Project EmpowerTrans

Transportation Options for Connecting Affordable Housing and Growing Job Centers

June 2015
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The project oversight team included John Powell and Allison Calkins, Howard County Office of Transportation; Brad Closs, NeighborRide; and Mel Freeman, Citizens Planning and Housing Association (CPHA).

Steve Holt, of CPHA, served as the project manager and author of the final report.

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EXECUTIVE SUMMARY

EmpowerTrans is a research effort to identify an affordable and sustainable model in transportation that connects low- and no-income residents from affordable housing to employment centers and job opportunities. In order to accomplish that, the project engaged residents, workforce training providers, employers, and other stakeholders to discuss their transportation needs and challenges, as well as what types of solutions would address those needs and challenges.

By understanding both the problems and goals of all the stakeholders, EmpowerTrans began to focus on specific transportation issues: for people in suburban communities, there are often few to no transit options available where they live, leaving them unconnected on that first mile. For people trying to connect to suburban job centers, whether starting in suburban or urban communities, the transit system can get them close while not quite getting them all the way there, creating a last mile challenge. Participants were very engaged in wanting to address these problems, knowing that this was making it impossible for themselves or their clients to be able to access the good jobs that do exist in the greater Baltimore region.

The project did an extensive survey of possible solutions to these issues, recognizing that there was a need to consider all of the options in coming up with an innovative way to most efficiently use limited transit resources. The best solutions, according to our research, took advantage of the growing field of public-private partnerships to create options that both meet the needs of local governments, while also directly involving the private sector as participants. One opportunity for this partnership comes through car-sharing models, which can provide greater transportation access in areas with little or no current options. Using shift-coordinated car-sharing trips, where employees coming onto a shift can drive the car to a job location and those coming off work can bring it back to its origin location, can help quickly address transit needs for employers who are operating on multiple shifts, especially during off-peak hours.

Shuttle systems also have the potential to better connect people with dense job centers, and particularly those that are not far from existing high quality transit infrastructure, such as rail. Creating a MARC shuttle as a flexible and affordable option to reach the many jobs that are within a few miles of existing MARC stations - including BWI, Dorsey, Edgewood, and Aberdeen - would be an immediate improvement to our transit network.

Finally, but most importantly, there needs to be a model for fostering and developing these types of innovative partnerships, which can address long-term needs for these suburban job centers as they continue to grow and develop. Based off of Montgomery County’s transportation management districts (TMDs), proposed transportation improvement zones (TIZs) can coordinate employers, transportation investment, development, and workforce
programs to create the most effective and sustainable solutions for shaping the long-term future of the region.

This report outlines how each of these three options can be further developed and implemented to meet the goals of the EmpowerTrans project: namely, connecting low-income residents to available opportunities in the workforce through better transportation access. By building upon what is already working elsewhere, car-sharing, shuttles, and transportation improvement zones can address the growing transportation challenges in the Baltimore region in a manner which is both efficient and effective, making the best use of limited transit resources.
OPTIONS DEVELOPED

Based on the feedback received from our community workshops, there was a clear need for a variety of different options to help solve these issues, rather than one particular model that could address all of them. First, there is a need for transit options that could connect people on the first mile in suburban areas where transit access is limited, and where the high costs of car ownership and maintenance can be a major financial obstacle for families. Second, there need to be transit options that connect people from everywhere in the region to the major job centers which are growing faster than the transit capacity to serve these centers. Finally, there is a need for partnership model that can bring in all of the stakeholders who can benefit from enhanced transit access, and to create incentives that will result in better transit access in those job centers for the long-term, not just for the life of any particular pilot program or project.

To meet those needs, the project researched and examined a comprehensive array of options, including but not limited to: ride-sharing, transportation network companies, car-sharing, vehicle ownership programs, and van-pooling, as well as transportation entrepreneurship programs and other approaches to addressing these issues. From the consideration of those options, three stood out: car-sharing, as a way to help solve issues on the first mile; shuttles, as a way to address concerns for the last mile connections; and transportation improvement zones (TIZs) for coordinating new services.
Background

Car-sharing is a model which has become very popular in the last few years. Rather than a person having a vehicle which they own, maintain, and store, they pay for a membership or on a per-use fee basis for cars which are made available to members at designated stations. Car-sharing has largely focused on meeting the needs of urban residents, where many daily trips can be accomplished through transit or by walking and a car may only be needed on an infrequent basis. Additional costs associated with driving in major cities, including higher insurance costs and the availability of parking, also make car-sharing more feasible in these areas. By providing more flexibility for trips on an occasional basis, car-sharing can reduce or even eliminate the need for car ownership for some residents.

