

Why Should Local Governments Care About Carsharing?

The “sharing economy” is growing at an astonishing rate in response to economic needs, technological innovation, and cultural changes across the globe. People are sharing things of value that are otherwise underutilized, and in the process building new networks and communities. Through the internet and mobile devices, companies now facilitate [sharing your house](#), your [skills and free time](#), your [seats](#), your [car](#), and your everyday [stuff](#). Some of these new services are challenging traditional regulatory approaches because it is harder to draw the line between public and private, personal and business.

Washington area blog *Greater Greater Washington* recently facilitated an active conversation about [whether and how local governments should regulate ridesharing](#). There are [headlines](#) almost every day depicting the sharing economy at odds with local regulations. And yet, the sharing economy is growing because it has value to people, and fills a need. As local governments confront the questions of whether, how, and how much to be involved in these enterprises, it is worth thinking about *why* local governments would care about – and want to support (or at least not deter) – elements of the sharing economy.

We have compiled a literature-review-based report that details the public benefits of carsharing and why local governments should care about these benefits. Arlington County’s [Master Transportation Plan](#) is used in this report as an example of a set of long-range transportation planning priorities, but many communities have similar documents full of transportation goals and objectives.

You could perform this exercise for any number of cities across the country. In fact, we encourage you to explore your own local government’s transportation-planning priorities and determine how carsharing could be a part of the equation. Likewise, a similar exercise could be performed for other kinds of collaborative consumption services. Highlights from the following pages include:

- On **Parking, Congestion, and Mobility**: Carsharing reduces household car ownership and vehicle miles traveled. It also alleviates parking and traffic congestion.
- On **Fairness, Equity, and Community**: Carsharing increases transportation options for those who are least likely to own a car.
- On **Economics, Housing, and Affordability**: Carsharing reduces household transportation costs, thereby making housing more affordable.
- On **Environmental Quality**: Carsharing reduces use and dependence on fossil fuels through fuel efficiency. It also reduces greenhouse gases and particulate emissions.

For purposes of this discussion, carsharing refers to services that provide access to a vehicle or fleet of vehicles for short-term use, priced by the hour or minute, located conveniently throughout the community, and with most if not all costs (such as gas, maintenance, and insurance) bundled into the rate. There are currently two primary

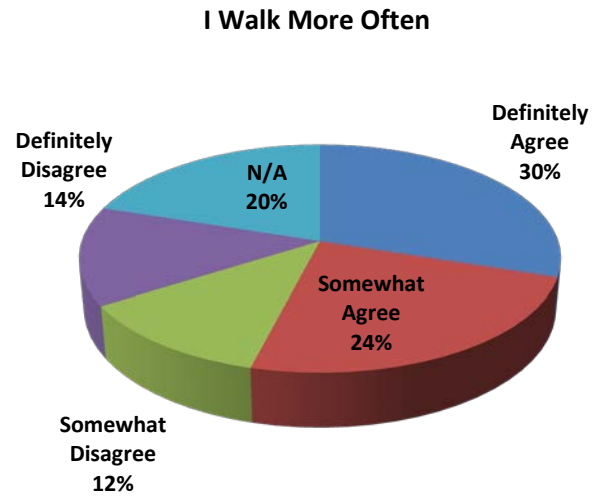
service models available in the U.S.: the reserved-space model (trips start and end in the same location) and the point-to-point model (trips can start and end in different locations). Arlington County (Virginia) Commuter Services' [CommuterPage](#) describes carsharing opportunities in the Washington D.C. metro region and how carsharing could be an integral part of almost anyone's mobility recipe.

Parking, Congestion & Mobility

Benefits

Perhaps the most obvious benefits of carsharing have to do with, yes, cars—where to park them, what to do about traffic, and how best to use them to get where you need to go. The literature suggests carsharing programs can:

- Reduce household car ownership^{1, 2, 3, 4} and vehicle miles traveled (VMT)^{5, 6, 7}
- Alleviate parking and traffic congestion^{8, 9, 10}
- Produce higher efficiency in vehicle use—chained trips and more usage per car day, called “yield management”^{11, 12}
- Increase walking and bicycling^{13, 14}
- Increase public transportation use^{15, 16, 17}



Source: Zipcar Member Survey, 2011

Carsharing provides the benefits of vehicle use without the capital costs and responsibilities of ownership.¹⁸ Carsharing members report increasing walking, biking, and use of public transportation as compared with before becoming members.¹⁹ User surveys suggest traditional and point-to-point carsharing models continue to remove more cars from the road than they add, and recent research has shown vehicle ownership is significantly lower in buildings with both carsharing nearby and unbundled parking.²⁰ Net reductions in vehicle miles traveled (VMT) and car ownership by carshare members signal the potential for reducing traffic and parking congestion. Carsharing also increases mobility by providing last-mile connections to and from other forms of transit, and by making transportation accessible to underserved areas.²¹

Why should local governments care that carsharing improves parking, congestion, and mobility?

