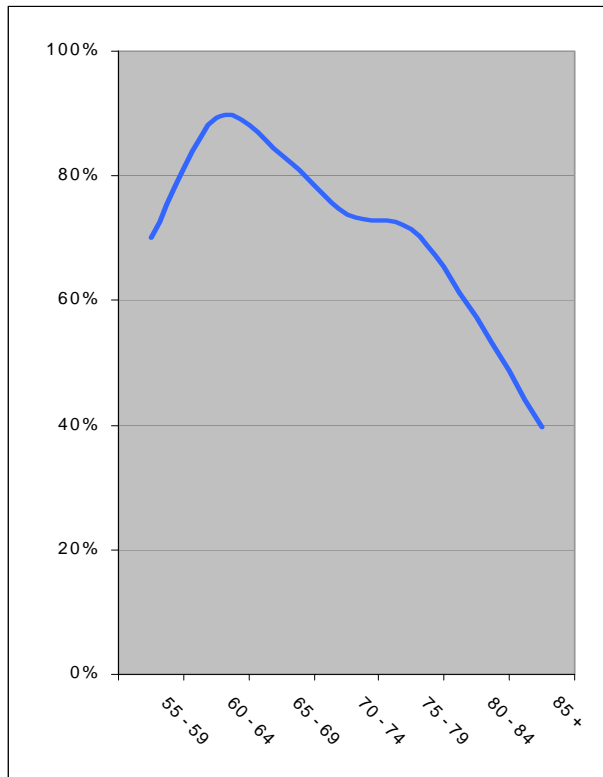
Comparing travel mode and age also uncover trends. As age increases the number of respondents who drive themselves decreases, as illustrated in Figures 9.2, 9.3, and 9.4. By age 85, other modes of transportation are more common than driving. The 'Spouse, friend, or family member' mode increases from seven percent from age 60 to 64 to 34 percent by age 85. As the age of the respondent increases, so does the respondents' indication of using public transportation, from three percent for those aged 60 to 64 to 24 percent by age 85.

Figure 9.2: Travel Mode by Age



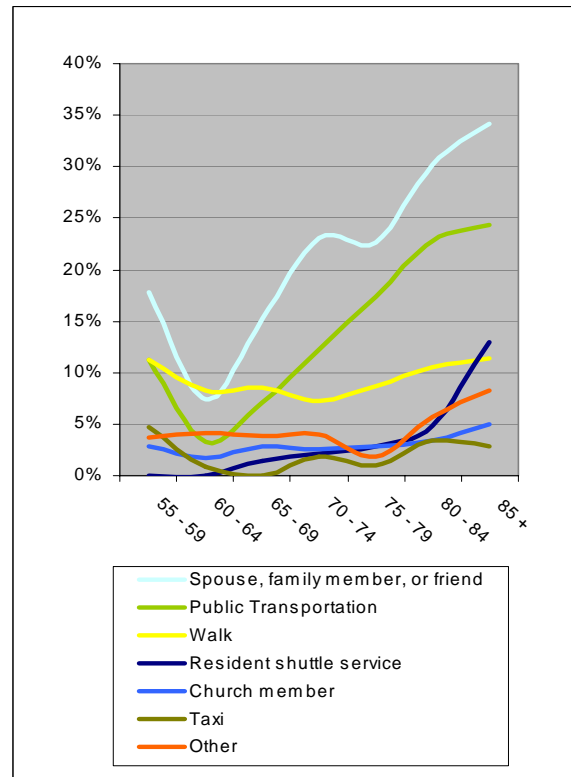
Source: DVRPC Survey, 2008. Because each respondent could choose more than one answer, the percentages for each age cohort total more than 100%.

Figure 9.3: Respondents Who Drive Themselves by Age



Source: DVRPC Survey, 2008.

Figure 9.4: Other Transportation Modes by Age

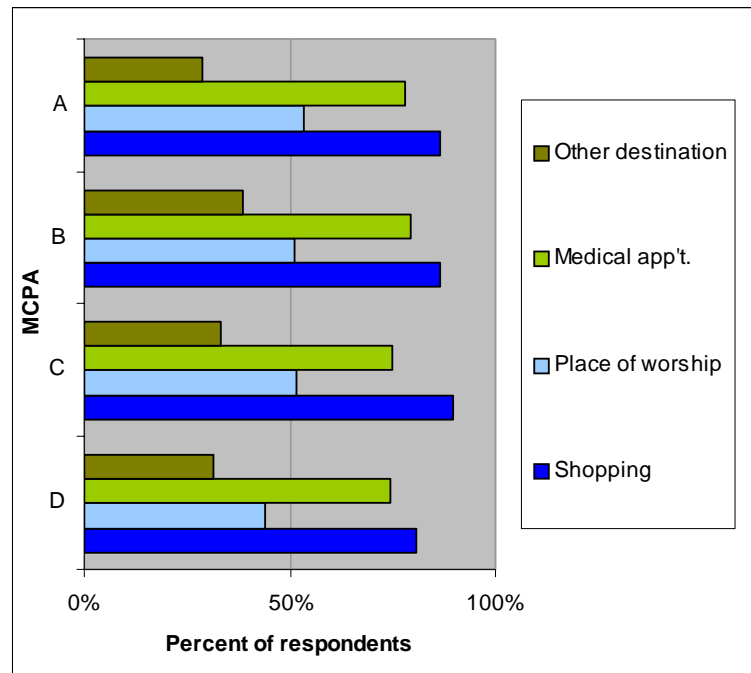


Source: DVRPC Survey, 2008.

Question 10: Where do you usually need to go? (Check all that apply)

Question 10 asks respondents where they generally need to travel and supplies them with three different options. Respondents were permitted to check more than one option.

Figure 10.1: Destination by MCPA



Source: DVRPC Survey, 2008. Because each respondent could choose more than one answer, the percentages within each planning area total more than 100%.

The response most often chosen overall was 'grocery store or other shopping' (selected by 85 percent of the respondents) followed by 'medical appointment' (76 percent) and 'place of worship' (49 percent). Lower Bucks had a lower percentage of respondents who indicated 'grocery store or other shopping' and 'medical' trips.

An open-ended 'other' answer space is also provided. Over 33 percent of the respondents provided an 'other' answer, with common responses including 'family and friends,' 'senior center,' and 'work,' having the most answers, as illustrated in Table 10.1. Forty-five respondents living in South Central Bucks indicated that they visit friends and family, while 59 respondents in Lower Bucks indicated that they travel to their senior center.

Table 10.1: Other Destinations by MCPA

Mega CPA	Family and Friends	Senior Center	Work	Volunteer	Social Events/ Entertainment	Recreational Activities	Gym/ YMCA
A: Upper	10	12	10	14	6	2	6
B: South Central	45	17	32	22	18	22	24
C: North Central	22	9	13	8	14	6	3
D: Lower	26	59	37	18	13	15	7
Not determined	1	2	1	1	3	0	0
Total	104	99	93	63	54	45	40

Mega CPA	Meetings	Dining	Bank	Library	Mall/ Shopping	Hospital/ Doctor/ Dialysis	Continuing Education	Post Office
A: Upper	8	4	9	5	1	4	0	3
B: South Central	14	13	3	9	5	7	14	0
C: North Central	7	10	9	8	10	3	4	2
D: Lower	7	4	10	2	8	9	0	5
Not determined	1	0	0	0	0	0	0	0
Total	37	31	31	24	24	23	18	10

Source: DVRPC Survey, 2008.

Question 10a: Do you walk to these places?

Question 10a is a follow-up question to the previous destination question and asks if the respondent walks to these destinations. Over 130 respondents left this question blank.

