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The Car Sharer's Companion: An Owner's Manual for Car Sharing in Portland, Oregon

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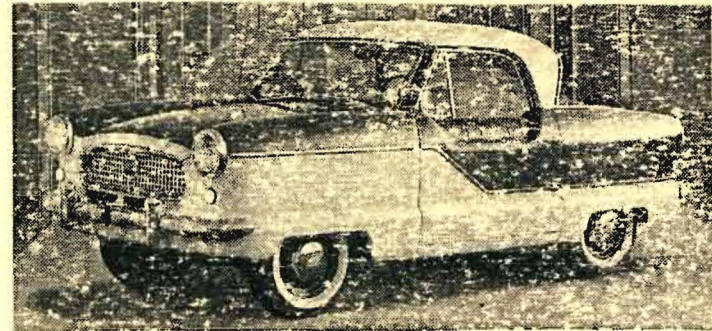
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CarShare Cascadia
Mobility Consultants *presents*

The Car Sharer's Companion

An Owner's Manual for Car Sharing in Portland, Oregon.



April 1996

Acknowledgments: Thanks for the Ride

Ever since the CarShare Cascadia team first proposed launching a new pattern of vehicle ownership and use in Portland, we have met helpful, generous, and enthusiastic people at every turn in the road.

Deborah Howe and Connie Ozawa have supported our pursuit of the off-beat car sharing interest and also gave sound suggestions that, alas, we did not always have the wisdom to follow.

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Finally, we want to thank Dr. Richard Katzev of Public Policy Research for his enthusiasm, assistance, and leadership as a founding father of car sharing in Portland, Oregon.

CarShare Cascadia would like to dedicate the *Car Sharer's Companion* to Aidan MacLean-Clark, Marina Howard-McGuire, and Oregonians like them who deserve to inherit the accessibility to the amenities of life that our generation has enjoyed.

The Car Sharer's Companion

An Owner's Manual for Car Sharing in Portland, Oregon.

April 1996

presented to
Dr. Richard Katzev
Public Policy Research
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Portland, OR 97210

a product of
CarShare Cascadia
Graham S. Clark
& Tom G. Davis

Portland State University
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A Drive-by of the Contents

What is Car Sharing?.....1

How to Use the Car Sharer's Companion.....4

Part I: An Ignition Guide for Portland

Chapter 1: Mobilizing Your Car Sharing Organization.....7

Chapter 2: Surveying and Serving a Market.....19

Chapter 3: Attracting Investment and Insurance.....37

Chapter 4: Managing Your Operation.....43

Part II: A Resource Guide for Portland

Section 1: Car Sharing Resource Guide.....51

Section 2: Annotated Resource Bibliography.....63

A Drive-through of the Contents

What is Car Sharing?	1
How to Use the Car Sharer's Companion.....	4

Part I An Ignition Guide for Portland

Chapter 1: Mobilizing Your Car Sharing Organization.....	7
1-1 Establish A Small Start Up Group.....	8
1-2 Determine The Scale Of Your Car Sharing Enterprise.....	9
1-3 Estimate Your Time Commitment.....	10
1-4 Write A Mission Statement.....	11
1-5 Choose Your Corporate Form.....	12
1-6 Incorporate Your Organization.....	17
Chapter 2: Surveying And Serving A Market.....	19
2-1 Show That Car Sharers Save Money.....	20
2-2 Offer Convenience, Safety, Reliability, And Freedom.....	25
2-3 Craft An Image Of Style, Status, Comfort And Fun.....	30
2-4 Bank On Your Ecological, Member-Owned Identity.....	31
2-5 Conduct A Neighborhood Market Survey.....	31
2-6 Wage A Strategic Marketing Campaign.....	34

Chapter 3: Attracting Investment And Insurance.....	37
3-1 Fuel Your Own Enterprise With Membership Dues And Fees.....	38
3-2 Screen Your Members For Credit Worthiness.....	39
3-3 Solve The Insurance Quandary Before Starting The Operation.....	41
Chapter 4: Managing Your Operation.....	43
4-1 Visualize Your Operation Ahead Of Time.....	44
4-2 Find The Optimum Fleet Size And Mix.....	46
4-3 Find The Optimum Pricing Structure.....	47
4-4 Coordinate With Other Transportation Providers.....	48

Part II A Resource Guide

Section 1: Car Sharing Resource Guide.....	51
Section 2: Annotated Resource Bibliography.....	63

What is car sharing?

A Cooperative Vision.

When people and institutions pool resources, they transcend individual limits. Civilization itself testifies to the power of synergy, where people can create a richer life together than what any could afford alone.

