

Embracing the Equity-based EV Carsharing Solution: Good2Go and Beyond

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Introduction

Equitable, community-based carsharing is an option to address the challenging nexus of transportation electrification and equity. This report presents the case for establishing equitable carsharing on a widespread basis in the United States as an alternative to individual car ownership and presents the benefits and challenges of operating sustainable programs. Much of the data, and many of the insights, were gathered as a result of operating a small electric vehicle carshare – Good2Go, LLC – in Metropolitan Boston from 2022-2024. A full report of Good2Go's specific operations metrics is available here.

Recent government efforts to include funding and support for transportation electrification have made inroads in reducing the carbon footprint of transportation. Many of these initiatives have focused on "personal" transportation, and with good reason – almost 92% of American household own cars¹, 86% of all passenger miles traveled are in cars, vans, trucks and motorcycles²; and only 45% of Americans have access to any form of public transportation³. Replacing personal vehicles as the main form of transit in the US is a daunting, if not impossible challenge, and so most efforts have been focused on the transition to electric vehicles. Increased Federal and State funding for Electric Vehicle Supply Equipment (EVSE), or "charger" installations, as well as rebates for new EV purchases, have stimulated EV adoption and created the beginnings of a reliable, convenient, national charging network. However, the initial cost of buying an EV – 16% higher than a gasoline powered car⁴ – is simply out of reach for those in lower income brackets. Addressing the nexus of equity and transportation electrification – two major elements of Federal, State, and local policy discourse in recent years – has proven to be a persistent social justice problem.

Current efforts funding the installation of EVSE in low-income neighborhoods do not address the reality that most residents are unable to afford personal transportation, let alone an electric vehicle. E-Bike and scooter programs offer cost-effective, active modalities for some, but are inaccessible to many community members – including the elderly, disabled, or those unable to use an active modality. Safety and utility can be negatively affected by inclement weather and limited by the lack of load-carrying capacity. Public bus, paratransit, and commuter train services, if available at all, operate on limited schedules that may require passengers to make multiple transfers, endure extended wait times, and may deliver passengers far from their intended destinations.

What is equitable electric carsharing?

Carsharing is a service that offers rental of a car for short periods, typically by the hour. Run by a private company or a public program, carsharing typically runs on a membership

model, where applicants provide their contact, driver's license and payment information and are screened according to program requirements. Carsharing is a viable and efficient alternative to individual car ownership, allowing participants to purchase hourly blocks of time when to reserve and use vehicles.

Equitable electric carsharing is a carsharing program that (1) uses electric vehicles only and (2) uses its pricing structure to extend the accessibility of the service to low-income users. Equitable electric carsharing bridges the gap in affordability of personal transportation options for low to moderate income residents by allowing them to access EVs on an hourly basis as needed. Periodic access allows users to avoid the expense of personal vehicle ownership/maintenance and attend to mobility needs that may not be well-suited for public transportation, such as shopping for bulky items, traveling to medical appointments, delivering goods from home businesses, or accessing destinations not served by existing subway and bus systems.

Carsharing in the US vs. other countries

The first system-wide carsharing models emerged in Northern Europe in the 1970s. Amsterdam's <u>Witcar</u>, with its custom electric vehicles and computer driven reservation system, hit the road in 1974. Witcar was plagued by a lack of charging infrastructure and the station to station (see below) model resulted in an uneven distribution of vehicles throughout the city. In the 1990s, carsharing developed into a well-established, familiar transportation modality in Europe, and urban areas of Canada. The US lagged behind initially but made significant gains in carsharing accessibility in the 2000s, led by ZipCar, the for-profit carsharing company now owned by car rental giant Avis. Companies such as Turo and Getaround also entered the US market using privately-owned vehicles and fleet vehicles to build a large user base.

