

Making First/Last Mile Connections to Transit

How Carsharing and Bikesharing Programs are Improving Connectivity

Bikesharing and carsharing programs can extend the reach of public transportation services by providing a cost-effective, convenient means of traveling between one's transit stop and final destination. Placing these types of "shared use" mobility options at transit stations can reduce parking and congestion at the stations, eliminate vehicle traffic in business districts, and promote healthy commuting behaviors.

The experience of current carshare and bikeshare programs suggests that co-location of programs at transit hubs significantly enhances travel options for riders. For example, in its 2010 and 2011 membership surveys, Buffalo CarShare noted that 59% of its members extended their public transit trip by using the CarShare program, and that 17% of program members use transit in conjunction with a car every time they reserve a vehicle.¹ Over the period from 2004 to 2010, San Francisco's City CarShare noted a 30–50% increase in public transit use by City CarShare members.² Currently the program has 46 car pods (points of departure), each located within one-quarter mile of a Bay Area Rapid Transit (BART) station. More than 50% of Washington D.C.'s Capital Bike Share members use a bicycle to access Metrorail and 23% use it to access a Metrobus.³

Even though the co-location of transit and shared use mobility options is still fairly new, these early numbers indicate the extent to which the synergy between these transportation modes can support increased use of transit and the use of more environmentally advantageous alternative modes.

¹ Creighton R. *Buffalo CarShare: Two Years in Review. A Look at the Organization's Growth, Membership and Impact*. 2011. <https://www.dot.ny.gov/divisions/engineering/technical-services/trans-r-and-d-repository/C-08-24%20Buffalo%20CarShare%20Final%20Report.pdf> (accessed November 14, 2013).

² Personal communication, City CarShare staff, September 13, 2013.

³ LDA Consulting, for Capital Bikeshare. *2013 Capital Bikeshare Member Survey Report*. 2013. <http://capitalbikeshare.com/assets/pdf/CABI-2013SurveyReport.pdf> (accessed November 9, 2013).

How Shared Use Mobility Programs Work

Shared use mobility programs provide pre-registered members with short-term, one-way access to vehicles or bicycles parked at strategic locations throughout an area, usually a business district. Members are charged only for the time they use, often down to the minute. Many programs' websites host online maps that show locations and availability of vehicles or bikes.

In bikeshare programs, members access bikes with a code or electronic key and usually are charged no fee if they use the bicycles for 30 minutes or less. Carshare program members reserve vehicles online or by phone, access the vehicle with an electronic key card or password, and return it to a designated parking space within the region once the trip is completed. They are billed at a later date for actual time used and/or mileage, depending on how the program is set up. Fuel, maintenance, and insurance are included in the cost of the rental.

Adapting Shared Mobility for All Users

Components of shared use mobility programs can be adapted to serve diverse populations, including individuals with disabilities, older adults, and those with lower incomes. For example, three-wheeled bicycles, known as B-Trikes, are currently being piloted in [Madison, WI](#) and some other cities.⁴ Designed with input from an advocate for individuals with disabilities, the bikes provide more stability for those not comfortable riding or unable to ride a two-wheeled bike. City CarShare also includes accessible vehicles within its fleet. For low-income users, Ithaca Car Share, Buffalo CarShare, and City CarShare offer a discounted membership program.

Profiles of Programs

Buffalo, New York

Three Buffalo organizations have combined efforts to provide transit and other commuters with many alternatives to driving along to work. The **Niagara Frontier Transportation Authority** has been proactive in strengthening the cycling-transit connection. The Niagara Medical Campus is sponsoring secure bicycle storage facilities at the terminus of two transit lines, allowing medical students and staff commuters to store their bikes and then take transit to reach the campus. Plans are underway to implement a single fare card that would combine access to the bicycle storage facilities and transit system.⁵

⁴ Telephone conversation with Brent Tongo, Madison, WI B-Cycle, November 14, 2013.

⁵ View a video presentation by James Morrell, Manager of Planning at NFTA for more information on NFTA's partnership with Buffalo Car Share and the Buffalo Niagara Medical Campus. <http://www.youtube.com/watch?v=giYDn3IjFxQ>

Buffalo Niagara Medical Campus, Inc., a nonprofit organization that coordinates sustainable planning, development, and enhancement of the Niagara campus, launched [GO BNMC](#) in 2011 to inform and promote smart commuting behavior. The initiative encourages community residents and medical campus employees to use a wide range of transportation modes. GO BNMC connects members with other commuters, making it easy to share greener and healthier transportation experiences.

[Buffalo CarShare](#) and [Buffalo BikeShare](#) information is available at the Buffalo Niagara Medical Campus station of the system, in addition to three carshare vehicles. The BikeShare program began in 2013 with support from the New York Department of Transportation and the New York State Energy Research and Development Authority. The CarShare program has been in operation since 2009. Its membership now exceeds 600, and a large percentage of those members are low-income earners. Much of the program's success is a result of direct marketing to lower wage families, through face-to-face contact, via the mail, or via its storefront office, located near the city center. Recognizing the fact that some low-income families do not have email access, the company distributes bills through the mail and accepts money orders in lieu of credit cards.