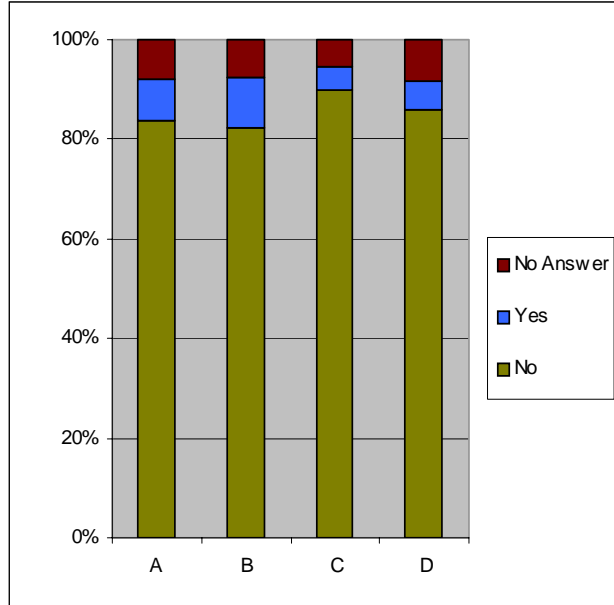
Table 10.2: 'Walk to Destination' by MCPA

Mega CPA	No	Yes	No Answer
A: Upper	84%	8%	8%
B: South Central	82%	10%	7%
C: North Central	90%	5%	6%
D: Lower	86%	6%	8%
Not determined	91%	3%	6%
Total	85%	7%	8%

Source: DVRPC Survey, 2008.

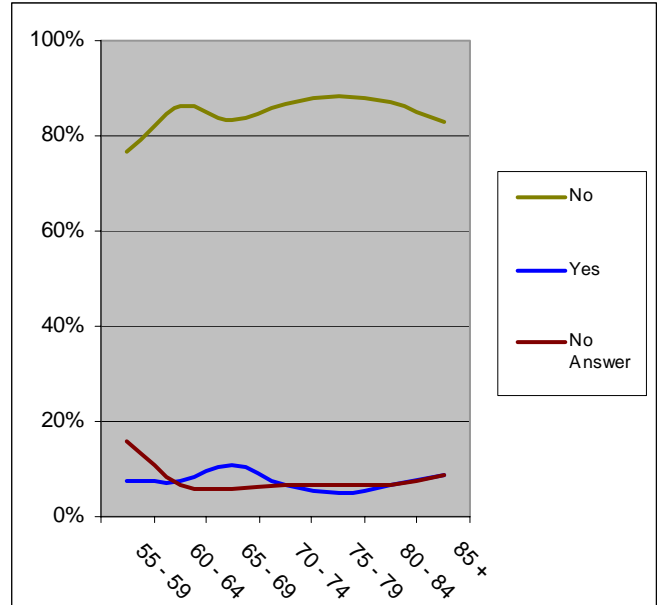
The overwhelming majority indicated that they do not walk (85 percent), with only 134 respondents (seven percent) indicating that they do walk to various destinations. South Central Bucks contains both the greatest number and highest percentage of respondents who indicated that they walk, (57 respondents and 10 percent,) as illustrated in Figure 10.2. North Central Bucks has the lowest percentage of respondents who indicated that they walk at five percent. Age does not seem to be an important factor in determining whether a respondent walks to a destination, as illustrated in Figure 10.3. Responses for each option are consistent among age groups.

Figure 10.2: Respondents Who Walk to Destinations by MCPA



Source: DVRPC Survey, 2008.

Figure 10.3: Respondents Who Walk to Destinations by Age



Source: DVRPC Survey, 2008.

Question 11: Rate how well your transportation needs are being met.

The next question assesses whether transportation needs are being met, and the respondent can choose one of five possible answers, from 'Excellent' to 'Poor.' The response rate for this question was only 84 percent, as 290 responses (16 percent) left this question blank.

Table 11.1: Transportation Satisfaction by MCPA

Mega CPA	Excellent	Very Good	Good	Fair	Poor	No Answer
A: Upper	19%	22%	25%	9%	7%	18%
B: South Central	24%	23%	20%	13%	7%	13%
C: North Central	18%	21%	19%	13%	10%	18%
D: Lower	21%	23%	24%	10%	6%	16%
Not determined	33%	9%	18%	27%	3%	9%
Total	21%	22%	22%	12%	7%	16%

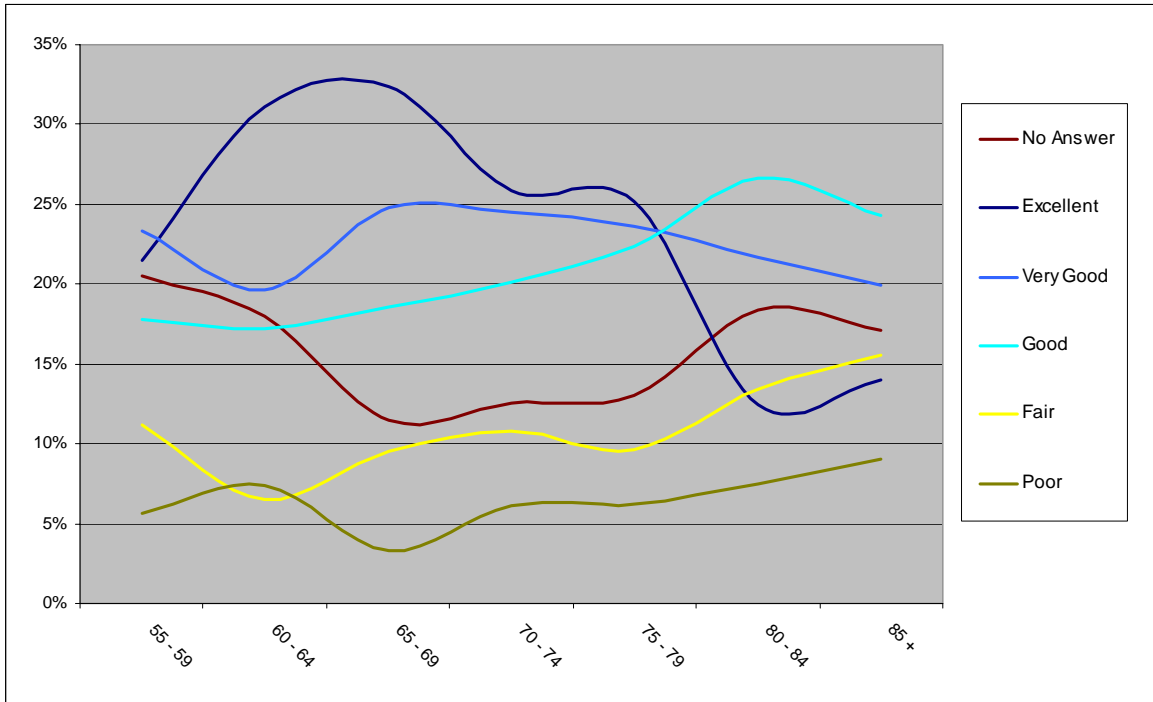
Source: DVRPC Survey, 2008.

Responses were positive overall, with over 800 respondents (43 percent) indicating either 'Excellent' or 'Very Good,' with 'Fair' and 'Poor' receiving only 20 percent of the total number of responses. South Central Bucks received the highest percentage of 'Excellent' or 'Very Good' responses, at 47 percent, while North Central Bucks contained the highest percentage of 'Fair' and 'Poor' responses, at 23 percent.

When respondent age and transportation satisfaction are analyzed the needs of older respondents are not being met as well as the needs of younger respondents, as illustrated in Figure 11.1. Thirteen to 17 percent of respondents aged 74 years and younger indicated 'Fair' or 'Poor' responses. This number increases to 20 percent for 80 to 84 years, and to 25 percent for 85 years and over. Age 75 seems to be a threshold for this category, as younger respondents indicated "Excellent" as the top answer while those older indicated "Good" as the top answer.

