

BRINGING CAR-SHARING TO YOUR COMMUNITY



CHAPTER 1: INTRODUCTION

The challenge of the American automobile has had citizens, planners, and environmentalists stumped for decades. How will it ever be possible to get Americans to give up their love affair with cars? One of the most effective solutions to date is a project known as car-sharing: a network of cars and trucks for people to use on a pay-per-use basis. Rather than simply pointing out the negative consequences of automobile dependency and associated sprawl, car-sharing offers a practical, tangible way to improve the environment, promote social equity and build local capacity.

This guide is for anyone who wants a practical guide to starting a car-sharing organization in his or her community. While it draws heavily on City CarShare's experience in developing a successful program in the San Francisco Bay Area, it is intended to provide advice to anyone in North America.

What is car-sharing?

Car-sharing is a neighborhood-based transportation service that allows people to use a car when needed, without the costs and responsibilities of ownership. It converts automobile use from a product to a service, providing people with use of a car instead of ownership.

Cars of various sizes are kept in small parking lots all over a city. Members make reservations on-line or via a toll-free phone number, walk to the closest lot, access the car using an electronic key fob, and drive off. They are billed at the end of each month based on usage.

Car-sharing comes in many forms, even within North America. Different organizations concentrate on different markets, and have varied pricing structures and technologies. The essential features of car-sharing, however, are as follows:

SHORT-TERM RENTALS. Car-sharing charges by the hour, and usually by the mile as well, making short trips cost effective.

NEIGHBORHOOD-BASED, DECENTRALIZED VEHICLES. Car-sharing operators place "pods" of cars at locations all around a city, ensuring they are within an easy walk of as many people as possible. Most pods have one or two vehicles, but some are larger.

SELF-ACCESSING. Car-sharing allows members to reserve a car online or by telephone, open the doors with their own electronic key, and return the car without ever dealing with anyone else. This allows car-sharing to provide service more efficiently than rental car agencies, eliminating the time-consuming hassle of the check-in process.

DIFFERENT VEHICLES FOR DIFFERENT USES. Most car-sharing operators have a varied fleet. Members can reserve a big vehicle to go camping, a pick-up truck to move furniture, and small, fuel-efficient cars for other trips.

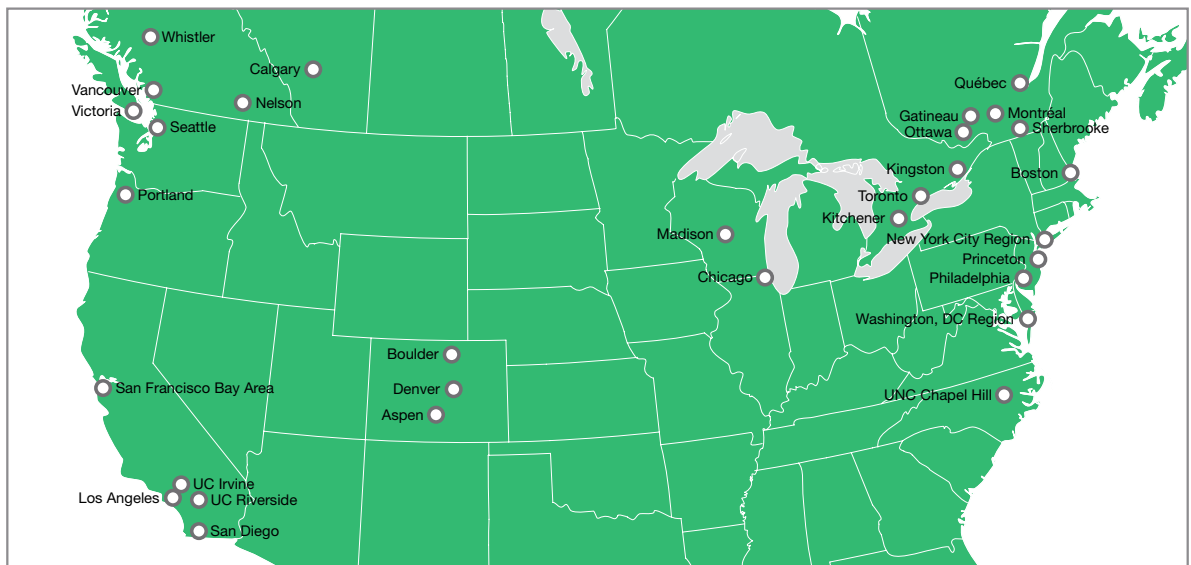
FULL, TURNKEY SERVICE. Car-sharing services include fuel, maintenance, insurance, and reserved parking at the pod. This saves members money. But avoiding the hassles of vehicle ownership is also one of the key attractions of car-sharing. Members “out-source” the chores that go along with ownership.

Which cities have car-sharing?

The car-sharing concept originated in Switzerland in 1987, and one of the largest car-sharing operations in the world is still run by Mobility Switzerland, in close partnership with the Swiss Federal Railway. It runs a fleet of 1,650 cars in more than 930 locations, and has enrolled more than 58,000 members. As well as its size, the Swiss program has enjoyed enormous success in influencing travel behavior. Surveys show that members who gave up their car after joining the car-sharing program increased their transit usage by 35%, from 3,560 miles per year to 4,810 miles per year. Walking and cycling levels also increased, while vehicle miles traveled, in contrast, fell by 75%.

Car-sharing spread to North America in the early 1990s, beginning in Quebec City in 1994, and entering the United States in Portland, OR in 1998. Nearly 20 major cities, plus a few smaller towns and university campuses, now have car-sharing. Some of these smaller communities just have a single shared car. Others have more than a hundred.

FIGURE 1: CAR-SHARING LOCATIONS, 2004



What are the benefits?

Car-sharing brings a broad range of social and environmental benefits for members, non-members and the wider community. In short, it can help make communities more vibrant, attractive, and less dependent on the private automobile, and contribute to a range of transportation, housing, economic development and social justice goals. Some of the most notable benefits include:

LESS LAND NEEDED FOR PARKING. Car-sharing is a proven strategy to reduce the demand for parking. Independent surveys consistently show that each car-sharing vehicle replaces as many as seven private cars or more, as members sell or scrap their cars. This means that car-sharing can be a cost-effective alternative to building more parking garages, which often cost \$30,000-\$50,000 per space in urban areas. Instead of parking lots and parking garages, car-sharing also allows us to use land for higher and better uses like housing and parks, helping to reshape our urban areas into a more environmentally sustainable form.

How does Car-Sharing affect Vehicle Ownership?

A selection of the studies that have examined these impacts

- 29% of City CarShare members have sold at least one car, compared to 8% in a control group of non-members. This means that each City CarShare vehicle replaces 6.9 private cars (Figure 2).
- A 2004 study by Philly CarShare found that each car-sharing vehicle removes 10.8 private cars from the road, plus 12 more as members forgo the purchase of a car.
- In Quebec and Montreal, 26% of CommunAuto members have given up a car, and 58% have avoided buying a car since they joined.
- In Vancouver, 28% of Cooperative Auto Network members gave up their vehicles in the six months before becoming a member.
- Zipcar reports that 13% of its members in Boston and Washington, DC have sold a car since joining, with more than 40% avoiding buying one.

FIGURE 2: CITY CARSHARE IMPACTS ON VEHICLE OWNERSHIP.



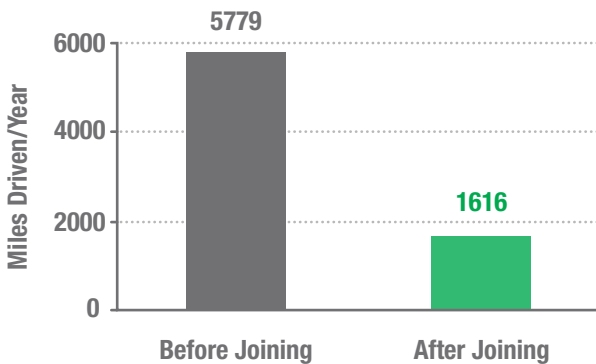
Source: Based on Cervero & Tsai, 2003

REDUCED VEHICLE TRAVEL AND CONGESTION. Once members sell their cars, they drive less. They have access to a car whenever they need it, but use it only when it is truly the best alternative, rather than as the default means of travel. Car-sharing members have an incentive to drive much less, since the full costs of driving are visible in each trip (see Chapter 2). Car-sharing at the workplace, meanwhile, allows people to commute by transit to work, since a car will be available for errands and meetings during the day.

In San Francisco, Cervero's research found that City CarShare members drive an average of 47% less after joining. In addition, City CarShare trips tend to be made at off-peak times, to destinations that are poorly served by transit. Rather than driving to work, City CarShare members practice "judicious automobility," using the vehicles for occasional trips such as shopping and recreation. In Europe, where car-sharing has been established longer, members who give up their cars after joining reduce their driving by up to 75%.

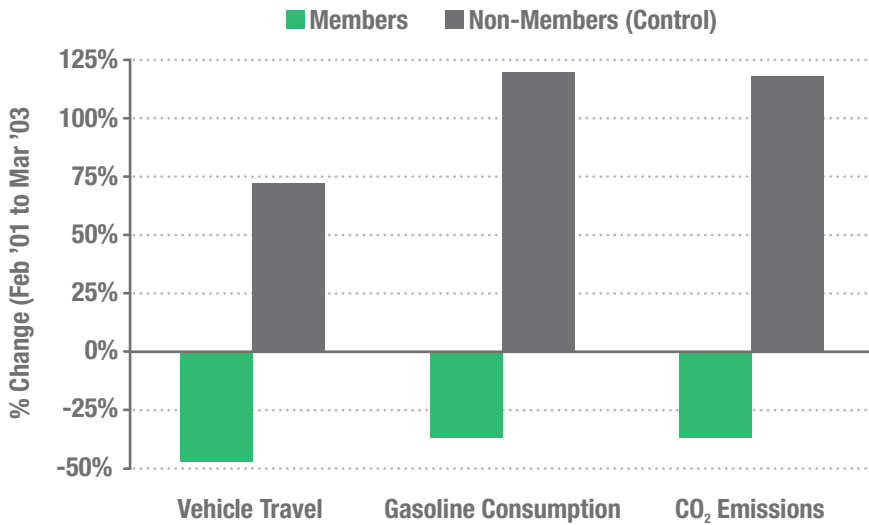
The greatest benefits, however, will come in the long term, as car-sharing makes it possible to build denser, transit oriented development projects in existing urban areas. Residents of dense, urban areas drive up to 80% less than those in suburban fringe locations.

FIGURE 3: IMPACT OF SWISS CAR-SHARING ON VEHICLE TRAVEL



Source: Mobility Switzerland. Figures are for those members who give up their car.

FIGURE 4: IMPACTS OF CITY CARSHARE



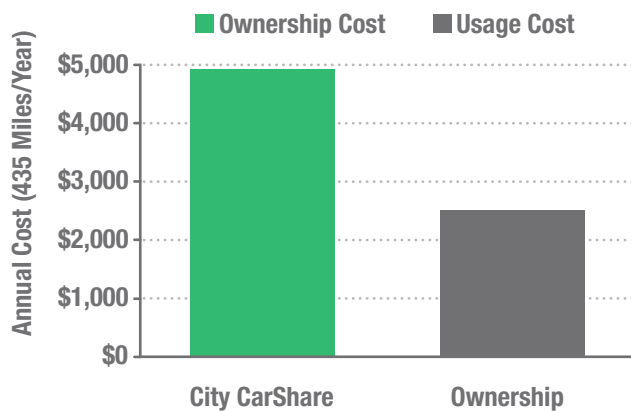
Source: Based on Cervero & Tsai (2003). Note that the figures include gasoline consumption and CO₂ emissions from transit vehicles and carpools. The reduction in fuel usage and emissions from private cars will be even greater.

EMISSIONS REDUCTIONS. Car-sharing reduces emissions of greenhouse gases and other pollutants, simply by encouraging people to drive less. The benefits are amplified, however, through allowing members to pick the right car for the right trip. Rather than owning a large family car or SUV to cope with camping trips once a year, car-sharing gives them access to a range of vehicles – a compact car for trips around town, or pick-up trucks to move heavy loads. What’s more, most operators use modern, fuel-efficient cars – including hybrids – while the cars they replace tend to be older and more polluting.

PROMOTING TRANSIT. As members drive less, they take more of their trips by transit. Car-sharing also generates many combined trips, as members take transit to a station or bus stop close to their destination, before picking up a car-sharing vehicle to drive the final leg of their journey. Nearly 20% of members get to their City CarShare vehicles by transit – a figure that rises to more than 55% at some pods located at BART stations. An early study of City CarShare’s partnership with BART found that each vehicle parked at a BART station generated around 50 of these roundtrip transit rides per month.

REDUCED TRANSPORTATION COSTS. Car-sharing can provide tremendous cost savings to families who need occasional access to a vehicle. According to AAA, a compact automobile costs \$5,000 per year, for depreciation, insurance, taxes and finance charges. The average City CarShare member, in contrast, spends \$540 and drives 435 miles per year (Figure 5). Car-sharing allows low-income people to make necessary car trips such as taking a child to the doctor or interviewing for a job, without the crushing burden of car payments, insurance, parking, and other and associated costs.

FIGURE 5: COSTS OF CITY CARSHARE VS. VEHICLE OWNERSHIP



AFFORDABLE HOUSING. In many communities, parking requirements set by local jurisdictions are the single greatest barrier to the construction of affordable housing. Each residential parking space entails a cost of \$25,000 or more, which is either borne by residents or requires greater public subsidy. Including car-sharing as part of new housing developments can reduce the amount of parking that has to be provided, thereby bringing down the cost of housing and allowing more units to be built.

LOCAL ECONOMIC DEVELOPMENT AND CAPACITY BUILDING. Car-sharing keeps money circulating in the local community. Since car-sharing members pay for each use, they are more likely to walk to the local store for basic items. Car-sharing thus supports local shops and services, which are the heart of many communities. People begin to have a taste of cooperative, locally-controlled economic relationships. Nonprofit car-sharing organizations also rely on local leadership, providing an opportunity to build capacity in the community and respond to local needs.

