
Exploration of Paratransit Options for North Reading

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1 North Reading Transportation Needs

1.1 Introduction and Needs Statement

The Metropolitan Area Planning Council (MAPC) conducted this short study to explore ways to help meet the Town of North Reading (Town) residents' paratransit needs, specifically the mobility needs of the elderly and people with disabilities.

The lack of access to public transportation limits the mobility of the Town's senior and disabled population. Currently, North Reading pays an assessment to the MBTA as an abutter to communities with MBTA commuter rail service (Reading, Andover and Wilmington) but has no rail or fixed-route bus service or the RIDE paratransit. The lack of access to public transit limits the mobility of the town's senior and disabled population. The Town also lacks private taxi service. North Reading also borders North Andover, which is served by the Merrimack Valley Regional Transit Authority (MVRTA).

North Reading's Council on Aging (CoA) has a van and a full-time driver to provide in-town transportation to seniors for a variety of needs, including grocery shopping and medical appointments. The CoA also relies on volunteer drivers to bring seniors to out-of-town medical appointments. The town's Veteran's Services department also makes informal transportation arrangements for numerous resident veterans who cannot drive due to age, or to physical or mental disability. The Town is concerned with the long-term viability of its current solutions, given the large reliance on volunteers, and given that North Reading's senior population has been growing, and is projected to increase significantly in the coming years. Therefore, the Town would like to plan for a reliable, sustainable model for providing adequate transportation to seniors and people with disabilities now and in the future. This would include mobility options during hours and on days the CoA service cannot travel, such as weekends, and trips to out-of-town destinations, such as medical centers and nearby commuter rail stations.

According to Town staff, the North Reading Council on Aging and North Reading Social Service Action Team have identified the significant risk of the town losing its seniors and disabled residents once they cannot drive. Planning for a stable future paratransit system would be key to helping the Town meet an essential need of its elderly and disabled residents so they can remain part of the community.

1.2 Demographics

1.2.1 Growth in Senior Population

North Reading has experienced significant growth in its senior population, both in numbers and as a percent of its total residents. Between 1990 and 2015, the number of seniors aged 60 and older has nearly doubled, which is a rate of growth nearly three times that of the Town's general population. The Town's growth in its senior population is also greater than the Commonwealth's rate of growth since 1990. Residents aged 60 and older now comprise nearly 21 percent of North Reading's population (see **Table 1**).

Table 1: Population Changes in North Reading and Massachusetts, 1990-2015

	1990	2000	2010	2015	Growth, 1990-2015
North Reading					
Population	12,002	13,837	14,892	15,396	28.3%
Senior Population (60 and older)	1,608	2,019	2,714	3,184	98.0%
Senior Population Percentage	13.4%	14.6%	18.2%	20.7%	
Massachusetts					
Population	6,016,425	6,349,097	6,547,629	6,705,586	11.5%
Senior Population (60 and older)	1,080,881	1,096,567	1,273,271	1,386,681	28.3%
Senior Population Percentage	18.0%	17.3%	19.4%	20.7%	

Senior defined as age 60 years and older

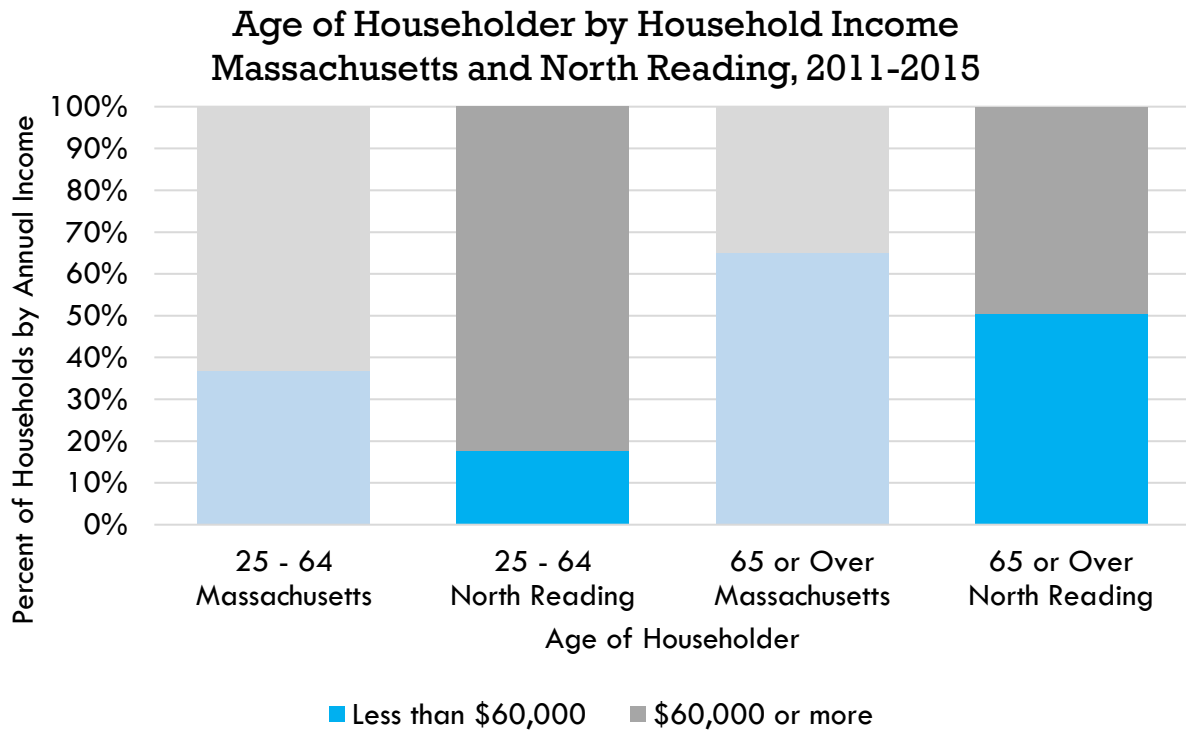
Sources: US Census (1990, 2000, 2010) and American Community Survey (ACS 2011–2015), compiled by MAPC

1.2.2 Senior Households, Income and Disability

Senior¹ headed households are more likely to have low incomes (under \$60,000) than households headed by younger adults (age 25 to 64). In North Reading, 51 percent ($\pm 12\%$) of senior headed households have low incomes, much higher than the 18 percent ($\pm 4\%$) of households headed by people age 25 to 64 with incomes lower than \$60,000. However, the percent of low income households in North Reading is lower than the averages for the Commonwealth (see **Figure 1**).

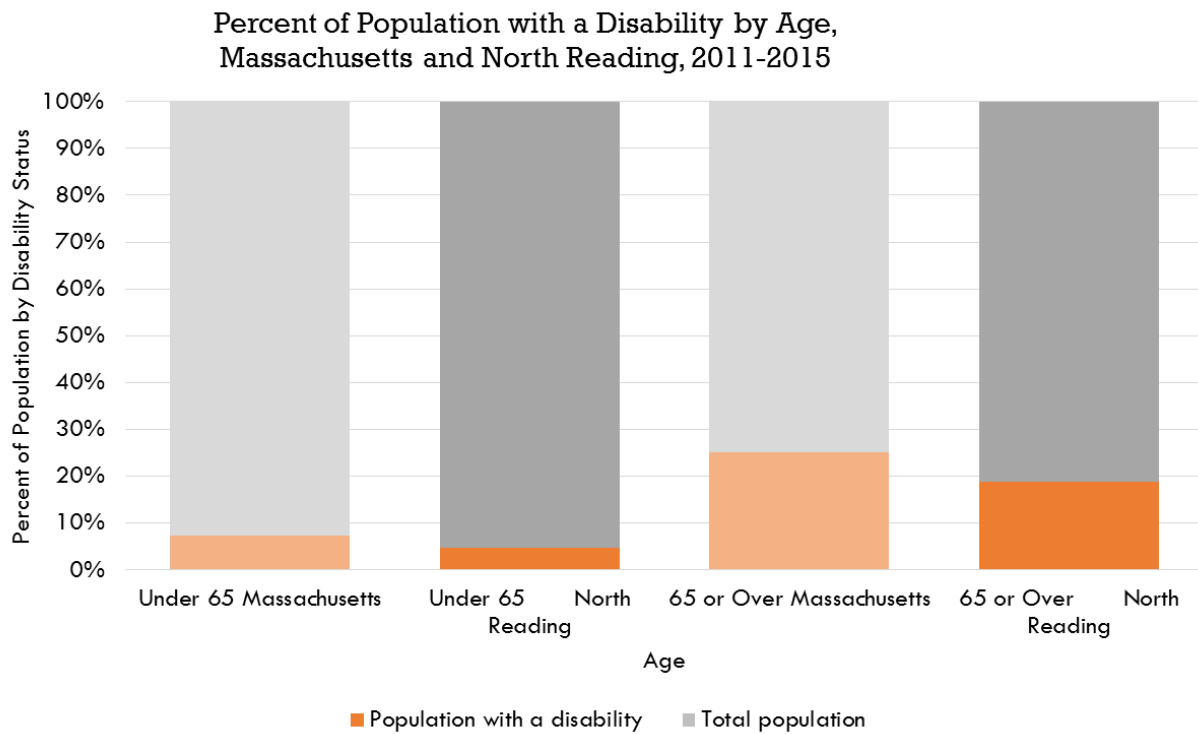
¹ These data on senior households, income and disabilities were compiled by MAPC from an analysis on vulnerable populations and climate change and use ACS 2011-2015 data with age groupings that define seniors as 65 and older.

Figure 1: Age of Householder by Household Income



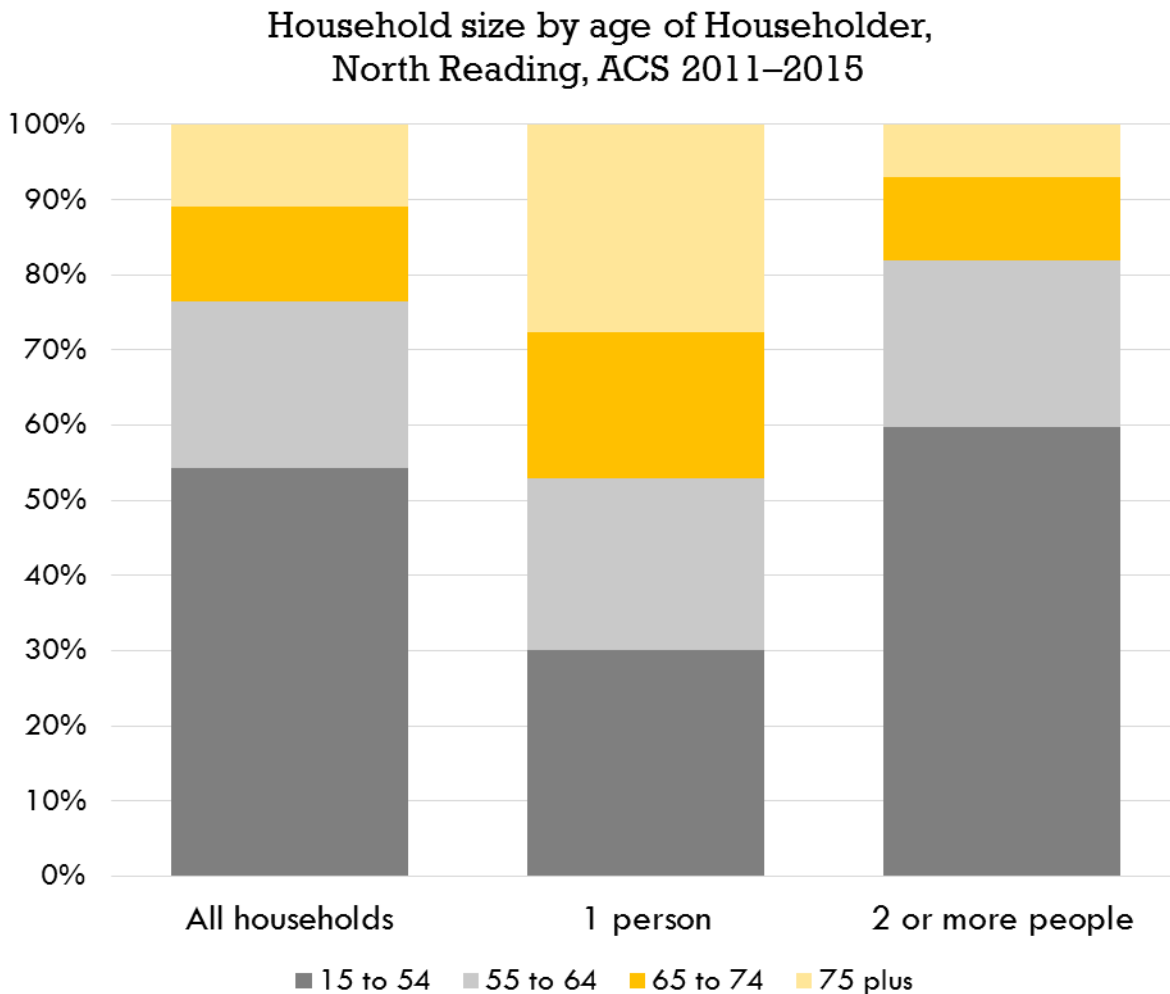
In North Reading and Massachusetts, seniors are more likely to have a disability than younger people. Twenty three percent ($\pm 6\%$) of senior residents of North Reading have a disability, compared with five percent ($\pm 2\%$) of younger residents (**Figure 2**).