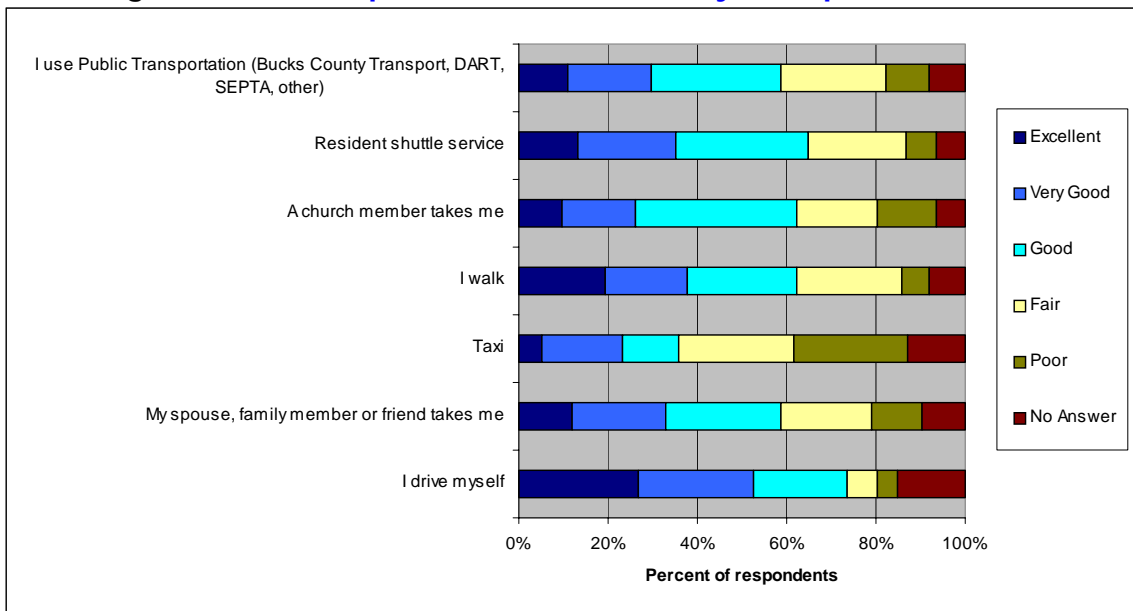
Finally, when transportation mode and satisfaction are analyzed, the results indicate that there is a large difference between modes. Overall satisfaction for those who drive is high, with only twelve percent of those respondents indicating a 'Fair' or 'Poor' response, which is the lowest of any mode. All other modes had between 29 and 51 percent of respondents with a 'Fair' or 'Poor' response, as illustrated in Figure 11.2. This indicates that satisfaction for the other transportation modes is between three and five times lower than those who drive, and suggests that additional resources should be identified to uncover the main issues and provide solutions for these transportation modes.

Figure 11.1: Transportation Satisfaction by Age



Source: DVRPC Survey, 2008.

Figure 11.2: Transportation Satisfaction by Transportation Mode

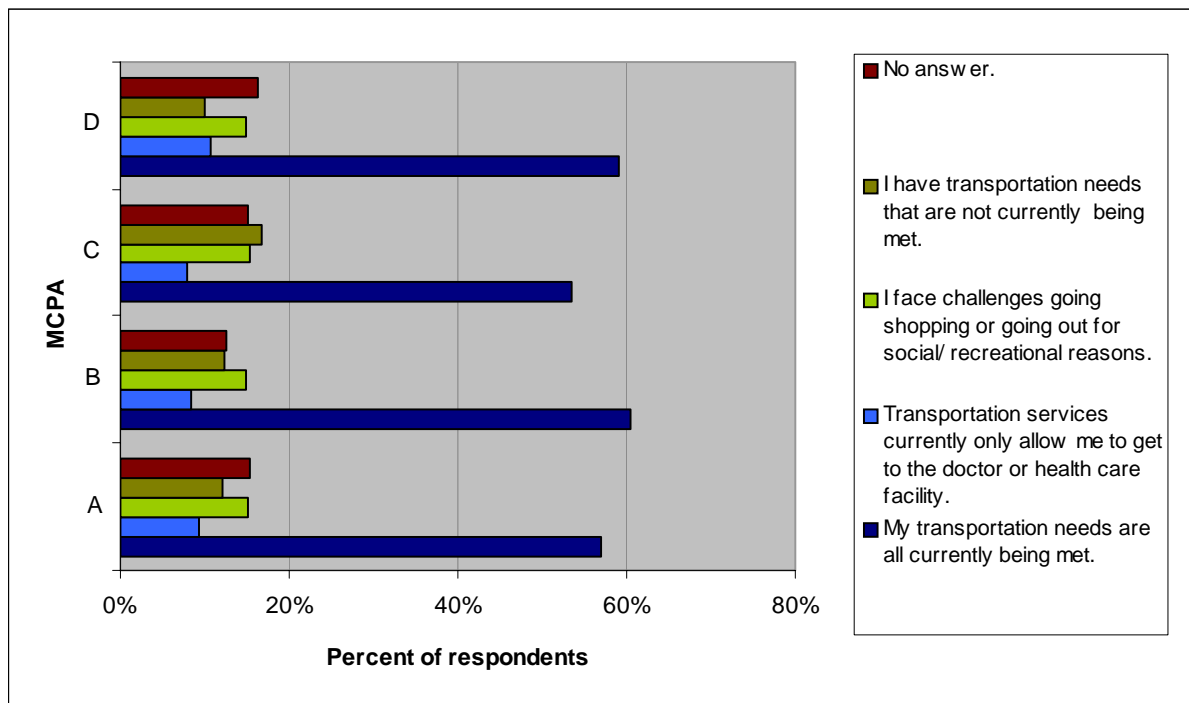


Source: DVRPC Survey, 2008.

Question 11a: Please check any of the following statements that apply to you.

The second part of question 11 asks respondents which transportation needs are being met and supplies four possible answers. Respondents can choose more than one answer. Similar to the first part of the question, close to 275 respondents (15 percent) left this question blank.

Figure 11.3: Transportation Challenges by MCPA

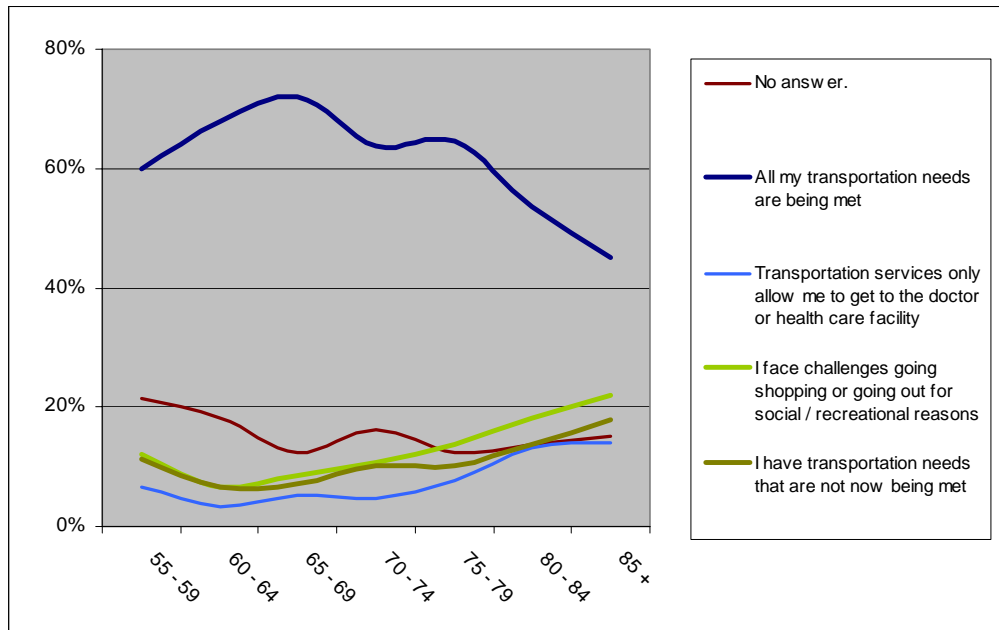


Source: DVRPC Survey, 2008.

Over 1,100 respondents (58 percent) felt that all of their needs were being met, with North Central Bucks (MCPA C) containing the lowest percentage of respondents at 53 percent and South Central Bucks (MCPA B) the highest at 60 percent. The remaining respondents felt that they face shopping or recreational challenges (15 percent), have needs that are not being met (12 percent), or can only use medical facilities (9 percent). North Central Bucks had the highest percentage of respondents facing transportation needs (17 percent) while Lower Bucks (MCPA D) contained the lowest (10 percent).