Likewise, when individuals and institutions pool mobility resources, there emerges a dynamic innovation in how people can get places. Where most persons can afford only one vehicle, and most institutions can best offer just one service, the pooling of resources integrates a variety of economical, convenient and efficient options for getting around.

As our generation struggles to maintain its living standards, and as our city of Portland becomes congested but unwilling to fund even one more freeway on-ramp, we can turn to a heritage of cooperative mobility. It was our thrifty grandparents who, during World War II, created car sharing clubs. We can also take up on the popular Fifties idea of the family sharing "the car". The inexpensive, neighborhood-based, and social solution of cooperation can help provide affordable, convenient accessibility to life's amenities.

An inexpensive, easy, and ecological way to travel.

A car sharing organization is a group of people who share a set of mobility resources. Because a single vehicle can serve the needs of seven or more car sharers, the price is a better deal than auto ownership. Members pay an initial fee to join the club, and from then on enjoy a variety of "on call" mobility options.

They can quickly reserve their neighborhood "car on call" when they need it, and drive it from the nearby car share lot. They are mobile as individuals without being concerned with purchasing, maintenance, or insurance hassles.

Car sharers have access to all kinds of different vehicles.

Instead of purchasing a single car, they purchase trips--trips in a commuter car, trips in a minivan for the family, or in a crew van if to take along the sports club, or in a pickup to help a friend move. Members have the car for the occasion.

Most importantly, car sharers save money while saving the environment. Members pay for the amount they drive, and therefore drive selectively and infrequently. The less the car sharer drives, the less the car sharer pays--and thus, the more the car sharer saves. He or she uses transit, walks, and bicycles more, and uses less parking space--all while saving time and money.

Car Sharing: Past, Present, and Future . . .



The World War II poster illustrates how pooling resources can become more popular during scarce times. Later in the century, an awareness of a limited environmental capacity spurred car sharing experiments such as the *WhiteCar* and *White Bicycle* programs in Amsterdam during the 1970's and the *Short-Term Auto Rental Company* in San Francisco during the 1980's, which at its peak had 350 members and 60 vehicles.

During the 1990's, however, car sharing is on a roll from Germany, a country that is a bellwether for the rising costs of auto ownership. The German *StattAuto* car co-op grows by at least one member per day and is now up to 4,000 active car sharers. Moreover, there are another 7,000 or more car sharers in Switzerland, Austria, and the United Kingdom.

The movement is spreading to North America. In Canada, the Quebec City *AutoCom* recently passed its one-hundred member mark. Last year, *Garden City Car Share* established itself in Victoria, B.C. This month, the *Canadian Auto Network* began a pilot project in Vancouver, B.C. There are three more pearls on the Cascadia Corridor string of pearls: the new *cOgO* car co-op in Seattle, the *Eugene Car Co-op*, which established itself in 1994, and a new start-up group in Olympia. In Salem, a new company offers short-term car rentals to poor residents. At the last report, its ten car fleet could not meet the demand.

The car sharing movement is spreading so rapidly because it saves money and the environment. Members of Switzerland's *AutoTeilet* on average use transit for 75% of their trips, whereas the Swiss on average use a car for 80% of their trips. Car sharers drive only half as much and save \$2,000 dollars a year.

Young people who are just starting out, couples who do not want to pay for a second car, and businesses with many employees can use the service. In the last year alone, more than 2,500 new members joined worldwide. What has been the exception lifestyle may become the norm as more people discover how to conveniently travel lightly on the earth.

How does car sharing work?

Imagine traveling south from central Portland to the small, peripheral town of Wilsonville, without a car, on a weekend. First, you would walk or ride Downtown and wait for the #12 to Sherwood. The #12 takes you on a thirty minute bus ride to Main Street in Sherwood. Thank the bus driver and turn up Lincoln Avenue. Then walk for one-and-one-half hours on a truck route shoulder to Wilsonville. If you have a bike, the ride is only thirty minutes. Upon reaching I-5 at Wilsonville, take your life into your hands and cross over the Elligsen overpass. The bike ride from here to central Wilsonville is only fifteen more minutes. The journey is three hours, one way.*

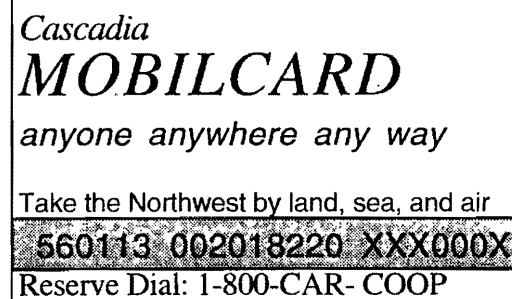
In contrast, imagine for a moment a plastic, magnetic mobility access card . . . not a car, but a *card*. Different from single-vehicle ownership, the "mobilcard" signifies membership in a mobility sharing organization, where you and fellow members in the Portland metropolitan region share a set of mobility resources. Dial the reservations number on the back side of the card, and reserve a car to drive to Wilsonville. Strolling to the car share parking spot a five minute walk from home, you come upon the shared car, a friendly little hatchback. Running your *MobilCard* through the slot on the on-site safe box, you access the car keys. Slip into the driver's seat, turn the ignition, and you are off to your errand in Wilsonville.