Zipcar is one of the more widespread providers in this field.¹ They currently have stations located in cities across almost 40 states, including Baltimore. Their basic monthly plan starts at $6/month for membership, with hourly rates for driving starting at $7.75. Membership in ZipCar also has certain requirements for your driving record, including limits on the number of major traffic incidents you can have been in within a certain timeframe, and a restriction on those who have alcohol or drug related convictions.

In addition to for-profit companies, there are non-profit programs which are seeking to increase access to transportation. One of the most significant is City CarShare, which operates in the San Francisco Bay Area, California.² This program, started in 2001, allows members to reserve a car 24/7 from a nearby pod location. The reservation includes gas, insurance, maintenance, and roadside assistance. There are also different pricing plans for individuals, businesses, and educational institutions. Hourly rates for individual households start at $5.50/hour (with a 35 cents per mile charge) or $7.50/hour with no mileage charge, with a lower rate for driving between the hours of midnight and 8 am ($1.50/hour, 35 cents per mile charge). By providing people who only occasionally need access to a car with a temporary ride, the program hopes to reduce traffic congestion and the environmental impact of cars, as well as help members reduce driving costs.

Rationale

One of the main strengths of car-sharing is that it can offer the same level of access to employment centers as car ownership, providing fast trips to any location that is accessible by roads. Car-sharing also eliminates the cost of paying a driver by having people drive

¹ zipcar.com
² citycarshare.org
themselves, which can be one of the major significant financial obstacles when creating a new transit service. By controlling the costs of car ownership, and sharing them with a number of other people - particularly if ride-sharing efforts are included - a car-sharing program could allow people in areas with very little transit to have as much access to employment as someone who has a personal vehicle, but at a more affordable price.

**Program Design**

There are two main types of car-sharing programs, both of which could have potential applications for increasing access to employment. The first, and the one which would be easiest to implement, requires that the shared cars are returned to their origin point. The vehicle is reserved for a period of time, and the user is charged for the duration of that time, until the car arrives back where it started. For traditional commuting, where the vehicle remains parked at an employment location, this model does not work, as it requires the employee to pay an hourly charge for the duration of the day.

However, at employers where shift work is common, such as in warehouses or the service sector, coordinating transportation between those shifts can make this type of a program work. If a number of employees are coming from a similar origin point - for example, a public or affordable housing development - a car-sharing location can be established there where people can access the vehicles, and a long-term permanent reservation for commuting hours can be made. When one employee takes the vehicle from their home to the job location at the start of their shift, another employee - who is coming off of their shift - can use the vehicle to drive home. The cost for the reservation would be charged to a business account, who could then charge employees accordingly for their use of the service, while also potentially using tax benefits or other subsidies to bring the cost down for employees. Ride-sharing amongst the users of the service - if multiple people are coming on or off at the same time from the same location - can also reduce the costs of providing this type of service.

In situations where it is impossible to make that return trip connection, however, there are car-sharing programs that allow for one-way trips. Rather than returning to its origin, the car is put back into use from the destination point. This allows far more commuters to access the system, since there is no requirement for a return driver to take the car from them, but takes more work to actually implement the system.

One version of a program like this would be creating a car-sharing location at a public housing community. Residents would take the vehicle (potentially ride-sharing in the process) to a major transit stop, where the car would join a pool of other cars that are available to people during the day who may be making connections from that stop to other areas of interest, such as grocery stores, and bringing them back to the stop. On the return trip, commuters could take the car back to the public housing area, where it could then be available for either non-commuting trips, or for workers on other shifts.
The first, and most important, feature of designing a program like this is ensuring that the cars are in a place where people are likely to use them between the time that the employee arrives at work, and the time when the employee needs to return home. For that to happen, the commutes need to be ending at places where people will be able to use the cars for daytime trips. Ideal destinations would include: major transit stations, allowing people to “ride and drive;” large employment campuses, such as hospitals and universities; mixed-use developments; and, if implemented in coordination with other recommendations in this plan, shuttle stops or TIZ centers. This would not work for isolated office parks or other types of job centers where there is unlikely to be a high demand for non-commute trips.

The second crucial feature would be ensuring that were always sufficient cars available to not leave people stranded and unable to make needed connections. If any particular car is rented out and not returned, because of mechanical failures, inattention to time, or any other reason, there needs to be a contingency plan. For larger car-sharing destinations, this would primarily involve economies of scale, with a surplus of available cars to mitigate the impact of any one particular vehicle not being returned because of unforeseen circumstances. For places where there are few cars being put into service, there would need to be a Guaranteed Ride Home (GRH) type program that would fill in for any occasional lapses in car-sharing coverage, with revenues from the program being used to offset those expenses.