Figure 2: Percent of Population with a Disability by Age



People who live alone are more likely to be age 65 and older than people who live with roommates or family members. In North Reading, 76 percent ($\pm 5\%$) of households are headed by younger adults, but 53 percent ($\pm 13\%$) of people living alone are 65 or older (**Figure 3**).

Figure 3: Household Size by Age of Householder



1.3 Previous Planning Studies

Previous plans and studies that recognized this transportation need include the Town's 2004 Master Plan, which identified a lack of public transportation and paratransit as a problem in the Town; as well as a recent survey conducted by the Boston North Regional Coordinating Council which identified North Reading as having particularly difficult transportation challenges. The Town has also identified this need as a high priority through its Community Compact (through the Regionalization/Shared Services best practice), which was signed on December 15, 2015. Additionally, the North Suburban Planning Council through MAPC recently completed a suburban mobility study to address the transportation needs of all residents, and this paratransit study will complement the larger subregional project.

1.4 Existing Transportation Services

North Reading currently has no MBTA bus or rail or paratransit service. The Town pays an assessment to the MBTA as an abutting community to Wilmington, Reading and Andover, which have commuter rail and (in Reading) bus service. In 2017, North Reading's MBTA assessment was \$101,441, and the 2018 assessment will be \$102,272.

The North Reading CoA has a van and a full-time driver to provide in-town transportation to seniors for a variety of needs, including grocery shopping and medical appointments. The CoA also relies heavily on volunteer drivers to bring seniors to out-of-town medical appointments. The Town's Veteran's Services department also makes informal transportation arrangements for numerous resident veterans who cannot drive due to age, or to physical or mental disability. Finally, Mystic Valley Elder Services (MVES) offers a mileage reimbursement program (TRIP Metro North) for those who drive older adults or those with disabilities.

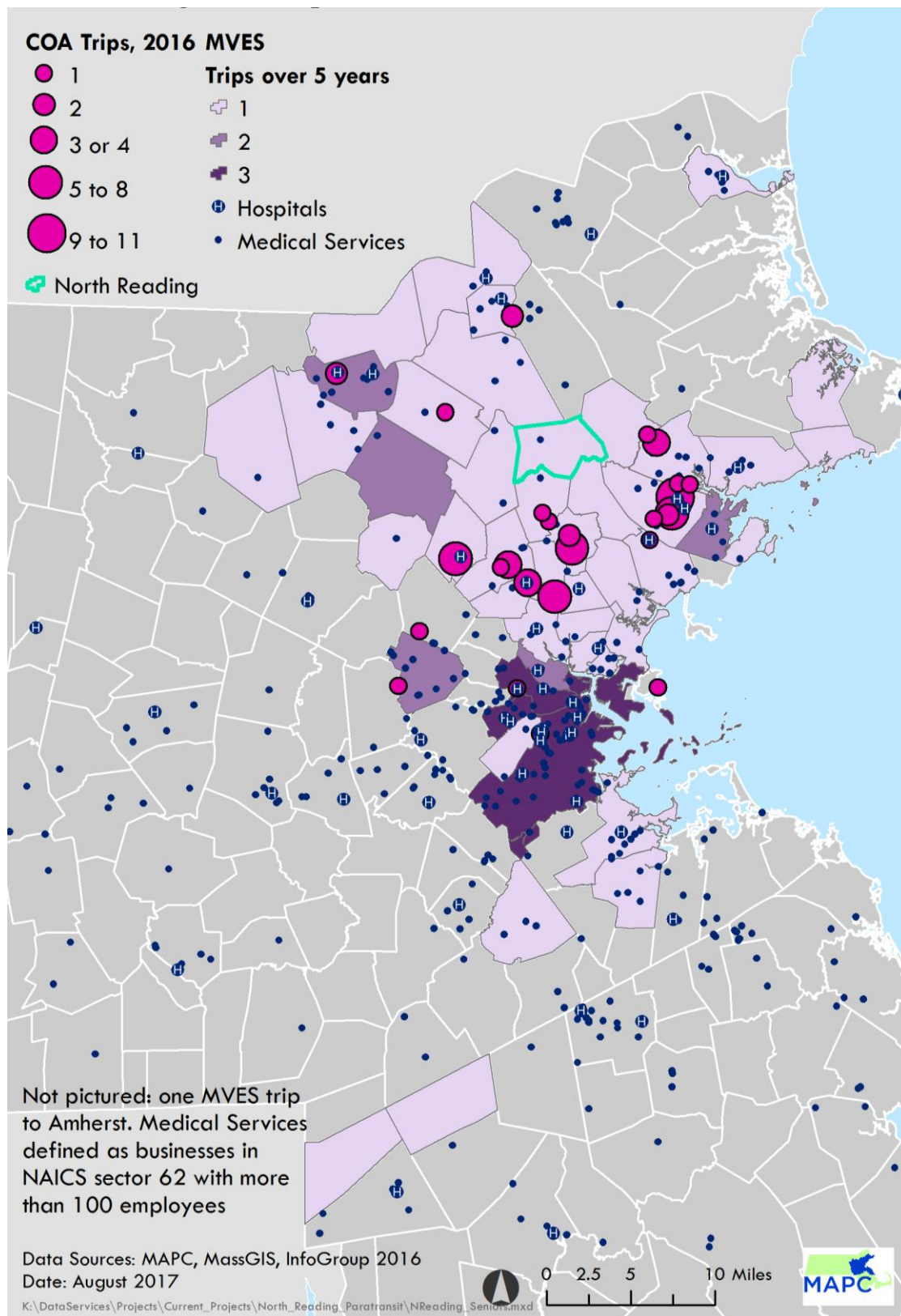
1.5 Survey of Transportation Needs

To better understand the transportation needs of seniors and the disabled in North Reading, MAPC collected data from two sources: existing transportation providers, and from residents via a survey.

1.5.1 Review of Existing Ride Requests

The Council on Aging receives several requests each month for trips outside of town that can only be provided by a volunteer, and logs these requests (including specific destination address). Data on these trips were provided to MAPC. MVES also keeps records of trips that were reimbursed, and provided MAPC a list of trip reimbursements requests where these trips started in North Reading. To maintain privacy, only the zip code of the trip was provided to MAPC. MAPC then mapped the destinations for these two data sets to determine patterns and needs. As seen in **Figure 4**, most of these trips are to destinations south and east of North Reading, with some trips to the west and north. Many of the trip requests were to medical facilities.

Figure 4: North Reading Out of Town Trip Requests



Note: COA trips show specific addresses, while MVES trips are by town destination only.

1.5.2 Resident Survey

As part of this study, MAPC and the Town also conducted a survey of Town residents. The Town's CoA distributed hardcopies of the survey with their June 2017 newsletter mailing (2,200) and the Town included hardcopies of the survey in the June 2017 annual property tax bill to 5,427 property owners in North Reading. The survey was also available via a web link on Survey Monkey and advertised in Town and CoA newsletters and websites. As of August 10, 2017, MAPC and the Town received 315 responses, which is over four percent of the surveys distributed. This also represents two percent of the Town's total population and almost 10 percent of the Town's senior population (those 60 years old and older). This is a high response rate and shows the Town's residents interests in transportation needs and services.

The full results of the survey are in the Appendix. Highlights of the survey:

- Three-quarters of the survey respondents were retired, and over 60 percent were 71 years old or older.
- 64 percent were aware of the transportation services provided by the CoA, but only 27 percent knew of the MVES mileage reimbursement program.
- 87 percent said that they drive, but over half (54 percent) noted that they modify their driving in some way, such as avoiding driving at night, or not driving in unfamiliar locations.
- If they were unable to drive, a vast majority would depend on friends or family, or would use the Council on Aging. 27 percent would use taxi or ride hailing.
- Several noted the CoA does not travel where they want to go and that the Town's lack of public transportation has been a problem.
- Residents often travel out of town to medical and shopping trips, but most do not travel to Boston for these trips. However, over 50 percent would use transit to travel to Boston if it were available.
- A majority said they would use dial-a-ride or other transit for medical trips if the service were available.

2 **Summary of Other Massachusetts Paratransit Options**

MAPC reviewed other paratransit services across Massachusetts, to determine whether any of these concepts may be applicable to and meet the needs of North Reading.

Currently there are several models that municipalities are using to meet the transportation needs of their disabled and senior citizens. Most towns and cities rely on paratransit services provided by a regional transit authority, and/or provided by a CoA or similar municipal agency. Other options are described below.

2.1 Coordination among Councils on Aging

Some CoAs prefer to operate their own transportation services in their community, as drivers know the personal needs of their riders and can perform welfare checks on those who are regular riders. However, there are several examples of CoAs in Massachusetts coordinating their agencies to provide more efficient and effective services for their residents.

Southern Berkshire: The area with the longest running coordinated senior transportation in Massachusetts is centered in Pittsfield, operated by the Southern Berkshire Elderly Transportation Corporation (SBETC). Operating over 30 years, the SBETC provides service in seven towns: Alford, Great Barrington, Egremont, Monterey, New Marlborough, Otis, and Sandisfield. The service allows the towns to pool resources and provide more service than any single CoA. Each member town pays the SBETC an assessment based upon their senior population, as well as through grants from the Massachusetts Department of Transportation (MassDOT) and The Executive Office of Elder Affairs.

It should be noted that the SBETC recently has lost some member communities that have decided to operate their own services, with the concern that the coordinated service is too large geographically and does not adequately or efficiently meet the needs of some seniors. The Town of Sheffield, for example, left SBETC in 2015 to operate their own senior transportation service. Since that time, the Town of Sheffield has found that they can provide more cost effectively transportation to the seniors in their community with their own services.

Towns of East Longmeadow and Hampden: To help provide a more affordable, locally operated senior transportation service, the towns of East Longmeadow and Hampden in 2011 used a Community Innovation Challenge grant to implement a new local dial-a-ride service for seniors in the two towns. Called the Two-Town Trolley, the service runs each weekday, between 9 am and 2 pm serving the towns of East Longmeadow and Hampden. Trips within the two towns are \$1 each way, while trips outside of the towns are \$2.50 per trip per “zone” to any surrounding town.

Previously, the Pioneer Valley Transit Authority (PVTa) handled all paratransit required by the Americans with Disabilities (ADA) act, as well as all senior transportation for the 25 cities and towns in their service area.

According to a report developed by the Town of East Longmeadow, East Longmeadow is the lead agency and contracts with Hampden to provide the dispatch services. Geographically, the location of each town allows for more efficient services to common destinations in Springfield such as medical appointments. The van can pick up riders in Hampden and easily pick up East Longmeadow riders on its way to Springfield. This allows for consolidated rides, decreasing the cost per trip.

