



EXECUTIVE SUMMARY

THE LAST MILE: CONNECTING WORKERS TO PLACES OF EMPLOYMENT



PUBLIC POLICY FORUM

ABOUT THE PUBLIC POLICY FORUM

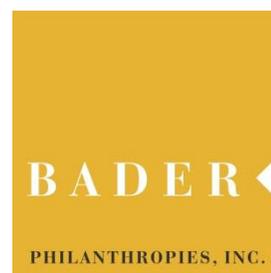
The Milwaukee-based Public Policy Forum, established in 1913 as a local government watchdog, is a nonpartisan, nonprofit organization dedicated to enhancing the effectiveness of government and the development of Southeastern Wisconsin through objective research of regional public policy issues.

PREFACE AND ACKNOWLEDGMENTS

This report was undertaken to provide citizens, policymakers, and business leaders with information about potential strategies for improving transportation connections for the regional workforce to places of employment throughout the Milwaukee metropolitan area. We hope that policymakers and community leaders will use the report's findings to inform discussions during upcoming policy debates, budget deliberations, and civic gatherings regarding public transportation services and strategies in our region.

Report authors would like to thank the leadership and staff of the Milwaukee County Transit System, Ozaukee County Transit Services, Waukesha Metro Transit, and the many other organizations in the Milwaukee area and throughout the country that provided us with information and insight. Those organizations include BublR Bike Share; City of Centennial, CO; Denver Regional Transportation District; Denver South Transportation Management Association; Innova EV; Kansas City Area Transportation Authority; Menomonee Valley Partners; Milwaukee Careers Cooperative; Pinellas Suncoast Transit Authority; Potomac and Rappahannock Transportation Commission; Salem-Keizer Transit; Shared Use Mobility Center; Southeastern Wisconsin Regional Planning Commission (SEWRPC); and SouthWest Transit.

Finally, we wish to thank *MetroGO!* for commissioning this report, with support from Bader Philanthropies, Waukesha County, Menomonee Valley Business Improvement District, Commercial Association of REALTORS® WI, and the Greater Milwaukee Foundation. We also thank Bader Philanthropies for its general financial support of our workforce development research.



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In 2013, the Public Policy Forum published *Getting to Work*, a report that explored efforts to connect Milwaukee County residents with major job locations in the region via public transit.¹ The report identified several common barriers, including one known as the “last mile” problem, which can arise when transit services allow individuals to get relatively close – but not all the way – to their job sites. This challenge is particularly common in suburban areas, where jobs are more dispersed and difficult for the Milwaukee County Transit System (MCTS) and suburban transit systems to serve efficiently, but it also can arise in some parts of the city that are difficult to reach by transit.

This report analyzes options for improving last mile transportation connections for the regional workforce in metro Milwaukee, with a particular focus on reducing transportation barriers for City of Milwaukee residents seeking employment opportunities throughout the region. Primary research questions include the following:

- *What last mile services currently are available or have been tried in the past in the Milwaukee area and what are their strengths, limitations, and future potential?*
- *What additional last mile strategies are other metro areas using that could be considered for adaptation and implementation in metro Milwaukee?*
- *How are last mile services that may be relevant to metro Milwaukee typically designed, what are their benefits and costs, and how are they being financed?*

A key conclusion from our analysis is that there is no silver bullet to solve last mile challenges. Rather, different solutions may be effective in different contexts. Often, a combination of multiple solutions is the best strategy for improving transportation access in a given area.

In addition, transit systems cannot be expected to solve all of metro Milwaukee's distinct last mile challenges on their own. Previous land use decisions have made it difficult or impossible for transit systems to effectively serve many employer locations – particularly given budget realities.

Nevertheless, it is our hope that the strategies explored in this report will provide viable possibilities for regional transit system leaders, policymakers, and businesses to consider as they seek to improve workforce mobility in the Milwaukee metropolitan area.

LAST MILE STRATEGIES - PRESENT & PAST

County governments in the region already provide a variety of transportation options that can facilitate last mile connections. Those include MCTS’ shuttle routes (bus routes designed to serve business parks in lower-density areas), Ozaukee and Washington County’s shared-ride taxi services, and MCTS’ bike racks on its entire fleet of buses. Each of these services improves mobility for workers and the general public, but each has its limitations.