In 2024, the US leads the world in revenue from carsharing but lags behind in actual utilization⁵. The revenue disparity is primarily due to the higher cost of using a shared carsharing vehicle in the US, while the decreased utilization is likely due to societal unfamiliarity with asset-sharing models coupled with small fleets that do service enough territory to convince users that a carsharing vehicle is worth the effort of traveling to reach a vehicle. Also, Americans see their personal vehicles as a status symbol and reflection of their identity, a perspective reinforced by automotive manufacturer advertising. While carsharing is growing in the US, it still remains a niche industry primarily clustered in urban areas with limited service for low-income communities.

In the last decade, government funded, community based, non-profit EV carsharing programs appeared in several US cities, incorporating reduced rates for low-income

participants; however, these carshares have struggled to continue operating when government funding runs out. <u>The Clean Rural Shared Electric Mobility (CRuSE) Project</u>, managed by <u>Forth</u>, and <u>Good2Go</u>, <u>LLC</u> are two examples of programs focused on lowincome areas that recently closed. Many other programs dependent on Bipartisan Infrastructure Law funding will face challenges if this funding is not extended in the second Trump administration. A list of equitable community-based carsharing programs can be found in Appendix A at the end of this report.

Financial sustainability has also been challenging for profit-based programs: Share Now, formerly Car2Go, <u>exited North America</u> in 2019 because of the challenging and volatile transportation market. GM's Maven carshare ceased operating in 2020 and <u>AAA's Gig</u> <u>Carshare</u> recently announced its' December 2024 closure.

Reservation Models

Carsharing programs operate on four primary reservation models in the US. Each model has positives and negatives for members and operators:

- Station to Station The driver may pick up a vehicle at one carsharing host site and leave it at any host site in the program's network. This model offers flexibility for those who only need to travel one way to a destination and can be more cost effective when staying at the destination location for several hours/days.
- 2. *Round Trip Return* Drivers must pick up and return carsharing vehicles to the same location. This model allows for easy management of fleet distribution, as vehicles are returned to known locations following each rental. This model can be especially effective for vehicles at large residential developments, especially to deliver goods or passengers to their homes.
- 3. Free floating Drivers may pick up vehicles and drop off vehicles anywhere within the program boundaries (typically identifiable through reservation software). This model is adaptable to solving <u>last-mile</u> challenges, but managing fleet distribution can be difficult, and it works best in a dense urban environment with large populations of potential drivers concentrated in a small area.
- 4. *Peer to Peer/fractional* Members buy a period of time when a vehicle is theirs to use, exclusively, often on a periodic basis. In the peer-to-peer model, vehicle owners rent out their personal vehicles, typically through a third-party platform that coordinates the vehicle transfer. <u>Turo</u>, one such provider, is the largest carsharing company in the world. Typically, the fractional market deals

in luxury cars, allowing drivers to access high-priced vehicles without the full costs of ownership.

Pricing

Pricing structures work in tandem with the reservation models above but vary among carsharing programs, target markets, fleet size, and program equity goals. The following pricing models are most prevalent in the sector:

- 1. Income-tiered a structure typically employed by carsharing programs with an equity component, this model provides tiered rates dependent on the participants' income. Member fees can be free with no joining fees, but more commonly reduced rates of \$4-6/hour may be offered to those on state or federal economic assistance. Because of the difficulty sustaining low rates for some members, this model relies heavily on subsidies, whether government funding, charitable foundational support, or utility ratepayer charges. Income tiered programs allow those unable to afford market rates to access personal vehicles without the costs associated with vehicle purchase, insurance, fuel and maintenance. This model is combined with distance, time or subscription models to determine the cost of a trip. Reduced rates can be supplemented by additional income tiers such as a standard rate for those not on assistance, student rates, and senior rates. Good2Go also offered a higher "champion rate" for those members able and willing to support community carsharing.
- 2. Distance Drivers pay by the mile, regardless of the duration of their trip. This model can be very cost-effective for users who need to make short trips with extended stops between; however, it can cause utilization problems for operators who need to schedule multiple member trips concurrently and may be coupled with a duration charge if the vehicle is used for multiple hours.
- 3. Durational This model is common, and as the name indicates, users pay for the vehicle by the minute, hour, or day. This model allows operators to know in advance when vehicles will be rented and manage fleet reservations accordingly. Users can often extend trips if there is not another reservation pending on the vehicle they booked.
- 4. Subscription This model allows members to purchase a block of time in advance for example, 10 hours/month, to be used whenever they want to reserve a car, much like the fractional reservation structure described above. Some programs provide discounted pricing for subscription blocks. Carsharing operators benefit from the assurance of minimum ongoing revenues from

