Improving Transportation Access Among Seniors in Berkshire County: Problems and Potential Solutions

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Abstract:

Lack of accessibility—the ability to make a trip for a given purpose—has long been recognized as an urgent problem in Berkshire County. In a geographical area where it is difficult for conventional public transit to provide extensive service, those who lack access to a personal automobile often lack independent mobility. This is especially true of the senior population, who are less likely to be able to drive, walk, or use public transportation. This report analyzes the state of transportation in the Berkshires, and argues that as the Berkshire population continues to age a growing cohort of seniors will face severely limited mobility. This will likely result in increased social isolation, reduced access to health services, and added financial strain on this group, especially among the "old old" (those 80 years or older). This report argues that volunteer driver programs present the best solution to this growing problem. These programs are inexpensive, scalable, and simple to operate, and can supplement existing public transport services by filling in gaps and providing service to Berkshire County's most underserved groups. Specifically, this report recommends the TRIP program, a low-cost, voucher-based model. With minimal startup costs, the flexibility to serve a broad service area, and an approach based on empowering elderly clients, the TRIP model can reach a large number of underserved residents at very low cost.

The Rural Transport Problem:

Any examination of the transportation challenges Berkshire County faces must begin by examining the fundamental issues of rural transport. The problems Berkshire County faces with regard to transportation, although in many respects unique to the Berkshires, cannot be understood without reference to the transportation problems rural communities face more

generally. Indeed, in many ways, Berkshire County is an archetypal example of the so-called "rural transport problem."

The rural transport problem is fundamentally one of public transportation.[1] Rural residents whose primary mode of transportation is the personal automobile typically do not face serious constraints on their mobility. The geographical characteristics that define rural areas—low population density and a dispersed settlement pattern—make the personal automobile the ideal unit of transportation. It is not forced to operate on fixed routes and schedules like buses and trains must; it is as the name implies, personal and well-suited to transporting members of a household; and it does not face the same traffic and parking problems as in urban areas.[2] However, not all individuals have ready access to a car. Many households do not own cars; certain members within households, such as the elderly, the disabled, and the young, may be unable to operate them; and many more live in one-car households where certain members have limited access to the personal automobile. These individuals must rely on other modes of transportation, such as public transport, to meet their transportation needs. But the same geographical characteristics that make the personal automobile the most effective unit of transportation in rural areas also make public transportation ineffective.

Rural areas are defined by several geographic characteristics that affect public transit service capacity. Rural areas have low overall population densities, with low concentrations at each point in a scattered settlement pattern. Long distances separate major municipal centers, and service outlets are widely dispersed. As a result, rural areas, as opposed to urban areas, are characterized by long and expensive travel distances, and relatively little traffic congestion.[3] These factors render extensive fixed-route service infeasible and expensive.

This problem can be understood in terms of the structure and scale of public transport demand and supply. In rural areas, these are at variance.[4] For public transit services (the supply side) to provide extensive coverage of all settlements in the area, they must maintain a service capacity (i.e., number of buses and routes) that is disproportionately high relative to likely ridership. Such a system would be unsustainable, due to high costs and low ridership. Understood in terms of the scale of public transport demand and supply, we can say that conventional fixed-route and paratransit service is indivisible. The basic transport unit, the bus, cannot be broken apart into smaller units to meet the scale of demand. At any given point along a route, the scale of demand (i.e., number of riders) is likely to be small. In spite of this, overall demand for public transport in the service area may be substantial. But because there is a fundamental mismatch between the scale of demand and supply at each point, this demand may prove impossible to meet.[5] To provide service on a scale that matches demand, individual service units must be much smaller than those used by public transit agencies. However, the smaller the unit of transportation for a given number of trips, the higher the cost per passenger trip, due to higher labor costs and more complex coordination. Put another way, as the unit of public transport becomes smaller, the cost per rider (which is relatively low for large service units) approaches the cost of a taxi, which is considerably higher.

Moreover, there is a vicious circle, as inadequate public transit service increases incentives to own a personal automobile, which in turn reduces public transit ridership, leading to reduced service, and so on.[6] This tends to disguise the level of demand for public transit that actually exists. Consequently, although it is often assumed that there is little demand for public transit in rural communities, a lack of ridership may reflect the inability of existing services to meet demand, rather than an absence of demand itself. These problems affect rural communities

across the country, and they should be the starting point for understanding the transportation issues facing Berkshire County.