Respondent age does have some bearing on transportation challenges, with 'All Needs Being Met' declining from 70 percent at 65 years to 45 percent for those aged 85 years, as illustrated in Figure 11.4. Services providing only medical trips increases from three percent for those aged 60 to 64 years to 14 percent for those 85 years and older. Challenges to shopping and social trips increases from seven percent at age 60 to 64 years to 22 percent for those age 85.

Figure 11.4: Transportation Challenges by Age



Source: DVRPC Survey, 2008.

Question 12: How would you grade your community for having public transportation (Bucks County Transport, Doylestown Area Regional Transit (DART), SEPTA, other) that you would use to get to the places you need to go?

Question 12 aims to quantify the perception of public transportation service. With more than 480 respondents not answering this question, the response rate was very low (at only 74 percent).

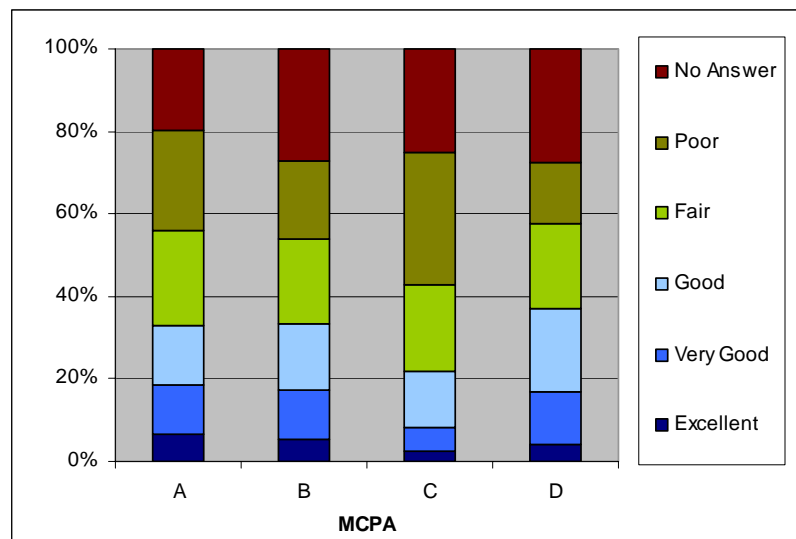
Table 12.1: Public Transportation Satisfaction by MCPA

Mega CPA	Excellent	Very Good	Good	Fair	Poor	No Answer
A: Upper	6%	12%	14%	23%	24%	20%
B: South Central	5%	12%	16%	20%	19%	27%
C: North Central	3%	6%	13%	21%	32%	25%
D: Lower	4%	13%	20%	20%	15%	27%
Not determined	3%	9%	24%	24%	6%	33%
Total	4%	11%	17%	21%	20%	26%

Source: DVRPC Survey, 2008.

Both 'Fair' and 'Poor' received over 40 percent of the responses to this question. 'Poor' responses were varied within the MCPAs, ranging from a low of 15 percent in MCPA D to a high of 32 percent in North Central Bucks, as illustrated in Figure 12.1. 'Excellent' and 'Very Good' responses were consequently low, only representing 15 percent of all responses. North Central Bucks contained a low of nine percent for these two categories, and Upper Bucks a high of 20 percent.

Figure 12.1: Public Transportation Service Ratings by MCPA



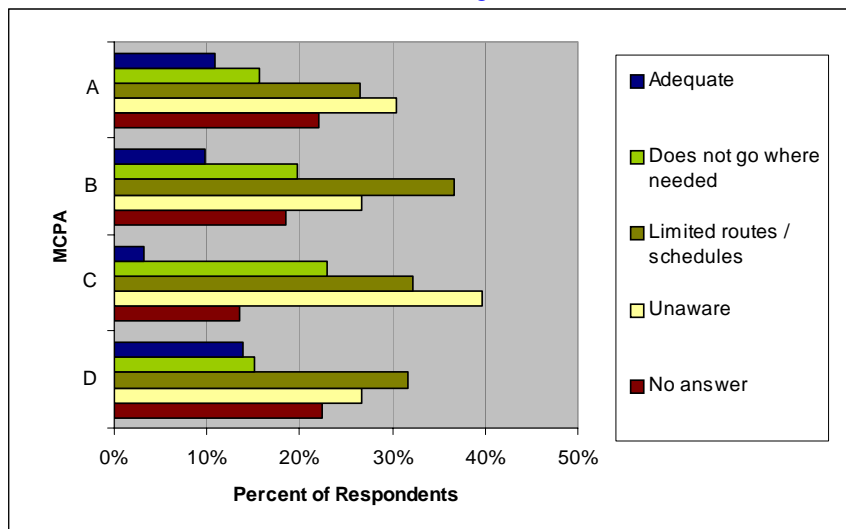
Source: DVRPC Survey, 2008.

Question12a: Please check the following that apply to you.

A second question asks follow up questions about local public transportation service. Respondents were provided four separate options and could choose more than one answer. Over 350 respondents (20 percent) left this question blank.

One-third of the respondents indicated that they were unaware of public transportation, with respondents in North Central Bucks having the highest number at 40 percent, as illustrated in Figure 12.2. This indicates, however, that more than half of the respondents at least know of some public transportation in their community. The second choice asked respondents if their community has adequate transportation services. Responses here were very low, at 10 percent overall, and mixed within each MCPA, ranging from a low of three percent in North Central Bucks (MCPA C) to a high of 14 percent in Lower Bucks (MCPC D). One-third of all respondents felt that their community had limited public transportation routes or schedules.

Figure 12.2: Public Transportation Knowledge and Service by MCPA



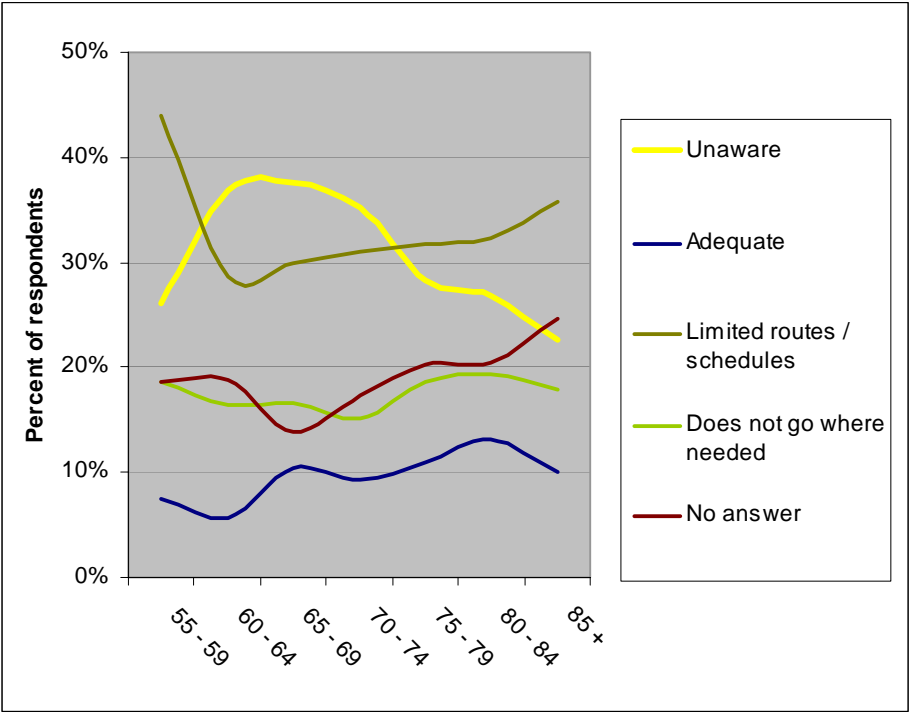
Source: DVRPC Survey, 2008. Since each respondent was allowed to choose more than one option, the percentages for each MCPA may total more than 100%.