In both programs, finding ways to cut down on the number of trips taken can significantly reduce the cost of running the program. By having multiple riders on each trip, the program can meet the needs of more commuters at the same price. A housing agency or workforce provider can play a valuable role in consolidating trips by coordinating between residents who have similar destinations at similar times. By bringing two or more residents together, they can make the program far more efficient, while also providing opportunities for people to participate who may not be eligible drivers themselves. The program can also try to automatically connect people who are making similar reservations, to show them their options for cutting down their costs.

**Potential Obstacles and Limitations**

Even with the program features mentioned above, costs - especially on longer trips - may still be prohibitive for residents. Most programs have per-mile charges, because of the additional maintenance and fuel required, and for more distant job centers, those costs can add up very quickly. Some financial investment on the part of public agencies may be necessary to implement the program. Also, many car-sharing programs have restrictions that could likely prove difficult for some of the people who might need to access the service. The most obvious is the need to have a driver’s license, which not all residents have. However, in addition to having a driver’s license, driving record and criminal record requirements are often a part of these programs because of a desire to keep auto insurance costs down. One way to address
this is to offer driver education courses as part of the program. These education courses could address issues necessary for licensing, but could also teach driver safety and other skills that, in partnership with car insurers, could help bring down insurance costs. Having well-trained, licensed drivers in affordable housing will make for a stronger program, as well as a larger customer base for the private company.
SOLUTIONS ON THE LAST MILE: SHUTTLE SYSTEMS

Background

Shuttle systems provide specialized transportation, built around a highly defined need, and often in connection with a specific educational institution or employer. The Baltimore area already has a number of different shuttles operating throughout the region. For example, a number of universities - including the Baltimore College Town Shuttle and Johns Hopkins University - provide transportation services to their students and employees. BWI Airport has hotel shuttles that move both travelers and employees to and from the airport. By focusing on a particular demographic, and usually within a small geographic area, shuttles are able to offer high quality service in a cost-efficient way for that particular purpose.

Rationale

Because they are often aimed at a particular group of people who need to get to the same place, shuttle systems can be efficient at moving these groups to their destination with minimal stops compared to regular buses. These efficiencies result in lower costs, higher levels of service, and faster travel times. In addition, particularly at a larger scale, these types of shuttle services are able to build in plenty of back-up options as a part of their system, and can even include on-demand service, which makes reliable and efficient off-peak service a realistic possibility. For employers that are disconnected from regular transit access, and for the employees who want to work at those businesses, a shuttle can significantly reduce the travel time, while increasing the reliability of the service. By making last-mile connections from rail, light rail, and subway to businesses that are currently difficult to access by transit, far more people would be able to reach those jobs, including not only those who are transit-dependent, but also those might find a quality transit trip preferable to commuting alone.

Program Design

A shuttle system should start by building from existing transit infrastructure. Light rail, subway, and the MARC are all assets that can provide a starting point from which to create connecting shuttles. This greatly shortens the trip that the shuttle needs to cover, because instead of attempting to cover the full distance from home to job, they circulate between transit which covers the majority of the distance, and job centers that are people’s final destinations. These short routes provide much greater frequency and reliability, while still requiring fewer vehicles in service. In addition, transit stops collect more people in one central location, allowing the greatest number of riders to be picked up at the fewest number of stops. Finally, the value added to transportation agencies - with riders more willing to use the transit, knowing that they
have a shuttle to connect them to their final destination - can justify improvements in the transit service itself, such as higher frequency.

From those transit stops, nearby high-density employment clusters should be identified as the most important stops. Higher job-density results in higher potential ridership, and serves the primary purpose of connecting more people to jobs. Routes should be designed with the idea of minimizing stops (which create lag times in travel) and keeping routes short and frequent (keeping the route reliable). Opportunities for the shuttle to be used for non-commuting transportation, such as trips to a local shopping center, can also be identified as a way of increasing ridership and bringing in other partners who may have similar needs.

The key feature for a shuttle system is creating partnerships between, and with, the employers and businesses who will be served. The actual transportation needs of those businesses are critical to making determinations about the route design and service. There need to be ways for employers to communicate what their expected ridership is and when they expect people to be coming in, and coordinate that with other businesses to determine when services are needed and how much needs to be provided. Employers also need to be involved in the financial sustainability of the system. Financial resources from the businesses served are needed to keep a system like this running, though in many cases, that will not require entirely new funding. Some existing resources, such as current shuttles that are being run without being coordinated across different needs, can be incorporated into the system. Also, other resources that are currently being spent on transportation - including, for example, parking benefits - can be moved towards supporting a shuttle, for employees who may stop utilizing those benefits. Finally, employers should be recognizing that the decreases in absenteeism, tardiness, and turnover that result from improved transit access can result in significant savings in their human resources budgets, justifying the expenditures on transportation.