members. The downside of this model for users is that they are typically charged whether they use all the time or miles in their block or not.

Carsharing Benefits

Carsharing is best viewed as a complement, not a competitor, to public transit and active modalities. Walking, biking, and public transit are the most affordable modes of transportation and can reduce urban traffic and greenhouse gas emissions. Walking and biking offer the additional benefit of physical exercise, as well as the mental health benefits of spending time outside. Carsharing can bridge the gaps in these modalities when members need to shop for healthy foods (especially in food desert areas common to low-income communities), buy in bulk to save money, go to the doctor when sick, take pets to the vets, or reach destinations that are either inaccessible or require multiple stops/changeovers using public transit. Additionally, carsharing vehicle fleets can be expanded or deployed to new locations easily as utilization dictates. Research shows that carsharing members often delay the purchase of a vehicle or forego personal vehicle ownership when they have access to carsharing in addition to public transit.

Individual Benefits

Low-income households in the US spend an estimated over 30% of their income on transportation, compared with 15% in other American households⁷. This disparity remains throughout all income levels: the higher a household's earnings, the lesser percentage of their earnings are dedicated to transportation needs. This burden is exacerbated by the lack of available public transportation options in low-income neighborhoods, whether through past discriminatory funding and zoning practices, or the higher cost of housing convenient to subway and rail stations. Lack of access to public transportation makes personal vehicle ownership mandatory in many areas but comes at a substantial expense. Unexpected repairs and maintenance can have a substantial impact on household finances for lower income families, as can the volatile price of gasoline.

In 2023, the average American household spent over 90% of their transportation budget on buying, maintaining, and operating personally owned cars⁸. Despite the expense and need for personal vehicles, the average car remains parked 95% of the time, unused by its owner. Carsharing allows maximum utilization of one vehicle by multiple drivers, dividing the cost of ownership, insurance, and maintenance over many users. This results in a much more affordable personal transit option that typically allows for newer vehicles that are routinely maintained.

Deploying EVs in carsharing also provides access to electric vehicle technology to lowincome community residents who are unable to afford a new vehicle and drive older, unreliable, and more polluting cars whose low initial purchase price is within their reach. While the lifetime cost to operate an EV makes it a more affordable option, most lowincome buyers will find the initial cost out of reach and often struggle to qualify for financing.

Community Benefits

Remote Particulate Emissions/Public Health: EV Carsharing can alleviate PM_{2.5} (particulate matter smaller than 2.5 micrometers in diameter) and greenhouse gas emissions. Tailpipe emissions from gasoline and diesel-powered engines are the largest (and growing) direct source of PM_{2.5} air pollution and greenhouse gas emissions in the US. PM_{2.5} has been linked to heart and lung diseases, cancer, aggravated asthma, cognitive disorders, and low birth weights ⁸, and disproportionately affects lower-income, non-white residents⁹, who are more likely to live in urban cores near factories, airports, and highways. Additionally, EVs do not emit tailpipe greenhouse gas emissions – a global benefit covered below.