The final choice inquired if public transportation takes the respondent where they need to go. Overall, 18 percent of respondents believe that public transit does not take them to their necessary destinations, ranging from a high of 23 percent in North Central Bucks to a low of 15 percent in Lower Bucks.

Public transportation satisfaction tends to vary with the age of the respondent, as illustrated in Figure 12.3. While the majority of all respondents (regardless of age) did not believe that their community's public transit was 'adequate,' older residents had a slightly more favorable opinion than younger seniors. This suggests that all age groups agree that their community's transit could use some improvement in varying degrees. The percentage of respondents who were unaware of the public transportation system decreased with age, from 37 percent at 60 years to 23 percent for those aged

85 years and older, as illustrated in Figure 12.3. On the other hand, the percentage of respondents who felt that there were limited routes or schedules increased with age, increasing from 29 percent at 60 to 64 years to 36 percent at 85 years and older.

Figure 12.3: Public Transportation Knowledge and Service by Age



Source: DVRPC Survey, 2008.

Question 13: How would you grade your community for having safe, well-designed sidewalks that you can take to get to the places you need to go? (e.g., to a nearby grocery store or drugstore)

Question 13 asks respondents to grade the sidewalks for safety, design, and functionality. Five possible choices were provided. Three hundred respondents did not answer this question.

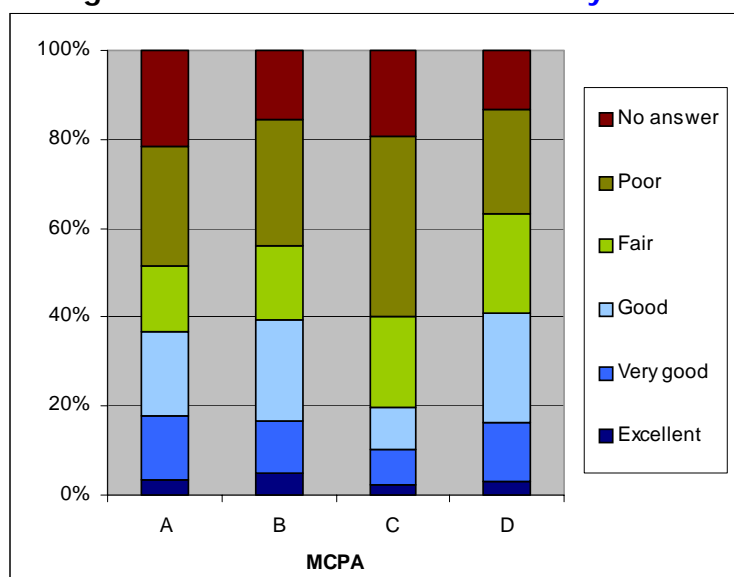
Table 13.1: Sidewalk Satisfaction by MCPA

Mega CPA	Excellent	Very Good	Good	Fair	Poor	No Answer
A: Upper	3%	15%	19%	15%	27%	22%
B: South Central	5%	12%	23%	17%	28%	16%
C: North Central	2%	8%	10%	21%	40%	19%
D: Lower	3%	13%	24%	22%	24%	13%
Not determined	6%	12%	18%	24%	27%	12%
Total	4%	12%	21%	19%	28%	16%

Source: DVRPC Survey, 2008.

Only 16 percent of respondents felt that their sidewalks were 'Excellent' or 'Very Good,' as illustrated in Figure 13.1. The lowest possible choice of 'Poor' was the most common answer at 28 percent. When combined with 'Fair,' almost 50 percent of respondents had an unfavorable view of their sidewalks. There were differences in MCPAs, with North Central Bucks containing the greatest number of 'Fair' or 'Poor' responses (61 percent total) while Upper Bucks contained the lowest (42 percent total).

Figure 13.1: Sidewalk Satisfaction by MCPA

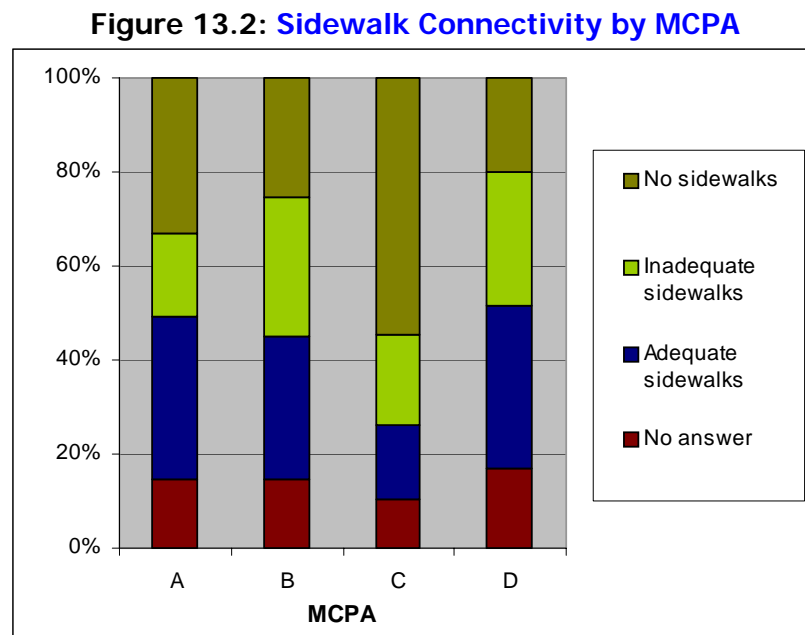


Source: DVRPC Survey, 2008

Question13a: Please check the following that apply to you.

A follow-up question asks respondents whether or not their community has sidewalks, and if they connect to destinations that the respondent needs to reach. Over 275 respondents (15 percent) left this question blank.

Overall, over 57 percent of the respondents indicated that their community has sidewalks. In Upper, South Central, and Lower Bucks, between 31 and 35 percent of the respondents indicated that sidewalks adequately connected to places to which they needed to travel. This is twice as high as in North Central Bucks with only 16 percent. Conversely, North Central Bucks had the highest percentage of respondents who indicated that there are no sidewalks in their community (54 percent) while the other MCPAs had lower percentages, ranging from 21 percent (in Lower Bucks) to 33 percent (in Upper Bucks).



Source: DVRPC Survey, 2008

Question 14: How would you grade your community for having roads designed for safe driving, with clear and obvious signage, traffic stops, and pedestrian crosswalks?

Transportation and mobility safety was identified as a major concern by BCAA. This question asks respondents to grade safety elements in their community as they pertain to driving, including the presence of clear signage, traffic stops, and pedestrian crosswalks. Again, five answers were available for respondents to choose from. Almost 200 respondents (11 percent) did not provide an answer.

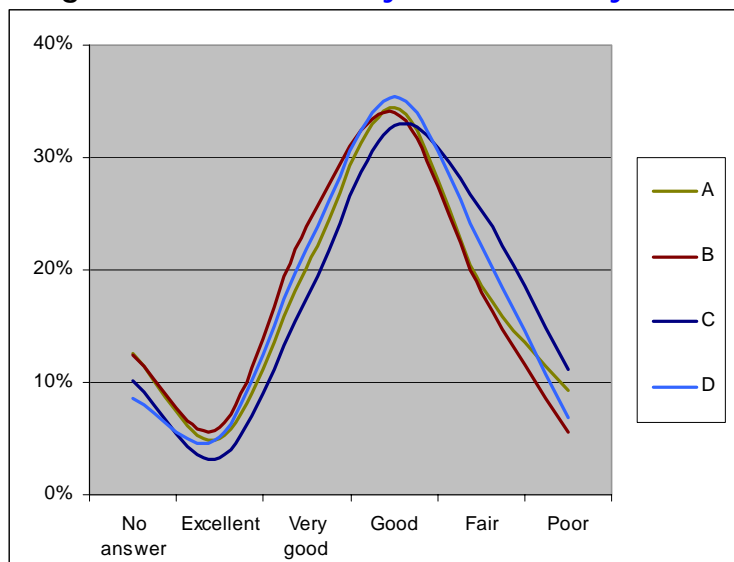
Table 14.1: Road Safety Satisfaction by MCPA

Mega CPA	Excellent	Very Good	Good	Fair	Poor	No Answer
A: Upper	5%	20%	34%	19%	9%	13%
B: South Central	6%	24%	34%	18%	6%	12%
C: North Central	3%	17%	33%	25%	11%	10%
D: Lower	5%	22%	35%	22%	7%	9%
Not determined	6%	15%	27%	33%	9%	9%
Total	5%	21%	34%	21%	8%	11%

Source: DVRPC Survey, 2008.