**Potential Obstacles and Limitations**

The efficiencies of a shuttle system come from its selectivity. They are not designed to stop at all locations, but to move people from a small set of origin points to another small set of destination points. For them to work at their highest level of efficiency there has to be a critical mass of people going from specific origins, to specific destinations, at specific times. In situations where that level of efficiency cannot be achieved (e.g., in more disconnected suburban communities, for off-peak travel in locations without a high-density of off-peak jobs), shuttles are not a viable option.

**Making the Concept Work: The MARC Shuttle**

In collaboration with the Community Transportation Association of America, CPHA started to design a prototype for a MARC shuttle that would connect riders from existing MARC stations
to nearby job centers, including a storyboard that demonstrates the process from start to finish. Riders would start from MARC stations, which in Baltimore (Camden, West Baltimore, and Baltimore) are well-connected to existing transit services. They would take the train to one of the stations where there are nearby job centers, which would include the Dorsey station on the Camden Line, and Edgewood, Aberdeen, BWI, and Odenton stations along the Penn Line. The shuttle would run in conjunction with existing service, picking up passengers within a few minutes of their arrival at the stop. The shuttles would run short loops to locations with participating employers, with stop schedules designed to meet the demand from those businesses, and with travel times kept to under 20 minutes. Service would be concentrated at peak times (morning and evening commute hours), but during the day and at other off-peak times, service could continue to operate as an on-demand service to connect people with restaurants or shopping centers located in the area.

At the Dorsey MARC station, for example, there are a large number of hotels, healthcare facilities, shopping centers, and restaurants located to the west of the station, which are not currently well-served by transit, but are within a few miles of MARC. By engaging some of those employers and destinations, determining what their transportation needs are and designing a shuttle route to meet that, it would be possible to have a cost-effective, reliable service that has appeal for both people that currently do not have access, and for people who are currently using single-occupancy vehicle travel.

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3 See Appendix, “Dorsey MARC Shuttle”
Finally, in order to support and sustain these options - as well as others which may be developed in the future - there needs to be a model for creating partnerships between the involved stakeholders. The most effective way to accomplish that is the establishment of transportation improvement zones (TIZs) in major and emerging job centers outside of Baltimore City, designating specific areas for a set of policies that would enable better transit access in those locations. TIZs would create strategic partnerships that would increase the return on investment in transportation resources for all parties.

**Model: Montgomery County Transportation Management Districts**

Transportation management districts (TMDs) or transportation benefits districts (TBDs) are established to serve a particular geographic area, which can be as large as a county or more specifically focused around a particular transit stop or employment cluster. They have the capacity to serve a variety of different purposes, including reducing traffic congestion and air pollution.

Montgomery County, Maryland has five designated transportation management districts (TMDs), including three, in Friendship Heights, Downtown Silver Spring, and Greater Shady Grove, which are run by Montgomery Commuter Services, as well as another two that are run by transportation management associations - Bethesda Transportation Solutions for the Bethesda area, and the Transportation Action Partnership in North Bethesda. Each of these districts were created by an act of the Montgomery County Council.

One of the key aspects of their approach is an advisory committee, including employers and residents, that helps shape the activities of the TMD. Employers with 50+ employees within the TMD are also required to submit a Transportation Management Plan (TMP), which outlines the efforts that they are taking to reduce the number of trips being made by single-occupancy vehicle drivers. The TMD works with employers to improve ride-sharing efforts, to encourage greater transit usage, and to connect the different resources that are available to provide quality alternatives. Through employer-based Transportation Management Plans, development-based Traffic Mitigation Agreements, and fees related to both parking and development within the zones, the TMDs have been able to create new services like the VanGo Shuttles and significantly increase the non-auto-driver mode-share (NADMS).
Applying to Baltimore: Transportation Improvement Zones

Right now, the job transportation picture for the Baltimore region is a difficult one – job opportunities have been, and are expected to continue, growing further and further away from our existing transit systems. However, these new workplaces have been created around “clusters” related to other assets: the BWI Airport; military bases like Aberdeen Proving Ground and Fort Meade; major shopping centers like Arundel Mills; and near auto-oriented development close to Interstate 95, the Baltimore Beltway, and other highway corridors.

The goal of a transportation improvement zone is to bring together all of the stakeholders who would benefit from improved transit access to one of these clusters, assess the most pressing transportation needs in those areas, and use the combined resources of those partners to provide the needed services and policy changes. For example, if a number of office parks near one of the Light Rail stations recognize that they would have greater transit access by providing a multi-company shuttle, the zone would facilitate those businesses working along with local transportation agencies to create that shuttle service. Businesses gain increased transportation access to the workforce, which leads to lower rates of absenteeism, decreased tardiness, and reduced turnover; participants in training programs and residents of subsidized housing have more job opportunities available to them; and transit agencies gain a higher ridership on the existing services that bring people to shuttle stops. TIZ partnerships are designed to create benefits for all stakeholders.