State of Transportation in Berkshire County:

The primary mode of transportation in Berkshire County is the personal automobile. Census data show that 88% of Berkshire County workers ride in their personal automobile to work, while 5.1% walk or bike and only 0.9% take public transportation.[7] Moreover, 90.7% of households in Berkshire County own at least one personal automobile.[8] Although more general data on the modes of transportation used for total trips in the county is unavailable, we can reasonably conclude from these figures that the vast majority of trips in Berkshire County are by personal automobile. This reflects the geography of the area, as well as the structure of transportation demand in the county. Berkshire County covers a large area of 946 square miles (roughly the size of Rhode Island or Luxembourg), and a relatively low population density of 134 people per square mile.[9] This combination of a sprawling service area and low population density makes the personal automobile the ideal mode of transportation, as noted above. Moreover, these totals disguise significant geographical variation that affect transportation demand. In many smaller municipalities, the personal automobile is the only realistic mode of personal transportation. This is especially true in South County, which has a population density significantly lower than the county average (57.6 people per square mile, compared to 135 per square mile in North County and 205 per square mile in Central County).[10]

Although the transportation landscape of Berkshire County is dominated by the personal automobile, there are a number of transportation service providers, including public transit, Councils on Aging (COAs), human service agencies, and taxi companies. The BRTA is the

official provider of public transit in Berkshire County. BRTA fixed route bus service operates through the 12 core municipalities of Williamstown, North Adams, Adams, Cheshire, Lanesborough, Dalton, Hinsdale, Pittsfield, Lenox, Stockbridge, Lee, and Great Barrington. In addition, the BRTA provides chair car (paratransit) service in 7 towns — Clarksburg, Florida, Richmond, Washington Monterey, Becket and Otis — which are not reached by fixed route service. The BRTA also operates a paratransit service for the elderly and the disabled, and provides subsidies for taxi rides to eligible elderly and disabled individuals. BRTA paratransit for seniors and the disabled provide roughly 80,000 trips each year.[11] BRTA fixed route service operates on weekdays and Saturdays (except for a few routes), with no service on Sundays. Service hours run from 5:30 a.m. to 7:20 p.m. on weekdays and 7:00 a.m. to 7:00 p.m. on Saturdays. This service runs at one hour headways (meaning that a new bus reaches each stop in a route every hour). The majority of the 15 BRTA routes operate in or around the two major population centers of North Adams and Pittsfield: six run within Pittsfield, while an additional five connect it to nearby towns, and three operate within North Adams.[12] Although the BRTA provides a significant amount of service given the constraints they face, serious service gaps remain. Among these are the lack of late night hours, which disrupt work-related transportation for workers who work jobs with non-traditional hours and curtail access to social activities which take place at night, and Sunday service.[13]

Ridership data further illustrate the constraints the BRTA faces. In the 2014 fiscal year, the BRTA provided 570,845 passenger trips on its fixed route service (one trip by one passenger one way). Ridership fell steeply from 1995 to 2004 but has increased steadily since then, although it remains below 1995 levels.[14] To put these ridership figures in context, however, it is useful to consider that roughly 100,000 one-way trips are taken for work by personal automobile

each day in Berkshire County, dwarfing the annual ridership of the BRTA.[15] Average cost per passenger trip was $8.16 in FY 2014 for fixed route service.[16] However, BRTA fixed route service also faces relatively low ridership. In 2014, BRTA fixed route service provided rides to 0.65 passengers per revenue mile, or 11.23 passengers per revenue hour, i.e., on average each bus served 11 passengers per hour in service.[17] This is indicative of the inherent problems fixed route bus service faces in a large rural area.

In addition to the BRTA, several non-profit organizations provide transportation services for the elderly and disabled, including the Southern Berkshire Elderly Transportation Corporation which provides door-through-door van service in South County, AdLib which provides van service county-wide, and Soldier On which serves veterans county-wide. Berkshire Rides also operated a van service for low-income workers, but this program ended in 2016.[18] COAs in 18 towns provide van service to the senior and disabled communities. As a whole, COA programs provide roughly 49,000 passenger-trips annually.[19] There are also a number of taxi companies operating in Berkshire County.