Like most coordinated services, this program requires multi-agency agreements that include cost sharing or reimbursements that must be updated annually to reflect current costs. For example, Hampden bills the Town of East Longmeadow for its dispatching services. East Longmeadow CoA provides driver supervision as well as funds driver training. PVTa loaned the vehicle and provided maintenance while the towns paid the vehicle insurance. The overall operating cost during the 18-month pilot period was approximately \$39,000.

Both towns consider the service a success by providing 4,600 trips during the 18-month pilot period, averaging four to six rides per hour. The towns estimate that they had a wait list that could have easily filled a second van. East Longmeadow CoA has estimated the cost of this service to be around \$8 per trip, far lower than the average PVTa cost of \$28 per trip. Today, the service continues to operate with funding provide by the PVTa on a per trip reimbursement.

CrossTown Connect: After MAPC completed two suburban mobility studies for the MAGIC subregion, several towns and area businesses formed a new Transportation Management Association (TMA)

named CrossTown Connect. The TMA operates transit services in the service area, including a central dispatch call center to coordinate CoA vehicle services; van service for seniors and those with a qualified disability; Dial-a-Ride service for any trip within four municipalities; and some fixed route service.

The four towns that now coordinate their CoA services are Acton, Boxborough, Littleton and Maynard. CrossTown Connect operates a central dispatch call center so that any community that would like to participate can have their CoA vehicle trips booked through the central dispatcher. This has created a longer window of service for the residents in the four towns. Whereas previously, each town might have only a two to four hour window for available transportation, the combined services now offer an eight hour window for rides. Officials estimate that the combined call center has increased rides by 20 percent and cancellations have been cut in half, since riders no longer overbook trips in advance for fear of missing out on the available service.

A coordinated service also allows for a single reservation phone number for all four towns, a uniform fare, and more uniform services. For example, trips within or to any of the four towns are \$1 one-way, and trips to any Council on Aging facility are free. Medical trips to Concord are \$1 each way and medical trips to the Lahey Medical in Burlington or medical centers in Boston are \$7 one-way (Boston and Burlington medical trips are scheduled to occur on repeating days each month for operating efficiency).

The coordinated CoA service has also allowed CrossTown Connect to use the same vehicles for public transportation routes in the morning and afternoon peaks commutes, while operating senior and other dial-a-ride services in the off-peak periods.

Other adjacent towns do not share the coordinated CoA services, but are members of the TMA as a way to encourage vanpool, carpool and other alternative transportation services in their towns. The TMA is operated by TransAction Associates.

2.2 CoA Coordination with RTAs

Some towns and CoAs coordinate with regional transit authorities (RTAs) with the RTA providing either a supporting role (such as reservations, scheduling and dispatch), or as the main provider of services. It should be noted that many of the efficiencies (and limitations) with coordinated services with RTAs are similar to those when multiple CoAs coordinate their services.

Merrimack Valley: The Merrimack Valley RTA (MVRTA) provides curb-to-curb “Ring & Ride” services for several communities that contract with the MVRTA but which do not receive fixed-route bus service. MVRTA provides all of the required operations – reservations, scheduling, dispatching, and vehicles and drivers – and then invoices the communities for costs of the trips taken by their residents (minus fares) based upon trip length. Fares are based upon community origin and destination, and vary between no fare and \$2 one-way. The Ring & Ride service is available to everyone. Moreover, MVRTA offers Medi-Ride Service to Boston and Peabody to those who have registered as a MVRTA Special Services customer, whether Americans with Disabilities Act (ADA)-qualified or non-ADA (i.e., a senior citizen). Medi-Ride fares are \$8 one-way. MVRTA coordinates with local CoAs to ensure that the service supplements and does not duplicate existing CoA

transportation. Both of these services provide an additional trip options for residents beyond those provided by their local CoA or volunteer agencies.

MetroWest: The MetroWest Regional Transit Authority (MWRTA) began offering scheduling and reservation services to its member CoAs in 2014; currently three CoAs use this service. MWRTA takes the reservations, prepares the manifest, and sends it to the CoA. However, if a town cannot complete a trip, MWRTA will try to pick it up through their other local services. The additional costs of the reservations and scheduling and any trips provided by MWRTA are included in the assessments member towns pay MWRTA.

2.3 Local Public Transportation

Some communities are developing their own fixed-route or on-demand transit services to help meet the needs of their community. Fixed route services provide a predictable level of service that seniors (and others) can use without the need for reserving their trips with an agency, while on demand services can cover a greater variety of destinations but require advance planning and reservations. While these services are not limited to seniors, most the services described below were developed specifically in part to improve mobility for seniors within the community.

2.3.1 Fixed-Route Service

CrossTown Connect: CrossTown Connect (CTC) operates two fixed route service – the *Rail Shuttle*, which connects off-site commuter parking with peak hour trains at the South Acton MBTA Station; and the *Cross Acton Transit*, a public transportation shuttle connecting the South Acton MBTA Station with several locations in Acton. Drivers are town employees operating town vehicles, with the TMA taking the lead for developing schedules, routing, marketing and corporate partnerships.

The services are funded through local funding, corporate sponsorships, as well as through parking fees and rider fares. The *Rail Shuttle* was designed to provide additional overflow parking for the South Acton MBTA commuter rail station. In contrast, the *Cross Acton Transit* routing was designed to serve work trips in the peak periods, as well as daily need trips for seniors and others during the mid-day. Stops include the South Acton MBTA commuter rail station, grocery stores, pharmacies, town hall and the library in Acton.

Greater Attleboro: In February 2017, the Wareham-New Bedford Connection launched as a new fixed route bus service along Route 6 in Wareham and New Bedford. The pilot service came from a study by the South East Regional Coordinating Council on Transportation (SERCCOT) which noted the particular need for Wareham residents to access social service offices in New Bedford.

In 2016, the Greater Attleboro Taunton Regional Transit Authority (GATRA) applied for and received funding from MassDOT to pilot the service. GATRA and the Southeastern Regional Transit Authority (SRTA) partnered, with the fixed route service operated by SRTA and demand response shared between the two. As funding was limited, the Regional Planning Agency surveyed agency staff in Wareham, and staff surveyed Wareham riders to determine when the need would be greatest. Based on the responses, the bus runs Mondays, Tuesdays, and Wednesdays in the mornings and afternoons, with a mid-day gap. The route operates on a flag system along Route 6 in the towns of Fairhaven, Mattapoisett, and Marion as it travels between New Bedford and Wareham.

2.3.2 On-Demand Service

Pioneer Valley: The Quaboag Connector launched January 30, 2017 as a demand-response service for employment and education trips. Residents of eight partnering towns (Belchertown, Brookfield, Hardwick, Monson, Palmer, Ware, Warren and West Brookfield) can call to reserve a ride. Requests for trips related to employment or education receive priority, but shopping and medical trips will be provided if space permits. As demand increases and trip patterns emerge over time, the service may shift into a fixed-route model.

The Connector was created through a partnership with the Quaboag Valley Community Development Corporation, Town of Ware, regional planners from the Pioneer Valley and Central Massachusetts, and other stakeholders, as well as through funding from the Baystate Wing Hospital Corporation and MassDOT.

CrossTown Connect: The Town of Acton and CrossTown Connect operate two on-demand transit services: the *MinuteVan Dial-a-Ride* service, which covers the towns of Acton, Boxborough, Littleton and Maynard, as well as the *Road Runner*, a dial-a-ride curb to curb service for seniors (60 and older) and anyone with a qualified disability. Both services also cover trips to medical facilities in Concord when space is available. Riders must book trips at least 24-hours in advance. Children aged 12 through 18 may ride the *MinuteVan* alone with their parents' permission. The fare is \$1 one-way for both services. The *MinuteVan* operates weekdays from 8 am to 11 am and from 12:15 pm to 6 pm, while the *Road Runner* service for seniors operates weekday 8 am to 3 pm. Vehicles are wheelchair lift equipped and service animals are allowed.

Bedford: Bedford began a two-year pilot program for a resident on-demand shuttle. Starting in September 2016, the service operates weekdays from noon to 6:00 pm as a dial a ride on-demand service. Passengers call or use the website to book trips that are scheduled on a first-come, first-served basis. Rides for adults ages 18 to 64 are \$2 each way in Bedford and \$4 each way outside of Bedford. For youth under 18, seniors, Medicare card holders, and Veterans the cost is \$1 each way in Bedford and \$2 each way to Billerica, Burlington, Concord, and Lexington, depending on availability.

According to the Bedford Dash website (www.bedforddash.com), the pilot service is funded by the Town of Bedford in cooperation with Middlesex 3 Transportation Management Association and a \$47,000 federal transportation grant through the Massachusetts Department of Transportation's Community Transit Program. Through the new service, The site stated that "Town of Bedford officials hope to not only increase transit ridership generally but also to attract new riders, including seniors, people with disabilities, and school-aged youth, who may not have used public transit before."

Merrimack Valley: As noted earlier, the MVRTA provides curb-to-curb "Ring & Ride" services for several communities that contract with the MVRTA but which do not receive fixed-route bus service. MVRTA provides all of the required operations and then invoices the communities for costs of the trips taken by their residents (minus fares) based upon trip length. Fares vary between no fare and \$2 one-way, depending on community. MVRTA estimates that trips on average cost \$25 each way, but the total annual costs to each community depend on the number and length of trips taken by its residents, minus any fares. Some communities that are assessed by the MBTA can redirect the assessment to an RTA for services, minus any fares.

2.4 Partnerships with Ride Hailing Companies

Towns and other agencies are partnering with ride hailing companies (e.g., Uber, Lyft) to expand mobility options. These partnerships are becoming more popular as a way to provide a program quickly, with little to no upfront capital costs. Moreover, the trip data can show the potential demand for future fixed route service, if there is a data sharing agreement included in the contract with the ride hailing company. Since ride hailing companies as a mode only began in the last six years, these partnerships are relatively new and thus the full effectiveness of them are still being determined.

The RIDE (MBTA): In September 2016 the MBTA began a pilot program with Uber and Lyft to provide paratransit trips to 400 RIDE-eligible customers. On March 1, 2017, the MBTA expanded the program system wide. Customers interested in applying to the expanded pilot must register with the program via the Uber or Lyft web page. After the MBTA verifies customer eligibility, further instructions and access to the program are sent via e-mail from Uber or Lyft. Once contacted by Uber or Lyft, customers can book trips via a smartphone mobile app. On-demand trips cost customers \$2, with the MBTA subsidizing the next \$13 and any additional costs being paid by the customer.

According to a press release from the MBTA and the Governor's office, the initial pilot program resulted in an MBTA trip subsidy difference of 71 percent between traditional RIDE and on-demand trip costs (\$9 for on-demand versus \$31 using traditional RIDE). Around 20 percent of Lyft customers use the Lyft Concierge service for those who do not have access to a smart phone.

MetroWest: The MetroWest Health Foundation is providing \$10,000 grants to the towns of Sudbury, Natick, Framingham and Needham to develop pilot programs with Uber and Lyft to provide subsidized rides for seniors. As of May 2017, each town is negotiating with the ride sharing companies, such as methods to ensure that only qualified trips and riders receive the discounts, payment options to Uber and Lyft, and ways to assist seniors who do not have access to a smart phone. (For these and similar partnerships, both Uber and Lyft are developing methods for seniors without smart phones to reserve rides via a centralized phone number.)

MetroWest Health Foundation began exploring the pilot by surveying which towns or cities served by the foundation were interested in the program. The Foundation then worked with Uber and Lyft to determine whether the companies had an adequate number of drivers to provide service in these areas. Based upon the evaluation with Uber and Lyft, the Foundation determined there were four towns as having enough service to provide this option to seniors, and began working with these towns to start the pilot program.

Some CoAs will provide discounts only to trips within the town limits, while others will discount trips only made to select origins and destinations established through their agreements (medical centers, grocery stores, etc.) The MetroWest Health Foundation is requesting each CoA to record data on the trips to help monitor the program, including the number of unique users, rides, distribution by time and days of the week, and trip type (shopping, visiting, friends, etc.) per month. Because each CoA is looking at different ways to establish the parameters of eligible riders and trips, the pilot program should provide an interesting data for use in other programs. MetroWest Health began in June 2017.