¹ Public Policy Forum. “Getting to Work: Opportunities and obstacles to improving transit service to suburban Milwaukee job hubs.” December 2013. <http://publicpolicyforum.org/sites/default/files/GettingToWork.pdf>

MCTS' three shuttle routes bring people to job centers they could not otherwise reach by transit, but they are among MCTS' least productive routes, generating an average of about 5-7 passengers for each hour a bus is in service, compared with a system-wide average of 26. Thus, their long-term sustainability is not guaranteed and funding challenges likely would preclude creating additional shuttle routes in the future.

Shared-ride taxi services provide transportation directly to employers' doors in Ozaukee and Washington counties, and Ozaukee County's recent expansion into Milwaukee County to serve three MCTS bus stops could allow Milwaukee residents to more easily access jobs in that county. Additional integration between Ozaukee and Washington County's shared-ride taxi services with MCTS bus services could further improve jobs access in those counties.

Bicycling has become a much more viable last mile option since MCTS added bike racks to all of its buses in 2009. Even more recently, the introduction of Bublr bike share and its expansion into the suburbs provides an additional option for combining transit and biking to get to work. MCTS has begun to collaborate with Bublr by calling out bike share stations located near bus stops and listing the bike share stations on its MCTS Real-Time website. While biking may not be a comprehensive, year-round solution, it can represent one piece of the puzzle.



Ozaukee County's shared-ride taxi service provides over 100,000 rides annually, 41% of which are employment-related.



At least 150,000 passengers boarded an MCTS bus with a bike in both 2015 and 2016.

LAST MILE STRATEGIES TO CONSIDER

Across the U.S., metro areas are utilizing and experimenting with a variety of last mile strategies that have not been tried in the Milwaukee area, or not to the same extent. While none would offer a perfect, complete solution in all areas of the Milwaukee metro area, each may be effective in certain contexts and/or in combination with other strategies.

Flexible transit services typically utilize smaller 14-passenger buses or vans that are allowed to make diversions from set routes to serve dispersed businesses and other destinations. In some cases, these services are fully demand-responsive (on-demand), meaning they are able to pick people up and drop them off at any location within a designated zone by request. This option could be considered in suburban areas of metro Milwaukee that are on the edges of the existing transit system, where demand often is too low to sustain regular, fixed-route bus service. Nationally, flexible transit services are more common in lower-density areas that can generate between three and ten

passengers for each hour a vehicle is in service.² One major challenge of flexible transit, however, is that workers and employers must be able to tolerate a degree of variability in arrival times.

Ride-hailing offers on-demand, point-to-point transportation through taxi companies and transportation network companies (TNCs), such as Lyft and Uber. Partnerships between local governments and ride-hailing companies are being used to help individuals travel directly to their job sites from the nearest transit stop. One approach to such a partnership is a subsidized last mile ride program, which reduces the cost of ride-hailing to make it an affordable option for transit riders.

Micro-transit is a technology-supported transportation service usually provided in vans. The service features routes that can be modified over time based on demand. Micro-transit is sometimes used as a last mile strategy, but more often is a stand-alone service providing longer-distance transportation. While micro-transit could be a valuable addition to the future mix of transportation options in the Milwaukee area, no company providing this service has entered the Milwaukee market to date.

Bike sharing is growing in metro Milwaukee, but other cities and regions are expanding the impact of their systems as last mile solutions. Milwaukee's Bublr Bikes might consider such approaches, which include strategically locating bike share stations near transit stops; introducing GPS-enabled or electric-assist bikes; and introducing cash payment options and/or low-cost membership options for transit pass holders or low-income individuals.

Employer shuttles provide transportation between employer locations and transit stops. In some cases, transit systems own, insure, and maintain the vehicles used by employers; in other cases, the services are developed and operated independently by an employer, group of employers, or through a public-private partnership. Employer shuttles tend to be offered only by large employers or groups of employers, however, and appear to be more common in places with high-volume transit stops or stations typical of rail and bus rapid transit (BRT) services. Thus, this approach likely only has potential in limited parts of the Milwaukee area.



SouthWest Transit in Eden Prairie, MN offers on-demand transportation services in four Minneapolis suburbs.



Several U.S. metro areas have developed mobile applications for their transit systems that include options for ride-hailing and/or bike share.