However, current paratransit and non-profit programs are not able to meet fully the need of the disabled and senior populations. As Bob James notes in his report for Age Friendly Berkshires: "Unfortunately, public and paratransit systems have limited reach beyond specific clientele, municipal boundaries and offer only daylight hours and weekday coverage. The BRTA and other stakeholders... report that they are constrained in the services they offer due to limited public funding."[20] This indicates a need for new services which are highly flexible, inexpensive, and able to operate outside of regular service hours, in remote municipalities, and across town lines. Such a program may be able to plug gaps in current coverage.

The need for new services is urgent. The senior population in Berkshire County is already large, and will grow rapidly in the coming years. Seniors and especially the so-called "old old" (those 80 or older) are more likely to face restricted mobility, since they are more likely to be unable to drive safely and to live on a fixed income, which can limit their ability to purchase or maintain a car. Already, the median age in the Berkshires is much higher than the Massachusetts average—45.1 compared to 39.2.[21] Likewise, 38% of Berkshire County residents are 55 or older, compared to 29% of Massachusetts residents.[22] And the Berkshire County senior population (those 55 or older) is growing rapidly—it is projected to expand by 69% by 2030.[23] As a result, in the coming years Berkshire County will be home to a growing number of seniors who have stopped driving altogether or suffer from some form of limited mobility.

If left unaddressed, this problem will present a grave challenge not only to the health and well-being of the senior population, but to that of the county as a whole. Academic research indicates that driving cessation can have a profound impact on well-being among seniors. Previous literature has tied driving cessation to reduced levels of out-of-home activity, and thus greater social isolation and lower economic participation.[24] Moreover, other studies have shown that driving cessation results in poorer overall health and social and cognitive function, increased mortality, and perhaps most troublingly, a dramatically higher risk of depression.[25] As a growing segment of the population ceases driving, it is essential that services are in place to meet their new mobility needs. Volunteer driver programs provide a possible solution.

The Case for a Volunteer Driver Program:

The root of the rural transportation problem is, as was noted above, the mismatch between the scale of public transit demand and supply. With an average annual ridership of

around 500,000 passenger-trips per year, and a service rate of 11.23 passengers per revenue hour, the BRTA faces low ridership for each unit of transportation, indicating that it faces this basic problem.[26] The BRTA has taken steps to address gaps in its fixed route service by offering paratransit service to member communities not served by its fixed route service, as well as to disabled and elderly populations. Nevertheless, problems of access to transportation in Berkshire County remain acute. Moreover, demand response/paratransit service is expensive, costing the BRTA $811,142 in 2015, or 12.8% of the BRTA's total operating expenses.[27] What options for reaching transportation disadvantaged groups remain?

Volunteer driver models offer a unique solution. Operated in communities across the country, these programs connect transportation disadvantaged members of the community with volunteers or employees who are willing to drive them, typically at little or no cost. Many of these programs are operated out of local human service agencies, however some are operated by public transit agencies or local governments. Volunteer driver programs may be able to alleviate Berkshire County's accessibility problem for several reasons.

First, volunteer driver programs hit at the heart of the rural transport problem, addressing the mismatch between the unit scale of public transit supply and demand. Whereas public transit agencies operate large, indivisible service units, volunteer driver programs typically operate personal vehicles or small vans. As noted above, for a variety of reasons, the personal automobile is the ideal service unit for transportation in rural, low-density areas. By operating much smaller units, volunteer driver programs can reach transportation disadvantaged residents whom fixed route service could not reach. Several small service units can spread out over a dispersed settlement pattern and meet demand more efficiently, inexpensively, and quickly than one larger service unit. By matching the scale of transport demand at the supply level, these

programs can fill in gaps in existing supply more efficiently than increasing supply at a larger scale.

Second, volunteer driver programs are inexpensive, especially compared to similar services offered by public transit agencies. Relying primarily on unpaid drivers, these programs have very low or no labor costs, and they often have low fixed costs, making use of volunteers' vehicles or a small number of program vehicles. Administrative costs are also lower since they operate less complex networks, and indeed are often simple "dial-a-ride" programs which require little coordination. As the Berkshire Regional Planning Commission has noted, a "tremendous funding disparity" exists between the transportation needs of the Berkshires and the available funds, so the ability to meet demand at very low cost is crucial to addressing the accessibility problem in Berkshire County.[28]