North Shore Community College: While not specifically designed for seniors, the North Shore Community College partnership with Uber is a good example of how a government agencies can partner with a ride hailing company. North Shore Community College (NSCC) has campuses in

Danvers, Lynn and Middleton and currently pays for a private shuttle to operate among the three campuses in a 90 minute loop. Adding a second NSCC shuttle bus to improve the service would have cost an additional \$100,000 annually. Instead, NSCC partnered with Uber to provide a \$10 discount on rides to and from the Danvers Campus from either the North Shore Mall (allowing for connection to MBTA buses) or the Beverly Depot (which has commuter rail and MBTA bus service). The college worked with Uber to ensure that the discounts are restricted to trips when classes are in session, and are available only to students who are enrolled at NSCC and who register with NSCC for the ride discounts.

NSCC estimates that there were 36 to 40 students who used the service per week during the first semester, and projects that the program will cost the college approximately \$20,000 in the first year. In August 2017, the college extended the program another school year.

Needham: The Needham Community Council recently expanded its transportation services to include subsidized Lyft rides. The Council books the trip for the rider and pays for the trip with Council funds. Trips are limited to registered users for medical trips within the Needham area, including trips to and from Newton-Wellesley hospital. When the rider needs a trip home, the Council books the return trip as well. Most trips cost less than \$10 each way. The Council also mails a survey to the rider asking them to rate the driver and trip (so that the Council can add the rating online) and informing them the cost of the trip and asking if the rider would donate to offset the cost to the Council. According to the Council Executive Director, this helps reduce the trip costs to the Council, and has persuaded riders to use Lyft for their own personal trips, once they understand how the service works and its costs.

Limitations: For all of the above partnerships, it should be noted that the service was developed for those who have a smart phone and credit card, which can become a barrier for many older adults or those who do not have good credit. Both Uber and Lyft, however, have recently developed methods (called “Uber Central” and “Lyft Concierge”) for government or non-profit agencies to reserve and pay for rides on behalf of others to make these partnerships more equitable and inclusive. (Needham Community Council, for example, uses the Lyft Concierge website.) Moreover, ride hailing partnerships are only available where there are enough contract drivers to meet demand. The lack of available drivers, for example, limited the geography of the partnerships MetroWest Health Foundation was able to develop.

Finally, there is no requirement or guarantee that the contract drivers have lift equipped vehicles and are trained to assist passengers who have disabilities. To ensure that the services meet ADA, communities are also contracting with taxi or other ride hailing services that have vehicles with wheelchair lifts, etc. to accommodate persons with disabilities.

2.5 Paratransit Options Summary

Table 2 on the following page summarizes the advantages and limitations of each of the service options described above.

Table 2: Summary of Paratransit Services Options

Service	Description and Examples	Advantages	Limitations
Coordination of Councils on Aging (CoAs)	<p>CoAs coordinate trips, scheduling, dispatching, etc. Sometimes called a brokered model or shared-service model.</p> <p>Examples: Southern Berkshire Elderly Transportation; Towns of East Longmeadow and Hampden; CrossTown Connect</p>	<ul style="list-style-type: none"> Coordinating trips to frequently visited destinations allows more efficient use of vehicles, drivers, and other resources. Creates more ride options for seniors, both in geography and time of day. 	<ul style="list-style-type: none"> Requires additional book keeping and multiparty agreements for cost-sharing and shared responsibilities. Multiple agencies providing rides in a municipality can limit the personalized service where drivers get to know the riders in their community and can check on their welfare regularly. Larger coordinated services (with several member communities) may not be as effective or efficient.
Coordination with Regional Transit Authorities (RTAs)	<p>Towns and/or CoAs coordinate services with RTAs. RTA assistance can be in the form of the RTA operating the services entirely, or by the RTA coordinating the transportation services provided by CoAs.</p> <p>Examples: Merrimack Valley; MetroWest</p>	<ul style="list-style-type: none"> Coordinating trips to frequently visited destinations allows more efficient use of vehicles, drivers, and other resources. Creates more ride options for seniors, both in geography and time of day. RTA can provide nearly all services, minimizing capital and other costs for the municipality. Some communities may redirect MBTA assessment to pay for services. 	<ul style="list-style-type: none"> Requires additional book keeping and multiparty agreements for cost-sharing and shared responsibilities. Can limit the personalized service where drivers get to know the riders in their community and can check on their welfare regularly. Larger coordinated services (with several member communities) may not be as effective or efficient.
Local Public Transportation – Fixed Route Service	<p>Municipalities, sometimes through public-private partnerships and/or TMAs, operate fixed route buses or shuttles.</p> <p>Examples: CrossTown Connect; Greater Attleboro</p>	<ul style="list-style-type: none"> Provides predictable travel times. Routes can be customized to better serve origins and destinations for seniors. Allows riders to take trips without making advance reservations. 	<ul style="list-style-type: none"> Routes may not serve all destinations nor time of day or week desired by seniors. Municipality is responsible for entire service model, either through town agency or via contract.

Service	Description and Examples	Advantages	Limitations
Local Public Transportation – On Demand Service	<p>Municipalities, sometimes through public-private partnerships and/or TMAs, operate dial a ride services with a defined geographic service area. Services can be to the general public or limited to seniors and those with disabilities.</p> <p>Examples: Pioneer Valley; CrossTown Connect; Bedford, Merrimack Valley</p>	<ul style="list-style-type: none"> • Trips can be customized to meet the needs of individual seniors or others. • Allows agencies to track popular origins and destinations, which can help develop fixed route service if demand warrants. 	<ul style="list-style-type: none"> • Usually requires trips be reserved at least 24 hours in advance. • On demand services can be more costly per trip when compared to fixed route services. • Municipality is responsible for entire service model, either through town agency or via contract.
Partnerships with Ride Hailing Companies	<p>Transit agencies and others enter into a partnership with ride hailing company to subsidize rides. Subsidized rides are often defined by geography, and rider eligibility requirements.</p> <p>The RIDE; MetroWest Health Foundation; North Shore Community College</p>	<ul style="list-style-type: none"> • Trips can be customized to meet the needs of individual seniors or others. • Low capital investment. • If a data sharing agreement is in place, agencies can track popular origins and destinations, which could develop into fixed route service if demand warrants. 	<ul style="list-style-type: none"> • Service depends on availability of contract drivers in area. • Service designed for those who operate smart phones and have credit cards (equity issue) – however, both Uber and Lyft now have services to allow agencies to make reservations on behalf of others. • Drivers are usually not trained to help seniors or those with disabilities (e.g., help then to the curb or door, ride with service animals, etc.) • Few to no vehicles are wheelchair lift equipped.

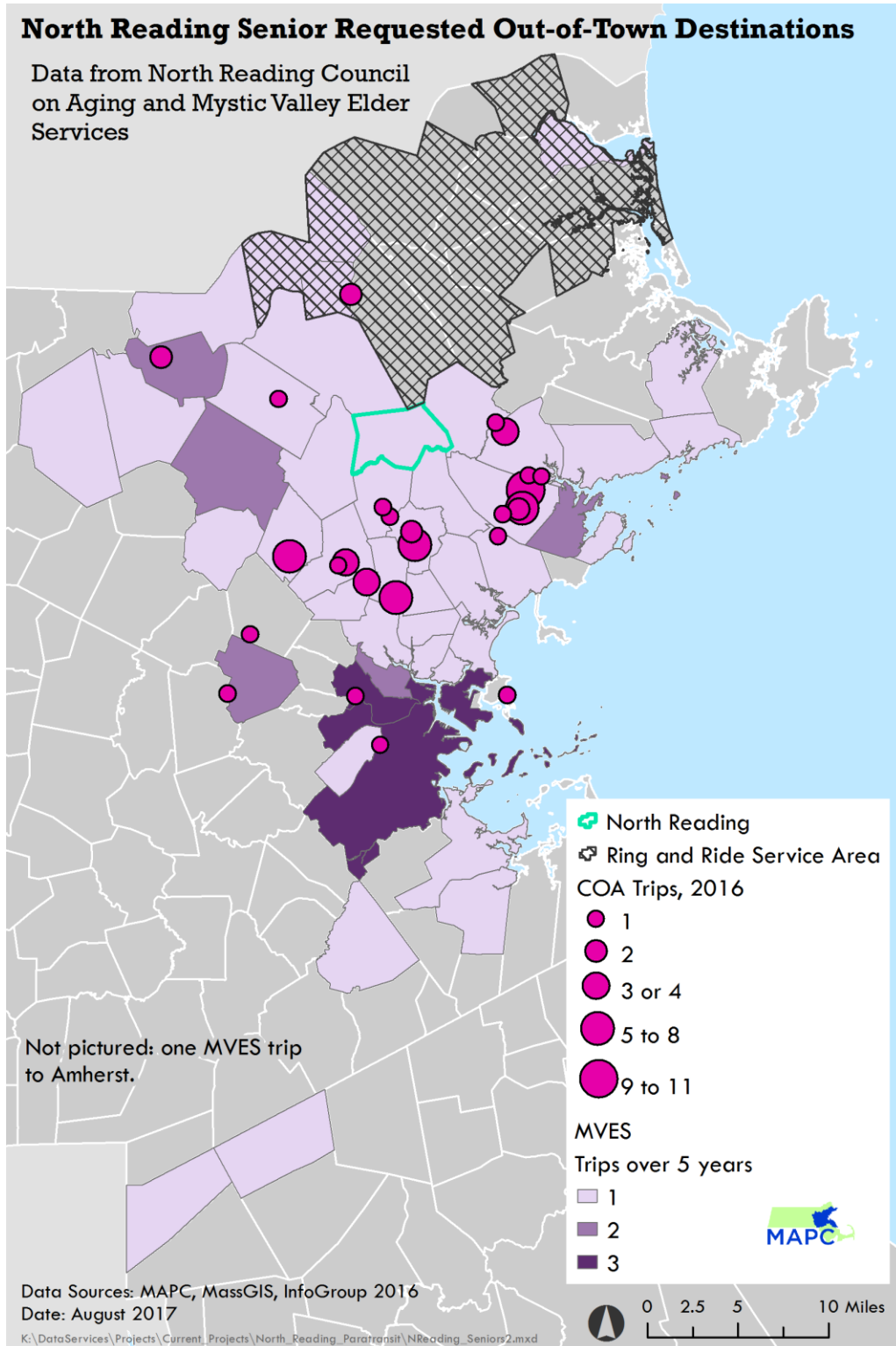
3 Service Options and Recommendations

As this study was underway, the Town voted to join the MVRTA and is now working with them on setting up for its residents a service similar to the Ring & Ride on-demand public transportation.

Ring & Ride will provide a real benefit to the Town. The analysis of the trip demands shows that the current service geography of Ring & Ride does not fully meet the need of North Reading seniors. Ring & Ride is primarily provided to towns within the MVRTA service area but without fixed route transit, and includes Amesbury, Boxford, Georgetown, Haverhill, Lawrence, Methuen, Newbury/Byfield, Newburyport, North Andover, and West Newbury, plus service to the Rowley Train Station and Rowley Market Basket. Of these towns, only North Andover shares a border with North Reading (see **Figure 5**). Recognizing these needs, North Reading and MVRTA are developing a modified Ring & Ride for

the Town that will include service to nearby towns including Reading, Wakefield, Stoneham, Melrose, Woburn, and Burlington as well as to Boston and Bedford.

Figure 5: MVRTA Ring & Ride Service Area and North Reading Out of Town Requested Trips



While developing the proposed service with MVRTA, the Town decided to limit the service to seniors aged 60 and older and disabled veterans for transportation to medical appointments only. The Town Veterans Services Department will assess individuals to determine their disabilities and eligibility for the service. All eligible trips must begin or end in North Reading. The limitations will allow the Town to monitor the costs during the first year while ensuring that the service is provided to two populations who could most benefit from the service (seniors and veterans with disabilities). After a review of the ridership and costs, the Town can assess whether to extend the service to other trips.