FLEET MANAGEMENT SAVINGS. The City of Philadelphia recently joined Philly CarShare as an organizational member, allowing City employees to use car-sharing vehicles – and the City to save money by selling 400 municipal fleet cars. Many other businesses, public agencies and nonprofits have realized that car-sharing is a more cost-effective and higher quality alternative to managing their own fleets.

Which model is right for your community?

While City CarShare is a 501(c)(3) nonprofit, different car-sharing operators have different business and organizational models. Some are for-profit companies, accountable to venture capitalists and other investors. Some, such as the Community Auto Network in Vancouver, are cooperatives. Others are run by local governments, or on an informal basis.

In order to grow large and begin to replace private car-ownership, car-sharing organizations must be professionally run and businesslike. However, there is no single ideal model, and the best approach will vary between communities. For-profit organizations and cooperatives have achieved great success in many parts of North America. City CarShare, though, believes that the nonprofit model is the most appropriate model in achieving our mission in the San Francisco Bay Area (see sidebar). Reasons include:

City CarShare's mission is to promote car-sharing as a means to reduce automobile dependence and to enhance the environmental and social integrity of our urban neighborhoods and planet.

Financial Sustainability. In most markets, car-sharing is not likely to be profitable in the short- to medium-term, and the business model for car-sharing in North America needs to be realistic about this. Financial self-sufficiency is a realistic goal; generating significant profit for investors is not.

Mission Driven, Not Profit Driven. Non-profit car-sharing groups, driven by mission instead of profit-motive, can prioritize their social change agenda. This means using pricing, member recruitment, and all other aspects of business strategy to reduce over-dependency on the automobile, instead of simply trying to get people to drive a lot using shared vehicles instead of their own. They can cater to a wider range of income groups, rather than simply focusing on wealthy populations.

Cooperation with Other Car-sharing Organizations. Nonprofit car-sharing groups participate in collaborative relationships with other operators. They can cooperate more easily to form strategic partnerships for joint purchasing, technology compatibility, and cross-membership agreements.

Cooperation with Community-based Organizations. As a nonprofit organization, City CarShare enjoys the goodwill and active support of dozens of other local organizations such as environmental groups, city planning associations, and bicycle and pedestrian advocacy organizations. These groups devote staff time, volunteers, and space in their publications to promote car-sharing. We know that people are more likely to adopt new ideas through conversations with trusted sources rather than through anonymous advertising. As a strategy for changing cultural attitudes toward the automobile, relying on the combined efforts of other social change organizations is a priceless asset for car-sharing organizations.

Cooperation with the Public Sector. Nonprofit car-sharing groups work closely with the public sector to use car-sharing as a way to promote transit ridership, changes to city planning codes, neighborhood improvement efforts, and other public programs. These efforts, which cost time and money to car-sharing organizations, are integral to the mission of car-sharing.

Structure of this Handbook

This handbook has 10 chapters:

CHAPTER 1: INTRODUCTION summarizes the concept and benefits of car-sharing, and discusses the different models that have emerged in North America.

CHAPTER 2: BUSINESS PLANNING considers the issues that will need to be addressed in the business plan. What is the competition? What are the markets for car-sharing? In what types of neighborhood is it likely to succeed?

CHAPTER 3: FINANCIAL PLANNING explains how to draw up a budget. It discusses how much it will cost to get car-sharing up and running, and sources of funding such as usage fees and grants from government, industry and foundations. The chapter also outlines measures of success.

CHAPTER 4: RECRUITING THE RIGHT PEOPLE focuses on human resources. What skills are needed on the Board and on staff? How many people does it take to run a car-sharing program, and what jobs need to be done?

CHAPTER 5: BUILDING PARTNERSHIPS explains how to work with cities, transit agencies, developers and other partners. It shows what they can do to support car-sharing – and what car-sharing can do for them.

CHAPTER 6: OUTREACH AND MARKETING discusses how to get the word out about car-sharing, from doorhangers to newsletters and media events.

CHAPTER 7: OPERATIONS talks about the nuts and bolts of car-sharing. What vehicles are best, and should they be leased or bought? How do you obtain parking, insurance and a web-based reservation system?

CHAPTER 8: THREATS TO SUCCESS suggests what not to do. Learn from the mistakes of the first operators!

CHAPTER 9: SPECIAL NICHEs discusses the potential for car-sharing on college campuses, at transit stations, and as a replacement for government vehicle fleets.

CHAPTER 10: SO YOU STILL WANT TO DO IT? provides a checklist for getting started!

FURTHER READING provides some useful reference sources, all available online.

CHAPTER 2: BUSINESS PLANNING

Why a Business Plan?

Regardless of whether an operator is for-profit, non-profit or cooperative, it needs to be run like a professional business. For car-sharing to realize environmental benefits, members need a well-run organization that they can count on, particularly when making major decisions such as whether to buy or sell a car.

In many cases, a business plan will be a prerequisite for qualifying for public or foundation funding. Regardless, it will help to establish principles for the organization, such as target markets and funding sources. It will also answer many critical questions, such as start-up capital required, pricing structures, and staffing needs. It will predict the size that an operator needs to reach in order to break even financially, and the steps that need to be taken to achieve the required growth. Careful analysis in the business plan will provide the template for an organization's growth and development.

The Competition

PRIVATE AUTOMOBILES are the chief competitor for any car-sharing organization. The success of car-sharing – both in terms of financial viability and achieving environmental goals – will be largely dependent on the extent to which members can be persuaded to sell their cars.

Cost savings are one of the major motivations for members to join a car-sharing program. Car-sharing turns fixed motoring costs into variable ones (see sidebar), meaning that the greatest savings will be realized by people who drive only occasionally. A cost comparison between car-sharing and private car ownership is a useful exercise for any operator before finalizing a rate structure; AAA publishes data on the costs of automobile ownership and use.

At City CarShare's current rates (\$4/hour peak, \$2/hour off-peak and 44 cents/mile), for example, the break-even point lies around 5,000 miles a year (Figure 7). For people who drive less than 5,000 miles a year, car-sharing is clearly a cheaper option than owning a car. The same is true for households who could drive less than this amount, and those that have a second car that is driven less than 5,000 miles per year. Car-sharing is not a financially attractive option, however, for commuters who frequently drive to work.

Car-sharing also competes with the private automobile on non-monetary grounds. The non-monetary *advantages* of car-sharing include:

- New vehicles
- No maintenance or repair responsibilities
- Vehicles always clean
- Different vehicles for different purposes (whereas private owners have the same car all the time)
- Guaranteed parking space, close to home
- Personal values – including environmental reasons, and a greater sense of community engagement

The non-monetary *disadvantages* of car-sharing include:

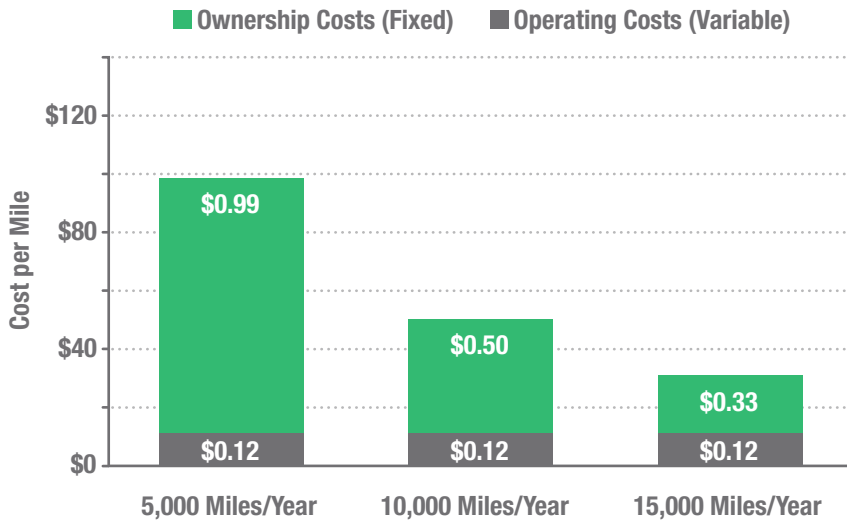
- Must reserve vehicles
- Risk of vehicles not being available when wanted
- Must walk, bike or take transit to a vehicle
- Must return vehicle at specified time and place
- Must remove belongings from car before returning it, even when in a hurry

Making Fixed Costs Variable

Car-sharing turns automobile use from a product into a service. While private car ownership has high fixed costs associated with the purchase price, insurance, registration, parking, and maintenance, car-sharing allows people to pay for their use according to a time and mileage charge. The majority of motoring costs are fixed – and this proportion rises the less people drive.

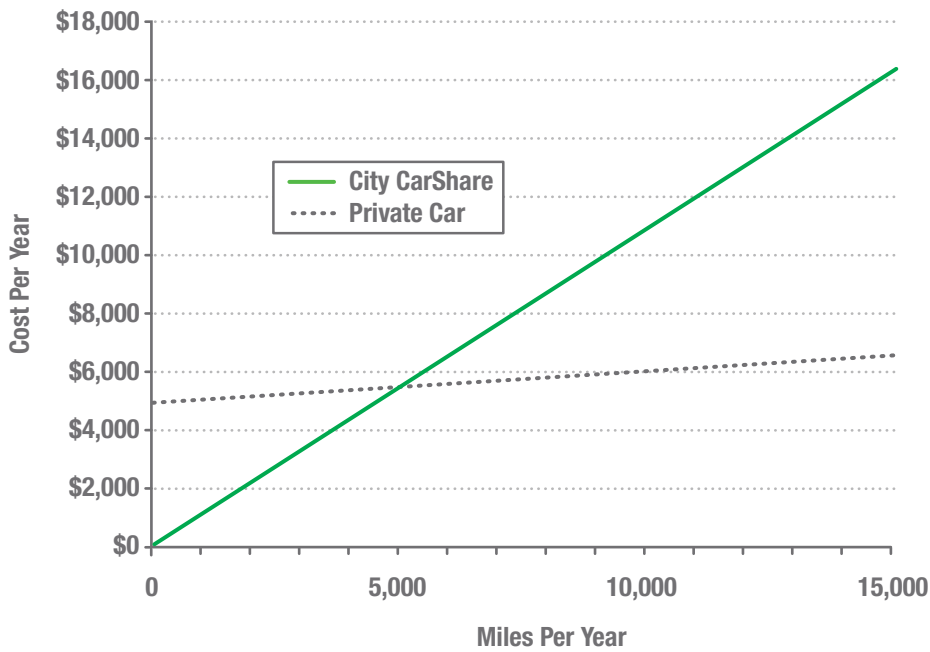
One of the major challenges of car-sharing is to communicate the full costs of vehicle ownership. All too often, motorists just think in terms of gasoline costs and car payments, forgetting about insurance, parking, maintenance and other expenses. Many car-sharing organizations publish a motoring cost calculator on their website, but the impacts of these tools are unclear. There is certainly a need for more creative ways of communicating the true costs of motoring and vehicle ownership.

FIGURE 6: FIXED AND VARIABLE COSTS OF CAR OWNERSHIP



Data from AAA, 2003. Figures assume compact car (2003 Chevrolet Cavalier LS).

FIGURE 7: COSTS OF PRIVATE OWNERSHIP VS. CITY CARSHARE



Assumes average of 5.5 miles per hour of CCS usage. Private automobile costs from AAA (2003). Based on January 2005 rates, assuming hourly average cost of \$3.50.

RENTAL CARS are largely complementary to car-sharing at present, providing additional options for longer trips where they tend to be more cost-effective. However, there is some competition in the area of overlap where the cost is similar.

Car-sharing has several non-monetary advantages over rental cars – most importantly, convenience. Car-sharing pods are located close to homes and businesses, and members avoid hassles waiting in line and checking in and out. However, rental cars tend to have a wider variety of vehicles, offer unlimited mileage – particularly important for longer weekend trips – and have more consistent availability of vehicles, particularly on weekends.

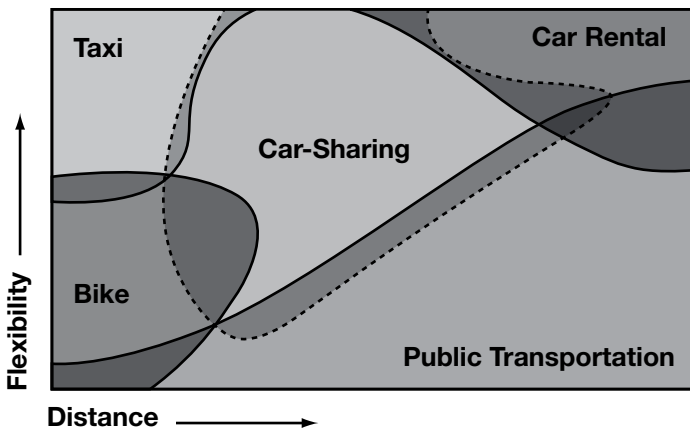
TAXIS provide additional options for one-way trips, which are not offered by any major car-sharing operator in North America. Taxis also serve those who are unable to drive, for example due to age, disability, lack of a valid license or temporary intoxication. However, car-sharing is cheaper and works better than taxis for most round trips.

AGAINST ALL COMPETITORS, ONE OF THE MAIN STRENGTHS OF CAR-SHARING ORGANIZATIONS IS THE ORGANIZATIONAL ETHOS. Members like the idea of supporting a grassroots, community based organization, that provides a practical solution to the problem of overdependency on the private automobile.

TRANSIT, BICYCLES AND WALKING ARE NOT COMPETITORS. In order to maximize environmental benefits, car-sharing operators should seek to promote these transportation options as the first choice for their customers, and encourage them to use car-sharing for only those trips where these modes are not a realistic alternative. This can be accomplished through a pricing structure that charges members by the amount that they drive, rather than pricing plans that include a pre-paid number of miles and hours (see Chapter 3).

THE REAL COMPETITION FOR CAR-SHARING IS PRIVATE CAR OWNERSHIP. Car owners are the largest potential market, and the most important one to tackle to fulfill environmental and social change goals. Other means of transportation are largely complementary (see Figure 8).