The intent of the transportation improvement zones is to have similar success in encouraging the use of transit, using many of the same tools that were, and are, available to the Montgomery County districts. However, where those districts started at major transit stops (e.g., the Silver Spring Metro) and then moved to employers nearby, the improvement zones are focused on major employment clusters, and then looking at how business, residents, and other groups can be involved in creating new services that will make those job centers more accessible to transit. The reason for this is that the Baltimore area does not currently have the type of regional transportation system that exists in the D.C. area, and many of our most significant job centers are not connected to significant transit investments. Focusing only on areas which are currently well-served by transit would eliminate many of the locations where there needs to be more access.

While this does present a challenge, it also means that there is the opportunity to lay the foundation for improving transportation services from the ground up - involving businesses, employers, residents, employees and jobseekers throughout the process, and allowing them to work closely alongside state and local transportation authorities in determining the tools that are needed. This type of approach will allow transportation services to be designed to directly meet the most pressing needs of the people who are using it. Stakeholders in the TIZ will be able to set the goals that they want to see achieved, work together to determine what will achieve those goals, put those options into practice, and then evaluate and re-allocate resources on the basis of their success or failure.
TIZs can be designed to meet a number of different goals. One goal that Baltimore-area transportation improvement zones should explicitly adopt is making more jobs accessible by transit. This creates greater economic opportunity for those who are transit-dependent, as well as more options for those who may be cost-burdened by auto transportation and/or prefer modes besides single-occupancy vehicles. Other goals could include reducing traffic congestion and air pollution, the focus for the Montgomery County TMDs, both of which could be desirable outcomes in growing job centers. Other environmental concerns, including reducing sprawl by concentrating development within TIZs and reducing impervious surface with lower parking requirements, may also be important for partners. This analysis will also outline strategies for increasing access to housing for employees, training people for new and existing jobs, and improving the walkability of these areas - all goals which could be potentially adopted, and achieved, by TIZs.

The most important tool for the TIZs to accomplish those goals is transportation management plans (or, potentially, transportation improvement plans) from larger employers within the zones. These plans are created by businesses and employers through an annual commuter survey. Employers are required to make an effort towards an 80% response rate to the survey from their employees. The survey data is then used to determine how people are getting to and from their workplace, and either the county commuter services or a local transportation management association (TMA) work with the employer to develop strategies to help people use alternative modes more often, including carpooling, teleworking, and transit. These strategies, which then constitute the plan, can include financial incentives for transit passes, parking spaces which are committed to those who are ride-sharing, and plans to offer pre-tax commuter benefits for qualified expenses. Job training programs and affordable housing providers should also survey the participants in their programs, to know where their people are coming from and where they need to get to, and contribute their own transportation needs assessments as part of the TIZ survey process.

The cumulative survey data can then be used by the Board of the TIZ to determine what changes to services, or additional services, are needed to better support transit access to the employers within the zones. For example, a small bus re-route may make it possible for workers to reach additional office parks where people have expressed interest in taking transit. In another situation, adding in a shuttle that runs to a few local businesses that have weekend hours could make those jobs more accessible. Once a list of proposed projects has been drafted, the TIZ Board can work with transit agencies towards implementing suggested service changes, and can prioritize and fund new services from their project list based on the pool of available funds.

Another significant tool for the TIZs is the traffic mitigation agreement. These agreements cover new developments in the zone, and involve the developer in the process of making sure that those developments help achieve the overall transportation goals by including elements that are supportive of transit. This can include features like reduced on-site parking through
leasing from shared garages and making high quality bus shelters part of the project. Developers can also receive appropriate bonuses as part of their traffic mitigation agreements, including reduced parking requirements, higher density allowances, and points towards LEED certification for sustainability features.

TIZs would also be able to raise their own funds through a variety of revenue streams. For smaller-scale projects, participating employers and employees can make contributions towards the services that they use, with assistance provided to them to help receive any relevant tax credits or benefits for which they might be eligible. Other end-users, including workforce training programs, subsidized housing providers, and others who may have transportation budgets, could make contributions to the system as well by shifting funding away from some of the stopgap measures currently in place. Some more significant funds could be raised by creating a parking lot district in the zone, with fees charged for parking spaces which then go directly into additional transit services. This would both raise revenue for new services and increase demand for them, as people switch away from driving to avoid those parking fees. TIZs could also apply for grants to receive federal funding and connect to other available government sources. For larger projects which may become viable for the zone, value capture tools like tax increment financing (TIF) could become important resources for making significant infrastructure investments. Developer fees could also be incorporated into traffic mitigation agreements near those investments, as the desirability of transit-oriented development (TOD) creates higher demand that can be leveraged to support those services.