² Transportation Research Board – Transit Cooperative Research Program. “A Guide for Planning and Operating Flexible Public Transportation Services.” 2010. http://www.tcrponline.org/PDFDocuments/TCRP_RPT_140.pdf

FLEXIBLE TRANSIT & RIDE-HAILING

Based on our analysis of the five strategies presented above, we determined that flexible transit services and ride-hailing partnerships have several unique strengths that merit a closer look as potential last mile strategies for metro Milwaukee. The attractiveness of those strategies is linked, in part, to their potential near-term and full-year viability. We explored several detailed case studies of flexible transit services and ride-hailing partnerships in other U.S. metro areas; those services and their costs are summarized below.

Selected case studies of flexible transit services and ride-hailing partnerships

| Service Name & Location | Service Type | Total Operational Budget | Avg. Subsidy per Trip | Typical Fare |
|---------------------------------------|------------------|-------------------------------------|-----------------------|--------------|
| Call-n-Ride (Denver suburbs) | Flexible Transit | \$400,000-\$750,000 per area (2015) | \$12 | \$2.60 |
| OmniLink (Washington D.C. suburbs) | Flexible Transit | \$8 million for six routes (annual) | \$8 | \$1.50 |
| SW Prime (Minneapolis suburbs) | Flexible Transit | \$480,000 (2016) | \$9 | \$3 |
| *West Salem Connector (Salem, OR) | Flexible Transit | \$255,000 (first year) | \$21 | \$1.60 |
| *Dash on Demand (Itasca, IL) | Ride-Hailing | \$90-120,000 (first year) | \$0 | \$3 |
| *Direct Connect (Pinellas County, FL) | Ride-Hailing | \$140,000 (first year) | \$5 | \$1-2 |
| *Go Centennial (Denver suburb) | Ride-Hailing | \$400,000 (first year) | \$6-7 | \$0 |

**Pilot program*

Note: Data for the Denver metro's Call-n-Ride services only includes the five areas with flexible bus routes

Key takeaways from our analysis of the case studies above include the following:

- Piloting a flexible transit or ride-hailing service may make the most sense in areas where demand exists for transit but where regular, fixed-route bus service may be unsustainable.
- Flexible transit, ride-hailing, and other last mile strategies may be especially effective as complementary services to rail and bus rapid transit (BRT) services due to the higher volume of riders that typically utilize each station relative to regular bus services.
- Ride-hailing partnerships can have a relatively low cost for both users and the transit system if they are designed as last mile connectors that make short trips to and from designated transit stops. The cost for trips of approximately three miles or less through ride-hailing services typically is in the \$6-10 range, though trips requiring ADA-accessible services cost significantly more. Subsidies can be offered that cover a portion or all of the cost of those trips.
- The private sector is taking an active role in designing and funding new last mile services in some metro areas. In the Denver metro area, for example, public-private transportation management associations (TMAs) have played a key role in developing new services.
- Municipal funding and state and federal grants also support many transportation services in suburban areas. For example, several communities have received federal grants from the Federal Transit Administration's (FTA) new Mobility on Demand Sandbox program to introduce

ride-hailing partnerships or to integrate a ride-hailing or bike share service into their transit system's mobile app. MCTS applied for a Sandbox grant, but its proposal was not selected by the FTA in its first round of funding. Future cycles of the program could represent a good opportunity for metro Milwaukee; awards provided through the first funding cycle ranged in value from \$206,000 to \$1.35 million.

- Flexible transit and ride-hailing services also are being used for paratransit. For example, Boston's partnership with Lyft and Uber provides an on-demand transportation option for paratransit-eligible individuals who do not require wheelchairs while reducing costs for both users and the transit system.
- Public outreach is critical when introducing new last mile services, particularly if the primary way of accessing those services is through new, potentially unfamiliar technology.

LOCAL AREA STUDIES

To put our national research into local context, we decided to apply our findings to two distinct areas of metro Milwaukee where transit access has been identified by area businesses and/or civic leaders as a significant issue: Milwaukee's Menomonee Valley and New Berlin. Examining one urban and one suburban area illustrates how last mile challenges can differ from one location to another, and how the most promising solutions to address those problems may vary as well.

MILWAUKEE'S MENOMONEE VALLEY

In the Menomonee Valley, many employers are concerned about inadequate transit services and limited parking availability. Both issues result in employees walking long distances to work from bus stops and parking spaces, which is of particular concern at night and in the winter.