Reduced Parking Requirements: The Parking Reform Network estimates 26% of land in city centers with populations over 500,000 is dedicated solely to parking, negatively affecting availability and affordability of residential and commercial sites.¹⁰ Most cities' residential parking requirements vary by dwelling type and/or number of bedrooms per unit, but almost never take inhabitants' vehicle ownership into account due to the constant change in tenancy, and subsequent need for parking. Several US cities have passed ordinances reducing parking requirements to provide additional land for housing units, and specifically to address the dire shortage of affordable housing in urban cores. Locating carsharing services at multi-unit developments can reduce parking needs. Valuable land previously required for parking areas can be used to build additional housing or provide greenspace amenities for residents. Providing carsharing at affordable housing developments offers an equitable, cost-effective solution for reducing parking needs while maintaining a convenient, affordable, personal transportation option for members. Additionally, shared electric vehicles minimize the number of charging ports required to serve multi-unit developments.

Reduced Congestion/Gridlock: Many cities face serious traffic gridlock, when congestion is so severe, intersections become impassable. Cities like New York, where the term was coined, issue gridlock alerts¹¹ warning motorists to avoid driving on certain days. Gridlock can have public safety consequences for ambulances and first responders that cannot reach their destinations. It also causes negative economic effects for the many businesses that operate on a reservation schedule. A carsharing vehicle removes 6-11 vehicles from the roadways as well as the parking spaces they require when idle. On a large scale,

carsharing could offer a tool for solving gridlock issues, especially when combined with public transit.

Equitable Use of EVSE Funding: Justice40 Federal funding to establish broad charging networks has included installing EVSE in disadvantaged neighborhoods, and while this is a laudable and much needed effort, the residents who live in these areas are mostly unable to benefit from these installations, as they cannot afford an electric vehicle. Residents report being annoyed that they must endure the construction effects (dust, noise, delays) of EVSE but have no ability to benefit from these installations. The lack of affordability of individually owned EVs – now and for the near future – leave the most economically vulnerable in these communities left to purchasing cheap, unreliable, polluting gasoline-powered vehicles that may have low initial costs but require high ongoing expenditures. Low-income populations risk being "left behind" as EV technology takes hold, unable to access rebates, tax credits, preferred parking spaces, HOV lanes and other incentives meant to drive EV adoption.

Global Benefits

GHG Emissions: In 2018, transportation surpassed all other economic sectors (i.e., buildings, manufacturing, agriculture) as the leading emitter of greenhouse gases in the US¹³. This development was partly due to the positive attention and governmental funding provided to other emitting sectors in the form of energy efficiency programs and renewable energy credits and rebates that stimulate inclusion of clean energy and reduced consumption of fossil fuels in the built environment and in manufacturing processes.

Carsharing Challenges

1. Ongoing Funding : Equity-based EV carsharing programs cannot sustain themselves without subsidies from outside sources. The average reduced rate for carsharing in the US does not come close to covering the costs of operating a program including obtaining vehicles, installing EVSE, host site acquisition, insurance, staffing, vehicle telematics, reservation software, and overhead. The options for supplemental funding for carsharing are not as established as those for other basic services, such as housing (HUD, Housing Authorities, Community Development Organizations) or food (SNAP programs, food banks) [ADD HEALTH CARE?. Meanwhile, no organized government policies recognizing carsharing as a cost-effective and easily implemented initiative have been adopted to provide sustained funding. As a result, access to carsharing funding remains fragmented and regional availability varies widely. Most ongoing carsharing programs rely on a mixture of federal, state, utility, and private funding. *Federal Funding*: US Federal funding for transportation electrification and infrastructure improvements has increased dramatically in the last four years. Significant funding bills include the \$5 billion National Electric Vehicle Infrastructure (NEVI) formula program¹⁶, the Bipartisan Infrastructure Law's \$2.5 billion Charging and Fueling Infrastructure (CFI) Discretionary Grant Program¹⁷ and the Carbon Reduction Program¹⁸. These funding programs are administered by the FHA/DOT and focus primarily on building out a national EV charger network to stimulate public acceptance of EVs for personal transportation. While some funded projects have included low-income EV carsharing to address equity issues; there is no Federal carve out for carsharing in any of the programs.

Because EV carsharing has not been specifically identified as a primary tool for meeting climate goals. It remains an "innovation" attached to projects primarily focused on EVSE installation.