While these individual elements cover a wide variety of safety topics, they have been grouped here to gauge the respondents' overall perception of safety. The responses center on 'Good,' at 34 percent, with 'Very Good' and 'Fair' each with 21 percent, as illustrated in Figure 14.1. Responses were fairly uniform within MCPAs, with North Central Bucks (MCPA C) having slightly higher percentages of 'Fair' and 'Poor' responses and lower 'Excellent' and 'Very Good' responses.

Figure 14.1: Road Safety Satisfaction by MCPA

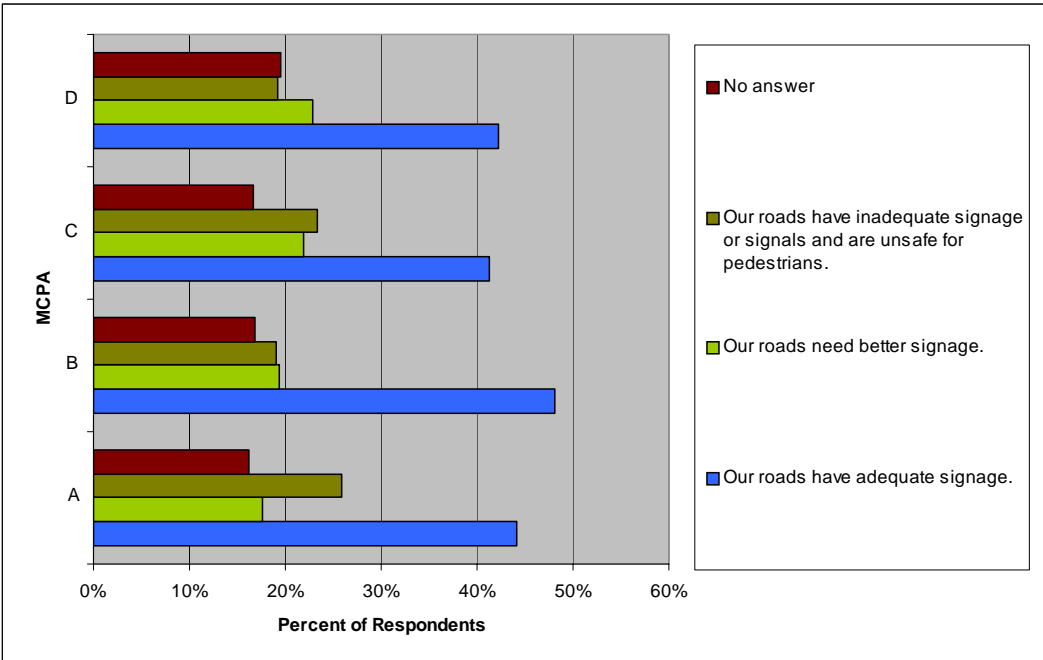


Source: DVRPC Survey, 2008

Question14a: Please check any of the following that apply to you.

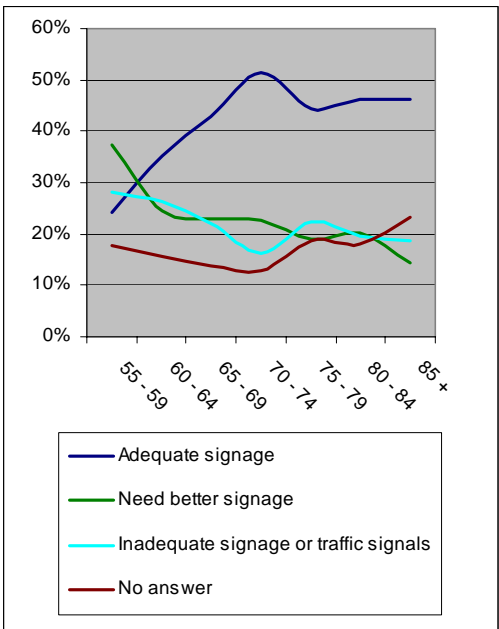
A second question specifically focused on signage and safety within a community. Respondents could choose multiple answers from three options. The response rate for this question was 82 percent.

Figure 14.2: Signage Related Safety Elements by MCPA



Source: DVRPC Survey, 2008.

Figure 14.3: Signage Related Safety Elements by Age



Source: DVRPC Survey, 2008.

Over 800 respondents (44 percent) indicated that roads in their community were designed for safety and that signage was adequate. The remaining answers were split between needing to improve signage (21 percent) and needing to improve pedestrian signage and signals (21 percent). There are only slight differences within each MCPA within each category. Figure 14.3 illustrates signage related safety elements by age of the respondent.

Question 15: The three most important transportation and mobility issues for me are: (Please rank, with 1 being the most important, 2 being second most important, and 3 being third most important).

Question 15 asks respondents to prioritize up to three transportation and mobility issues from among six choices. Several respondents selected more than three answers or did not rank their choices. To remedy this issue, one to three points were assigned to each response, up to a total of six points per respondent depending on how many answers were chosen and if answers were ranked. Due to the high number of respondents who did not rank answers, it is not possible to definitively report which answer received the highest number of 'most important' responses.

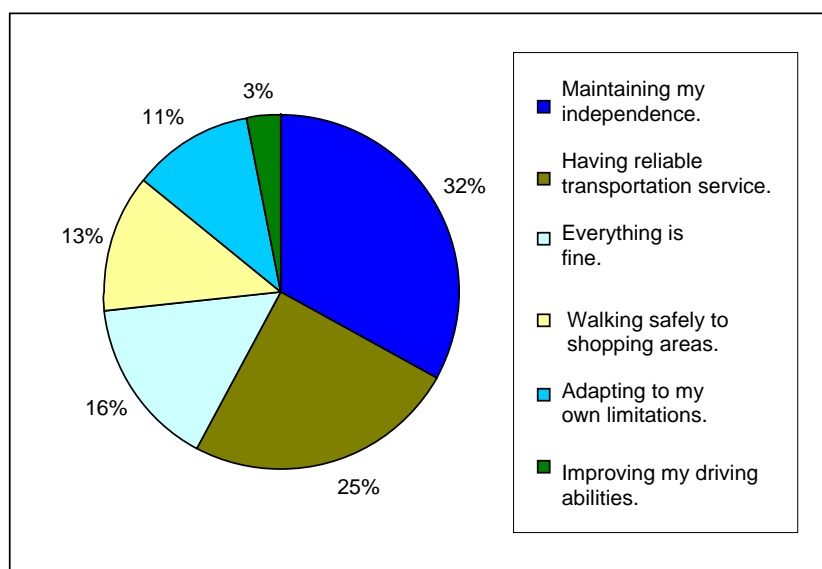
Table 15.1 Transportation and Mobility Issue Rankings by MCPA

Mega CPA	Maintaining my independence	Having reliable transportation services	Everything is fine ... I do not have any issues	Walking safely to stores and shopping areas	Adapting to mobility limitations	Improving my driving abilities	Total Points
A: Upper	421	377	211	119	167	33	1,328
B: South Central	937	623	413	352	278	79	2,682
C: North Central	460	390	210	184	161	44	1,449
D: Lower	992	718	495	414	327	103	3,049
Not determined	46	27	25	14	26	5	143
Total points	2,856	2,135	1,354	1,083	959	264	8,659

Source: DVRPC Survey, 2008.