As North Reading moves forward with its partnership with MVRTA, MAPC suggests the Town take following steps to help meet the needs of its residents.

1. The Town should monitor trip origins and destinations and survey the demographics of riders. This will allow the Town to track the demand and costs to ensure that there is enough funding, and determine if there are trip patterns that might develop into a more efficient shuttle or flexible fixed-route service, similar to those proposed in the 2017 North Suburban Mobility Study.
2. The Town should look to work with adjacent towns such as Wilmington and Reading to see if they are interested in a pilot program for subsidized Uber, Lyft and taxi rides, as recommended in the North Suburban Mobility Study. Currently, there are few Uber or Lyft drivers in North Reading. However, a partnership with other towns in the North Suburban subregion could expand this service option.
3. The Town should monitor other similar sized towns to see what transportation pilot programs might develop that could be applied to North Reading. This includes monitoring the outcomes of ride hailing partnerships in Massachusetts in similar communities – such as Needham, MetroWest and Attleboro – to determine if a subsidized ride program might help fill the gaps in transportation not provided by the Ring & Ride service.
4. If possible, the Town should eventually extend the service to/from the Reading, Wilmington or Anderson/Woburn commuter rail stations (similar to the Ring & Ride service to the Rowley station). This will help North Reading residents connect with MBTA bus and commuter rail.

Acknowledgements

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Appendix: North Reading Senior Transportation Survey Results



**September
2017**

North Reading Senior Transportation Survey Results

Town of North Reading

Introduction

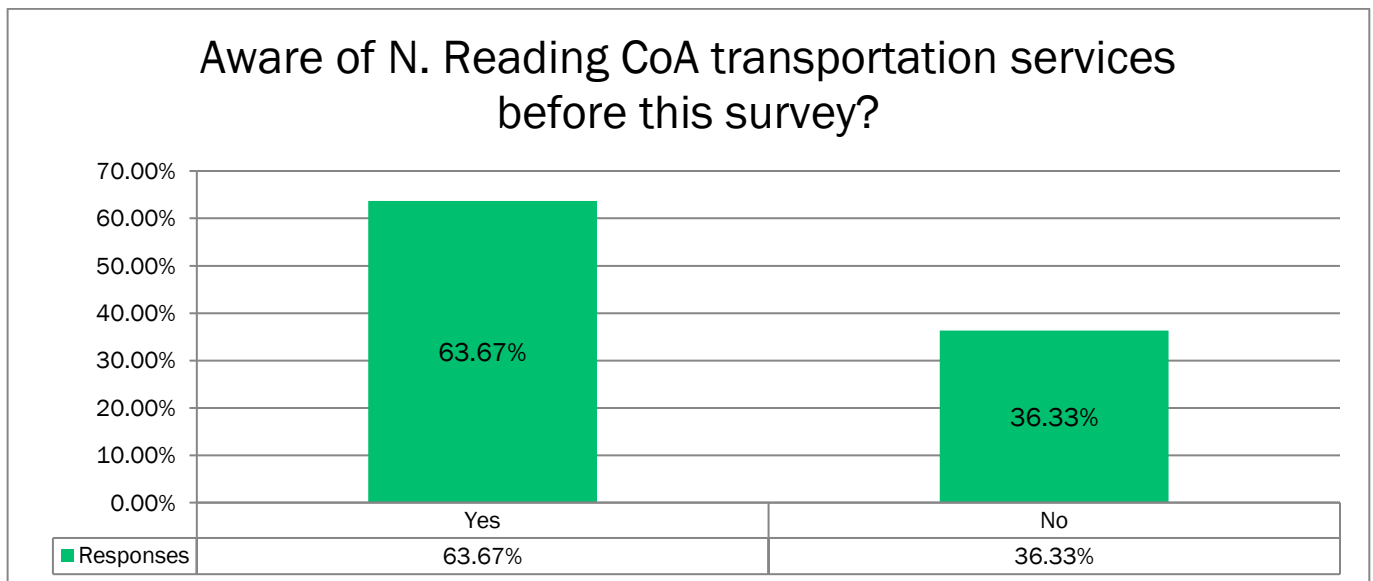
During the summer of 2017, the Metropolitan Area Planning Council (MAPC) conducted a transportation study on behalf of the Town of North Reading to explore ways to help meet the mobility needs of the Town's seniors and residents with disabilities. The Town is part of the North Suburban Planning Council (NSPC), a subregion of the 101 cities and towns that make up the MAPC region.

As part of this study, MAPC and the Town conducted a survey of Town residents. The Town's Council on Aging (CoA) distributed hardcopies of the survey with their June 2017 newsletter mailing (2,200), and the Town included hardcopies of the survey in the June 2017 annual property tax bill to 5,427 property owners in North Reading. The survey was also available via a web link on Survey Monkey and advertised in Town and CoA newsletters and websites. As of September 25, 2017, MAPC and the Town received 315 responses, which is over four percent of the surveys distributed. This also represents two percent of the Town's total population and almost 10 percent of the Town's senior population (those 60 years old and older).¹ This is a high response rate and shows the interest in transportation needs and services.

MAPC received 31 survey responses online, and received 284 hardcopies mailed to MAPC or the Town. The following is a summary of the survey responses, and at the end the summary includes verbatim responses to any "other" open-end questions.

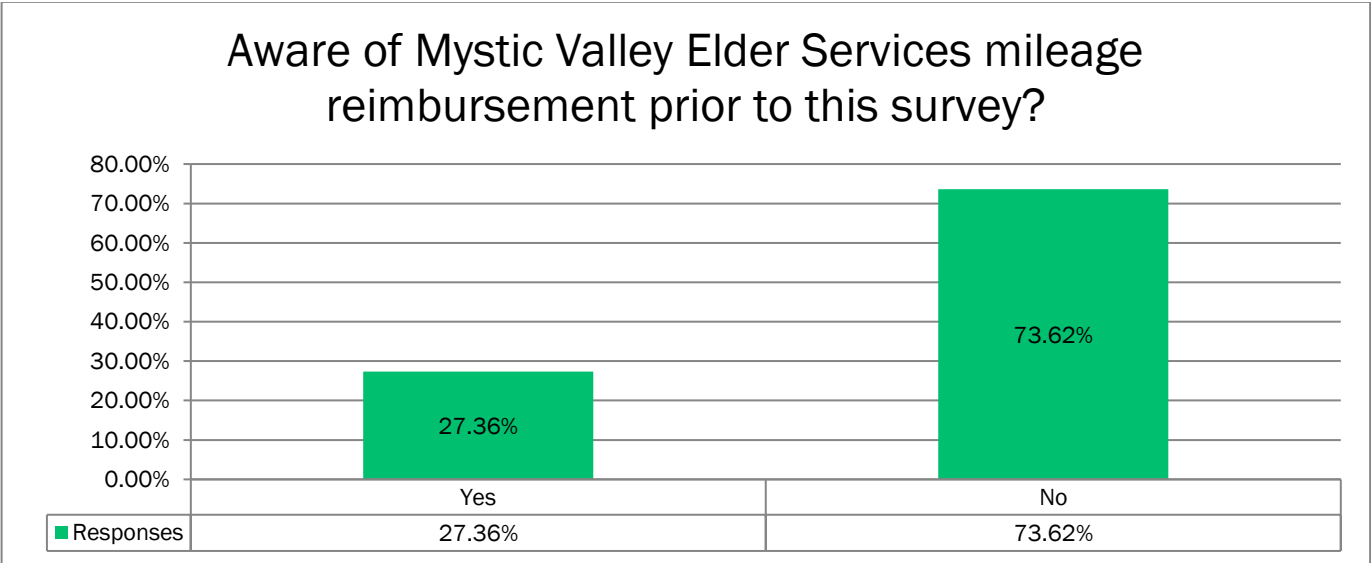
Question 1: The North Reading Council on Aging provides transportation services within the town limits for North Reading residents 60 and older. Prior to this survey, were you aware of these services?

312 people responded to this question.

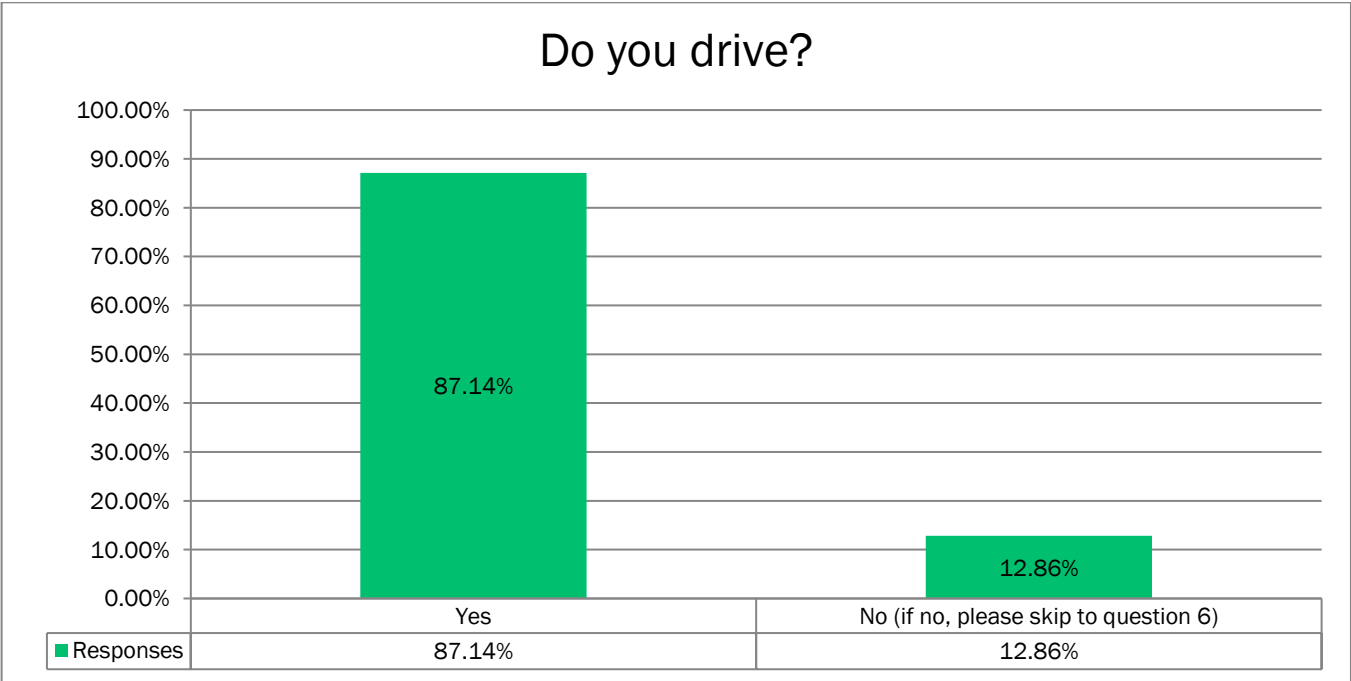


¹ American Community Survey 2011-2015 estimates for North Reading - total population: 15,396; 60 years and older population: 3,184.