FIGURE 8: CAR-SHARING'S MARKET NICHE



Source: Eric Britton (1999), "Carsharing? A roadmap and compass for this long trip," *World Transport Policy and Practice*, 5(3): 1-8.

Target Markets for Car-Sharing

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Individual Members

Most car-sharing members are individuals. Many operators also offer household memberships, allowing family members or roommates to be added to the same account. For all purposes apart from billing, individual and household members can be treated identically.

One way of segmenting the pool of potential individual members is by their current car ownership status:

PEOPLE WHO COULD SELL THEIR CAR. This generally means existing car owners who drive only occasionally. The exact mileage threshold below which car-sharing is more cost-effective will depend on an individual operator's rate structure.

HOUSEHOLDS WHO COULD SELL THEIR SECOND CAR. Households that own a second car for occasional use or added flexibility could cut down to just one car and use car-sharing for those times they need an extra vehicle.

CAR-FREE HOUSEHOLDS. Many people will join who don't own a car, but occasionally need one for grocery shopping or moving furniture. These people may borrow or rent cars at present, or simply do without.

PEOPLE WHO ARE THINKING ABOUT BUYING A CAR. Caught in the period of cost-calculation that most people go through when deciding about buying a car or not, car-sharing will often be the most cost-effective option. People are most receptive to the idea of car-sharing following these “trigger events” such as changing job, moving home or the need for expensive auto repairs.

Business Members

Business members usually join in order to provide mobility options for their employees for work-related purposes. As well as private businesses, these members can include nonprofit organizations and other employers such as government agencies, who make car-sharing available to their employees for work-related purposes. They are billed as a single entity, with an itemized record of each employee’s trip use.

While businesses account for a relatively small share of the overall membership of most car-sharing operators, they are particularly valuable in helping to even out the demand cycle. Their peak demand is during the working day, while demand from individual members peaks in the evenings and weekends.

One way to segment the pool of potential business members is by their current methods of having their employees get to meetings that require a car:

- Organizations that have their own fleets, but could replace or partially replace these with car-sharing. These organizations may also be encouraged to forego the purchase of a new fleet vehicle as a result of using the car-sharing system.
- Organizations that currently rely on employees’ own cars, rental cars, etc. Car-sharing can provide added convenience and flexibility, as well as reduce the need for employees to drive their own car to work for use during the day.

Transit Transfers

Both individual and business members can be subdivided into two further categories: the “walk-to” market and the “transit transfer” market. Members who walk (and bike) to pods usually represent the core market for car-sharing; a well-placed network of pods will provide cars within walking distance of as many members as possible. However, the transit transfer market is also important in serving three distinctive types of trips:

- Where all vehicles at the closest pod are already reserved, some members may be willing to take transit to get to a different pod.
- Members who do not live within walking distance of a pod may be willing to take transit to get to a car.

- Members can take transit for part of their trip and then transfer to a shared vehicle to get to their final destination. This is a critical market for car-sharing operators to develop because it is so directly tied to environmental goals: through providing cars at the end of major fixed line transit stations, transit operators can capture trips they would otherwise lose.

Dedicated Fleets

Some car-sharing operators provide “dedicated fleets” for large business or government customers. For example, cars may be provided exclusively for city employees during the business day, and then made available to all members in the evenings and at weekends. Alternatively, certain cars may be exclusively reserved for a specific group of users at all times, such as residents of a particular apartment building.

Where to Place Vehicles

Car-sharing does not work everywhere, and potential locations have to be evaluated rigorously for their economic viability. One of the most important prerequisites for success is a high level of density. Other criteria include a mix of land uses, good transit access, low vehicle ownership levels, and a pedestrian-friendly environment. A good location may not score highly on all of these criteria, but at least some are needed to make car-sharing work.

The Utilization Rate

The critical underlying indicator of a “good” location is the utilization rate – the proportion of time that cars are reserved by members – which shows whether a car-sharing operation is generating revenue from its expensive equipment. This rate, generally expressed in “revenue hours per vehicle per day”, is the core measure of an operator’s financial health. All the criteria for vehicle placement discussed here, such as density and transit access, provide an indication of the utilization rate that can be expected.

A certain minimum utilization rate is needed for a car-sharing organization to break even. This rate will depend on the specific rate and cost structure, and will need to be analyzed in the business plan. Since the lease, insurance, cleaning, and pod infrastructure costs for each vehicle are fixed, a certain number of revenue hours per day are needed for each vehicle to pay for itself. Above this breakeven point, the vehicle starts to contribute to staff and overhead.

Mobility Switzerland – probably the most successful car-sharing organization in the world – achieves a rate of 40%, or more than nine hours per day. This break-even point is unlikely to be achieved in the early years, and virtually every car-sharing organization has required significant start-up subsidies or capital investments. However, it needs to be a goal if a program is to be able to continue without ongoing subsidy.

Density

Density is one of the most important factors determining the viability of car-sharing for two key reasons. First, to provide an attractive alternative to car ownership, car-sharing must be convenient to get to, and density provides a measure of the potential customer base within a short walk (5-10 minutes) of a pod. Doubling density doubles the number of potential customers.

Second, households living in dense neighborhoods tend to own fewer cars. Density is a good indicator of the quality of transit, the pedestrian environment, and local shops and services, making a car-free lifestyle a realistic option. At densities above 25-30 units per acre, vehicle ownership starts to fall below one car per household (Figure 10).

In practice, this means that considerably more outreach and marketing will be needed if car-sharing is to work at lower densities. Figure 9 shows the penetration rates needed to achieve 25 members per vehicle within a 5-minute walk at various densities. While these figures will be lower if business members are recruited, or if members are willing to walk longer distances to a pod, they provide a good indication of the level of market penetration that will be required.

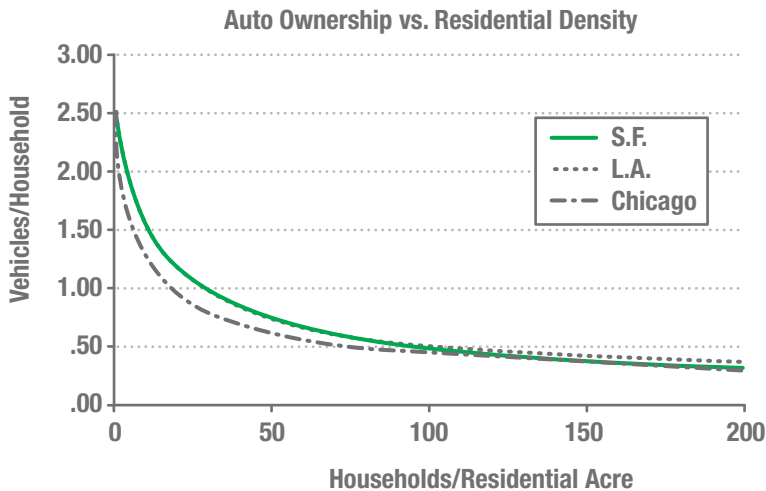
Residential density can be easily mapped by anyone with access to a Geographic Information System (GIS), using census data. Local cities and other planning agencies usually produce these maps. Make sure that they are at the finest geographic scale possible (generally the “census block group”), as pockets of high density are easy to overlook.

FIGURE 9: PENETRATION RATE REQUIRED

Residential Density (persons/acre)	Penetration Rate Needed*	
	One-vehicle pod	Two-vehicle pod
5	3.98%	7.96%
10	1.99%	3.98%
15	1.33%	2.65%
20	0.99%	1.99%
25	0.80%	1.59%
30	0.66%	1.33%
35	0.57%	1.14%
40	0.50%	0.99%
45	0.44%	0.88%
50	.50%	.80%

* To achieve 25 members per vehicle within 1/4 mile radius (equivalent to a 5-minute walk).

FIGURE 10: AUTO OWNERSHIP VS. RESIDENTIAL DENSITY



Source: Holtzclaw, John et. al., “Location Efficiency: Neighborhood and Socio-Economic Characteristics Determine Auto Ownership and Use – Studies in Chicago, Los Angeles and San Francisco,” *Transportation Planning and Technology*, 25(1): 1-27.

Other Criteria

Density is one of the most important factors indicating the viability of a pod – and is also the easiest to map and quantify. However, other criteria that should be taken into account include:

PARKING DIFFICULTY AND COST. Where parking is difficult, there is a strong incentive to share a car in order to avoid the hassle and expense of parking. While it may be tempting to start car-sharing where parking can be obtained cheaply, this will almost certainly be a counter-productive strategy in the long run.

LOW VEHICLE OWNERSHIP. While many people will sell their car once they join a car-sharing program, others will use car-sharing to improve their mobility and travel choices. This means that car-sharing will be most viable in a neighborhood where fewer people own cars – or where households have one rather than two vehicles. In addition, low vehicle ownership in a neighborhood indicates that selling a car and joining a car-sharing program will be a realistic option for many households, due to good transit access and shops and services within walking distance. The US Census provides data on car ownership rates that can be easily mapped.

A MIX OF LAND USES. People who use car-sharing for work tend to need cars during the day. Individual members tend to want them in the evenings and at weekends. This means that a mix of residential and employment land uses is important to ensure that the cars are used enough to make the pod viable. Shared cars in a purely residential area, for example, may not receive sufficient usage during the day, while those in an office park are unlikely to be used much in the evenings and on weekends.

NEIGHBORHOOD AMENITIES. People who can easily walk for convenience retail services are less likely to need to drive everywhere. In addition, retail centers are good pod locations, because people are used to going there on foot for their errands.

GOOD TRANSIT ACCESS. Car-sharing can never be the sole transportation option for a household. Instead, it gives people the freedom to replace their car with a package of alternatives – car-sharing, transit, taxis, rental cars and walking and cycling. Car-sharing will be a far more attractive option in neighborhoods that are well served by frequent, reliable, comfortable transit. In addition, some people making longer distance trips are likely to arrive at the pod by transit, and make the last leg of the journey by car-sharing. This integration can be best achieved where the pod is at a rail station or busy bus stop.

MEMBER INTEREST. A useful strategy can be to ask potential members for expressions of interest, indicating where future demand is likely. Existing car-sharing operators can also map the locations of their current members, and plot concentrations that are not served at present.

Estimating Market Potential

These criteria can be used to estimate the market potential of each pod, based on the three most important market segments: residents, businesses and transit transfers. Figure 8 shows a possible format for the calculation. The most critical assumption is the penetration rate for each group. This will usually be far higher for residents compared to employees and business members. It is important, however, to be realistic – theoretical studies in Europe have suggested that 0.3%-9% of the population could benefit from car-sharing, but the actual number will be much lower.

FIGURE 11: ESTIMATING THE MARKET NEAR A POTENTIAL POD

ROW #		POD 1	POD 2
RESIDENTIAL MARKET			
1	Housing Units Within 1/4 Mile		
2	Residential Penetration Rate (%)		
3	Potential Residential Members	= 1 * 2	= 1 * 2
BUSINESS MARKET			
4	Jobs Within 1/4 Mile		
5	Business Penetration Rate (%)		
6	Potential Business Members	= 4 * 5	= 4 * 5
TRANSIT TRANSFER MARKET			
7	Transit Riders/Day		
8	Transit Penetration Rate (%)		
9	Potential Transit Market	= 7 * 8	= 7 * 8
10	TOTAL POTENTIAL MARKET	= 3 + 6 + 9	= 3 + 6 + 9

Expansion – Pods or Vehicles?

Cars should be ideally grouped into “pods” of at least two to three vehicles per location, with a corresponding set of at least 50-100 members in proximity to the pod. However, the number of cars per pod should be based on demand. In most cases, it makes sense to begin with a one-car pod, and add new vehicles as utilization warrants. The business plan should specify the threshold for adding a new vehicle, such as a certain average revenue hours per day or revenue per vehicle.

The decision on whether to add a new vehicle to an existing pod, or open a new pod nearby, can be a difficult one. One of the main attractions of car-sharing is its convenience and proximity to members’ homes and places of work. The denser the network of pods, the more competitive car-sharing will be against private automobiles and rental cars.

Set against this, however, are many practical reasons to expand existing pods instead, and the precise balance between operational ease and network density will need to be determined by each operator. Advantages of multi-car pods include:

- Availability is increased, allowing utilization to be maximized for a given number of vehicles. A member has more chance of being able to get a reservation at their preferred pod, since there is more likely to be a vehicle available for a given utilization rate.
- Random variations in demand are smoothed out at larger pods. This allows pod size to be optimized to cater to a consistent demand.
- Scheduling is more resilient. There is more likely to be a spare vehicle available to accommodate late drop-offs, early pick-ups or breakdowns, or to allow members to extend a reservation.
- Cleaning, maintenance and other operational issues are eased, and there is less need to negotiate with multiple parking operators.
- Pod set-up costs, such as hardware, signage and web programming, are minimized.
- Larger pods make it easier for people to find vehicles because they make signage, marketing, and automated reservations easier.

Closing or Downsizing a Pod

Removing a vehicle should rarely happen, since pods should be expanded incrementally based on demand. It may be necessary when a new pod is opened close by, or to accommodate seasonal changes in demand at university campuses, for example. Providing the pod is kept open, however, removing a vehicle does not have the major disadvantages that result from pod closure. The business plan should specify the utilization triggers for pulling a car from an existing pod.

Closing a pod, in contrast, is a last resort, and should only be undertaken after extensive local outreach to try and boost utilization. The success of car-sharing in achieving its overall objectives depends on it being a permanent feature in the neighborhood landscape, that developers, cities and individuals can rely on when making decisions on parking provision and whether or not to own a car.

On the other hand, operators need to be able to experiment with new locations, without losing money indefinitely if the experiment doesn't work. Therefore, it is a reality that pods will be opened that have to be closed at a later date. The business plan should include detailed criteria for when to close a pod.

CHAPTER 3 – FINANCIAL PLANNING

Building a Budget

The budget is the most critical component of the business plan. The initial budget, if put together with sufficient care, will be the “reality check” for whether the organization has sufficient capital to open for business. The budget will also show how it plans to reach financial self-sufficiency.