The Federal Transit Administration is tasked with providing funding to the Regional Transit Authorities (RTAs) that provide bus, subway and rail services locally. Many RTAs recognize the value of carsharing but already struggle with low ridership, increasing operations costs, and inadequate farebox recovery ratios (the percentage of transit expense covered by rider fares), preventing them from adding supplemental modes of transit. Despite these hurdles, RTAs have data and service experience that could contribute to successful carsharing programs that may be more cost-effective than lightly used bus or rail routes.

Federal agencies such as Housing and Urban Development (HUD) have yet to adopt carsharing as a component of affordable housing (AH) development specifications but could play a major role in the inclusion of carsharing to address the transportation needs of residents, while reducing resources devoted to personal vehicle (parking, lot maintenance). One well-established HUD funding mechanism – the <u>Community Development Block Grant (CDBG)</u> aimed at providing community resources in low- and moderate-income areas – has been underutilized for development of community carsharing programs.

It also remains unclear how clean energy funding will change with the incoming administration. President-elect Trump has changed his negative stance on electric vehicles somewhat due to the political and financial support he has garnered from Tesla CEO Elon Musk¹⁵, but equity-based carsharing programs may suffer if predicted cuts to social service programs and clean energy funding occur under Trump.

<u>State funding</u> opportunities vary, but several states have effectively directed funds toward the development of carsharing. Where available, cap-and-trade and capand-invest programs have provided many state funding initiatives. Since 2017, In California, Air Resources Board (CARB) funding has supported <u>Our Community</u> <u>CarShare Sacramento (OCCS)</u>, one of the oldest carsharing programs in the nation. Washington State has committed Climate Commitment Act¹⁹ and Washington Department of Transportation funding towards the <u>Go Forth</u> carsharing program. The New York State Energy Research and Development Authority (NYSERDA) Clean Transportation Program supports carsharing through its <u>Clean Transportation Prize</u> and Low-carbon Mobility focus area. The St. Paul/Minneapolis based <u>HOURCAR</u> program is an example of a successful regional carsharing program with over 180 electric and gas-powered vehicles that has leveraged funding from a variety of Federal, State, Utility and foundational sources.

Utility funding is another promising source of ongoing funding. Nominal ratepayerbased fees, such as those that exist for energy efficiency programs, can provide sustained carsharing services to the public at a nominal monthly rate. Ratepayer funding will typically need to be approved by state corporation commissions or public utility departments, often as part of a rate case, but once approved it can provide long-term financial stability for carsharing. Examples of successful programs that have incorporated utility funding include HOURCAR (mentioned above) and <u>Colorado Carshare</u>, both partially supported by Xcel Energy. In some states, DPUs have denied equity-based proposed EV carsharing programs (<u>Eversource</u>, MA DPU 2021). In this MA DPU case, the Attorney General's office stated they supported the concept of carsharing, but did not believe it was in the purview of electric utilities. The AG's office did not state whose purview carsharing did fall under. Coupled with no state funding for carsharing, these types of stances present significant hurdles for carsharing adoption.

Developer funding, obtained by allowing affordable housing developers to integrate reduced parking requirements in projects in exchange for hosting carsharing programs, is an emerging solution to funding equity-based programs. Reduced parking provides additional space for housing units or green spaces to be constructed on dense urban sites; the revenue from additional units can compensate developers for funding the carsharing program. Approval of reduced parking requirements typically requires passage of a city or County ordinance and should be initiated before design and construction. Hosting carsharing at multi-unit residential developments is also a significant amenity for residents. Having a vehicle hosted on site provides a convenient alternative to car ownership, especially when traveling with multiple family members, or hauling bulky items. In combination with available public transit systems, carsharing can bridge the gap between available bus and subway services.