Another important feature of volunteer driver programs is that they are specifically designed to meet the demands of the most transportation disadvantaged groups. Many volunteer driver programs around the country focus on addressing the transportation needs of seniors who lack the ability or income to drive themselves. Many others serve individuals with disability, for whom diving and using public transportation are difficult or impossible. Others focus on providing work-related transportation for low-income community members. Some provide service for all three of these groups. In Berkshire County, these same three groups represent the most transportation disadvantaged residents. A volunteer driver program aimed at addressing the transportation needs of these groups could supplement existing public transit services by filling in gaps and serving groups who are not able to make use of BRTA services. In the next section, this report outlines several volunteer driver programs, as well as other programs that aim to meet the transportation needs of underserved groups.

Models:

This section outlines several volunteer driver models, as well as other models that have been implemented to address the needs of transportation disadvantaged groups. It provides a brief overview of how each model functions, and then moves on to identify the key challenges that would face each model in the Berkshires, as well as the key benefits. Several case studies are also presented to illustrate best practices from around the country. The purpose of a potential volunteer driver program would be to fill in gaps in existing services for the elderly population. Accordingly, any potential program must be flexible, able to operate outside of regular service hours, inexpensive, and senior-friendly.

1. TRIP (Transportation Reimbursement and Information Project) model:

Summary:

The TRIP model is a voucher-based volunteer driver program in which riders recruit their own drivers. The program turns the traditional volunteer driver model on its head, decentralizing driver recruitment and ride scheduling. The host organization does not recruit volunteers directly. Instead, riders recruit drivers from among their friends, neighbors, acquaintances, or in some cases, family members. Rides are scheduled entirely between the rider and the driver, and may cross county or state lines. By decentralizing recruitment and scheduling, TRIP limits administrative costs and reduces the burden on the host organization. Mileage reimbursement vouchers form a central part of the TRIP model. The mileage reimbursement provides an incentive for volunteers to agree to provide rides, and allows riders to feel like they have something to offer in return for the ride. Mileage reimbursements are delivered to the riders, who

in turn distribute them to their drivers. TRIP programs do not restrict rides to any class of destinations or times of day. Additionally, since the host organization is not recruiting volunteers, it faces limited exposure to liability. The TRIP model was developed in Riverside, CA by the Independent Living Partnership, and the model has been replicated in numerous communities around the country. There is currently one TRIP program operating in Massachusetts, TRIP Metro North of Mystic Valley Elder Services in Malden, MA.

Suitability for Use in Berkshire County:

Advantages:

- Since drivers are not dispatched from a central location, service can be expanded to hard-to-reach locations and less-populous areas at low cost to the program. A TRIP program would not be restricted to operating in the most populous municipalities, as the BRTA fixed route service currently is. This would allow the program to fill in gaps in existing public transit service and reach the most underserved municipalities in Berkshire County.
- Program costs are flexible. According to a survey conducted by the Independent Living Partnership (ILP), on average, roughly half of the TRIP program budget is spent on mileage reimbursements.[29] Since the mileage reimbursement rate can be adjusted at any time, half of the TRIP program budget can adapt quickly to fluctuations in funding. Similar transportation services in Berkshire County have been cancelled due to interruptions in funding (e.g., BerkshireRides), so this

flexibility may allow a TRIP program to sustain operations in an uncertain funding environment.

- Of the different models included in this brief, the TRIP model operates at the lowest cost per one-way ride, with an estimated average cost of $5.52.[30] This would aid the program in operating in a limited funding environment.
- The program has a twofold impact on social isolation among seniors. Since TRIP allows riders to schedule trips to any type of destination, riders would have expanded access to social events and activities. Moreover, since TRIP encourages riders to recruit and form lasting connections with their own drivers, usage of the program itself helps riders cultivate and expand their social networks.
- Since trip scheduling is left entirely to the rider and their driver, trips may be scheduled for anytime of day, and do not necessarily need to be scheduled in advance. This would allow a TRIP program to fill in gaps in existing BRTA fixed-route and paratransit services.
- Since this model does not require any large capital expenditures, it has low startup costs.

Potential obstacles:

- Since the TRIP model requires riders to draw on their own social networks to recruit drivers, clients who are severely socially isolated may experience difficulty using the service.
- Clients do not have guaranteed service, since they depend on their driver's availability and willingness to provide a ride.