Virtually every car-sharing operator will have a significant cashflow deficit in the early years. It either requires funding from local governments, foundations, auto manufacturers and similar organizations, or from private investors. However, this should narrow rapidly for several reasons:

- A significant amount of staff time will be taken up with one-off planning tasks, such as determining initial pod locations, securing parking, negotiating with service providers, and fund raising.
- Utilization rates will tend to rise as the organization reaches a “critical mass” of members and vehicles.
- Economies of scale can be realized when the organization reaches a certain size, such as volume discounts for vehicles.
- As an organization expands, overhead costs – such as office space and staff – will be spread out over a larger number of vehicles. While staffing needs will increase, the ratio of staff to members and vehicles should fall over time (see “Measuring Success”, below).

A sample budget template is shown in Figure 11. Line items are discussed individually in the following sections.

FIGURE 12: SAMPLE BUDGET TEMPLATE

Scenario - University	Assumption	Launch date	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 7	Quarter 8
New members added	40 per month	0	120	120	120	120	120	120	120	120
New vehicles added	1.5 per month	10	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Total members	(calculated)	0	120	240	360	480	600	720	840	960
Total vehicles	(calculated)	0	14.5	19	23.5	28	32.5	37	41.5	46
Member to vehicle ratio	(calculated)	0	8.3	12.6	15.3	17.1	18.5	19.5	20.2	20.9
Vehicle utilization	5.5 hours/day	1650	2392.5	3135	3877.5	4620	5362.5	6105	6847.5	7590
	5 miles/hour	8250	11962.5	15675	19387.5	23100	26812.5	30525	34237.5	37950
Revenue - hours	\$ 5.00 per hour	\$ 8,250	\$ 11,963	\$ 15,675	\$ 19,388	\$ 23,100	\$ 26,813	\$ 30,525	\$ 34,238	\$ 37,950
- mileage charge	\$ 0.25 per mile	\$ 2,063	\$ 2,991	\$ 3,919	\$ 4,847	\$ 5,775	\$ 6,703	\$ 7,631	\$ 8,559	\$ 9,488
Membership fee	\$ 5.00 per month	-	\$ 600	\$ 1,200	\$ 1,800	\$ 2,400	\$ 3,000	\$ 3,600	\$ 4,200	\$ 4,800
Total revenues		\$ 10,313	\$ 15,553	\$ 20,794	\$ 26,034	\$ 31,275	\$ 36,516	\$ 41,756	\$ 46,997	\$ 52,238
Expenses										
Vehicle cost	\$ 300 per month	\$ 3,000	\$ 4,350	\$ 5,700	\$ 7,050	\$ 8,400	\$ 9,750	\$ 11,100	\$ 12,450	\$ 13,800
Vehicle insurance	\$ 250	\$ 2,500	\$ 3,625	\$ 4,750	\$ 5,875	\$ 7,000	\$ 8,125	\$ 9,250	\$ 10,375	\$ 11,500
Maintenance cost	\$ 20	\$ 200	\$ 290	\$ 380	\$ 470	\$ 560	\$ 650	\$ 740	\$ 830	\$ 920
Repair cost	\$ 20	\$ 200	\$ 290	\$ 380	\$ 470	\$ 560	\$ 650	\$ 740	\$ 830	\$ 920
Cleaning cost	\$ 40	\$ 200	\$ 290	\$ 380	\$ 470	\$ 560	\$ 650	\$ 740	\$ 830	\$ 920
Parking	\$ 25	\$ 250	\$ 363	\$ 475	\$ 588	\$ 700	\$ 813	\$ 925	\$ 1,038	\$ 1,150
New vehicle/location setu	\$ 1,500 per vehicle	\$ 15,000	\$ 6,750	\$ 6,750	\$ 6,750	\$ 6,750	\$ 6,750	\$ 6,750	\$ 6,750	\$ 6,750
Average MPG of vehicles	25 mpg									
Fuel (cost per gallon)	\$ 1.50 per gallon	\$ 495	\$ 718	\$ 941	\$ 1,163	\$ 1,386	\$ 1,609	\$ 1,832	\$ 2,054	\$ 2,277
Variable costs	\$ 2,155 per month	\$ 21,845	\$ 16,675	\$ 19,756	\$ 22,836	\$ 25,916	\$ 28,996	\$ 32,077	\$ 35,157	\$ 38,237
Staff - General Manager	\$ 40,000 per year	\$ 3,333	\$ 3,333	\$ 3,333	\$ 3,333	\$ 3,333	\$ 3,333	\$ 3,333	\$ 3,333	\$ 3,333
Staff - Customer Service	\$ 25,000 (gross)	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083
Staff - Marketing	\$ 25,000	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083
Staff - Fleet Mgr.	\$ 20,000	\$ 1,667	\$ 1,667	\$ 1,667	\$ 1,667	\$ 1,667	\$ 1,667	\$ 1,667	\$ 1,667	\$ 1,667
Staff costs	\$ 9,167 per month	\$ 9,167	\$ 9,167	\$ 9,167	\$ 9,167	\$ 9,167	\$ 9,167	\$ 9,167	\$ 9,167	\$ 9,167
Reservation/billing system	\$ 200 per month	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
Marketing/advertising	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
Office rent	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
Phones/internet	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
Supplies, mailing	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
Office costs	\$ 3,900 per month	\$ 4,100	\$ 4,100	\$ 4,100	\$ 4,100	\$ 4,100	\$ 4,100	\$ 4,100	\$ 4,100	\$ 4,100
Total Expenses	\$ 15,222 per month	\$ 35,112	\$ 29,942	\$ 33,022	\$ 36,102	\$ 39,183	\$ 42,263	\$ 45,343	\$ 48,423	\$ 51,504
Net profit/loss		\$ (24,799)	\$ (14,389)	\$ (12,228)	\$ (10,068)	\$ (7,908)	\$ (5,747)	\$ (3,587)	\$ (1,427)	\$ 734
Cash flow	(investment needed)	\$ (24,799)	\$ (39,189)	\$ (51,416)	\$ (61,484)	\$ (69,392)	\$ (75,139)	\$ (78,726)	\$ (80,153)	\$ (79,419)

Source: Brook (2004). Note that this model includes numerous simplifications, and should be used as a starting point only.

Costs

Most of the costs of running a car-sharing organization have been discussed in previous chapters. A useful distinction is between vehicle costs, which will tend to be directly proportional to fleet size, and overhead costs, which should grow more slowly.

Overhead/Fixed Costs:

SALARY AND BENEFITS. Car-sharing is inherently labor intensive; it is a system that allows people to make more intensive use of an expensive capital resource (cars) by creating a new social arrangement for using the cars. Having said that, one of the most important cost-control strategies is to reduce labor costs through automating routine functions, such as billing and member applications. (See Chapter 4 for a full discussion of staffing issues.)

RENT. Any professional car-sharing organization will need office space. However, this may be shared with other nonprofits, or donated by local governments.

TECHNOLOGY. Off-the-shelf reservations and access technology will be the most cost-effective solution in most cases.

MARKETING AND PUBLIC RELATIONS. At a minimum, marketing expenses include the design, printing and distribution of materials such as brochures, doorhangers and postcards. In some cases, an organization may want to purchase advertising space. Hiring a specialist public relations firm may be worthwhile, but is probably only an option for larger operators.

OFFICE SUPPLIES. As with any organization, office equipment and supplies such as computers, telephones and stationery will need to be budgeted for.

Vehicle/Variable Costs:

VEHICLES. Vehicle leases or purchase costs will often be an operator's largest outlay. Strategies to reduce these costs are discussed in Chapter 7.

INSURANCE. Strategies to reduce insurance costs are discussed in Chapter 7.

PARKING. In many cases, parking will be donated for free by partner organizations, but will often need to be paid for.

GASOLINE. These costs will depend on the estimated utilization rate of the vehicles. They can be simply calculated based on current gas prices and the fuel economy of the chosen vehicles. In some cases, partnerships can be forged with providers.

CLEANING. The budget should allow for cleaning vehicles at least biweekly, plus occasional extra cleanings.

MAINTENANCE. Heavily used vehicles should be taken to the garage for a tune up every 3 months. The budget will also need to account for occasional damage, for which the member responsible cannot be identified.

Revenues

A car-sharing organization's revenue can be divided into two broad categories: *earned revenue* that results from the use of the cars themselves, and *other revenue*. Over time, the proportion of earned revenue should rise as an operator moves closer to financial self-sufficiency.

Earned Revenue

The pricing strategy is one of the most fundamental decisions that needs to be made by a car-sharing organization. One aspect relates to the overall level of charges. Too low, and financial self-sufficiency will be harder to achieve, and the organization risks encouraging members to drive more. Too high, and the cost advantages of car-sharing compared to rental cars, taxis and private vehicles will be eroded, and car-sharing will be put out of reach of lower-income households.

The other aspect of this decision relates to the way in which charges are structured. Some considerations are outlined in the following sections.

Hourly or Mileage Fee?

Some car-sharing operators “bundle” a pre-set number of miles with each hour of usage, so that each hour, for example, includes 10 “free” miles. City CarShare, in contrast, charges for usage by both the hour and the mile. This approach ensures that rates are based on quantity of usage, and that there is no perverse incentive to drive more to “get your money’s worth”.

The disadvantage of charging for miles and hours separately is that members tend to dislike the mileage fee. It also makes longer trips less cost-effective, particularly when compared to rental cars which often include unlimited mileage.

Membership Fee?

Most car-sharing organizations charge a monthly or annual administrative fee for members. This enables overall usage rates to be kept lower, and does not present a barrier to high-usage members. This is the group that it most likely to have sold their car to join, and thus brings the greatest environmental benefits and potential revenue.

However, a membership fee can be a major deterrent to members who use the service only occasionally, and primarily join for purposes of “mobility insurance.” One option is to offer different rate tariffs for light and heavy users (see below).

Off-Peak Discounts?

Peak usage times for almost all car-sharing operators are evenings and weekends. At nighttime, usage is extremely low. Off-peak discounts can help to make use of this spare capacity, while providing members with a way to lower the costs of car-sharing.

One option is to offer lower off-peak hourly charges. This encourages members who have a choice of when to make a trip – for example to a 24-hour grocery store – to do so at off-peak times. Alternatively, the daily rate can be capped at a certain dollar amount or hours of usage, helping to make longer trips or overnight trips (e.g. an “emergency ride home” from work) cost effective. This cap might apply to all vehicles, or only at pods with surplus capacity.

Different Rate Tariffs?

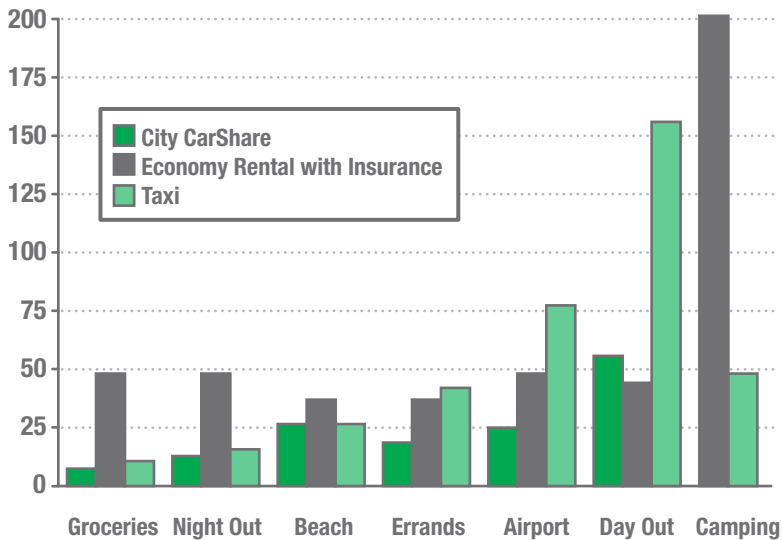
Whichever rate structure is adopted, it will always favor a group of members who make certain types of trip. For example, a low hourly rate and high mileage rate will penalize members who drive longer distances but do not leave the car “idle” for long periods at the destination – for example, to pick up a relative at the airport. A high hourly but low mileage rate disadvantages those who drive a short distance but reserve the car for a long period – for example, for a day trip to the beach. A low “cap” on daily costs is good for those who make multi-day trips or take the car overnight, but not for other users.

One possibility is to offer different rate tariffs for members to choose among based on their usage patterns. The downside is that it makes car-sharing more complex – both for members to understand, and for the operator itself.

Cost Comparisons

Before any rate structure is finalized, a useful exercise is to conduct a cost comparison with rental cars and taxis. This helps to show which types of trips are favored with a certain tariff, and which are made prohibitively expensive. A sample comparison for City CarShare is shown in Figure 13, based on various assumptions regarding mileage and time for particular trips. It can also be helpful to conduct similar comparisons for the cost of car-sharing compared to private car ownership.

FIGURE 13: CITY CARSHARE COST COMPARISON



Application Fees and Deposits

Most car-sharing operators charge new members a non-refundable application fee to contribute towards costs such as driving record checks. In addition, a common practice is to ask for a refundable deposit. This provides a safeguard against members leaving with bad debts – particularly if they are at fault in an accident – and is useful for cashflow purposes.

On the other hand, deposits introduce an additional barrier to joining. Each operator should consider whether this security could be adequately provided through credit checks or other means. For example, students may be allowed to join if a parent cosigns. In any case, procedures for dealing with bad debt will be needed – such as if and when to pass unpaid bills over to a collections agency.

Contract Revenue

Another possible source of earned revenue is contract revenue, primarily from larger business members who want a dedicated or semi-dedicated vehicle. They may be willing to pre-pay for blocks of time in return for having a vehicle exclusively available for their employees at certain times. Alternatively, a business or developer may be willing to guarantee a minimum level of revenue in return for the placement of a vehicle at a specific location.

Other Revenue

Government Funding

Many cities, counties and regional and state agencies have funded start-up costs for local car-sharing operations. Obtaining this funding requires a clear business plan, solid, quantified information on the public policy benefits from car-sharing, and strong relationships with staff and elected officials. Usually, a proposal will need to be directed to specific objectives – such as establishing a pod in a particular location, or serving a particular market.