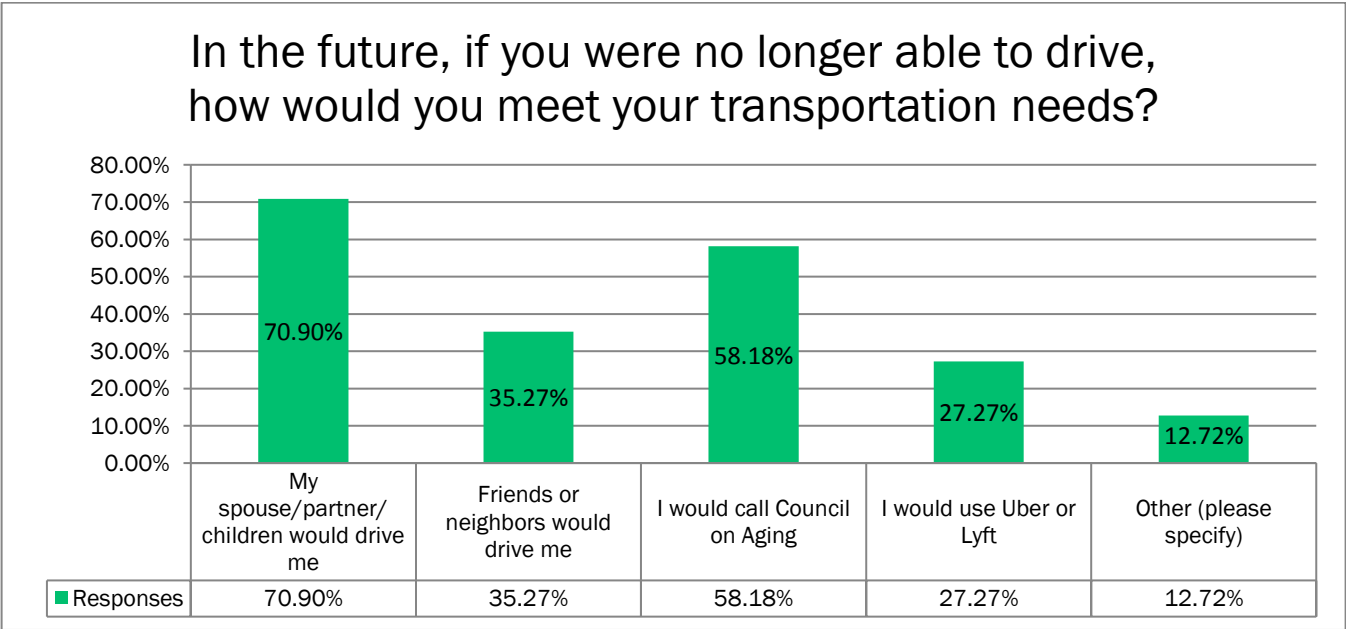
Question 2: Mystic Valley Elder Services provides mileage reimbursement for friends or neighbors who provide transportation for older adults and those disabilities. Prior to this survey, were you aware of this service?
311 people responded to this question.



Question 3: Do you drive?
311 people responded to this question.

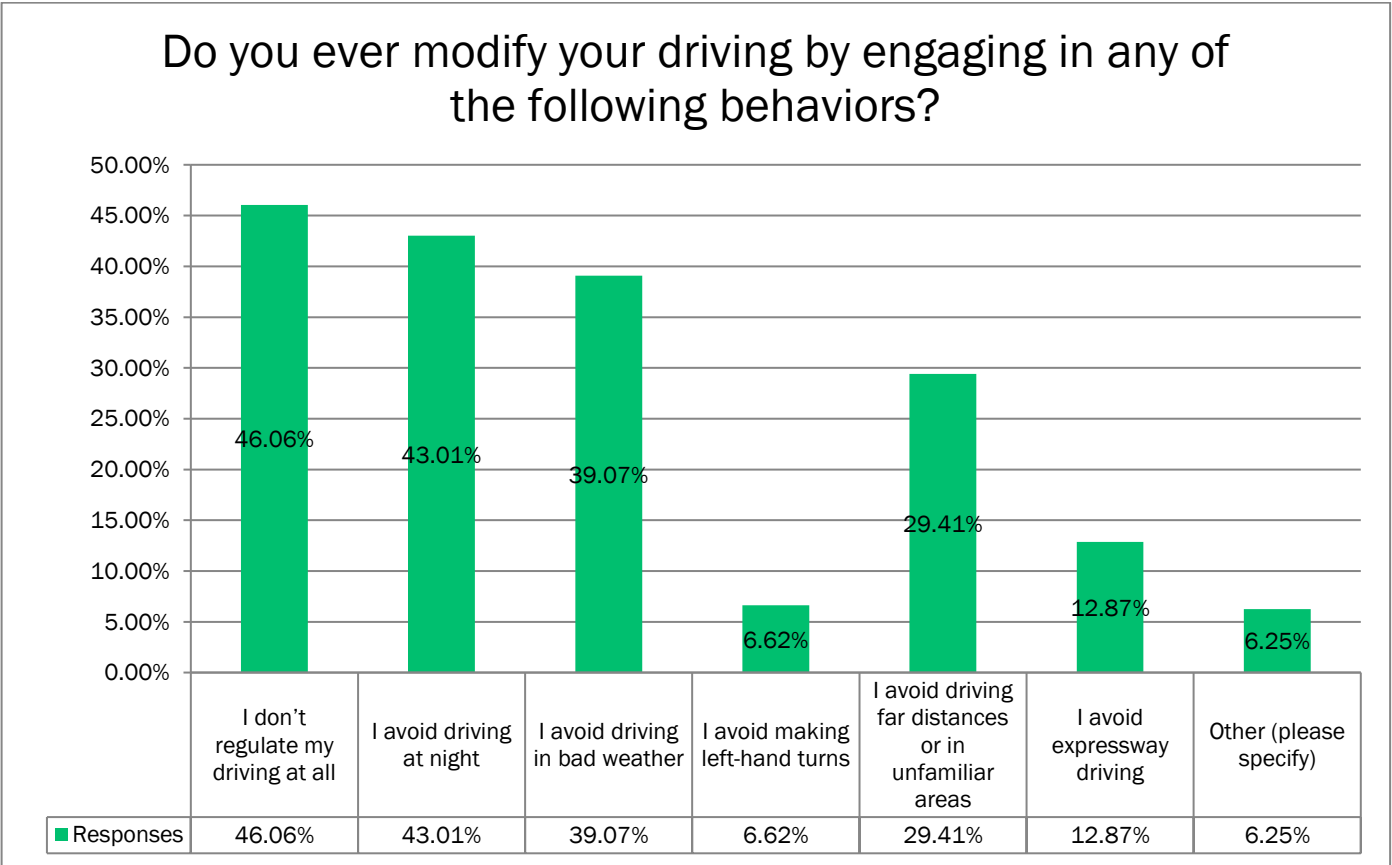


Question 4: In the future, if you were no longer able to drive, how would you meet your transportation needs? (Check all that apply)
 275 people responded to this question.



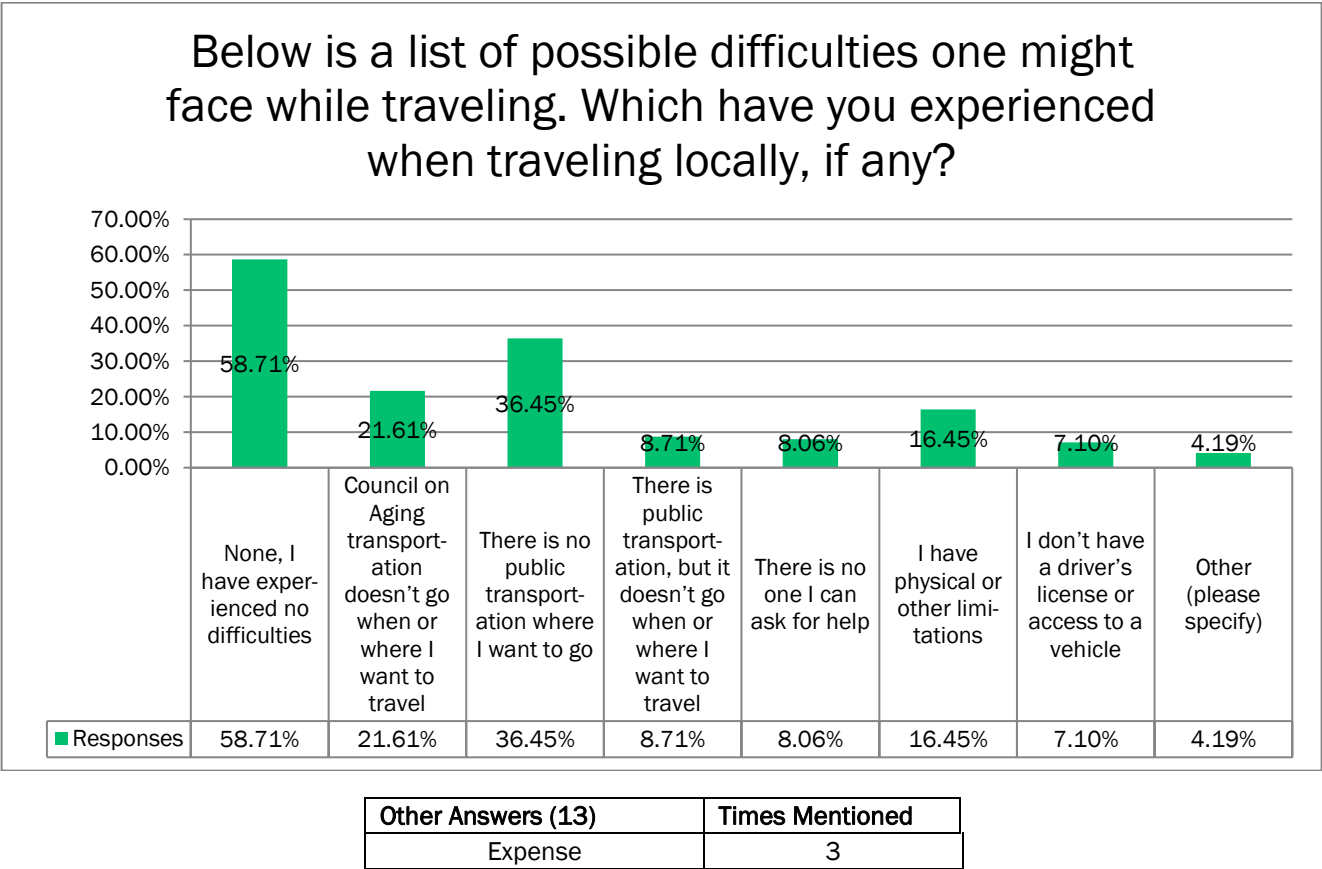
Other Answers (37)	Times Mentioned
Taxi	14
Don't know	8
Move	4
Senior Transportation	2

Question 5: Do you ever modify your driving by engaging in any of the following behaviors? (Check all that apply)
272 people responded to this question.