Philanthropic funding from public charities, community foundations, and private donors can be leveraged with the other sources above to provide a stable base for ongoing carsharing operations. While these sources are rarely able to provide enough support to completely fund programs, their contributions can be leveraged for cost sharing for grants, and reputable philanthropic organizations can be compelling partners in successful grant applications. Large businesses may also support carsharing through their foundational arms, may be able to provide more funding than community charities. Some options include the <u>Toyota Foundation</u>, the <u>GM Climate and Equity Fund</u> and the <u>Enterprise Mobility Foundation</u>.

2. Insurance: Carsharing insurance is a challenging, emerging market with premiums that vary widely from state to state and can range from \$400-10,000/vehicle/year.

Even though participation in a carsharing program typically requires vetting driver's license records for moving violations and accidents, insurance companies often regard carsharing members as very high risk – well beyond an individually insured driver with the same driving record. Additionally, coverage may only be available for larger fleet sizes (>20 vehicles) or for programs with an extended operation history (usually a minimum of 3 years).

Coverage may only be provided by specialty insurance firms. These brokerages must be "admitted" to the state the program is located in or must be legislatively allowed to serve in other states. In 2023, New York Gov. Kathy Hochul signed into law <u>AB</u> <u>5715</u>, allowing out of state "risk retention groups" (RRGs) – member-owned insurance companies – to serve non-profits, specifically benefiting NY carshare organizations.

In some states, affordable coverage may be available through the non-profit RRG <u>Alliance for Nonprofits for Insurance (ANI)</u>. States not served by ANI face significant challenges finding affordable insurance. For example, in Massachusetts, where instate insurers decline to insure carsharing fleets, the Boston-based <u>Good2Go</u> <u>program</u> had no option but to pay mileage-based premiums amounting to \$9,600/yr for each fleet vehicle traveling 15,000 mi/yr. Insurance is currently one of the largest line items in program budgets and significantly impacts on the long-term viability of carsharing. The formation of a nationwide RRG serving community carsharing insurance needs and full adoption of mandates allowing out of state insurers to cover non-profits are imperative for equitable carsharing to survive long term.

3. Site Hosts: Existing sites in target neighborhoods can be excellent carsharing locations, especially if participants are familiar with them and/or have an established relationship with the host. Possible site hosts include municipal parking lots, universities and colleges, places of worship, community centers, and YMCAs. In all cases, a site host agreement should be developed, specifying the responsibilities of the carsharing operator and the site host. Agreements should include each party's insurance requirements, assignment of lot maintenance duties, especially for reserved sites, lease costs (if any) imposed by the host, and the duration of the agreement. Many hosts may specify a fee for the use of parking spaces, and reimbursement of charging electricity, but this may be waived for equity-based programs. Lastly, education for onsite staff on carsharing and communications procedures for with the program operator can help develop a mutually beneficial relationship for host and operator.

Client services staff at AH developments often cite transportation as a major challenge for tenants. Incorporation of carsharing should begin at the planning stages of development to effectively incorporate resources such as EVSE in building electric loads and, if possible, to have reduced parking requirements approved by local and regional planning departments. It is important that an ordinance specify actual carsharing services, and not just parking reserved for carsharing, be included to prevent personal parking being reduced without providing alternative modalities on site.

4. Qualified Operations Contractors: When establishing a carsharing program, many jurisdictions opt for subcontracting out the actual operations of the program – vehicles, insurance, software, and staffing – to an outside contractor. Carsharing is a nascent industry, and no professional trade associations or certifications exist to monitor the conduct or performance of operations contractors. Operators may be for-profit or non-profit; and may serve a small region or provide services nationwide. Before contracting with any operator, it is important to talk with their existing clients to assess their performance and services. It is also important to verify a contractor's experience with each facet of the program. Some operators may do a good job renting out vehicles but have little or no marketing and community outreach

experience. They may also be unfamiliar with the local community and have few ties to residents. In these cases, it may be advisable for a city or county to take on these tasks themselves or hire an additional qualified contractor for these services. Because many participants are referred to programs by existing members, member services and customer satisfaction can make or break a program within a short time.