With 2,856 points, 'Maintaining My Independence' received the greatest number of points (over 32 percent of the overall points) and was also the highest in each MCPA, as illustrated in Table 15.1. 'Having Reliable Transportation' was second, with 2,136 points, or 25 percent of the overall points.

Figure 15.1: Transportation and Mobility Issues Point Distribution



Source: DVRPC Survey, 2008.

'Improving My Driving Abilities' received the lowest number of points, at 265.5, or 3 percent of the overall points. Differences between MCPAs are minor.

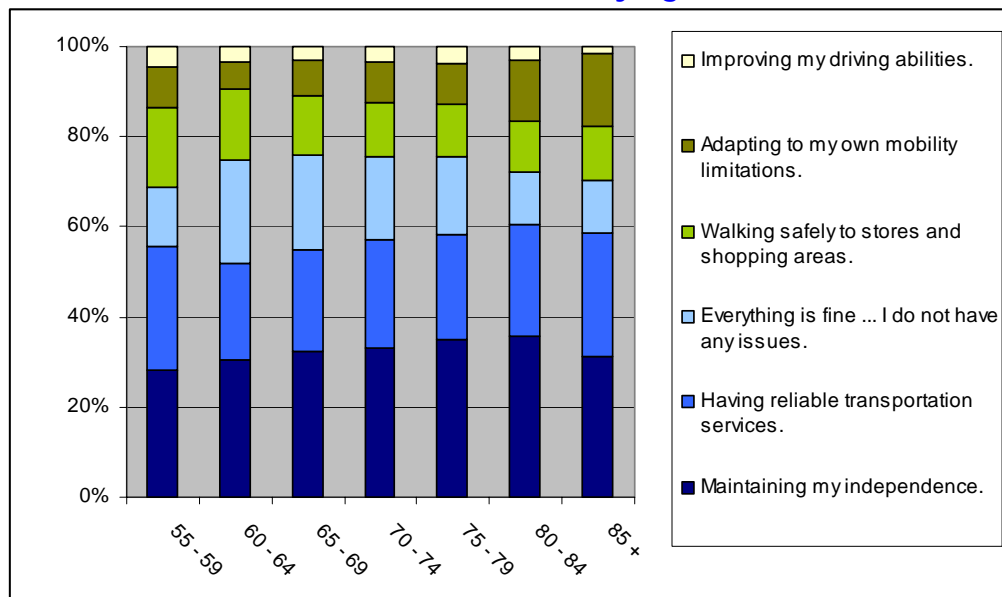
Transportation and mobility issues when compared to age do manifest slightly, as illustrated in Table 15.2 and Figure 15.2. In each age cohort, 'Maintaining my independence' received the most points and the greatest overall percentage once again, signifying that even among different ages, maintaining independence is the most important issue. This issue also tends to become more important as age increases. The same is true with 'having reliable transportation services', which received the second highest number of points overall, .

Table 15.2: Transportation and Mobility Issues Point Distribution by Age

Age	Maintaining my independence.	Having reliable transportation services.	Everything is fine ... I do not have any issues.	Walking safely to stores and shopping areas.	Adapting to my own mobility limitations.	Improving my driving abilities.	Total Points
55 - 59	138	134	66	85	44	23	490
60 - 64	164.5	116	125	84.5	33.5	17.5	541
65 - 69	330.5	230.5	217	135.5	81.5	30	1,025
70 - 74	427.5	312.5	240	154.5	117.5	43	1,295
75 - 79	536	351	268.5	178	135.5	57	1,526
80 - 84	654	452.5	215	205	246.5	58	1,831
85 +	543	480.5	208.5	208.5	281.5	27	1,749
Not determined	62.5	59.5	15	34	21	10	202
Total points	2,856	2,136.5	1,355	1,085	961	265.5	8,659

Source: DVRPC Survey, 2008

Figure 15.2: Transportation and Mobility Issues Point Distribution by Age



Source: DVRPC Survey, 2008.

Question 15a: Comments

The survey concludes by providing a space for open-ended, written comments. More than 600 respondents provided comments. Most of the comments are specific to the respondent, including individual mass transit concerns, disabilities specific to the respondent, neighborhood issues, and specific intersection or roadway deficiencies. Many comments allude to the issues of aging in place and future mobility concerns. Table 15.3 organizes several of the more common comments into general categories.

Table 15.3: Common Comments by MCPA

Mega CPA	Problems at a specific location	Additional transit service needed	Disability/ limitations	Dangerous roads or intersections	Future issues	Inadequate sidewalk connectivity	No alternative to driving
A: Upper	23	26	13	12	14	5	9
B: South Central	50	48	31	31	25	34	19
C: North Central	25	35	15	14	21	11	15
D: Lower	34	21	35	27	18	24	22
No address	2	2	4	1	1	1	0
Total	134	132	98	85	79	75	65

Mega CPA	Unsatisfied with transit service	No transit service available	Transit service not accessible	More frequent service needed	Transit not on time or unreliable	Inadequate transit information available	Transit too expensive
A: Upper	11	13	8	6	7	2	1
B: South Central	23	12	19	17	11	12	7
C: North Central	7	14	7	7	9	3	3
D: Lower	18	10	9	11	14	11	3
No address	1	1	1	1	1	1	
Total	60	50	44	42	42	29	14

Source: DVRPC Survey, 2008.

Some notes on these categories:

- **'Specific location'** includes lack of a service in a named community and traffic or roadway concerns for a named roadway or in a named community.
- **'Additional service needed'** includes public transportation where the service is not close enough to the residence and the service does not go to where respondent needs to go.
- **'Disability or other limitations'** include both physical mobility limitations and sensory limitations.
- **'Future issues'** generally include comments stating that the respondent does not have mobility problems now but is anticipating mobility issues in the future.

Findings

The survey indicates a clear correlation between driving and age, with driving decreasing and other modes of travel increasing as seniors age. The majority of seniors are driving, with participation levels falling below 50 percent only after 85 years and older, while the number of seniors who only drive during the day begins to increase at 70 years and older. This threshold of 70 years should be used for service planning purposes, knowing now that the demographics of the county are changing and there will be an increasing number of seniors in the future.

Even though the majority of seniors are driving, over one-third of the respondents either currently face driving limitations or feel that they will have limitations in the future. BCAAA should conduct further research as to what these limitations are and attempt to remedy the problems or find new solutions, which may include increasing public transit opportunities or awareness.

Over one-quarter of all respondents indicated that they rely on family and friends for their transportation services, increasing to over one-third for those 80 years and older. As residents age, they face increasing challenges, especially going shopping or attending social events. Public transit or paratransit could potentially serve many of these seniors, especially those over 80 years of age. Unfortunately, public transit as it currently exists does not serve every need and as a whole does not get high service ratings. Many seniors are not aware of public transit service in their area. Others noted that where transit exists, existing routes did not connect them to where they wanted or needed to go, or did not offer regular service at the times they wanted to travel.

Additionally, there is a discrepancy among transit service levels in different areas in the county, specifically in North Central Bucks. This MCPA also has a low sidewalk satisfaction score, limiting walking as a viable alternative. Bucks County and local senior service agencies should continue to explore opportunities for expanded and improved mass transit service in the county.

Finally, Bucks County, senior service agencies, and municipalities should use the written comments to gain insight into specific transportation and mobility issues facing the survey respondents. Overall, almost 50% of these comments relate to transit service, ranging from a lack of any available service to service that is infrequent, inaccessible, too expensive, or does not connect seniors to their preferred destinations (particularly to places of worship and social or cultural events). Many of the county's residents are aging in place, especially in the Upper and Lower planning areas, and respondents in these areas are concerned about what will happen when they are no longer able to drive. Several respondents suggested specific transportation improvements at specific locations, including:

- Traffic signals and/or left turn arrows;
- speed bumps;
- wider shoulders;
- improvements to the pedestrian environment, including sidewalks and lighting;
- bike lanes;
- improved transit and paratransit service; and
- expanded passenger rail service.