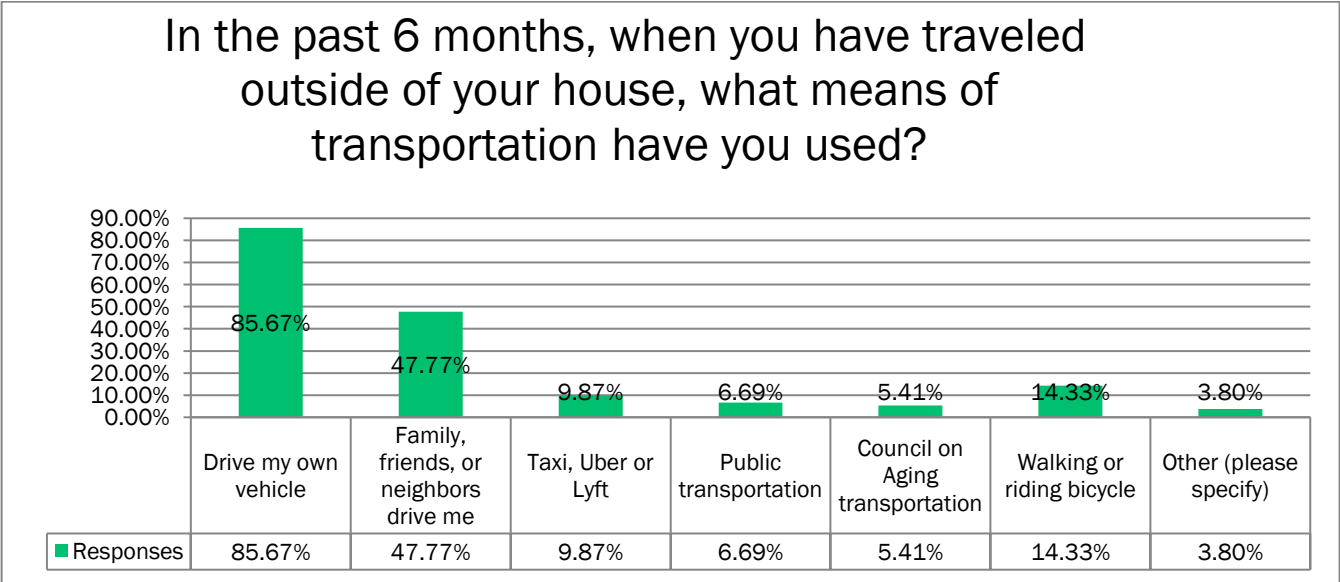


Other Answers (17)	Times Mentioned
City areas	4
Commute times	3

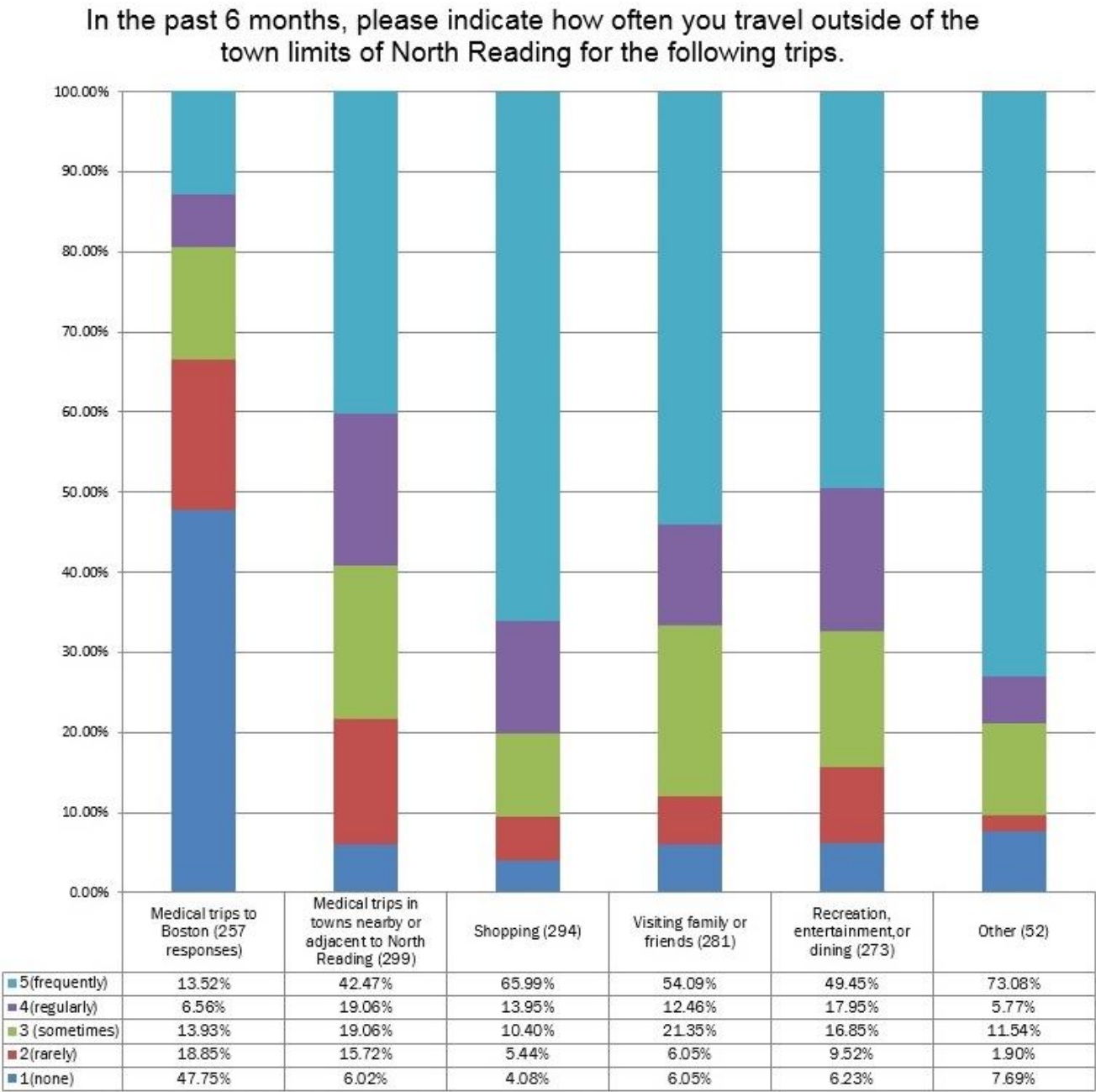
Question 6: Below is a list of possible difficulties one might face while traveling. Which have you experienced when traveling locally, if any? (Check all that apply)
 310 people responded to this question.



Question 7: In the past 6 months, when you have traveled outside of your house, what means of transportation have you used? (Check all that apply)
 314 people responded to this question.

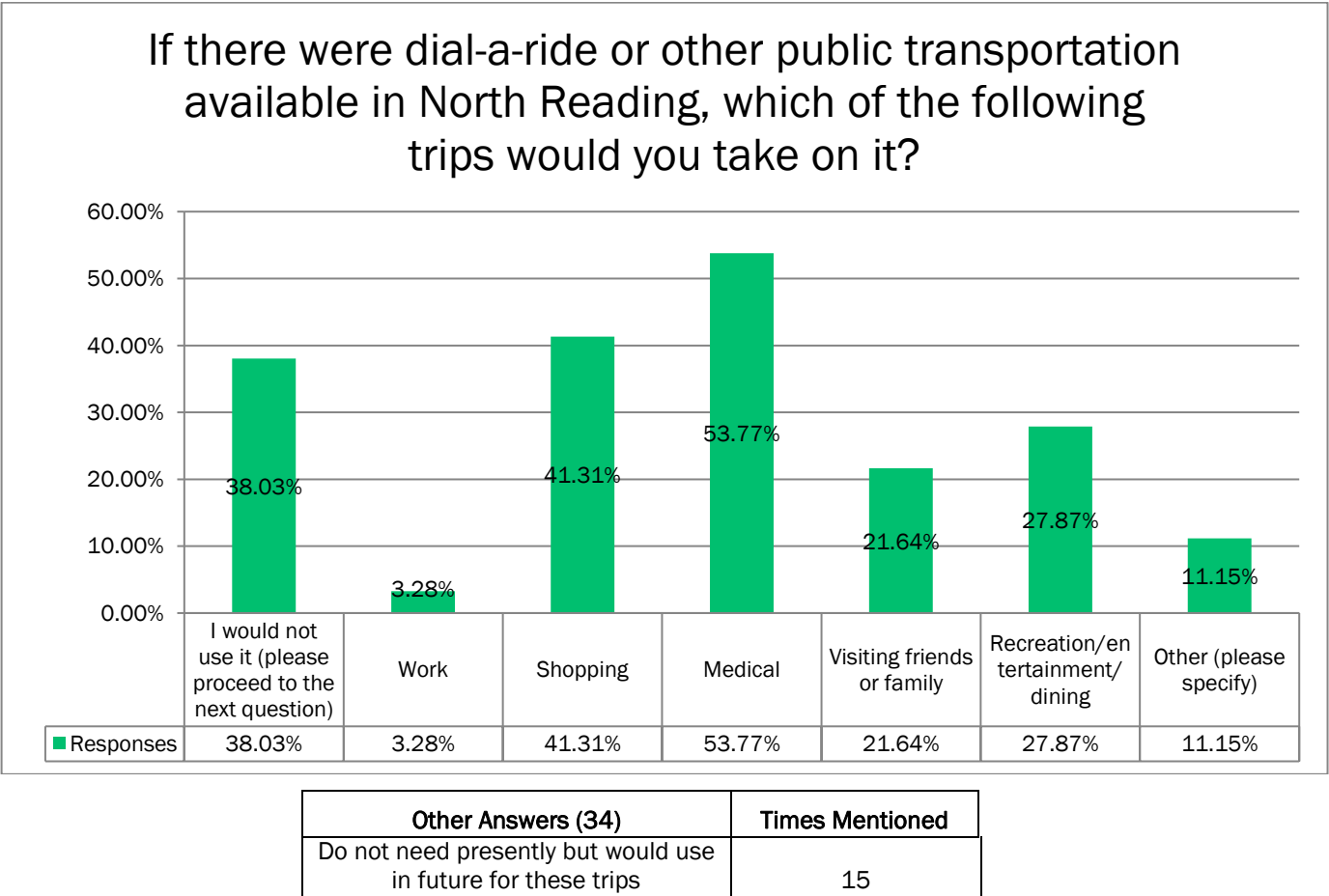


Question 8: In the past 6 months, please indicate how often you travel outside of the town limits of North Reading for the following trips. (1 = “none” to 5 = “frequently”. Select one for each statement that applies.)
313 people responded to this question.

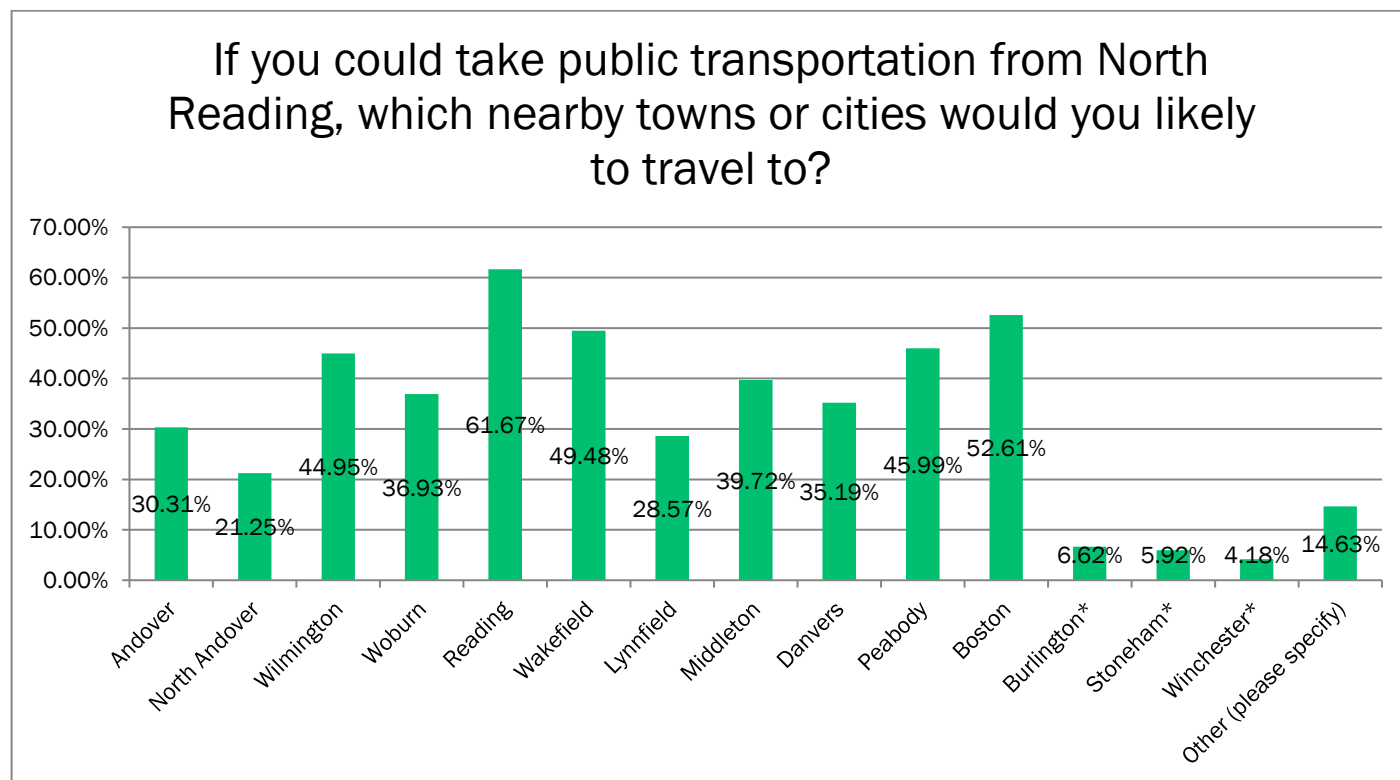


Other Answers (52)	Times Mentioned
Work	19

Question 9: If there were dial-a-ride or other public transportation available in North Reading, which of the following trips would you take on it? (Check all that apply)
 305 people responded to this question.