One simple option to address concerns with existing transit services would be to **modify MCTS Route 17**, which runs on Canal Street and is the only route that runs directly through the Valley. Such



NEW BERLIN

Currently, the only bus route that serves the City of New Berlin is MCTS Route 6, which is supported by a temporary funding source that likely will run out by the end of 2018.³ At that time, Route 6 only will be maintained if MCTS is able to finance it within its existing resources or if an alternative funding source is identified. This predicament – combined with New Berlin’s proximity to the existing transit system, its low development density, and its fluctuating demand for transit (due in part to the seasonal nature of two major employers in the area) – could make it an attractive candidate for last mile strategies.

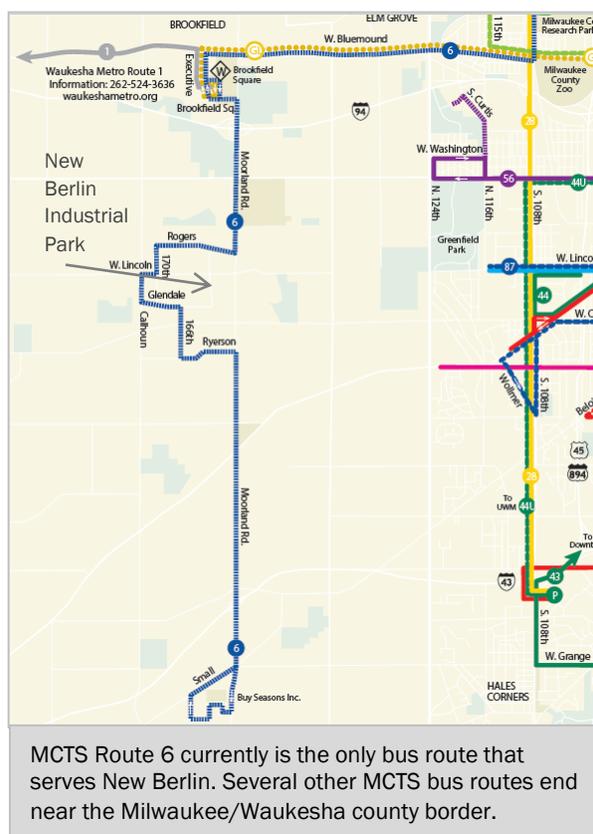
One option for improving access to jobs in New Berlin would be to **add flexibility to MCTS Route 6** to allow (possibly smaller) transit vehicles to pick up and drop off passengers at destinations within a designated distance of the route by request. Set stops still could be maintained, with added time built into schedules to accommodate route deviations. Route 6 either could be fully maintained or reduced to extend only from Brookfield Square to its current end point near Buy Seasons.

Another potential transit improvement would be to **extend one of the bus routes that currently terminate at the Milwaukee/Waukesha County border**. MCTS Route 51 or 54, for example, could be extended further west on National Ave. to connect with Route 6 at Moorland Road, which would improve access to New Berlin for residents of Milwaukee’s south side and West Allis.

A different strategy would be to **pilot an on-demand transportation service** that serves all (or more likely, a designated portion) of New Berlin. Such a service could be designed to connect transit riders from the MCTS and Waukesha Metro bus routes that terminate at Brookfield Square and near the Milwaukee/Waukesha County border with destinations throughout New Berlin, and either could complement or partially or fully replace MCTS Route 6. An on-demand service could be operated by a local transit system or through a partnership with a ride-hailing company.

Financing possibilities

Since improved transportation connections to businesses in New Berlin stand to benefit both Waukesha County employers and Milwaukee County residents, cooperation between the two county



³ Milwaukee Innercity Congregations Allied for Hope (MICAH) and the Black Health Coalition of Wisconsin worked with MCTS to create Route 6 in 2014 using settlement money from the Zoo Interchange lawsuit. In that lawsuit, MICAH and the Black Health Coalition argued successfully that the massive Zoo Interchange reconstruction project discriminated against low-income and minority city residents because it did not include public transportation improvements.

governments to finance and implement such connections would appear logical. This could potentially include joint pursuit of a federal grant from the FTA's Mobility on Demand Sandbox program.