As well as being able to bring in a variety of different funding sources, a TIZ can also be aligned with affordable housing plans. By locating more affordable housing close to areas which are well-served by transit, new services, which would at first be more successful in meeting last mile challenges, would become more widely used as first mile services as well, with residents being able to use them to get to their places of work.

**Transportation Improvement Zone Strategies**

There are seven main strategies that TIZs can implement to increase transit access to jobs:

1. Create an advisory council with a broad-based set of partners in the improvement zones, including businesses and other employers, as well as workforce training providers and representatives of affordable housing.

This is the first step to take in establish a successful transportation improvement zone. Before the transportation improvement zone legislation is even written, let alone enacted, an advisory council consisting of businesses, workforce trainers, representatives of affordable housing, and local transportation agencies and providers should be brought together, along with other potential partners. The role of the advisory council would be to discuss and draft the legislation that creates the improvement zone. This would include determining the precise boundaries of
the improvement zone; the management of the improvement zone, including the composition of a Board (or Boards) who would be involved in representing the partners and overseeing the planning processes; and the proposed powers of the improvement zone. The advisory council would then be involved in supporting the passage of the legislation creating the improvement zone. This council should also be represented on the Board of the improvement zone, and have an ongoing role in its management.

2) Work with improvement zone partners to align current transportation resources and services with employment destinations.

Currently, the transit system is not well-aligned to meet the needs of where jobs and destinations are located. Census data is more reliable for determining where residents live, focusing on origins, without the same type of information being available about where they are trying to go. Transportation assessments, from employers and workforce providers, will help provide much-needed information about what destinations are most underserved by transit. That information should be shared with transit service providers, such as the Maryland Transit Administration (MTA), to better direct existing resources and create higher quality services without the need for additional resources. Where expanded services within the current transit system might be necessary (for example, evening and weekend light-rail service), the improvement zone could make contributions towards having those services available.

3) Provide and coordinate shuttle services across employers within the improvement zones that will help meet existing transit demand.

The most pressing demand in the proposed improvement zone areas is for last-mile connections, getting from transit stops to final destinations. While some employers already offer shuttle services, for example the BWI hotels, coordinating these services across different employers and augmenting them with additional shuttles and services is the quickest and most cost-effective way to improve transit for their employees. Using assessment data, shuttles can be put in place that would serve a higher number of people in a more efficient manner. This is especially true of businesses that need off-peak transportation. Once the improvement zone has a list of unmet transit needs, those should be prioritized, and funding dedicated towards shuttles that will help meet the highest priorities among those needs.

4) Create revenue streams for the improvement zones, including revenues that can be used for investment in long-term transit infrastructure.

Providing new and improved services will require new sources of funding. One source is the employers within the zone themselves, who will benefit from having better transit access to the workforce, and can offset some of those costs through tax benefits. Users of the service can also pay into the system and benefit from pre-tax payments, though any fees charged should be kept modest in order to both encourage use and ensure access. Developer fees and participation in needed improvements like bus shelters have also proven to be successful, with
the provision that offsets like reduced parking requirements should be used to encourage more development within the zones, rather than outside them. Last but not least, parking fees and/or taxes can be used to provide for new transit services, with those additional funds directly linked to improved transit within the zone.

While shuttles and other similar services will help meet some of the immediate need, high quality transit services may be more effective in the long-term, and more likely to produce the positive benefits of transit investment such as permanent job creation. If the county legislation authorizes TIZs to use value capture tools, they can use financing based on the expected added value to local property taxes as a funding source for infrastructure investment. This in turn can be used as local match to secure state and federal funding, creating more opportunities for significant improvements to the regional transit system.

5) Develop pipelines for employment in the improvement zones, especially in newly created transportation jobs.

The transportation improvement zones should not only increase access to existing jobs, but also create new jobs for shuttle drivers, mechanics, and others who will be involved in the operations and maintenance of new transit services. Transportation and logistics was one of the sectors highlighted in the Regional Talent Development Pipeline Study as providing job opportunities that lead to a Career Pathway, offering quality jobs for people who may not have a four-year college degree. Workforce training providers, such as Anne Arundel Workforce Development Corporation and the Mid-Maryland WIB, should be involved in the TIZs to make sure that residents have the resources necessary to access these jobs. This can include training for CDL licenses and automotive repair courses. Training programs could also be developed for those interested in starting their own small business to provide transportation services, especially for potential entrepreneurs from communities where those services would exist.

Workforce programs and employers should also explore the possibility of prioritizing industry-led partnerships with companies located inside TIZs, knowing that improved transit service leads to better access to those jobs and better rates of retention for jobseekers who are placed.

6) Encourage the development of affordable and workforce housing within transportation improvement zones.