Question 10: If you could take public transportation from North Reading, which nearby towns or cities would you likely travel to? (Check all that apply)
 287 people responded to this question.



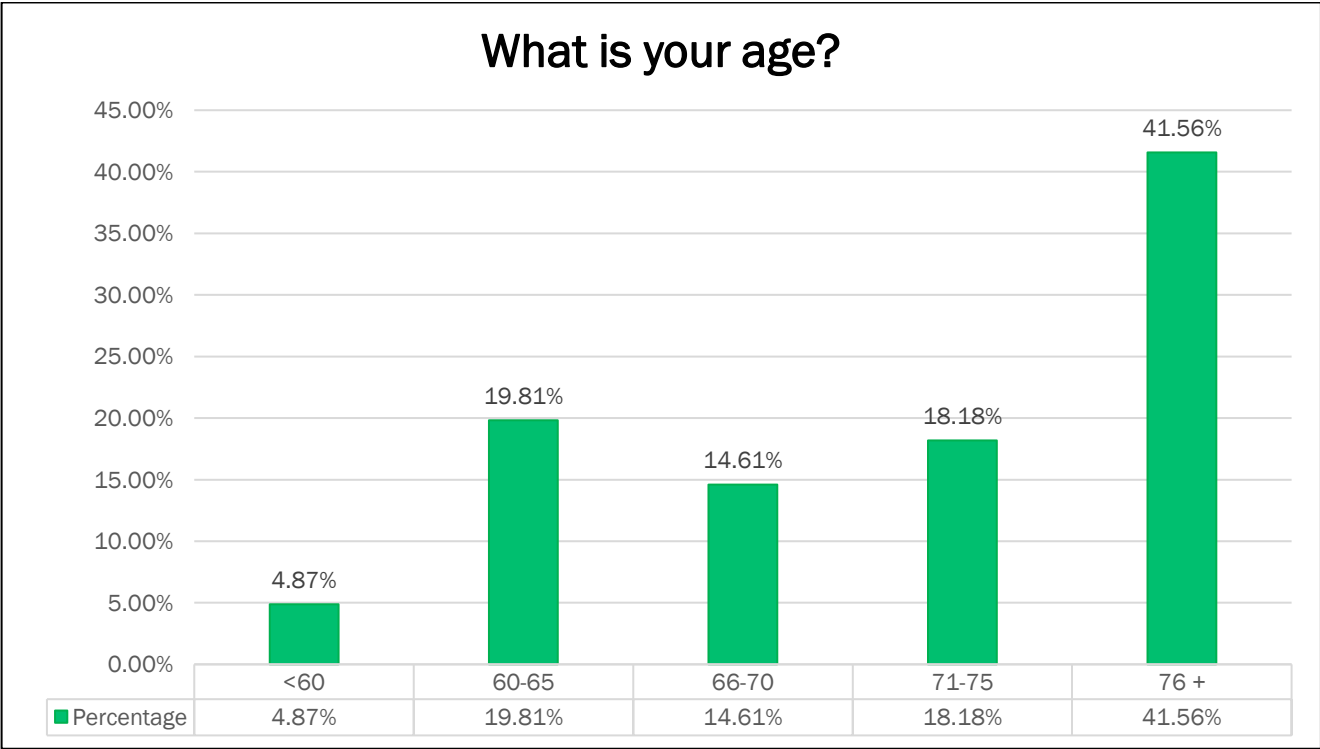
* = extracted from "Other" category

Town/City (Frequency High to Low)	Response %
Reading	61.67%
Boston	52.61%
Wakefield	49.48%
Peabody	45.99%
Wilmington	44.95%
Middleton	39.72%
Woburn	36.93%
Danvers	35.19%
Andover	30.31%
Lynnfield	28.57%
North Andover	21.25%
Burlington	6.62%
Stoneham	5.92%
Winchester	4.18%

Question 11: Are you retired or working?
309 people responded to this question.



Question 12: What is your age?
308 people responded to this question.



Written Answers to Questions with an "Other" Option:

Question 4: In the future, if you were no longer able to drive, how would you meet your transportation needs? [Other:]

- Taxi
- It would be more to have the ride or something
- Walk
- Taxi in general
- Patient advocate
- I would have to move
- I will buy a car with special features
- Walk or bike
- I have no idea
- I would not be able to
- Haven't thought about it
- Taxi
- Do not know
- Taxi
- Would love the Ride or something like that
- Taxi
- Move from North Reading to community with public transportation
- I would have to move
- Sr. van
- I don't know
- Cab
- Don't know
- Any way possible
- Taxi or Limo service
- Family
- Use "the ride" if was available in North Reading MA
- taxi
- I have no idea: Lahey health is out of town
- Taxi
- I would move, i.e Andover, Newton Ctr., so I could walk to store, bank, Elizabeth Grady, etc.
- NR senior transportation?
- Taxie
- Don't know
- Call a cab or The Ride
- Have no idea
- Relatives
- Taxi, The Ride (but I would have to get it in Reading or in Andover)

Question 5: Do you ever modify your driving by engaging in any of the following behaviors? [Other:]

- I don't drive to Boston
- Never pull into a parking space that is avoid having to back up
- I limit my driving at all times
- Bright sun
- I'd like to say that I am 55 and wonder if its wise to stay in North Reading as I age. If I were to be unable to drive, this town is not walkable and I would utilize a Sr. shuttle/transportation service if it existed.
- I avoid driving in NYC area
- Road lines being washed out make driving harder
- I try not to drive rainy nights
- I avoid driving during commuter hours.
- Can't drive because of health.
- I avoid expressway driving and commute times
- Basically won't drive into Boston or surrounding areas. Too chatic & unorganized.
- Heavy traffic
- I avoid driving in rush hours
- Do not drive out of North Reading
- My wife dives whenever possible.
- highways

Question 6: Below is a list of possible difficulties one might face while traveling. Which have you experienced when traveling locally, if any? [Other:]

- Too proud to ask for a ride
- I am in a wheel chair & have to use transport services to get out of town. It can be very expensive & would have to be handicap accessible to go anywhere
- Taxi's are too expensive; evening transportation
- Access to route 95 very difficult/dangerous
- Friends, elderly children work
- I'm 92 years old + my family takes me out
- I drive, but carefully
- Public transportation to Boston would be nice if available
- I don't know where to find info about your services
- Cost me \$100 for an out-of-town taxi
- My daughter has to leave work to take me to doctors
- Narrow roads, and lack of sidewalks, failure of DPW to trim branches, etc. Narrow roads due to lack of DPW maintenance, particularly in school zones and Eisenhower's pond park, Central St. Lack of sidewalks on Central St.
- Please bring The Ride to North Reading

Question 7: In the past 6 months, when you have traveled outside of your house, what means of transportation have you used? [Other:]

- My husband drives me
- Motorized wheelchair
- Or rides that are MassHealth reimbursable
- Patient advocate
- Car transport service
- Need to drive my car to public transportation (i.e. Oak Grove subway)
- Limo
- Husband drives, uses walker or cane
- I tried looking into Uber - working on an email contact info
- In the past I have not driven to a place more than 15 minutes away
- Walk
- Chair car services

Question 8: In the past 6 months, please indicate how often you travel outside of the town limits of North Reading for the following trips. [Other:]

- | | |
|---|-----------------------------------|
| • Trips to Boston | • Work |
| • I think a lot of people could use it I hope | • I travel outside NR everyday |
| • Gym and vacation | • Work (part time) |
| • Work | • Burlington, Peabody, Winchester |
| • Part-time work | • Work |
| • Somerville - visiting property | • Woburn |
| • Work | • Peabody/Winthrop |
| • Volunteer job; hiking, vacation | • Boston, medical |
| • Work | • Burbank YMCA |
| • Work in Boston | • Vacation |
| • Work | • Work |
| • Peabody, Burlington, Wilmington | • Add public transportation |
| • Work | • Meetings |
| • Social activities | • Work |
| • Specialty stores, vet visits | • Costco; sightseeing |
| • Food shopping | • Doctor |
| • Groceries | • Volunteer work |
| • Volunteer/professional activities | • Marblehead |
| • Travel | • Surgery |
| • Work | • Work |

Question 9: If there were dial-a-ride or other public transportation available in North Reading, which of the following trips would you take on it? [Other:]

- Trips to Boston
- I am not ready yet but I am 78 and I am sure it will become very useful
- I would use all of these when I stop driving or the car doesn't work
- Cost would decide whether I would use it or not
- If I could not drive for some reason, these options would be great!
- We have guardians for 2 young granddaughters who need us for lots of love...AND transportation
- Not sure
- I tried online - couldn't find this survey to fill out for the 3 of us
- Maybe in the future
- Get to public transportation
- Volunteering
- Specialty stores, vet visits, evening transportation
- Look forward to a service when I can no longer safely drive. Lack of this service today is the only weakness, an important one of North Reading elder service!
- Church
- Currently do not require assistance.
- I would not use it now, but if I age in place in NR, I would absolutely use such a service.
- Will use Dial-A-Ride as I age, if available
- However, if I could not drive, I would
- Not there yet - would use if I could not drive
- Appointments - we need a bus service and an in-town taxi service!
- If I ever get in a position that I can't drive, I would like to have dial-a-ride or public transportation.
- College
- Going to Boston or to Reading or Woburn Train Station especially in the future
- I would use it all if I could not drive anymore. Please get it.
- At this time I am able to drive anywhere I want to go but in the future I might access Dial-A-Ride.
- At this time
- Possibly in the future
- to Train Station (Reading or Woburn); MBTA station
- Church, gym
- Not sure yet
- school/kids related activities (my kids are 3 and 8)
- Commute to/from Reading Commuter Rail
- To Boston
- Use when I'm older

Question 10: If you could take public transportation from North Reading, which nearby towns or cities would you likely travel to? [Other – sorted alphabetically:]

- Bedford
- Beverly
- Beverly
- Beverly
- Beverly, Salem, Lynn, Peabody
- Billerica, Tewksbury
- Burlington
- Burlington
- Burlington
- Burlington
- Burlington
- Burlington
- Burlington
- Burlington
- Burlington
- Burlington, Bedford
- Burlington, Lahey Hospital
- Burlington, Peabody
- Burlington, Stoneham
- Burlington, Stoneham
- Burlington, Stoneham
- Cambridge
- Cambridge
- Cambridge
- Everett
- Groveland
- Haverhill
- Haverhill to visit my son
- I'd definitely go to Boston because I refuse to drive there.
- Lawrence
- Lots of other places
- Lowell
- Lowell
- Lynn
- Malden
- Malden, Tewksbury
- Medford, Stoneham
- Melrose
- Melrose
- Melrose, Winchester
- Methuen
- MRTA (EZ Trans) has been a life saver and real source of independence for my mom in North Andover.
- New Hampshire
- Newburyport, Salem, Ipswich, Salisbury
- NH, VT, CT, Natick MA

- None
- Not sure
- Not sure
- Quincy
- Reading Commuter Rail Station
- Revere, Beverly, Danvers
- Salem MA, Salem NH, evening transportation
- Salem, Lynn
- Saugus
- Saugus
- Saugus, Melrose
- Somerville
- Somerville
- Somerville
- South Weymouth
- Southshore
- Stoneham
- Stoneham
- Stoneham
- Stoneham
- Stoneham
- Stoneham
- Stoneham
- Stoneham
- Stoneham
- Stoneham, Burlington
- Stoneham, Burlington, Winchester, Haverill
- Stoneham, Medford, Somerville, Cambridge (Alewife Station)
- Subway station
- Swampscott, Salem, Somerville
- Tewksbury
- Wareham
- Winchester
- Winchester
- Winchester
- Winchester
- Winchester
- Winchester
- Winchester
- Winchester Hospital, Burlington
- Winchester, Belmont
- Winchester, Medford
- Would not use.