San Francisco

[City CarShare](#), a San Francisco-based carsharing nonprofit launched in 2001, offers the local community a wide choice of cars to rent by the hour, including wheelchair-accessible and electric vehicles, many of which are available at transit stations. Serving the Bay Area, City CarShare has 12 points of departure (pods) located at Bay Area Rapid Transit (BART) station parking lots, two of which include City AccessMobile vehicles, the first accessible car share vehicles in the country. An additional 34 pods are located within one-quarter of a mile of a BART station, and another 54 within one-quarter of a mile of San Francisco Municipal Transit Agency (MUNI) or Alameda-Contra Costa Transit hubs. City CarShare routinely advertises its program on buses, on BART, and at MUNI stations and staffs floating information booths at various stations. City CarShare also partners with affordable housing and community service groups to provide discounted memberships and driving rates for lower wage workers via its CommunityShare program.

Two pilot programs supported with Congestion Mitigation and Air Quality Improvement (CMAQ) funds, also offer choices to commuters. The first places three [hybrid gas-electric Zipcars](#) at Sequoia Station, a downtown hub for Caltrain and samTrans. The second, a partnership of the Bay Area Air District, Metropolitan Transportation Commission, and multiple transit agencies, supports the [Bay Area Bike Share](#) regional bikeshare program, launched in August 2013, which locates bike stations adjacent to transit hubs, high-density residential

areas, and key destination points such as employment centers and university campuses. An additional 300 bikes and 30 kiosks will be added in 2014, bringing the total number to 1,000 bikes and 100 stations. Registered members can access a bike from any station. A web portal, accessible at every kiosk station allows non-members to register on-site.

Washington, D.C.

The region's [Capital Bikeshare](#) program, which offers over 1,800 bicycles in the city and three surrounding counties, has taken steps to ensure its program is available to the “unbanked” — those who do not have access to a credit or debit card account to join the bikeshare program. Capital Bikeshare partnered with a local non-profit organization, a bank, and a credit union to offer discounted annual memberships to low-income residents who open accounts with either financial institution.

In suburban Montgomery County, Maryland, Capital Bikeshare, using a federal Job Access Reverse Commute grant, provided bikeshare services free to 200 lower income people who work, commute, live, or enroll in job training or educational programs within the county. Eligible participants receive free membership for one year, free bicycle education and safety training, and a free bike helmet.

Chicago

Between 2009 and 2013, the Chicago Transit Authority (CTA) and [I-GO Carshare](#) offered the “Chicago Card Plus I-GO” fare card, a single smart card that allowed I-GO members to access I-GO vehicles as well as ride CTA trains and buses and the region's Pace Bus system. CTA's implementation of a new universal fare card, Ventra, in September 2013, does not currently include access to I-GO vehicles, but both agencies are working to ensure the fare cards incorporate the same benefits previously offered to members by the Chicago Plus I-GO card. Currently, Ventra allows travel and seamless transfers on any of the three area systems: CTA, Pace Bus, and Metra trains.

Minneapolis/Saint Paul

In the Twin Cities, [HOURCAR](#), a carsharing program sponsored by the Neighborhood Energy Connection, plans to place vehicles along a new Central Corridor Light Rail Transit (LRT) set to open in mid-2014. Known as the Green Line, it will serve many core neighborhoods along routing between the downtowns of Minneapolis and Saint Paul. Anticipating an increase in transit use when the new line launches, HOURCAR will locate six hubs with seven additional vehicles near future Green Line stops within the next few months. To help promote car sharing as an option to access transit, [Metro Transit](#) identifies HOURCAR locations on its [interactive system map](#).

Considerations for Implementation

A 2005 report, *Car-Sharing, Where and How it Succeeds*,⁶ identifies several key issues that a community should consider before implementing a carshare program; many of these issues also apply to beginning a bikeshare program. Below is a checklist from that report that communities can use to assess their readiness to implement vehicle sharing programs in partnership with transit:

- Identifying community need
- Identifying proposed vehicle location(s) and ease of access
- Identifying the scope and roles of community partners other than transit (i.e. local businesses, TMAs, local governments, other ride share agencies) and formalizing those relationships
- Offering diverse and affordable membership options
- Setting program parameters
- Funding options
- Universal fare collection method
- Addressing regulatory issues (zoning and licensing)
- Setting performance measurement criteria

This brief has provided an introduction to considerations and models of shared use mobility in conjunction with transit services. A current list of resources on this topic can be accessed at the National Center for Mobility Management’s [“Shared Use Mobility”](http://www.nc4mm.org/by-topic-shared-use-mobility) webpage (www.nc4mm.org/by-topic-shared-use-mobility), with links to resources on bikeshare, carshare, and real-time rideshare.

About this series: This publication of the National Center for Mobility Management (NCMM) is intended to provide a snapshot of trending mobility management issues, along with examples of strategies in action and links to additional resources.

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⁶ Millard-Ball A, Murray G, Ter-Schure J, et al. *Car-Sharing: Where and How it Succeeds*. Transportation Cooperative Research Program, Report No. 108. Washington, D.C., 2005, http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_108.pdf