New Berlin employers also could be part of the solution to designing and financing any new or modified transportation services in the area. One option would be to form a new transportation management association (TMA) made up of member employers and local governments, which could collect member dues and pursue grants to support new transportation services in the area. Alternatively, input and funding for transportation possibly could be funneled through the New Berlin Chamber of Commerce or New Berlin Industrial Association.

CONCLUSION

Our research shows that cities and regions across the U.S. are utilizing a variety of strategies to address last mile transportation challenges, from flexible transit services to employer shuttles. At the same time, the rise of smart phones, mobile applications, and new private transportation service providers has ushered in a highly experimental period in which transit systems are testing new ways of providing on-demand transportation services.

Based on our analysis of last mile transportation strategies, we recommend the following:

Build on recent efforts to improve transportation connections in the Milwaukee area through shared-ride taxi services and bicycle services and amenities.

The recent expansion of Ozaukee County's shared-ride taxi service to serve bus stops in Milwaukee County could help bridge a divide for Milwaukee County residents who commute to work in Ozaukee County. If successful, Ozaukee County should consider further expanding the service to additional Milwaukee County bus stops near its borders. Washington County could consider a similar approach. In addition, Waukesha County could consider adding bike racks to some or all of its buses, and BublR and MCTS could further coordinate by strategically locating future bike share stations near major transit stops.

Develop and implement an official MCTS mobile application with robust capabilities.

Other transit systems have developed mobile applications that allow users to purchase bus passes and add value to their fare cards, get point-to-point transit directions, and track bus arrivals in real-time using their mobile devices. In some cases, ride-hailing and/or bike share services are integrated into those mobile apps. An official MCTS mobile app could similarly enhance convenience and pave the way for on-demand transportation services. Through regional collaboration, Waukesha County's transit and Ozaukee County's share-ride taxi services also could be integrated into the app.

Pilot a flexible transit and/or on-demand transportation service in metro Milwaukee.

Case studies included in this report show that both flexible and on-demand transportation services can improve access and coverage in lower-density areas where fixed-route bus services often are not feasible. Both service types can be designed to complement regular bus services and to be relatively low in cost by only serving limited geographic areas that connect with

designated transit stops. MCTS and Waukesha Metro Transit should consider piloting a flexible transit or on-demand transportation service in one or two priority areas.

Consider how benefits provided by innovative last mile strategies can extend beyond reverse commuters to broader populations of transit users and the transit system.

While the focus of our research was on improving access to employment for Milwaukee County residents, last mile transportation services also can improve mobility for other populations. For example, a primary goal of flexible transit and on-demand transportation services in some U.S. metro areas, such as Denver and Minneapolis, is to provide connections for suburban residents to the fixed-route transit system. Other regions, such as the Boston metro area, are partnering with ride-hailing companies to provide more convenient transportation services to paratransit-eligible riders while reducing costs for the transit system.

If bus rapid transit (BRT) services are developed in metro Milwaukee, maximize their impact by co-locating last mile services near BRT stations.

Nationally, many last mile strategies are commonly linked with rail and BRT stations, likely because such stations typically serve high volumes of riders. If the plan to introduce BRT services in Milwaukee County moves forward, MCTS and other transportation service providers should take advantage of the opportunity by co-locating complementary transportation services and amenities near BRT stations. Those services and amenities could include designated space for ride-hailing companies to make pickups and drop-offs; bike parking and bike share stations; and connections to flexible transit routes and/or employer shuttle services.

Cultivate intergovernmental collaboration and private sector involvement to address last mile challenges in lower-density areas of metro Milwaukee.

The financial constraints facing Milwaukee County and other local governments make it difficult for them to invest or experiment with new or expanded services. The opportunity to form partnerships around innovative, technology-driven last mile solutions may represent a promising opportunity for local governments to break through past barriers and work together to plan and fund effective services that cross county and municipal borders. At the same time, transportation management associations (TMAs) are a promising model for involving employers in transportation planning and development.

Overall, we find that recent technological advancements have created opportunities to provide new last mile services and amenities that can make transit more effective in connecting workers to places of employment. We acknowledge that implementing some of these recommendations would require new sources of funding and/or collaborative financing strategies – a prospect that is extremely daunting given that local governments can hardly afford to maintain the transportation services they currently provide. Yet, we also would argue that constant modernization of transit services is essential to attracting and retaining riders and must be part of the equation as local leaders seek to secure ongoing fiscal sustainability for their transit systems.



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