Examples of specific improvements identified by the respondents include the following:

- Road improvements at the intersection of Routes 413 and 232, including left turn arrow.
- Install a traffic signal at Route 213 and Penn Park.
- Provide safer pedestrian crossings on South Olds Boulevard in Fairless Hills between the Lamont Plaza and the Grundy Apartments.
- Install left turn signals and improve the pedestrian crosswalks at Main and Park Avenue and at Main and Broad Street in Quakertown.
- Link neighborhoods and parks in Buckingham Township with pedestrian walkways, to allow seniors (and other residents) to walk or run, helping to maintain their health.
- Install speed bumps along Park Avenue in Quakertown.
- Provide safe sidewalks between the bus stop and the K-Mart on Route 1.
- Provide bus service to the train station via Trenton Road, perhaps stopping at the Middletown Senior Center.
- Provide bus service along Street Road from Route 611 to Bustleton Avenue.
- Provide train service between various locations, including Southampton Township, Quakertown, Lansdale, etc.
- Extend train service from Warminster to New Hope.
- Extend bus service from Doylestown Borough and Doylestown Township to Plumstead and Buckingham townships.
- Provide bus services to the residents of Buckingham Springs (in Buckingham Township).
- Extend van service from Heritage Towers (in Doylestown) to the SEPTA train station, to allow senior residents to travel in to Philadelphia.
- Provide bus and van services on Sundays and Holidays.

The above list summarizes just a few of the written comments provided by the survey respondents, many of which identify specific mobility issues in specific communities and provide valuable insight into problems facing the county's seniors. Bucks County agencies, including the Bucks County Planning Commission, should review these comments to help identify solutions and target available resources to specific intersection and roadway deficiencies. Additionally, these agencies should continue to work with SEPTA and the Bucks County TMA to identify funding sources for additional transit service in communities lacking service, targeting communities identified in the comments section. Finally, agencies providing services to the county's seniors should continue to coordinate with each other to ensure that their efforts are not duplicated and that available resources are used efficiently and effectively.

Appendix A

Bucks County Area Agency on Aging Transportation and Mobility Survey

Bucks County Area Agency on Aging Transportation and Mobility Survey

Information About You:

1. What is your age ? (Check one)
 ___ 55 - 59, ___ 60 - 64, ___ 65 - 69, ___ 70 - 74, ___ 75 - 79, ___ 80 - 84, ___ 85 +
2. Where do you live ?
 ___ Township / Borough ___ Zip Code
3. In what type of residence do you live ? (Check all that apply)
 ___ Single Family Home, ___ Townhouse or Apartment, ___ Assisted Living Facility
 ___ Active Adult Community, ___ Live with family member ___ (other)
4. Approximately how long have you lived there ? ___ years
5. How many vehicles do you own ? ___ None, ___ 1, ___ 2, ___ 3+
6. How is your current health ? (Check one)
 ___ Excellent, ___ Very Good, ___ Good, ___ Fair, ___ Poor

Information About Your Mobility:

7. Do you drive ? ___ Yes ___ No ___ Only during daylight hours
8. Thinking about the activities in a typical day, will you experience any limitations in driving a car in the foreseeable future ? (Check one)
 ___ I am already experiencing some limitations
 ___ I will probably have some limitations soon
 ___ No, I don't think I will have any limitations driving a car
9. What type of transportation do you usually use to run errands ?
 ___ I drive myself ___ My spouse, family member or friend takes me ___ Taxi
 ___ I walk ___ A church member takes me ___ Resident shuttle service
 ___ I use Public Transportation (Bucks County Transport, DART, SEPTA, other)
 ___ Other: (list) _____

10. Where do you usually need to go ? (Check all that apply)
 ___ Grocery Store or other Shopping ___ Worship ___ Health Care / Doctor
 Other: (list) _____
- 10a. Do you walk to these places ? ___ Yes ___ No
11. Rate how well your transportation needs are being met ? (Check One)
 ___ Excellent, ___ Very Good, ___ Good, ___ Fair, ___ Poor
 Please check the following statements that apply to You:
 ___ All of my transportation needs are being met
 ___ Transportation services only allow me to get to the doctor / health care facility
 ___ I face challenges going shopping or going out for social / recreational reasons
 ___ I have transportation needs that are not now being met
12. How would you grade your community for having public transportation (Bucks County Transport, DART, SEPTA, other) that you would use to get to the places you need to go ?
 ___ Excellent, ___ Very Good, ___ Good, ___ Fair, ___ Poor
 Please check the following statements that apply to You:
 ___ I am unaware of Public Transportation in my area
 ___ My community has adequate Public Transportation
 ___ My community has Public Transportation but there are limited routes and schedules
 ___ The Public Transportation in my community does not go where I need to go
13. How would you grade your community for having safe, well designed sidewalks that you can take to get to the places you need to go ? (i.e. to a nearby grocery or drugstore)
 ___ Excellent, ___ Very Good, ___ Good, ___ Fair, ___ Poor
 Please check the following statements that apply to You:
 ___ There are sidewalks in my community that enable me to get where I need to go
 ___ There are sidewalks, but they do not connect to where I need to go
 ___ There are no sidewalks

< Please continue on back >

14. How would you grade your community for having roads designed for safe driving, with clear and obvious signage, traffic stops and pedestrian crosswalks ?

___ Excellent, ___ Very Good, ___ Good, ___ Fair, ___ Poor

Please check the following statements that apply to You:

- ___ The roads in my community are designed for safety and the signage is adequate
- ___ The roads in my community need better signage
- ___ The roads in my area do not have adequate signage or traffic signals that enable someone to cross safely

15. The three most important transportation and mobility issues for me are:
(Please rank with 1 being the most important, 2 being second most important, and 3 being third most important)

- ___ Walking safely to stores and shopping areas
- ___ Improving my driving abilities
- ___ Having reliable transportation services
- ___ Adapting to my own mobility limitations
- ___ Maintaining my independence
- ___ Everything is fine ... I do not have any issues

Comments: _____

Thank You for your Participation
Please return by March 15, 2008

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Appendix B

Mega County Planning Area Municipalities

Bucks County Planning Area Municipalities

MCPA	A	B	C	D
	Upper Bucks	South Central Bucks	North Central Bucks	Lower Bucks
Municipality	Bedminster Bridgeton Dublin Durham Easy Rockhill Haycock Hilltown Milford Nockamixon Perkasio Quakertown Richland Richlandtown Riegelsville Sellersville Silverdale Springfield Telford Tinicum Trumbauersville West Rockhill	Buckingham New Hope Newtown Borough Newtown Township Plumstead Solebury Upper Makefield Wrightstown	Chalfont Doylestown Borough Doylestown Township Ivyland New Britain Borough New Britain Township Northampton Upper Southampton Warminster Warrington Warwick	Bensalem Bristol Borough Bristol Township Falls Hulmeville Lower Makefield Lower Southampton Langhorne Langhorne Manor Middletown Morrisville Penndel Tullytown Yardley
Number of Respondents	286	561	305	667

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Key Words: Seniors, elderly, demographics, public transit, transportation safety, mobility, survey analysis, aging in place.

Abstract: The Bucks County Commissioners' Senior Task Force and the Bucks County Area Agency on Aging (BCAAA) recognize that the mobility and safety of older adults are planning priorities of the Delaware Valley Regional Planning Commission. The Bucks County Area Agency on Aging (BCAAA) requested that DVRPC assist in the development and compilation of a survey to assess mobility issues facing Bucks County's older adults.

This survey will help determine the immediate and long-term needs and issues that define the health and mobility of adults as they age. The survey goal was to gather relevant information about age, location, health, mobility, trip purpose, and transportation options in the county. This information will assist the Bucks County Area Agency on Aging in further defining the needs and desires of seniors in the county.

In addition to this survey, DVRPC staff prepared *Data Snapshots Series 1, Number 1: Bucks County Senior Mobility Assessment*, a brief synopsis and analysis of Bucks County senior demographics and transportation statistics. That publication included an overview of applicable demographics; existing senior housing and medical facilities; existing transportation facilities and services; and transportation safety, including an analysis of senior-involved crash data.

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