- Drivers are not trained in providing assistance to their riders, and thus may not be able to assist elders with special needs due to disability or illness.
- The burden of finding assistance is placed on the client. Although the TRIP model can be empowering by encouraging elders to strengthen their own social networks, it requires more work on the part of the client than most other volunteer driver programs.

Best Practices Case Study: Riverside County TRIP

Riverside County is a large county in California that is home to 2,387,741 residents.[31] In 2016, 25% of the county's population was 55 or older (38% of Berkshire residents are 55 or older).[32] The county covers an area of 7,303 square miles, with a population density of 327 people per square mile. However, these totals disguise large geographical variation. The western side of the county contains the vast majority of the total population, with several medium-sized cities and towns clustered together in an area slightly less than half the county's total size. On the other hand, the eastern side of the county is very sparsely populated, with a few isolated towns dispersed over large expanses of desert.

Riverside County TRIP was established in 1993, and over its lifetime the program has provided more than 1.8 million trips and 20.5 million miles of service. It was the creator of the TRIP model, which has since been adopted by service providers across the country. In the 2014-15 program year, the program provided 123,821 trips to 1,028 unique riders for 1.8 million total miles of transportation, at an average cost per ride of $6.29. 65% of riders for the program year were 65 or older, and 20% were 80 or older. The program serves residents who live in 52 different cities and towns, demonstrating the program's capacity to reach a wide service area.[33]

Riverside TRIP has also collected detailed survey data from its riders. In a 2017 survey, 98% of respondents said that TRIP had fulfilled previously unmet transportation needs. The top three reported destinations for TRIP rides were doctor's appointments (95%), grocery shopping (83%), and other shopping destinations (75%). Riders reported the following about their transportation challenges before using TRIP: 72% didn't drive or had no car, 69% said family members were unable to provide rides, and 68% were unable to use existing bus or van services due to health problems. 60% of respondents said that using public transportation was physically impossible for them.[34] In a 2012 survey, 86% of clients reported that their quality of life had improved since enrolling in TRIP, and 65% claimed it had improved significantly.[35]

2. All-volunteer, own-car model:

Summary:

In this model, the organization recruits volunteer drivers who provide rides for clients using their own vehicles. The host organization schedules all rides, processing ride requests and matching riders with drivers. Clients may request rides by calling the host organization or through an online submission form. The organization conducts background checks and driver record checks on all potential volunteers. The organization may also provide driving or client assistance training for volunteer drivers. Service may be curb-to-curb, door-to-door (the driver assists the client in getting to the car and walking to their destination after arrival), door-through-door (passenger assistance is provided through the door of the residence and the destination), or stay-at-destination (the driver stays with the rider to provide assistance after arriving at the destination). This program may or may not provide mileage reimbursement to volunteers.

Suitability for Use in Berkshire County:

Advantages:

- This program can provide guaranteed service to clients within a given time period (e.g., 9-4 on weekdays).
- Since volunteers can be trained, they may be able to provide passenger assistance at location (if the service is door-through-door). Volunteer training may also allow the service to provide transportation to passengers with dementia or other severe illnesses.
- Scheduling is simple and requires little effort on the part of riders. Most programs require a call ahead, typically several days in advance (sometimes longer for certain trips).
- Since volunteers are not dispatched from a central location, the program may be able to cover a wide service area. This would allow the program to address gaps in existing BRTA service for less populous municipalities.

Potential Obstacles:

- Rides may be restricted to certain types of trip destinations based on the organization's service capacity. For example, many programs of this type only allow medical trips. This may reduce the program's capacity to address social isolation, since trips for strictly social or recreational purposes may not be allowed.

- Clients may not be able to request rides outside of regular service hours. This may leave existing service gaps unfilled, since BRTA and existing paratransit service is largely unavailable on nights and weekends.
- This model entails intensive staff work on the part of the host organization. Program staff are responsible for recruiting drivers, scheduling rides, and screening drivers (all of which are decentralized in the TRIP model).
- ILP estimates that this service costs roughly $15 per one-way ride, almost three times the cost per ride of the TRIP model.[36] Other programs show costs in the range of $10 to $15 per ride.