Unlike other transportation services, car-sharing does not benefit from dedicated funding sources, meaning that funding will usually be at the discretion of local officials. Possible sources at the federal level include:

- Congestion Mitigation and Air Quality Improvement Program
- Transportation Enhancement Activities
- Access to Jobs and Reverse Commute Program
- Transportation and Community and System Preservation Program
- Value Pricing Program

Most transportation funding sources are managed (“programmed”) at the state or regional level, for example through Metropolitan Planning Organizations. Others are competitive grant programs, which require a public agency to be the lead applicant. Close cooperation with cities or other local agencies is therefore essential in securing these funds. A local match is often required.

Note that federal transportation legislation was still being finalized at the time of writing, and the precise programs and eligibility requirements may change rapidly. In addition, each state and metropolitan region tends to have different ways of allocating funding, and there will almost certainly be additional sources of revenue.

Further Reading

An invaluable resource is the transportation funding guides published by many regional planning agencies. For example, the Metropolitan Transportation Commission publishes one for the San Francisco Bay Area. See: www.mtc.ca.gov/publications/funding_guide/fgindex.htm.

Private Funding

Cooperatives and for-profit car-sharing organizations may be well placed to obtain start-up funding from shareholders or other investors. Some cooperatives treat the member deposit as a “share” in the organization, in practice refunding the money if a member leaves, but providing no guarantees that they will do so.

Another potential source of private funding is the automobile industry, although this is more likely to be provided in-kind through discounted vehicles.

Leveraged Value

Car-sharing can provide a substantial benefit to partner organizations, which can sometimes be recouped. For example, car rental companies might agree to pay a fixed amount for each referral from a car-sharing operator, in recognition of the volume of business that is channeled their way.

Private Foundations

Foundations and other philanthropic organizations can be a major source of funding for nonprofit, 501(c)(3) organizations. Good foundations to approach are those that have programs focused on environmental or social issues. The more targeted these programs are, the better – many foundations ask specifically for proposals addressing transportation or air quality issues, affordable housing, or mobility for low-income households. The key is to identify these priorities, and focus the proposal on how car-sharing can address them.

The most successful proposals often identify a particular program, such as working with developers or placing a pod in a low-income neighborhood, but many foundations also provide general operating support. Since car-sharing will usually be an unfamiliar concept to foundation officers, the proposal should also explain how it works, and provide understandable, tangible information on how car-sharing can support a foundation’s goals.

Success with private foundations depends not only on the quality of the application, but also on tailoring it to the foundation’s priorities. A meeting with the foundation’s program officer will help introduce the concept of car-sharing to them, and understand how a proposal can be tailored to meet their goals and interests.

Once funding has been received, it is important to continue to maintain good relations with program staff, in order to maximize the chances of both repeat funding and success with other foundations. If the funding is for a specific purpose, it should be prominently mentioned in press releases and other publicity materials – for example, for a new pod launch.

Most foundations also require reports detailing how the money has been spent, and it is important to establish a grant tracking and reporting system for these purposes.

Further Reading

There are numerous guides for nonprofit organizations, providing advice on which foundations to target, and on writing a winning application. A good place to start is The Foundation Center at www.foundationcenter.org, although it charges for services. Local libraries will have similar information for free.

Other Donations

As well as private foundations, many local businesses make donations to local 501(c)(3) not-for-profit organizations. Another source of private donations is the membership base. They may be willing to donate their deposit as an end-of-year tax write-off.

From the environmental point of view, a “donate your car” program may bring even greater benefits. It provides a tax write-off for members, a source of revenue for the car-sharing organization if the car can be sold, and maximizes the impacts of car-sharing in taking vehicles off the streets.

Requests for Proposals

Many public agencies wanting to establish car-sharing in their community will issue a Request for Proposals (RFP). This is a way to invite bids from multiple potential operators, and select the one that offers to provide the best service at the lowest cost. The same technique may be used by other organizations, such as a university.

The RFP will typically state the services that should be provided, and the criteria that will be used to evaluate the proposals. There is no single, correct way to respond, since every RFP is different. However, some general principles to bear in mind include:

KNOW THE COMPETITION. On request, most agencies will publicize the organizations that have received the RFP. This may include car rental firms as well as national, for-profit car-sharing operators. The next step is to determine the strengths and weaknesses of the organization against the likely competition, and highlight these relative strengths in the proposal.

BE REALISTIC. Be careful not to overpromise. Agencies usually evaluate proposals for financial realism.

BE CLEAR ABOUT EXPECTATIONS. If the proposal depends on free parking or marketing support from the local agency, it is important to state this explicitly.

PROVIDE OPTIONS. When issuing the RFP, an agency is often unclear about what it actually wants, and what is reasonable to expect. It can be helpful to provide different options contingent on different levels of support, or to make expansion conditional on the achievement of certain utilization thresholds.

Many local agencies will seek assistance in crafting the scope, which in turn provides an opportunity to make sure expectations are reasonable on both sides. However, there are often detailed local regulations precluding contact between potential bidders and procurement staff.

Nonprofit Status

Securing non-profit status is a relatively simple process if you have good advice, especially now that City CarShare has paved the way. We strongly suggest working with a lawyer who has extensive experience in non-profit law. The initial expense will pay off tenfold in the long run.

A fiscal sponsor can be a tremendous help in the early months before receiving official non-profit status. Usually for a small fee, they will effectively “lend” their status and act as an umbrella organization for other projects. In this way, a fledgling group can accept donations that are tax-deductible before being recognized by the IRS.

For detailed step by step guide to incorporating as a non-profit, check Nolo Press’s book, “How to Form a 501c(3) Nonprofit Corporation”.

Measuring Success

Performance measures are important for several reasons:

- At the organization-wide level, they help identify the strengths of a car-sharing operation, and areas for improvement. When reported at the vehicle or pod level, they can identify underperforming locations and allow corrective action to be taken.
- They make it easier for Board members and advisers to provide useful input.
- They may be required as a condition of funding. This is particularly likely for government agencies, but can also be beneficial when compiling reports for private foundations, in that they convey a greater degree of professionalism and rigor.

There are two broad groups of performance measures: those that measure internal efficiency, such as full-time employees (FTEs) per vehicle; and those that focus on external impacts, such as savings in vehicle travel.

Measures of Internal Efficiency

NUMBER OF MEMBERS AND VEHICLES. These are basic measures of the organization's size and rate of growth.

UTILIZATION RATE. This is the number of revenue hours per day a vehicle achieves. An alternative, similar measure is revenue per car. These are the most important indicators of pod viability and an organization's financial health, and should be reported separately for each pod, for each geographic subarea, and for the fleet as a whole. It is equally important to establish the utilization rate which is needed for a pod to break even (i.e. cover its direct costs, which with the exception of gasoline are generally fixed). Above this breakeven level, the pod will begin to contribute to overhead.

RETENTION RATE. This is a measure of member turnover, and helps to indicate the overall quality and usefulness of the service.

NET NEW MEMBERS PER MONTH. This is a basic measure of the effectiveness of marketing efforts.

FIXED: VARIABLE COSTS RATIO. Variable costs are car costs such as maintenance, insurance and fuel that vary with fleet size. Fixed costs are staff, rent, marketing and other overhead. Over time, an organization should become more efficient, meaning that the ratio of fixed costs to variable costs will go down.

STAFF: VEHICLE RATIO. This is another measure of internal efficiency. The ratio should go down over time as an organization expands.

FAREBOX RECOVERY RATIO. This refers to earned revenue as a percentage of total costs, and is a measure of financial self-sufficiency. Farebox recovery is a common measure of performance in the transit industry, and will be intuitive to transportation staff in public agencies.

MEMBER: VEHICLE RATIO. While this is not necessarily an indicator of efficiency, it is important to track in order to understand changing patterns of usage, and for budgeting and planning purposes.

Measures of External Impacts

These performance measures should be related to the mission and goals of a car-sharing organization. The exact measures used will depend on the data available, which will generally require member surveys or reference to existing published work (see Chapter 1). Some examples include:

- Percentage of members who have sold cars

- Number of cars taken off the streets
- Number of auto trips or amount of vehicle travel saved
- Number of new transit trips, or amount of transit agency fare revenue increase
- Tons of emissions reduced
- Percentage of members who are low-income
- Number of parking spaces saved in new developments incorporating car-sharing

CHAPTER 4: RECRUITING THE RIGHT PEOPLE

The Board of Directors

The Board of Directors is – or should be – one of a car-sharing organization’s greatest assets. As with any other organization, it provides strategic oversight and direction, approves the budget, and sets key policies such as expansion criteria for a new pod.

To be successful, however, a car-sharing organization needs to work closely with numerous public and private sector partners, such as cities, transit agencies and developers (see Chapter 5). This means that the Board has a far wider role in developing active partnerships, and maintaining the goodwill and support of these organizations. Board members can be an operator’s most important asset in reaching out to elected officials, key staff in cities and transit agencies, and grassroots organizations.

Board members, therefore, should be recruited partly for their specialist skills and knowledge – such as finance, real estate, technology and transportation planning – but also for their ability to “open doors” within key agencies. If an agency or developer is represented on the Board, it is far more likely to buy in to the mission and goals of car-sharing, and serve as a champion within their respective organization. In turn, their presence on the Board will help to ensure that car-sharing is managed in a way that focuses on social and environmental goals, such as boosting transit ridership. Board members drawn from the business community, meanwhile, can provide a valuable way to recruit new business members.

For small operators in particular, Board members can also provide a significant amount of volunteer labor in specialist roles. Much of this detailed work may best be performed in committees. For example, one committee might focus on finance, another on human resources, and a third on operations.

Further Reading

For a good, general reference on maximizing the effectiveness of your Board, see www.boardsource.org.

City CarShare’s Board

City CarShare’s Board brings together members with expertise in finance, technology, transportation planning, communications, public affairs, housing policy, and real estate law. Members are drawn from organizations as diverse as the AAA of Northern California, Nevada, and Utah; the San Francisco Housing Action Coalition; and Muni, San Francisco’s local transit agency. See www.citycarshare.org/about/citycarshare/people.shtml for biographies of current staff and Board members.

Staff

There are several distinct functions that need to be performed. For smaller operators just starting up, one staff person is likely to take responsibility for several of these functions. At larger operators, these may be in teams. Precise job descriptions will depend on individual skills and the size and focus of an individual operator, so the following descriptions are intended to indicate the specific tasks that will need to be undertaken.

Informal car-sharing operations, with just a couple of vehicles, can be run by volunteers. However, full-time staffing, with a minimum of two employees, is essential for any organization with grander ambitions. It is easy to underestimate the amount of staff time that is required, even to deal with seemingly straightforward issues such as procuring parking spaces.

GENERAL MANAGER/EXECUTIVE DIRECTOR. This individual will provide overall management and leadership for the operator. He or she is also likely to take the lead in developing partnerships with government agencies, funders and businesses, and may also be responsible for expansion planning. Key skills include organization, long-term vision, the ability to inspire employees and allies, and boundless energy.

OPERATIONS/FLEET MANAGEMENT. This person is responsible for ensuring that vehicles are in the right place at the right time, and are maintained in excellent condition. Responsibilities include negotiating vehicle leases or other acquisitions, insurance, balancing vehicle numbers with demand in a particular pod, procuring parking for new pods, and arranging cleaning and maintenance of vehicles. Key skills include organization, negotiation/communication, and the ability to multi-task.

CUSTOMER SERVICE. This person will be the “public face” of the operator for most members. He or she will process applications, answer questions, conduct orientations, solve member problems, and maintain the member database, and may also provide administrative support. Key skills include a friendly attitude, patience, creativity, flexibility and communication.

MARKETING. The marketing manager is responsible for “getting the word” out about car-sharing, and implementing outreach strategies to potential members. He or she will also manage media relations. Key skills include excellent written and oral communications, creativity, the ability to connect with lots of different people, and negotiation.

FINANCE. Core responsibilities here include budget preparation, accounting, billing and dealing with bad debt. This person may also assume a wider role in fundraising, business planning, and monitoring the performance of different pods. Key skills include organization, creativity, and a balance of long-term vision and short-term practical decision-making.

Human Resources. As an organization grows, formal human resources policies become increasingly important. Invest in time with an HR expert to make sure your personell policies are comprehensive and fully legal. Issues such as overtime, comp time, vacation, personal leave, injury, staff conflict, compensation, maternity leave, and of course firing and hiring will come up sooner than you think.

TECHNOLOGY. This may be managed in-house, or outsourced. Technology is in some ways the key piece to having a self-sufficient car-sharing organization, however, every location and organization is different. For further information on this topic, please call City CarShare to speak with our Executive Director.

ON-CALL SERVICE. All car-sharing operators require 24/7 on-call service, to handle emergencies such as late returns or the vehicle parked in the wrong place. Providing staffing round the clock, however, is extremely difficult. While most small operators rotate this function around staff, using cell phones, this becomes burdensome in the long run. Alternatives include employing dedicated on-call staff, or using a call center to screen problems and answer common questions.

A car-sharing organization's staff can be its greatest asset, contributing immensely to the sense that car-sharing is fun. At City CarShare, the staff receives rave reviews from members for their good humor, and willingness to go beyond the call of duty. However, professionalism is essential. Make sure you hire employees who understand both sides of the organization: a social change project as well as a customer-service oriented business.

Volunteers

Nonprofit and cooperative car-sharing organizations often benefit from a significant amount of volunteer labor, and pro bono work. Nurturing these relationships and making good use of volunteers can be a critical component of the organization. Volunteers can be rewarded in kind through a credit for each hour worked. It's important to put effort into training and maintaining your volunteers. Organizations that do not prioritize the "care and feeding" of volunteers soon find that their supporters leave, feeling unappreciated or not well-used.

CHAPTER 5: BUILDING PARTNERSHIPS

Why Do You Need Partners?

Car-sharing rarely succeeds in isolation. Virtually every successful operation has been built with the active participation of partner organizations, such as transit agencies, parking authorities, and cities. Partners can often provide:

- Funding, either for general operating support or specific projects
- Parking – ideally free or discounted
- Advertising space and other publicity – ideally free or discounted
- Integration with transit, such as through providing parking at transit hubs and joint marketing
- Promotion to a partner organization’s clients, such as transit riders
- Zoning incentives and other planning policies to include car-sharing in new developments

Without this support, car-sharing would not necessarily be impossible, but it would be a significantly more expensive and difficult proposition.