While improved transit services can help bridge the gap between where people live and where people work, supportive affordable and workforce housing programs can actually make that gap smaller. By working with local housing agencies and developers, TIZs can prioritize the development of new affordable housing in locations which are both closer to jobs and closer to improved transportation services, making those effective first mile solutions as well as connecting people on the last mile.
In particular, transportation improvement zones should look at creating programs focused on providing housing opportunities for income-qualified employees who work in the zone. Anyone working within the zone and making below a certain income threshold could be eligible for these types of programs, with priority given on the basis of tenure at those jobs. People could apply for the program, have their employment and income verified, and then would be added to the TIZ housing list.

Assistance could then be provided to people in two different ways. The first option would be grants/loans, similar to existing Live Near Your Work programs, which could provide financial assistance for people who would want to move closer to their jobs if they had the means to do so. A second option would be an inclusionary workforce housing program, with a certain percentage of units at new developments within the zone set aside for people on the TIZ housing list. As new units are created, opportunities would open up for people who work there to move closer to their jobs, reducing the length of their commute.

7) **Adopt, and prioritize the implementation of, Complete Streets approaches for transportation improvement zones.**

Currently, the roads in many of these potential transportation improvement zones are designed exclusively for automobiles. Wide lanes have been designed to provide maximum speed for cars, while features which are important for other modes of transportation - like bicycle lanes, bus shelters, sidewalks, and pedestrian crossings - have been left out. Without similar infrastructure investments for these modes of transportation, the effectiveness of new transit services will be limited.

Complete Streets approaches have become popular throughout the United States as a design standard for creating roads that are intended not only for auto drivers, but also pedestrians, bicyclists, and people using other modes of transportation. Some Baltimore-area jurisdictions have already adopted Complete Streets policies, including Baltimore City and Baltimore County, while others - like Howard County and the City of Annapolis - mention Complete Streets as part of their plans. In order to create more job access, those policies will need to not only be passed, but put into action.

The TIZs offer the opportunity to get the greatest return on investment from implementing Complete Streets approaches. Better transit services create more pedestrian traffic, as people walk to and from the stops, while pedestrian crossings and sidewalks encourage people to use those services. Many of the last mile difficulties are as simple as not being able to cross a busy highway to get to a final destination, and by addressing those challenges, the TIZs can create the greatest level of transit access possible with the new investments.
Potential Transportation Improvement Zone Locations

Based on conversations with workforce training providers and residents, there are a few locations that stand out as the most likely areas for creating a transportation improvement zone:

**Columbia** - this was one of the areas where transit was mentioned as a significant need across every community, with a lot of growth in and around Columbia, and transit services that are perceived as being primarily geared towards the Columbia Mall.

**Ellicott City / Rt. 40** – this was mentioned frequently, primarily within Howard County, as an area which is growing and has very little existing transit capacity.

**BWI / Arundel Mills / Nursery Road** - in addition to the need for greater off-peak service on the light rail, Arundel Mills is a major job center with a perceived major deficit in transit, and many of the businesses along Nursery Road are close - but not quite close enough - to the light rail and other transit services.

**Crofton** - the location of a new shopping center, development in western Anne Arundel County associated with that center, and a lack of east - west transit routes were all mentioned as contributing factors to Crofton being listed as a major transit need.

**Owings Mills** - while the current subway system gets to Owings Mills, the transit services to jobs which are a little beyond the range of the subway are seen as limited. Because of the existing transit stop, an approach even more closely related to the TMDs in Montgomery County may prove successful.

**Aberdeen** - with existing MARC service and both job and population growth related to Aberdeen Proving Ground, Aberdeen is an area which would already have many of the resources necessary in place to expand those transit services and connect to other businesses and employers nearby.
Establishing a Car-Sharing Program

A pilot car-sharing program should focus on maximizing the utilization of existing resources through shift coordination, where one group of employees is coming to work, while another group is coming off work and returning the vehicle to its original location. The program would only require one employer who was willing to participate, and had sufficient employees working at a variety of shifts to create a coordinated schedule; one housing location with enough potential employees to be able to maintain that schedule; and one current car-sharing provider.

The crucial first step would be connecting the housing agency and the employer. For example, a warehouse that has a need for a large number of new employees could hold a job fair at a local housing agency, to interview residents and determine whether or not there are enough interested and qualified candidates to maintain the shift rotations on the vehicle(s). If there are, the housing agency would then work with the car-sharing provider to open a new location, and place a long-term reservation on the needed commuting hours. That would also make the cars available to be used by residents for other necessary trips, such as going to the grocery store. The car-sharing provider would then create a business account for the employer, charging the commuting costs directly to the business, who could then collect that money from employees’ paychecks as an automatic deduction.

If the pilot were successful, the program could then be expanded to other housing agencies, and to other employers. As that network gets stronger, it would be possible to start considering programs that offer one-way trips. For now, however, the goal should be to find the pilot agency and pilot employer who are most likely to be successful.