3. All-volunteer, organization-owned cars model:

Summary:

This model is largely similar to the above model, except that volunteers provide rides using organization-owned cars instead of their own. These vehicles may have wheelchair lifts or be handicap-accessible. In some variations of this model, all rides are provided in program vehicles. In others, some rides are provided in volunteers' cars, and program vehicles are used as a supplement or in certain cases when handicap-accessible vehicles are necessary. This model is already operated by local Councils on Aging (COAs) in Berkshire County in partnership with the BRTA. Since this service is already operated in many towns throughout Berkshire County, any effort based on this model would seek to expand the existing capacity of local programs.

Suitability for Use in Berkshire County:

Advantages:

- The program can provide guaranteed service within a specific time period (e.g., 9-4 on weekdays).
- This service may be more friendly to elders with limited mobility or clients with disabilities, since program vans may be handicap-accessible.
- Scheduling is simple and requires little effort on the part of riders.
- A larger vehicle, such as a van, may allow the program to pick up multiple riders at once and deliver them to a common destination.

Potential Obstacles:

- The host organization must purchase program vehicles or receive them through a donation. If the former, this entails significant startup costs.
- If drivers are restricted to driving program vehicles only, service capacity is necessarily limited by the number of program vehicles.
- Since rides are dispatched from mnicipalities a central location, it may be difficult to reach remote non-participatory areas. In order to expand the service area, new offices may need to be set up in different towns.
- Clients may not be able to request rides outside of regular service hours. This may leave existing BRTA service gaps (on nights and weekends) unfilled.
- Many programs of this type only allow medical trips. This may reduce the program's capacity to address social isolation, since trips for social purposes may not be allowed.

4. Volunteer/Paid Driver Mixed Model:

Summary:

In this model, the program recruits volunteer drivers as well as paid drivers to provide rides to clients. Typically, volunteer drivers will provide rides using their own vehicles, while paid drivers will use program vehicles. The host organization schedules all rides, processing ride requests and matching riders with drivers. Clients may request rides by calling ahead or through an online submission form. The organization conducts background checks and driver record checks on all potential volunteers. The organization hires, trains, and employs paid drivers, who may receive driver or client assistance training. This training may also be provided for volunteer drivers. Service may be curb-to-curb, door-to-door, door-through-door, or stay-at-destination. This program may or may not provide mileage reimbursement to volunteers.

Suitability for Use in Berkshire County:

Advantages:

- The program can provide guaranteed service within a specific time period (e.g., 9-4 on weekdays).
- This service may be more friendly to elders with limited mobility or clients with disabilities, since program vans may be handicap-accessible.
- Scheduling is simple and requires little effort on the part of riders.
- Employing paid drivers allows for more extensive service capacity, since volunteer drivers may have limited availability and may need to be scheduled further in advance.

Potential Obstacles:

- Paid drivers using program vehicles must depart from a central location (typically the host organization's offices or in Berkshire County municipal service centers)), which may make it expensive or infeasible to reach isolated areas.
- This service model is estimated to cost $15 or more per ride, according to ILP, roughly three times the cost of the TRIP model.[37] Other programs show costs in the range of $10 to $15.
- The host organization must purchase program vehicles or receive them through a donation. If the former, this entails significant startup costs.
- This model entails intensive staff work on the part of the host organization. Program staff are responsible for recruiting volunteers and paid drivers, scheduling rides, screening drivers, and training paid drivers. This administrative work is decentralized or not necessary under the TRIP model.
- Rides may be restricted to certain types of trip destinations based on the organization's service capacity. For example, many programs of this type only allow medical or grocery shopping trips. This may reduce the program's capacity to address social isolation, since trips for strictly social or recreational purposes may not be allowed.
- Clients may not be able to request rides outside of regular service hours. This may leave existing BRTA service gaps (on nights and weekends) unfilled.

Best Practices Case Study: Palmer AK Senior Citizens

The Palmer, Alaska Senior Citizens volunteer driver program was recognized with a 2014 STAR award, awarded annually by the National Volunteer Transportation Center to outstanding volunteer driver programs. The Palmer program service is based service in Palmer, Alaska and serves the Matanuska-Susitna Borough, which is home to 97,882 residents and covers an area of 25,258 square miles.[38] The most populous southern end of the borough contains several small towns, which are dispersed over an area roughly the size of Berkshire County. This part of the county, which contains the town of Palmer, is roughly geographically similar to Berkshire County in terms of total area and population density. The rest of the borough is largely unpopulated and covers a vast expanse of nature preserve and public land. According to Mat-Su Senior Services, the borough has the most rapidly growing senior population in the country.[39] The service area resembles Berkshire County both in terms of the geographical dispersion of its small towns and the rapid aging of its population.