Key Partners to Recruit

Figure 14 shows some of the key partners that are valuable for virtually any car-sharing operator. Different local governments are organized in different ways, and so the precise department with responsibility for an issue will vary from place to place.

Another valuable contribution that all of these potential partner organizations can offer is to join as a business member. As well as providing revenue, and helping to contribute to environmental objectives, this can serve as a catalyst for other organizations to join. While many of these partner organizations will be small, others can provide a major boost to a car-sharing organization’s membership. The cities of Philadelphia and Berkeley, for example, are providing employees with access to car-sharing as a cost-effective alternative to expensive city fleets.

FIGURE 14: POTENTIAL PARTNER ORGANIZATIONS

Partner Organization	What Can They Provide?
LOCAL/REGIONAL PUBLIC AGENCIES	
Local jurisdictions (cities, counties, etc.)	<ul style="list-style-type: none"> • Funding • Incentives/requirements for car-sharing in new development (e.g. reduced parking requirements for developers) • Publicity • Planning and other technical assistance • Help securing parking • Giving car-sharing legitimacy, through the “official” stamp of approval • Support when developing partnerships with other organizations
Parking authorities (usually part of local government)	<ul style="list-style-type: none"> • Funding • Parking – ideally free or discounted
Transit agencies	<ul style="list-style-type: none"> • Funding • Parking at transit stations – ideally free or discounted • Publicity, marketing and promotion to transit riders (e.g. on transit vehicles, in stations and on the website) • Integrated ticketing (e.g. providing a car-sharing ‘add on’ to a transit pass)
Metropolitan Planning Organizations	<ul style="list-style-type: none"> • Funding – these organizations often allocate (“program”) transportation funding in major regions • Planning and other technical assistance
Rideshare/Transportation Demand Management Agencies	<ul style="list-style-type: none"> • Promoting car-sharing to their member organizations or clients • Publicity and marketing
Social service providers	<ul style="list-style-type: none"> • Providing or subsidizing car-sharing to their clients
Other public sector agencies (e.g. public utilities, air quality regulation agencies)	<ul style="list-style-type: none"> • Funding • Marketing

PRIVATE/NONPROFIT ORGANIZATIONS	
Developers	<ul style="list-style-type: none"> • Parking in new developments – ideally free or discounted • Underwriting start-up costs • Providing free memberships to tenants • Marketing to tenants
Universities/colleges (may be public sector)	<ul style="list-style-type: none"> • Funding • Parking – ideally free or discounted • Marketing to students, staff and faculty • Planning and other technical assistance
Office/business parks	<ul style="list-style-type: none"> • Parking – ideally free or discounted • Marketing to tenants
Foundations	<ul style="list-style-type: none"> • Funding
Community/advocacy groups	<ul style="list-style-type: none"> • Political support

What do Partners Gain in Return?

If partner organizations are to provide this level of support, what do they gain in return? How can they be motivated to support car-sharing? There are three main areas where they benefit, the relative weights of which will depend on the type of organization.

PUBLIC POLICY GOALS. As discussed in Chapter 1, car-sharing brings substantial social and environmental benefits, such as reduced traffic and parking demand. Many public agencies have a similar mission and goals, which car-sharing can help support. For example, car-sharing can help a transit agency boost ridership, or an air quality regulation agency reduce emissions. Supporting car-sharing also helps support an organization’s environmental image, and provides that intangible “feel good” factor, being part of an innovative solution.

COST SAVINGS. Each parking space in a major urban area can cost \$20,000-\$50,000 per space or more to build. When all costs – land, construction, design, finance and operations – are considered, average costs are \$83 per month for a surface lot, \$163 for a parking structure, or \$290 for underground parking. These costs are significantly higher in major urban cores, and are rarely fully covered by parking charges, if they exist at all. This means that it is usually cheaper for developers and cities to reduce the demand for parking by introducing car-sharing, rather than build new parking facilities.

AMENITIES. Many developers have sought to introduce car-sharing into their projects, because it adds value and provides an amenity to their tenants. Car-sharing also provides a benefit for employees, and for tenants of office parks or similar developments.

Working with Developers

The partnership between developers and car-sharing operators can yield major rewards for both sides, and is worthy of more detailed discussion. Car-sharing can be of great value to developers; by incorporating car-sharing in their projects, developers can secure flexibility in parking requirements, mitigate traffic impacts, and otherwise expedite permit approval and reduce development costs. The availability of car-sharing can also reduce the amount of parking required, and attract tenants, particularly if membership is bundled with the cost of an apartment.

In return, developers are often willing to provide free parking, marketing to their tenants, and underwrite memberships for tenants and the start-up costs of a new pod. These start-up costs include signage, web programming and other capital outlays, and the operating subsidy for the “ramp up” period necessary before the vehicle starts earning enough revenue to pay for itself. Developers may also pay for application fees and monthly membership charges for their tenants. With effective marketing, penetration rates can be far higher than in the surrounding neighborhood.

As a car-sharing organization grows, it becomes important to present a consistent deal to different developers. It may be helpful to develop a standard contract or Memorandum of Understanding, which outlines expectations on both sides. An organization will also need to explore various avenues that can be used to reach out to local developers, such as:

- Local planning departments, and any housing advocacy groups. Planning staff may suggest car-sharing to applicants as a matter of course – particular where local planning documents advocate for the expansion of car-sharing. Planning codes may also be revised to encourage or require the inclusion of car-sharing.
- Housing development conferences and other networking opportunities.
- Through transit oriented development programs. Car-sharing may be included in best practice guidelines and criteria for project selection and funding.

CHAPTER 6: OUTREACH AND MARKETING

The core purpose of outreach and marketing is to convince people to join. Some will be “background” marketing, designed to improve overall awareness of car-sharing and make it more likely that they will join at “trigger points” such as moving to a new home. Other outreach efforts can be extremely targeted – for example, to support the opening of new pods, and increase revenue at lightly used pods. Outreach and marketing also has an important role in building political and community support for car-sharing.

Outreach and marketing should be based around a consistent branding and identity. The logo should be developed with consistent guidelines as to usage and positioning, and the business or marketing plan should identify key messages designed to appeal to the target audience. Some messages used by different car-sharing operators include:

- The freedom of driving without the hassles of ownership (City CarShare)
- Wheels when you want them (Zipcar, Boston)
- Our wheels. Your freedom (Philly CarShare)
- The smarter way to drive (I-GO, Chicago)
- The care-free automobile (CommunAuto, Quebec)

Further Reading

A good, general reference on marketing and branding for nonprofits is “Marketing Without Advertising: Inspire Customers to Rave About Your Business to Create Lasting Success” from Nolo Press.

Getting People to Join

Background Marketing

The car-sharing operator’s vehicles and members are its two most important marketing assets. Most people hear about car-sharing through a friend, by seeing a car, or by reading about it in the newspaper. In order to continue to generate this favorable marketing, an operator needs to:

- Keep vehicles clean and in good condition

- Provide excellent customer service
- Ensure that vehicles and pods are clearly branded, maximizing car-sharing's visibility

Website

After the cars, the website is the most important “public face” of the car-sharing organization for members, and potential members. As well as hosting the reservations system (see Chapter 7), it needs to provide quick, simple answers to common questions from potential users. Typical sections include:

- How does car-sharing work?
- Where are the vehicles located?
- How much does it cost? (Many operators also include a motoring cost calculator, to allow easy comparisons.)
- What are the benefits?
- Staff and Board biographies
- Acknowledgements of support from funders and other partner organizations

Good examples of car-sharing websites include:

www.citycarshare.org
www.phillycarshare.org
www.autoshare.com
www.zipcar.com
www.communauto.com/index_ENG.html
www.cooperativeauto.net
www.flexcar.com

Marketing to Individuals

Larger car-sharing organizations may have the resources to undertake extensive marketing campaigns, for example by purchasing advertising space on transit vehicles, in newspapers, and at bus stops. Smaller operators, however, will need to concentrate on more focused outreach around pods, particularly in the run-up to a pod opening. Useful techniques include:

- Doorhangers distributed around each pod
- Articles or advertisements in neighborhood newspapers

- Press releases or media opportunities (see below)
- Postcard mailings to local residents. Mailing lists can be borrowed from supportive partner organizations, or purchased from commercial mailing lists
- E-mails to potential members who have expressed interest
- Presentations to neighborhood organizations and merchant associations
- Articles and signs in merchant windows
- Locating a vehicle on a major street in a new pod neighborhood and distributing flyers
- Tabling at neighborhood events and street fairs

When to Turn a Member Away

In general, any car-sharing operator should welcome any prospective member with open arms. However, it is important to run a driving record check before approving an application, to ensure that members are likely to drive safely. This helps to screen out drivers who are most likely to be involved in an accident. The cost of the check – which is often at least partially recouped through application fees – is saved many times over in the long run through lower insurance premiums.

People Moving Home

Vehicle ownership is characterized by a great deal of inertia. Once a household has made the decision to own a certain number of cars, they tend not to reevaluate this except at key “decision points” – such as changing job, when the vehicle needs major repairs, or moving home. This means that new residents moving into a neighborhood represent a good marketing opportunity. Some specific channels may include:

- Realtors and property management agencies may want to highlight the provision of car-sharing nearby in their sales pitches or information to potential renters, in the same way as they advertise transit services and local shopping
- Neighborhood associations may be willing to publicize the availability of car-sharing in “welcome packets” or other materials for new residents.
- The Change of Address service from the US Postal Service

Retaining Members

Retaining existing members is almost always more cost-effective than recruiting new members. Some degree of member attrition is inevitable – people will move out of the area, find a new job that requires commuting by auto, or simply find that they don't use the service enough to make it worthwhile. An exit survey, however, is essential in helping an organization to understand whether any service improvements would help reduce attrition rates.

Marketing to Businesses

Businesses are an important part of the customer base for car-sharing. Peak usage for business members is during the weekday, while individual members use the cars most at evenings and weekends. Businesses therefore help to even out the demand cycle and increase utilization rates. This also means that the marginal cost of providing services to businesses close to existing pods is extremely low.

The benefits that car-sharing can provide a business member will vary by organization, and the sales pitch will need to vary accordingly. Some will be drawn by cost savings and administrative ease, some by the quality of the vehicles, while others may see membership as a way of boosting their corporate social responsibility and environmental image. Some of the businesses that have proved most likely to join include:

- Small consulting firms, particularly in the architecture and engineering field, and other high-value service professions with a need to visit clients or sites. Trade associations for these businesses may be a fertile recruiting ground.
- Nonprofit organizations
- Government agencies (see Chapter 5)

Pod Capacity

One useful technique is to plot the utilization of vehicles at each pod by time of day, indicating which pods have spare capacity at which times. This can help identify priority locations to recruit more business members to make use of daytime capacity, and can also help in decisions on whether to add a vehicle at a particular pod.

Media Relations

Local newspapers, television stations and other media outlets can be a car-sharing organization's greatest asset, providing a huge amount of free or earned publicity. Car-sharing still has all the ingredients for a great story. It is new and innovative – particularly in cities that do not yet have service. The founders are often local entrepreneurs or community activists, providing the human interest

element. And it concerns transportation and congestion, one of the bread-and-butter issues for local media. Often the cars and members provide a good photo opportunity, especially if you choose hybrids or another interesting model of vehicle, such as a Volkswagen Beetle or Scion.

There are many milestones that provide potential media opportunities, all of which may warrant a press release, or at least a call to friendly journalists:

Planning Stage

- Formal incorporation as a nonprofit or business
- Securing funding
- Expressions of support from prominent local figures, particularly elected officials
- Hiring the first staff member
- Acquiring the first vehicles
- Opening for business

Operations Stage

- Opening new pods or adding new vehicles – particularly in neighborhood newsletters around the pod
- Release of research on the social or environmental benefits of car-sharing
- New business members – particularly cities
- Hiring key staff or Board members, particularly if they are well-known locally
- Receipt of outside funding
- Anniversaries, either of the organization as a whole, or (for neighborhood newsletters) of a specific pod
- Other milestones, such as reaching the 500th or 1000th member

It's important for any organization to have a clear media strategy. Get to know local journalists covering the transportation or City Hall beat. Be relentlessly positive and upbeat. Designate specific individuals to serve as media liaison, through whom any request for an interview needs to be channeled. While this system may seem autocratic and hierarchical, it is important in presenting a consistent message, and avoiding "bad news" stories.

Further Reading

For a good, general guide on using the media, see the website of an amazing Bay Area resource with numerous reviews of the latest media guides. www.media-alliance.org.

Newsletter

A newsletter is a great way of keeping in touch with members and, more importantly, supporters and partner organizations. It provides an update on the latest news within an organization – such as pod openings, new partnerships and hirings – and an opportunity to thank supporters and contributors. While a newsletter may seem like a lot of work for little direct reward, it provides a large intangible benefit in terms of keeping partners informed and promoting goodwill. It does not need to be produced frequently – quarterly or semi-annually may well be enough.

Knowing Your Members

Car-sharing organizations should have a market research program, in order to understand its members' needs, and the strengths and weaknesses of its services. Such a program does not need to be expensive or time-consuming. Rather, simple surveys, informal discussions with members, and the addition of questions to existing forms can provide much useful information. Some good techniques include:

FOCUS GROUPS. These can be held with members, potential members or former members. It can be helpful to separate individual members and business customers. Focus groups are a good way to gain in-depth, qualitative feedback. What type of vehicle do members prefer? What prompts them to join? What is the most important service improvement that they'd like to see?

MEMBER SURVEYS. E-mail or web surveys are simple, cheap and effective. They can provide general market research information, or focus on a specific issue, such as the choice of the operator's "flagship" vehicle. Some free survey websites, such as www.surveymonkey.com, can be useful for small organizations without the resources to do a custom survey. Keep the survey short, and offer an incentive (e.g. a credit on the next bill) for responses.