Creating a MARC Shuttle

In developing a new MARC shuttle, the partners needed for the program would include the Maryland Transit Administration, local employers near the MARC station, and any other potential destinations that might be served by the shuttle. The very first step is doing outreach to those partners, which can include using the resources developed in conjunction with CTAA and mentioned in the “Dorsey MARC Shuttle” Appendix. Employers and other destinations should sign up to register their interest in having a stop by providing some basic information about how they expect the service would be used - including how many employees they have, what they estimate their ridership might be, what hours they would need service, and what financial contribution - if any - they are willing to make to provide to the service.
With that information, a local transportation management association (TMA) could start designing a potential route in conjunction with the MARC train schedule. That route design should be presented to and improved by potential stakeholders - including local transit agencies, the participating employers, and workforce providers. Once a route is decided upon, the TMA should look to get funding for a pilot program, which may need to come primarily from public grants in order to take care of capital needs and get the program established.

A successful pilot program will be one that meets or exceeds the ridership goals and is able to make progress towards financial self-sustainability, either through recouping its costs from employer contributions, from charging riders, from a sustainable public subsidy (e.g., payments from MARC that reflect its increased ridership), or some combination of all of the above.

**The Transportation Improvement Zone Process**

There are eight steps to creating, and then running, a transportation improvement zone - with the first being the important next step to take in order to move the process forward. Those steps are:

1) Create an advisory council consisting of affordable housing providers, workforce training programs, local employers and businesses, and other partners from the identified area. Partners in the council should agree to a defined set of goals, including providing better transit access to residents of affordable housing and those currently unable to access employment.

2) Involve the advisory council in drafting legislation to create the county transportation improvement zone, including the management of the improvement zone, its authority, its geographic boundaries, and the process used for determining projects. The legislation should also include the responsibilities of, and benefits provided to, employers within the improvement zone. In particular, transportation assessments – identifying how employees/residents are currently commuting to work, what transportation services are already being provided, and what the potential transit gaps are – should be conducted by affordable housing providers, workforce trainers, and employers/businesses in the area.

3) Pass legislation at the county level to create one or more transportation improvement zones, with the responsibilities and powers enumerated in the second step by the advisory council.

4) The managing board of the transportation improvement zone would start sending out and collecting transportation assessments from employers/businesses in the improvement zone, and workforce programs and affordable housing providers throughout the county.
5) In cooperation with the county transportation planning staff, the assessments would be used as the basis for a Improvement Zone Needs and Assets document, which would list both the main transit needs to be addressed, as well as what existing transportation services are currently in place.

6) The Improvement Zone Needs and Assets would serve as the basis for a prioritized list of transit projects for the improvement zone. This could include changes to existing routes; added service (e.g. off-peak) along particular routes; shuttle systems to connect with transit (new or expansions/collaborations with existing shuttles); vanpools; coordinated ride-sharing programs; or other projects that address the most pressing transportation needs.

7) The improvement zone would then work with the county, transportation agencies, and businesses to implement and seek funding for those transit projects, based on their priority. Potential funding sources include shifts in existing resources (less service along one underused route for more service along another); federal resources; employers and employees (with assistance provided in accessing commuter benefits programs that help offset those costs); workforce transportation budgets; parking lot district fees; and other sources that might be identified.

8) Projects would be implemented, and their effectiveness evaluated by the next annual transportation assessment. Steps 4-8 would all be repeated on an annual basis, improving services for the area and funding new transit projects. The goal is for improved quality to result in increased demand, with the resources from increased demand resulting in further quality improvements.

Transportation improvement zones could also work with planning and zoning for other non-transit changes that would support the goals, including: higher density, reduced parking requirements, encouraging mixed-use/mixed-income development, and Complete Streets infrastructure.
APPENDIX

Community Engagement Data

First Round, Addressing Initial Problems

Workshops
- Glen Burnie: 15
- East Baltimore: 8
- Laurel: 7
- Annapolis: 15
- Baltimore: 3
- Columbia: 3

Total Participation in Workshops: 51

Focus Groups
- Goodwill Industries, Baltimore City: 75
- Serenity Place, Baltimore City: 16
- Meade Village, Anne Arundel County: 10

Total Participation in Focus Groups: 101

Overall Community Participation in the First Round: 152

Second Round, Refining Options

Focus Groups
- Havre de Grace Housing Authority, Harford County: 18

Surveys
- Resident Survey Cards - Maryland New Directions and Opportunity Collaborative: 44
- Transportation Improvement Zone Survey (online): 25

Total Survey Responses: 69

Stakeholder Conversations
- Business / Employers: 3
- Transportation Agencies / Providers: 5
- Community Development: 1

Total Stakeholder Conversations: 9

Overall Community Participation in the Second Round: 96

Total Participation in EmpowerTrans: 248