The program serves seniors and certain other eligible individuals at low or no cost. Donations are suggested, and rides to and from certain locations require a set fee. It offers door-through-door service to medical facilities, the senior center, grocery shopping, and community events. Weekly vans are scheduled for runs to local grocery stores, and clients call a week in advance to schedule rides to medical appointments.[40] The program employs 15 paid drivers and 12 volunteer drivers. In 2013, the program provided 20,701 rides for 265,000 miles of service on a budget of $209,839. The cost per trip was $10.14.[41]

5. Taxi voucher model:

Summary:

In this model, the host organization contracts with a local taxi service provider to provide rides at low or no cost to clients. The organization processes trip requests and the taxi service schedules them. Clients request rides by calling ahead or through an online submission form. Service is typically curb-to-curb. Rides may be free, or the rider may have to pay a small per-ride fee. However, it is important to note that most of these programs operate in cities or large towns, not large rural areas.

Suitability for use in Berkshire County:

Advantages:

- Service can be guaranteed within a specific time period and area of operation.
- Since the drivers are paid, service does not rely on a pool of volunteers who may have other commitments.
- Service can be offered outside of regular hours, allowing the program to fill in gaps in existing BRTA services.

Potential Obstacles:

- This model can have high per-ride costs, especially when trying to reach clients who live outside the more populous municipal centers.
- Rides may be restricted to certain types of trip destinations based on the taxi company's service capacity. For example, many programs of this type only allow medical trips.

- Local taxi companies may not have the capacity to provide a large number of rides for this program. The taxi companies in Berkshire County operate small fleets, and may be unable to sustain a high volume of rides for the program.
- Passenger assistance is typically limited, since drivers are not trained in elderly assistance.
- ILP estimates that this model can have per ride costs of $10 to $20, significantly higher than the other models presented in this brief.[42]

Best Practices Case Study: Newton, MA DSS

The Newton Department of Social Services operates a subsidized taxi voucher program that provides rides to Newton residents over the age of 60. Newton is a small city located in the Boston metro area, with nearly 90,000 residents and a population density of 4,700 per square mile.[43] This compares to a population density of 134 people per square mile in Berkshire County. The town and the surrounding area are largely suburban, covering an area of 18 square miles. 12% of the population is 65 or older, slightly above the Massachusetts average of 11%.[44]

After a public bid process, a contract was signed with a local taxi company, which provides rides to all program destinations. Rides are available on weekdays from 8:00 AM to 5:00 PM, and trips are limited to locations such as the library, grocery stores, religious services in Newton, medical appointments (including out of town), and local village centers. Reservations must be made three days in advance over the phone. Clients must purchase one voucher for each ride at a cost of $4 (some riders may qualify for a lower fee or no fee at all).[45] The program typically provides over 20,000 rides each year. In 2016, the program provided 23,208 rides with

a budget of $215,000, serving 270 unique riders each month.[46] The average cost per ride was $9.26, a low unit cost for a program of this type.

Conclusion:

This report recommends the adoption of a TRIP program to meet the mobility needs of the elderly population in Berkshire County. The TRIP model is a highly flexible program. It can operate across municipal, county, and even state lines. Since it functions essentially as a volunteer ride-sharing program, it would benefit from the already high volume of personal automobile trips in Berkshire County. Indeed, the Berkshire Regional Planning Commission has recommended the expansion of ride-sharing programs for exactly this reason.[47] A TRIP program would also be able to operate outside of regular service hours. This would allow it to supplement, rather than compete with, existing services by filling in gaps in service hours and types of destinations allowed. Moreover, it is extremely inexpensive—cheaper than any of the other models mentioned above—with very low startup costs. Additionally, a TRIP program is easily scalable. The costs of extending the program are essentially just its marginal costs: the costs of screening new riders and paying additional mileage reimbursements. But perhaps the most important benefit of a TRIP program is its emphasis on empowering its clients. By encouraging clients to form their own networks, rather than relying on a pre-assembled one, the TRIP program itself counters social isolation among the elderly population. For these reasons, the TRIP model presents an effective and proactive solution for addressing the transportation needs of Berkshire County.

III. Sources:

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