5. Software and Metrics: At a minimum, carsharing programs require three software components: 1) a reservation platform; 2) vehicle telematics; and 3) a customer service interface. Many programs utilize smart phone apps to onboard members, begin and end reservations, unlock vehicles, and complete payments. Because 97% of Americans own a smart phone²⁰, app-based systems can manage most member activities. Accommodation of members without smartphones can include the use of RFID cards to gain access to vehicles and having call centers assist members making reservations or taking payments.

Carsharing software often integrates with an installed "on-board" telematics system, although systems that <u>access a vehicle's Application Programming</u> <u>Interface</u> (the set of rules and protocols needed for software to talk with other devices) and require no additional hardware have been developed. Telematics systems collect and transmit real-time information about a vehicle, such as GPS (locational) data, vehicle status and duration (i.e., idling or parked), and repair alerts. Additionally, many telematics programs can report driver behavior including speeding, harsh braking, and seat belt use that can help identify members that drive irresponsibly. Insurance companies may also audit this information to assess the risk associated with the driving habits of carsharing members.

Accurate and complete data can be critical to meeting reporting requirements, especially for grant-funded programs. Software and telematics should be chosen that align with reporting needs, so required data should be identified prior to purchasing hardware or software. If using an outside operations contractor, a sample data report should be requested.

In addition to on-board telematics systems, most EV chargers also have a software interface able to report metrics including kWh discharged, times, dates, and duration of charging events and EVSE uptime. Data collected at the unit varies by brand and should be verified for alignment with reporting requirements, especially if the program is grant funded or has specific research goals.

- 6. Staffing is a critical but challenging aspect of carsharing operations. Programs that offer 7 days a week, 24-hour access to vehicles need to handle emergency calls with on-call staff (which can lead to staff burn out) or dedicated call centers (an expensive, training intensive option). Additionally, a phone line should be available during normal business hours to screen members' questions and provide general information. A CRM (customer relationship management) software platform can log and answer calls while providing a phone tree to triage emergencies versus general inquiries, as well as keep track of the status of outstanding issues and monitor resolution. Currently there are no professional training programs or certifications for carsharing staff, requiring those tasked with hiring to evaluate applicants on other factors. Important characteristics for staff may include familiarity with the community (especially for programs operating in environmental justice areas), bilingual skills if the member population has a significant non-English speaking component, comfort with learning software and computers in general, community outreach and marketing experience, and a valid driver's license.
- 7. <u>Member Vetting</u>: To join a carshare, an applicant minimally needs to provide their driver's license information and an accepted form of payment. Most insurance companies will require that members have a relatively clean driving record, without recent moving violations or DUIs. Driving records can be provided and monitored through several software systems and can often be customized to flag specific infractions. It is important to screen driving records prior to an applicant's first trip as a carshare member.

Some carsharing operations require a minimum FICO (or credit) score to qualify members. Programs that serve low-income populations need to keep in mind that a low FICO score may reflect the applicant's inability to afford a mortgage or other credit, as opposed to delinquent or non-payment issues. Equity-based programs can opt to defer FICO screening and simply run payments prior to rentals to avoid undeserved discrimination.

When gathering personal identifying information that is submitted to vetting companies or stored by the program or operator, care should be taken that confidentiality and security meet state accepted regulations. These can vary from state to state and should be ascertained prior to the program launch.

Eventually most programs will face the need to face suspending or expelling a member's rental privileges due to new driving infractions, substance abuse,

disregard for vehicle cleanliness, returning cars late without notice, or ignoring vehicle charge/fuel levels. A member handbook should be provided outlining the rules for participation; these may include prohibition of smoking or using alcohol and drugs in vehicles, limiting driving to the member only, and requiring the driver return an electric vehicle with a certain amount of charge (or an amount of fuel in gasoline-powered vehicles). The member handbook should stress the importance of respecting the shared nature of the vehicle; one member's behavior can have a detrimental impact on several members' experiences. Clearly communicating infractions to members and staying to a standard of consequences is important and documenting the protocol for member suspension or expulsion is important.