APPLICATION FORMS. Adding a couple of simple, short questions to the application form can yield a wealth of information. Some key questions to ask might be where they first heard about car-sharing, and what prompted them to join.

EXIT SURVEYS. These surveys are important in helping to understand why people leave, and develop strategies to reduce attrition.

COMPLAINT TRACKING. Make sure any complaints, compliments or other feedback received from members is logged and tracked in a systematic way.

An operator's member and reservations databases also provide a wealth of information that can be analyzed. Many of these performance measures, such as average trip length and revenue per member per month, are discussed in Chapter 3.

Another useful exercise is to map member locations – a simple task for any organization with access to Geographic Information System (GIS) software. As well as providing a visual indication of member concentrations, GIS analysis can provide statistics such as the number of members with $\frac{1}{4}$ or $\frac{1}{2}$ mile of each pod, and a count of the number of members within walking distance of a potential new pod. Planning departments in local public agencies may be able to assist with these analyses.

CHAPTER 7: OPERATIONS

Choosing the Right Vehicle(s)

A car-sharing organization's vehicles are its best advertisement. One of the most common ways for people to find out about car-sharing is through seeing a vehicle on the street.

Vehicle selection is a tradeoff between standardization, which simplifies maintenance and acquisition and strengthens brand recognition, and having a range of vehicles available to members. One of the best strategies is to have a distinctive, standard “flagship” vehicle, supplemented by specialized vehicles for different uses.

For example, the flagship vehicle might be a Scion, VW Beetle or Mini Cooper, while having a number of four-door cars, station wagons, pick-up trucks and minivans for members who require more hauling capacity.

Important considerations for selecting a vehicle include:

IMAGE. Is it fun, friendly and innovative? Is it small, fuel-efficient and environmentally friendly? Hybrids are good to have in the fleet, but may not be the best choice for a flagship vehicle. Unfortunately savings in gasoline consumption do not outweigh the higher price of hybrids at present.

DRIVING EASE. Since they will be used by many different members, cars need to be easy and intuitive to drive, and city-sized for easy parking.

REPAIR COSTS AND DEPRECIATION. The cheapest vehicles to buy may not be the most cost-effective in the long run. Also consider the availability and cost of parts that tend to wear out more rapidly on shared vehicles – such as the handles to adjust door mirrors.

CAPACITY. Members often use the cars to carry heavy loads, and capacity is an important consideration for all vehicles – even if larger, more specialized vehicles are available. Look for a back seat that is easy and quick to fold, as well as trunk size.

Vehicle Acquisition and Financing

Vehicles are the largest single cost for many operators. Considerable thought needs to be given to whether they will be leased or purchased, and techniques for bringing down the cost.

Leasing is the simplest option, and often the only one for operators with limited capital or creditworthiness. It is also the most flexible arrangement, allowing rapid increases in fleet size and the number

of vehicles to fluctuate in line with demand. However, commercial vehicle leases are typically far more expensive than those available to individuals.

The other option is to buy vehicles. This generally requires access to significant capital or lines of credit, but depending on the cost of capital may have lower long-term costs.

Some operators – mostly car-sharing cooperatives – buy used cars from their members, and incorporate them into their regular fleet. This is a low-cost way to increase the fleet size, but care should be taken to include the longer-term costs of maintenance, and avoid reducing the quality of service provided.

Whether leased or purchased, bulk discounts will be available to few operators in the start-up phases. However, once a certain threshold is reached (either singly or through combining purchasing with other car-sharing organizations), three sources of discounts may become available:

- Volume discounts, generally obtained through working up through the distribution chain
- Marketing alliances with auto manufacturers
- In some states, such as California, through helping auto manufacturers to fulfill low- and zero-emission vehicle mandates

Reservations and Access

Manual or automated?

Until the late 1990s, virtually all car-sharing organizations ran without the benefit of smart reservations and access technology. Vehicle keys were often kept in a “lock box” at pods, which members could access with a master key or PIN. Billing was often based on the honor system, with members filling in trip logs recording miles driven and hours used. Reservations were made by telephone with live operators, representing a significant cost in staff time.

Similar manual systems may still work well for small, informal car-sharing organizations with one or two vehicles. For virtually every operator, however, reservations and access technology is an essential investment – even more so now that the systems can be bought “off the shelf,” without the need to develop a proprietary technology from the ground up. There are several reasons for this:

- It allows for a self-accessing system instead of requiring a human attendant to check vehicles in and out. The entire concept of car-sharing as a viable alternative to private ownership hinges on this self-serve model. It provides near-spontaneous access to vehicles and the ease of use that can approximate owning a personal vehicle.

- Reservations can be made automatically at any time over the web, or using a voice-activated telephone system. This frees up staff time for higher-level functions.
- Technology that automatically tracks time and mileage provides more convenience for members, more accurate billing, reduces staff costs, and avoids relying on members' honesty.
- In contrast to the physical key lock-box model of access, smart technology provides better security while at the same time, removing a primary target of vandalism. Pods can thus be safely implemented in a wide variety of parking locations.

Technology Vendors

Car-sharing technology is sold "off the shelf" by a number of companies, which integrate fleet management, reservations and billing. Try Engine Green (www.enginegreen.com) or Invers (www.invers.com).

Technology

Most car-sharing reservations systems consist of the following components:

THE CENTRAL DATABASE. This integrates all the components of the car-sharing operation, including: member applications, members' contact information, member passwords and IDs, vehicle and pod data, vehicle availability, reservations, time and mileage data and employee data. All transactions, from both members and staff, involve "talking" to the database: signing up as a new member, reserving a car, adding vehicles or parking spaces to the mix, checking on vehicle availability, and billing at the end of the month.

USER INTERFACES. Most operators provide an internet interface, allowing members to make a reservation 24 hours a day, in addition to managing their accounts and conducting other routine transactions. Some operators also allow automated voice-activated phone reservations, or provide live operator service. At least one of these options is crucial since even the most web-savvy member will need to occasionally extend a reservation while it's in progress.

POD COMMUNICATIONS. Some operators use wireless communications and Global Positioning System (GPS) technologies, to allow an onboard vehicle computer to communicate with the central database. Alternatively, a device in each pod, connected to the central database by phone, can communicate with the cars by a short-distance radio link. Either way, these links provide reservation information to each car, and relay time and mileage data from the cars back to the central database. They also tell the central database whether or not a car has been returned.

ON BOARD VEHICLE SYSTEM. Most operators' systems include a card reader, allowing members to open the car and enable the ignition; an on-board computer that stores and communicates member IDs, time, and mileage; a mileage tracking device; and in some cases GPS receivers.

Securing Parking

Any car-sharing operator needs a reserved parking space for each of its vehicles, so that members know where to pick up the car and have a place to return it to. On the surface, securing parking seems one of the simplest aspects of running a car-sharing organization. In reality, however, it can be an extremely time-consuming effort.

Securing parking should not be the tail that wags the dog. Locating pods simply because parking is free or cheap and easily available is a recipe for long-term disaster. Rather, pods should be sited for optimum utilization. Identifying the most desirable locations should be the first step – only then should potential parking spots be identified.

Where to Park?

There are several criteria for locating parking spaces:

VISIBILITY. Vehicles and pods are two of the most important marketing tools for an operator. Vehicles should be clearly visible to passing pedestrians and riders exiting any nearby transit station, both to maximize the profile of car-sharing to non-members, and to help new users find the pod. On-street parking spaces are the best option from this perspective. Underground spaces are the worst. If the vehicles are in a parking structure, try and position them close to the entrance, and advertise their presence with exterior signage.

ACCESS. Parking facilities should allow for 24/7 access. While some garages may be closed at night or have access limited to residents or employees, it may be possible to provide access with members' electronic key card, via a valet, or through parking the vehicles outside the control gates. For reasons of convenience, self-park spaces are preferable to valet. If a pod contains more than one vehicle, spaces should be adjacent to one another.

BICYCLE PARKING. Many members will ride their bikes to the pod, and will need a bicycle rack at a minimum. Covered, secure parking is preferable.

COST. Cost is obviously a consideration, but in general the extra revenue generated from a well-located parking spot will cover the additional cost. Many cities, transit agencies, developers and business will be able to provide free or subsidized parking (see Chapter 5).

Enforcement

A perennial problem – particularly with on-street spaces and small lots in busy commercial districts – is illegal parking. Where parking is scarce, motorists are apt to chance their luck, even if the space is clearly marked for car-sharing vehicles only. Support from the lot owner and local parking enforcement agency is critical in allowing offending vehicles to be quickly towed away, but still creates inconvenience for members and generates calls to the operator's emergency line. Many

operators have experimented with bollards, chains and other physical barriers, with somewhat successful results. However, we suggest trying a physical barrier system only if the incidents reach a crisis point, because the barriers themselves can cause problems as members misuse or forget to employ them.

Tandem Parking

One advantage of car-sharing is that it can utilize “tandem spaces” at many pods – i.e., spaces where one vehicle has to be moved to access the second space. Where a pod consists of identical vehicles, members can simply take the first one in line. This helps to reduce the amount of land devoted to parking, and can reduce parking costs.

Where to get parking

The local city parking authority or similar organization is likely to be the first call for a car-sharing operator. In most cities, they own large supplies of parking in the most desirable locations for car-sharing, and often offer it for free or at below market rates (see Chapter 5). The city will also have jurisdiction over on-street parking.

Other good sources of parking include:

DEVELOPERS may be willing to incorporate car-sharing in new developments, particularly if the city grants flexibility in parking requirements or other zoning incentives (see Chapter 5).

TRANSIT AGENCIES often have large parking facilities at rail stations, and may offer spaces for car-sharing operators as part of a strategy to boost transit ridership. However, be careful of locations at park-and-ride oriented stations with little local development, where utilization rates may be low.

STORES AND OTHER BUSINESSES often offer parking on a commercial basis, or as part of their contribution to the community. They are more likely to provide parking – and to offer it for free – if they see car-sharing as an amenity for their customers, employees or tenants.

INDIVIDUAL MEMBERS may offer their private driveways, in return for free or discounted membership. However, it is rare that these are in a prime location for car-sharing.

PRIVATE PARKING OPERATORS will usually provide parking, although will tend to charge market rates.

Liability is an important issue with parking providers. Use a lawyer to draw up a sample agreement for use with providers who do not have one, but most universities and city agencies will probably want you to sign theirs.

Insurance

After vehicles, insurance is often the largest single cost for a car-sharing operator. It can also be one of the most unpredictable – fluctuations in the market can bring about major swings in rates. A serious accident involving a car-sharing vehicle can also lead to a large rate increase.

One of the major recent problems has been rising rates in every sector, particularly auto insurance, due to fears of terrorism, rising medical costs and other factors. This has also made insurers more reluctant to enter new markets with little risk history, such as car-sharing.

In the long-term, insurance rates may fall as risk-rating factors and actuarial tables are developed to more accurately reflect the risk profile of car-sharing. In the meantime, there are three strategies that can be useful in lowering rates:

DETERMINE THE PROPER DEDUCTIBLE. The right deductible – which is the same as the level at which an operator self insures – will depend on the accident rate and average accident costs. This tradeoff can be modeled for each operator. A low deductible reduces risk, but may mean an operator is paying for more insurance than it needs. A high deductible – which, at the extreme, means complete self-insurance – will usually be cheaper, but exposes the operator to more risk

ESTABLISH CLEAR POLICIES FOR MEMBER ACCEPTANCE. There is another tradeoff here, between accepting the maximum number of members, and minimizing risk. Due to insurance requirements, City Car-Share does not accept members with any of the following:

- In the past three years: maximum of 3 moving violations, 2 accidents (unless proof of not-at-fault status is provided), a total of 4 combined moving violations or accidents; and a total of 5 of the following violations: failure to appear; unlicensed driver; no proof of insurance.
- In the past four years: no major violations such as Reckless Driving; Driving Under the Influence (DUI); Vehicular Manslaughter; Exhibition of Speed; Leaving the scene of an accident; or driving on a suspended/revoked license

MINIMUM AGE REQUIREMENT. Most car-sharing operators have a minimum age requirement – typically 21 or 25. While this may exclude a group of potential members, there are good insurance reasons for this restriction. The single highest cause of death for 18 to 20 year olds is auto accidents, and this age group has the highest frequency of auto accidents. Generally, insurers avoid this market except on a surcharged basis.

Where to get it

Nonprofits' Insurance Alliance of California: www.niac.org.

Other services that will need to be arranged include:

Gas Card. Most car-sharing operators include the cost of gas in their overall rates, asking users to return the car with (for example) at least half a tank of gas. The easiest way to do this is through a gas card, such as those used by corporate fleets. They act like a credit card, but can be authorized for gasoline purchases only. Examples include Wright Express (www.wrightexpress.com) and Fuelman (www.fuelman.com). For more details of how gas cards work, see www.fleet-central.com/bf/fuel/art_c.pdf.

Maintenance. To maintain a high-quality, reliable member experience, it is critical that cars be clean and in good working order. New vehicles are covered for all routine maintenance. A car-sharing operator will need to negotiate with local garages, both for routine and unscheduled maintenance. A “defect list” in each car will help avoid unnecessary calls to the emergency line.

Cleaning. Cars should be cleaned, inside and out, at least every two weeks. It's best to incentivize cleaning by tacking on a credit for members who get the cars cleaned.

Roadside Assistance. This is extremely important, and comes free with new cars.

Orientations

Compulsory orientations for new members are a good way to introduce members to the system, and avoid common problems such as not knowing what to do in an emergency. The staff costs of conducting orientations will be repaid many times over through fewer calls to the emergency line.

Group orientations can be held weekly at the organization's offices, and will usually take about an hour. On-site orientations can also be held for larger business members, and on university campuses at the start of the school year. The orientations will typically cover issues such as:

- Making and extending a reservation
- Entering and exiting parking garages
- Checking for damage
- Fees and credits
- Basic rules, such as returning the cars on time and paying parking tickets

Orientations also bring the substantial benefit of helping members to feel more “connected” to the organization. In turn, they are more likely to be vocal advocates for car-sharing, and to treat the vehicles with respect.

The major downside of orientations is that they introduce another barrier to membership. An alternative to face-to-face sessions is to have online orientations.