Local governments run transit systems and build roadway infrastructure. Local governments regulate parking meters and permits for on-street parking, as well as services such as taxis, and set requirements for parking provision in private development, too. Local government is the steward of the overall mobility system, and ideally considers options for reducing strain and increasing efficiency and levels of service across all modes over the long term. Just as other forms of transportation demand management have been found to improve “take-up” of transit, bike, and walk options, a robust carsharing program that communicates with the rest of the system can do the same. People like options, and carsharing expands mobility options in more ways than just providing a car.

Using Arlington as an example, carsharing has the potential to support several long range transportation planning goals related to parking, congestion, and mobility, such as:

1. Fund, develop, manage, and maintain transportation facilities and services in an equitable and cost-effective manner;
2. Provide high-quality transportation services for all users and modes;
3. Provide and promote affordable, convenient, and integrated transportation choices;
4. Provide more travel choices and reduce the relative proportion of single-occupant-vehicle (SOV) travel through Transportation Demand Management (TDM), telecommuting, and travel shifts to other modes including transit, carpooling, walking, and bicycling; and
5. Identify and pursue policies and practices that take advantage of new technologies that can enhance the quality and efficiency of transportation facilities and services.

Fairness, Equity & Community

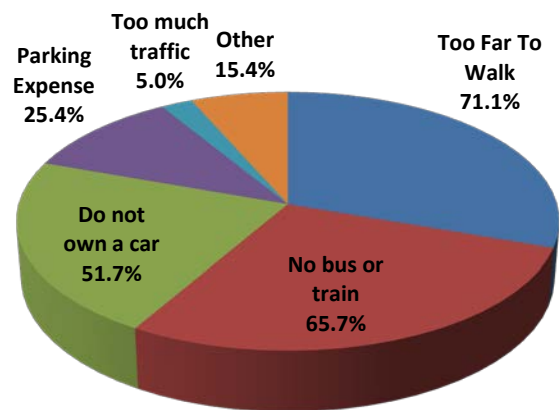
Benefits

Carsharing provides the highest potential benefit to those who can least afford car ownership and who can least afford to live in expensive transit corridors. The literature suggests carsharing programs can:

- Increase transportation options for those who are least likely to own a car, including a broader range of socio-economic groups when targeted to reach those groups^{22, 23, 24}
- Provide services across and within communities, and promote community cohesion through membership^{25, 26, 27}
- Reduce the number of cars that require space to park, which in turn allows for more open space and lower development costs²⁸

Barriers to mobility, relieved by carsharing:

"Why would you not have been able to make those trips?"



Source: Car2Go Member Survey, 2012

Why should local governments care how carsharing affects fairness, equity, and community?

Local governments, unlike businesses, are responsible to the whole community. If carsharing is to be a realistic transportation option for everyone, then it should reach a wide geographic area as well as a broad range of residents and users, and the cost of using the program should be within reach of most folks. Age is also a consideration in ensuring fairness and equity in carsharing. Young adults are driving less (<http://www.nytimes.com/2013/05/14/us/report-finds-americans-are-driving-less-led-by-youth.html?pagewanted=all>), and there may be an opportunity to reach out to young drivers as they become licensed, starting them on 'judicious automobility'²⁹ early in their lives. Carsharing can also serve older residents who wish to age in place in a community that is walkable and accessible, and for whom a privately-owned vehicle may be less affordable or unnecessary.

Carsharing is potentially most beneficial to people who live outside established (and more expensive) transit corridors, and who are least likely to be able to afford privately-owned vehicles. Yet, without a distribution requirement, carsharing companies may not make the effort to locate in all areas of the community.³⁰

Local policy can require that carsharing services reach those most in need, including households with limited access to transportation due to geography or economic constraints. Local government can also help integrate carsharing with public transportation, a potential value for bridging gaps in transit service, improving access across jurisdictional boundaries where most transit services do not cross, and even helping with the “last mile” problem between fixed route transit and final destinations.

Using Arlington as an example, carsharing has the potential to support several long range transportation planning goals related to fairness, equity, and community, such as:

1. Serve the mobility and accessibility needs of all residents regardless of age, income, or ability;
2. Provide good quality travel options for all residents and workers throughout the jurisdiction regardless of their location;
3. Provide a broad array of transportation options that ensure access to affordable travel; and
4. Promote affordable, convenient, and integrated transportation choices.