Conclusion

Society is at an inflection point for acting on climate change; to be successful, transportation must be included in any comprehensive strategy. Recognizing that personal vehicle use needs to be curtailed and vehicles need to be electrified is a first step. Changing US citizens' attitudes towards the necessity of owning their own cars will be a daunting challenge, especially if there are no efficient and affordable alternative personal transportation options readily available. In the past century, significant resources have been poured into highway construction and relocation of businesses outside traditional downtowns. Nearly every community has a "strip" where a host of goods and services are only reachable through personal vehicles or bus systems that are infrequent and offer limited destination points. Events like the COVID virus outbreak of 2020 further illustrated the limitations of public transit as an option when sick. Because the US has never prioritized the public transit system as it has been in Europe and other parts of the world, it is limited and focuses on business and recreational destinations. Our dependence on personal vehicles has significant consequences for those unable to afford the high cost of car ownership.

Changing the public transit model in the US will be very costly and will require an extended period of planning and construction if it occurs at all. Until it is formally recognized as an important modality worthy of support, uptake will be slow and siloed in small community programs and time-delimited pilots. Recognizing equity-based carsharing as a clean, affordable complement to public transit can provide immediate, tangible benefits and provide a key tool in addressing transportation electrification and equity.

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- 19. <u>https://www.transportation.gov/priorities/climate-and-sustainability/carbon-reduction-program</u>
- 20. https://app.leg.wa.gov/billsummary?billnumber=5126&year=2021
- 21. <u>https://www.pewresearch.org/nternet/fact-</u> <u>sheet/mobile/#:~:text=The%20vast%20majority%20of%20Americans,Smartpho</u> <u>ne</u>

Appendix A: Examples of Equitable Community-Based Carsharing Programs (not an exhaustive list)

- <u>Colorado CarShare</u> (Denver, Colorado)
 - August 2021 city of Denver pledged \$300,000 of COVID-19 relief funds to expand EV carshare to "underserved communities and essential workers"
 - Subsidized memberships for 450 residents
 - Allotted funds for the purchase of 7 EVs and charging stations for the service placed in low-income communities
 - EV carshare programs are a "key strategy" for the state to reach its goal of electrifying 100% of light-duty vehicles by 2050
 - o 55+ vehicles, not all EVs (hybrid vehicles, EVs, pickup trucks, AWD vehicles)
 - Non-profit organization
 - Membership:
 - Subsidies for low-to-mixed income communities
 - Low income residents who are in an affordable housing program qualify for "significantly subsidized rates"
 - Focus on mobility, climate change, & social equity
- Forth Community Carsharing (multiple locations)
 - A nationwide community carsharing program providing electric vehicles to affordable housing locations.
 - Forth is working with local partners including utilities and community-based organizations in eight states across the U.S. with the goal of increasing access to clean transportation by making low-cost EVs available to underserved communities.
 - The first locations are: Oregon (Portland), Washington State (Seattle), North Carolina (Charlotte), Missouri (St. Louis), Michigan (Detroit, Kalamazoo, Ann Arbor), Idaho (Boise), Nevada (Las Vegas), and New Mexico (Albuquerque, Santa Fe)
- <u>Twin Cities Electric Vehicle Mobility Network</u> (Minneapolis and St. Paul, Minnesota)
 - EV carsharing & public charging network
 - Partnered with HOURCAR, Excel Energy, East Metro Strong, & cities of Minneapolis and St. Paul
- BlueLA LADOT ; BlueLA Blink Mobility
 - Started in 2015, service began 2018
 - Operated by <u>Blink Charging</u>
 - o 100 vehicles, 40 designated stations, 200 charge points
 - o Committed to servicing disadvantages communities and people of color in LA
- <u>CarShare Vermont (carsharevt.org)</u>
 - o Non-Profit Carshare program in Vermont focused on accessibility & environment
 - Vehicles area mix of EVs and gas-powered vehicles