Multilingual Services

All US car-sharing operators currently provide English-only services. Depending on local demographics, this may exclude a large group of predominantly lower-income members, and help to reinforce car-sharing as a white, middle-class activity. (Of course, many Canadian operators provide service in French.)

The costs of providing Spanish- or Chinese-language service will probably not be recouped through increased usage, at least for smaller operators. However, this move can be valuable from a social equity perspective.

Fully multilingual service is an expensive proposition, requiring the translation of the reservations system, membership and marketing materials, and 24/7 customer support. However, this effort can be undertaken incrementally, and a useful first step can be the addition of a static web page providing information in other languages. This can make car-sharing available to those who have a basic grasp of English and can use an English-language reservations system.

CHAPTER 8: THREATS TO SUCCESS

This chapter presents some lessons learned over many years of providing car-sharing. This list is not meant to be exclusive – new problems are always being discovered. However, it can help new operators avoid some common pitfalls.

All of these lessons learned have a common theme: car-sharing cannot be all things to all people, and serve every mobility need. Particularly in the early stage, realism is essential. An operator needs to focus on a basic business model, and avoid expensive, customized services that could jeopardize the success of the entire operation. The capacity to introduce these innovations will grow with time – patience is the key.

What Not to Do!

Over Commit

A car-sharing organization will always be under pressure to expand services – both geographically and programmatically. Nearby cities and towns will want to bring car-sharing to their community. Elected officials, transit agencies and citizens will urge the opening of new pods in particular areas. There are also numerous possibilities for new programs such as electric vehicles and dedicated systems for specific business customers.

Many of these expansions will be worthwhile, and make good business sense. However, every proposal needs to be carefully analyzed – is it the best use of scarce capital and staff time? Is there a viable market? In the early years, it may make more sense to focus on the core service.

Battery Electric Vehicles

Battery electric vehicles offer the greatest potential for emissions reduction, and also bring major benefits in raising awareness of car-sharing and promoting an environmentally sound image. However, these benefits have to be set against a range of practical drawbacks.

COST. Most electric vehicles need up to four hours to be fully recharged between users – time that the vehicles will be out of service and unable to generate revenue. Coupled with the fact that they are often less desirable to members, this has a major impact on their utilization rate and thus potential to generate revenue. Advanced technology projects that integrate battery state of charge information with the vehicle reservation system can help to minimize downtime for charging, but do not avoid it entirely.

RELIABILITY. Car-sharing's competitiveness against the private automobile depends critically on the reliability of the service it can offer. While the technology has improved dramatically, electric vehicles still do not offer as dependable an option as conventional or hybrid vehicles.

In summary, the huge advantages of electric vehicles in terms of emissions reductions have to be set against the cost and practical drawbacks. Car-sharing has enough obstacles standing in the way of success, without introducing more that could ultimately jeopardize the entire concept, including the emissions reductions and other benefits that even gasoline-powered vehicles will bring.

Electric vehicles may be worthwhile if an external subsidy is provided to overcome these drawbacks. In most cases, however, gasoline-electric hybrids provide a better fit for car-sharing. This is not true just for car-sharing, but for the auto industry as a whole – many manufacturers have withdrawn from the electric vehicle market in recent years.

Station Cars

Most early car-sharing operations in the United States consisted of “station cars,” which – unlike most of those in operation today – focused on commute trips. In theory, each car was used by three users or groups of users. The “home” user kept the vehicle overnight, and drove to the station in the morning before taking the train to work. The same car was then picked up by a “work” user, who arrived by train but needed to get to an employment site some distance from transit. During the working day, the car would be available for errands and lunch trips by company employees, before it was driven back to the station by the “work” user and home by the “home” user.

While sometimes successful from a technical and environmental standpoint, station cars were rarely cost effective, and were often used by just one group of potential users. Employer-based shuttles or regular (sometimes known as “neighborhood”) car-sharing would often have been a far cheaper and more flexible option, and allow more users to be served.

While popular in the 1980s and early 1990s, most station car programs today have folded, being unable to survive after their subsidy was withdrawn. The same principle, of providing connections to transit for the “last mile” of the trip, can be provided through a regular car-sharing operation, with far less subsidy or none at all.

Having said that, station cars may still provide a niche market for some operators, particularly if an employer is willing to cover the cost. However, they are unlikely to generate enough revenue from regular utilization fees, and the market is likely to be limited compared to other opportunities for car-sharing.

One-Way Trips

Having to return the car to the same location where it was picked up is a significant constraint for many users, and one-way trips are a frequently requested enhancement by members. However,

the practical difficulties and costs of providing this option make it inadvisable at present, particularly for small or start-up operators.

Staff would be required to relocate vehicles periodically, in order to avoid imbalances at a particular location. One-way trips would significantly complicate reservations. And they would mean that the number of reserved parking spaces would need to be greater than the number of vehicles, making parking more expensive, harder to obtain, and more difficult to enforce against illegal parking. Motorists and local merchants would understandably be frustrated at being prevented from using a parking spot on the off-chance that it might be needed for a one-way car-sharing trip.

One-way trips have successfully been allowed in some research pilots, such as at UC-Riverside and in Bremen, Germany. However, staff has needed to relocate a vehicle once for approximately every ten one-way trips, representing a significant cost. In addition, these pilots have often been conducted in controlled environments such as university campuses, where parking spaces are easier to secure.

The option to pick up a vehicle from one location and return it to another has been studied for City CarShare by a graduate engineering group at UC Berkeley, using a sophisticated model of a car-sharing network. Unfortunately their conclusion, and that of our advisors, is that one-way trips could not work effectively at this time, due to restraints of parking spaces, staff time for shuttling, and the nature of our service. Reliability is paramount to the success of car-sharing. Just as they do with their own car, customers must feel that a car-sharing vehicle is there when it is needed.

Putting Cars in the Wrong Place

Members and businesses will always want a car as close as possible to their home or premises. While these requests are an important indicator of potential demand, they should never be the sole reason for locating a pod. In order to achieve utilization targets, the full range of criteria for pod location (see Chapter 2) need to be considered.

A similar issue relates to pod openings. While utilization rates will almost always be lower in the early weeks and months, extensive outreach before the pod opens will help to shorten this “ramp up” period, and pay for itself through higher user revenue.

Alienating Partners

Partners such as cities and developers are critical to car-sharing’s success (see Chapter 5), and an organization cannot afford to lose their trust or support. At a minimum, they need to be treated with professionalism and respect, listening to their suggestions, needs and concerns. Ideally, they should be brought on board in a deeper way – for example, with a joint marketing campaign, or even a seat on the Board of Directors.

Other Barriers to Success

Even if these pitfalls are avoided, there are some other barriers that are inherent to most car-sharing organizations. Keeping these in mind can help to minimize their impacts:

SEASONALITY OF DEMAND/APPLICATIONS. Holidays are busy times for City CarShare, but membership tends to drop off at the beginning of the year. Summer and Fall are peak times for new members.

INSURANCE/CLAIMS. Structuring a system that incentivizes members to be extremely careful and respectful of the shared fleet is imperative to keeping insurance claims down. For example, being willing to closely track even small accidents, and setting up serious consequences (including expelling members) for violations, will help keep anonymous accidents to a minimum. After a certain number of claims, insurance companies may simply stop covering an organization. This is one of the most serious threats to car-sharing's success.

PEAKING OF DEMAND. Demand for car-sharing is usually strongest in the evenings and weekends. This means an operator can be faced with the conundrum of low utilization rates coupled with members unable to make reservations at peak times. There are various strategies to help address this, including lower off-peak rates (see above), and actively recruiting business members (see Chapter 6).

CHAPTER 9: SPECIAL NICHES

In general, car-sharing is most successful in mixed-use, dense urban areas where it can serve a multitude of users (see Chapter 2). However, there are a number of special niches that car-sharing can fill. The most important of these are discussed in this chapter.

College Campuses

Car-sharing has spread to campuses such as UC Berkeley, Princeton and the University of British Columbia. Campuses are hubs of activity that provide a ready market for car-sharing for several reasons:

- They have large populations clustered together
- They are usually designed to accommodate bicycling and walking
- Their transportation needs involve a mix of trips at all different times of the day (and night) instead of sharp periods of peak demand
- They often have serious parking management problems and an institutional need to reduce the cars being parked on or adjacent to campus
- They often have bans on car ownership for certain groups, such as freshmen or students housed on campus
- They present large pools of potential volunteer labor
- They contain concentrations of “early adopters” (highly correlated with educational attainment) willing to try out new ideas
- They provide an opportunity to change the transportation habits of future generations

A car-sharing operator needs two things in order to provide car-sharing to a university campus: parking, and access to students, staff, and faculty. Often, control over campus parking is quite centralized, into an administrative department responsible for all transportation and access issues.

Campuses present unique opportunities for marketing. Information should be incorporated into orientation packets, so that students know that car-sharing is available before they come – and more importantly, before they decide to bring their car – to campus. E-mail lists and campus newspapers provide further marketing channels.

This market also presents some unique challenges, notably:

- New outreach will need to be conducted each year, as new students arrive, and the costs of this ongoing outreach and sign up need to be considered. Regarding staff and faculty, most departments have their own budgets and decision-making processes, and separate sales efforts will often be needed for each one.
- Campus demand will fluctuate by season, although graduate students can help in flattening out these trends. Break-even utilization rates will need to reflect this, or it may be possible to reduce fleet size during the summer (e.g. to schedule routine maintenance for both campus and off-campus cars).
- Most car-sharing operators have a minimum age requirement – typically 21 – for insurance reasons, which limits the potential campus market. While there are ways to address this issue, it is important to recognize that the vast majority of people on virtually any campus will be over 21, consisting of staff, faculty, seniors, older students and graduate students.

Government Fleets

Government agencies are one of the most fertile markets for car-sharing. They often have large municipal fleets that can be replaced by car-sharing at considerably lower cost. Government agencies are also likely to consider the social and environmental benefits from car-sharing when making a decision. On the other hand, government procurement contracts can involve a vast array of detailed requirements, and the deal may need to be put out to competitive bid (see Requests for Proposals, Chapter 3). There may also be union issues to deal with if car-sharing is seen as outsourcing city maintenance jobs. Strong support from elected officials is often needed before government agencies join.

The individual decision-makers who decide whether to join car-sharing will also vary by organization. In some cases it may be a transportation coordinator or fleet manager. In others, it may be senior management or a Board or political oversight body. Organizational interest in using car-sharing may also originate from employees that have already become acquainted with the program through individual or household membership. These employee members are often the best advocates for presenting business membership to an organization at large.

Compared to that for individual members, the marketing process for business members relies much more heavily on face-to-face sales. Other communication methods can spark interest, but virtually all business sales require at least one face-to-face meeting. Many businesses will make special requests, such as lower rates, or a dedicated pod at their site. Especially in the early years, it is

important to be realistic and consistent when considering such requests – in most cases, it may be better to focus on those businesses that can use car-sharing the way it is.

Transit Stations

Transit stations provide a niche market in two respects. First, car-sharing can be incorporated into transit-oriented development, in the same way as any other development (see Chapter 5). If the land is owned by the transit agency, it may be possible to make car-sharing a requirement in the Request for Proposals to developers, or a similar development process.

Second, transit riders are an excellent market for car-sharing (see Chapter 2). To the extent that some members arrive at the pod by transit, fewer members are needed in the surrounding neighborhood for a pod to be viable.

Partnerships with transit agencies are important in helping pods at transit stations to succeed. Even more important than free parking is a location clearly visible to riders as they leave the station, and a joint marketing campaign. This might involve signage in stations, adding pods to transit maps, and a mutual presence on each organization's website. Ideally, transit staff should be able to answer questions about car-sharing, and it should be included on transit information sources such as the 511 information line (operational in many regions).

CHAPTER 10: SO YOU STILL WANT TO DO IT?

Starting a new organization requires an incredible amount of energy, patience, creativity, and perseverance. We encourage founders to spend some time thinking about how it would be to work on this project for many years before seeing success. At least four strongly committed activists are needed to seriously begin the work. Because car-sharing is such a new concept, it is important that new groups are well-planned and successful, or the general reputation of the car-sharing movement can be damaged.

That said, we believe that car-sharing has the potential to change the North-American relationship to the automobile, and to create the conditions for fixing our damaged urban and suburban places. If car-use were rationalized, and cars treated as tools rather than family members, enormous amounts of space would be freed for the housing, parks/open space and public areas that are desperately needed. This is a wonderful opportunity.

A quick checklist of things you should be thinking about:

- Funding – from where will you obtain start-up capital?
- Organizational structure – non-profit, for-profit, or cooperative?
- Building a budget – cost structure, fundraising and revenue estimates
- Target markets – including special niches
- Where to place vehicles – which neighborhoods have the right density, transit service, mixed-use development, and enthusiasm
- Competition – who else is out there?
- Operations – technology, vehicle choice and employee structure
- Candidates for the Board of Directors – how will you obtain the right mix of skills and access
- Potential partners – transit agencies, cities, developers, and community groups
- Measuring success – short and long term evaluation

Please call us to talk about next steps and how City CarShare can help you bring car-sharing to your community.

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FURTHER READING

Useful Websites

CITY CARSHARE – www.citycarshare.org. The authors of this guide!

COMMUNAUTO BIBLIOGRAPHY - www.communauto.com/biblio.html
An extensive collection of writings on car-sharing

CAR SHARING NETWORK - www.carsharing.net
A useful site run by AutoShare in Toronto

WORLD CARSHARE CONSORTIUM - www.ecoplan.org/carshare/
Includes the latest news on car-sharing.

EUROPEAN CAR SHARING – www.carsharing.org
Resources from a European perspective

MOSES – www.moses-europe.org
European car-sharing research

COMMUNITY CAR SHARE NETWORK – www.carclubs.org.uk
A British site

MOBILITY SWITZERLAND – www.mobility.ch
A good resource if you understand German or French

Further Reading

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Also see the special issue of *World Transport Policy and Practice*, devoted to car-sharing, available at: www.eco-logica.co.uk/wtpp05.3.pdf.

More papers by Susan Shaheen are available at: www.innovativemobility.org.