Economics & Housing Affordability

Benefits

Housing and transportation costs together reflect the true affordability of housing based on its location,³¹ and housing affordability is a key issue for many jurisdictions. We all need to live somewhere, and we all need to get somewhere: affordable housing without transportation options leaves much of the problem of affordability unsolved. The literature suggests carsharing programs can:

- Reduce household transportation costs, thereby making housing more affordable^{32, 33, 34, 35}
- Reduce development cost through supporting the feasibility of parking requirement reductions³⁶
- Increase spending in the local economy

Participation in carsharing can—and often does—result in a lower cost of transportation at the individual, household, community, and societal levels. According to a collaborative project



Source: *Intelligent Cities Forum, 2011*

called the Intelligent Cities program, Americans spend an average of \$8,485 per year on their cars, of which only \$1,390 of that total stays in the driver’s local economy. The rest is spent on goods and services like gasoline and car insurance, which don’t directly benefit the economy of the driver’s community.³⁷ Monthly transportation costs per household can be reduced by hundreds of dollars when carsharing is used in lieu of a privately-owned vehicle.³⁸ This reduces overall cost of living and raises the likelihood that discretionary expenditures remain in the community.

Economic benefits can also occur at the community and municipal level. Reduced requirements for parking can lower development costs, and lower VMT can reduce the costs of maintenance of roads and other infrastructure. A developed carshare market also means carshare service providers can typically support a fair share of the real cost to park³⁹ without jeopardizing their business equation. Finally, carsharing is a desirable urban amenity that helps cities stand out as attractive destinations in which to live, work, play, and stay.

Why should local governments care that carsharing improves economics and housing affordability?

Responsible stewardship of the community includes responsible economic decision-making, balancing the community’s desire for services with efficiency and restraint so that government lets businesses flourish. Local governments can support both individual and household economic prosperity by providing transportation options that fit every budget, and it can support communitywide economic needs by accurately pricing and regulating transportation resources, such as on-street parking, to reflect their true community value and cost to maintain.

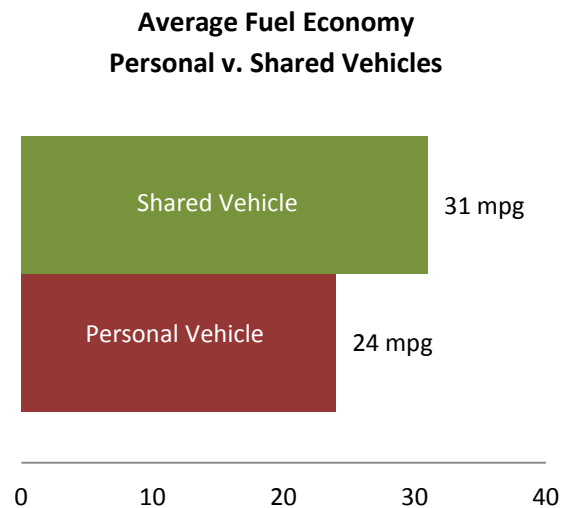
Environmental Quality

Benefits

Reduced car ownership, reduced VMT, increased walking and biking, and connections to public transit are also environmental benefits. The literature suggests carsharing programs can:

- Reduce use and dependence on fossil fuels through fuel efficiency⁴⁰
- Reduce greenhouse gases and particulate emissions^{41, 42, 43}

Fewer cars and newer cars on the road, and fewer, chained car trips should mean fewer environmental pollutants, both in the air and in the water. To the extent that carsharing reduces VMT, it also takes pressure off roads and parking facilities, requiring fewer repairs and upgrades to expensive transportation infrastructure, and



Source: RAND Corporation, 2012

avoiding the environmental degradation that can occur as a result of those construction projects. While this broad range of environmental benefits of carsharing is widely acknowledged and published, it is not straightforward how to ensure Arlington achieves results.⁴⁴

Why should local governments care that carsharing improves environmental quality?

Local governments have a responsibility to address environmental quality for the health of their residents and the stewardship of both the local and broader environment.

Using Arlington as an example, carsharing has the potential to support several long range transportation planning goals related to environmental quality, such as:

1. Reduce the impact of travel on community resources including air and water quality; and
2. Increase energy efficiency and reduce hydrocarbon emissions by encouraging and accommodating non-motorized travel, public transit, carpooling, telecommuting, and alternative-fuel vehicles.

As a part of a community energy planning process, the Arlington County Board approved a 2050 emissions target of 3.0 metric tons of CO₂ equivalent per capita per year, down from a baseline of 13.4 mt in 2008. Transportation-related emissions are expected drop from 3.7 mt to 1.0 mt over this period.⁴⁵

Of the three main factors that contribute to the environmental effects of transportation emissions (VMT, vehicle fuel efficiency, and fuel carbon content), carsharing has the potential to reduce both VMT and communitywide fleet fuel efficiency. However, businesses themselves may not have an economic incentive to sustain these beneficial effects over the long-term. In an existing example process, Arlington regulates taxis cab fleet fuel efficiency in order to help achieve these countywide emissions reductions goals. A similar approach could be taken with carsharing services. Regulation, monitoring, and reporting requirements could help ensure that carsharing services are achieving environmental goals, including emissions reductions, likely through a combination of fleet characteristics and consumer behavior change.

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Endnotes

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