On your way back, you have time to buy a load of groceries at Food Front before returning the hatchback to its car lot, and

* Data gathered during a March 2, 1996 CarShare Cascadia field experiment.

depositing its keys in their safety box. Ride the bus home--your *MobilCard* is a transit pass. Ride transit whenever it is convenient, in order to save money, because the monthly car sharing fee is only as large as the amount you drive. Since you need a car only a few times per week, you save roughly fifteen hundred dollars each year over having to own a car--yet you keep your mobility.

The MobilCard is still only an idea. For the moment, Portland remains unexplored by this successful, ecologically friendly kind of industry. The situation is a rare opportunity to be a pioneer in Portland. The *Car Sharer's Companion* is written for pioneers--perhaps trailblazers like yourself--who are driven enough to establish a mobility sharing enterprise . . . a vehicle geared toward redefining the travel preferences in this metropolitan region and beyond . . .



How to Use Your *Companion*

So, you want to start a car sharing organization.

The Car Sharer's Companion, researched and written by the team members of CarShare Cascadia Mobility Consultants, is your handbook and resource guide for starting a car sharing organization in Portland, Oregon. After your operation mobilizes, the *Companion* can continue to serve as a reference.

It comes in two parts.

Part I: An Ignition Guide presents the steps to start up a car sharing operation. Its four chapters cover how to build and incorporate your organization, how to find and serve a market for car sharing, what decisions to make in investment and insurance, and a what strategies to use for managing the operation.

The Ignition Guide encourages you with evidence that, once knowing how, where, with whom to start an car sharing organization, you *can* develop an economically feasible, convenient, and marketable enterprise in Portland. The handbook format includes information, advice, and *italicized* illustrative case studies.

Part II: A Resource Guide is useful for when you seek more in-depth information about the subjects discussed in Part I. It provides a subject index and an annotated bibliography to the sources that inform this handbook. Moreover, it provides a list of potential car sharers--the beginnings of a network in Portland.

Section I of the Resource Guide presents the subject-by-subject resource directory. Its subjects match the four chapters in the Ignition Guide above. For instance, after reading about the best corporate structure in section 1-2 of "Chapter 1: Mobilizing Your Organization" in the handbook, you can turn to the section 1-2 of the resource directory to find an index of sources on corporate form.

Section II of the Resource guide is not arranged by subject. It is an alphabetized, fully annotated source bibliography. Sources include a variety of interviews, meetings, correspondences, and also annotated literature entries that support our findings.

Finally, we have provided a glossary of the key car sharing concepts that drive the mobility sharing movement. Read these on the following page to prime yourself for your journey into the wonderful world of car sharing. And believe us, it is truly a beautiful place. So turn that page and twist that ignition key. Let's hit the road!

Car Sharing Concepts in the *Companion*

car on call - a car that is stationed conveniently nearby and is available on demand.

car sharing - owning and using a car together.

Car Sharing Organization (CSO) - A car sharing club that meets international standards for service quality and ecological soundness, including: a fleet to member ratio of 1 car per 10 users; a fleet of environmentally sound, cost efficient vehicles; prices structured so that the operation functions as a supplement to transit, walking, and bicycling; prices structured so that members have incentive to drive less; a minimum rental time for each individual at one hour; members have the right to participate in organizational business decisions.

consumer cooperative - a consumer owned corporation that provides its members with lower prices and greater control over service range and quality. It does not necessarily serve an idealistic or environmental purpose.

ecopreneurial - Marketing attractive and ecologically sound products and services to consumers; connecting self-interested individual behavior with social and environmental issues; reconciling regional planning issues and the regional marketplace.

green consumer behavior - making socially conscious choices as a consumer. An important concept in using market behavior as a way of solving regional problems.

mobilcard - A debit card for car sharing members that provides seamless transfers to taxis, transit, and vehicles of other co-ops.

mobility consulting industry - facilitates a more collaborative, balanced, and efficient transportation system that serves a compact, healthy metropolitan region.

mobility on call - the expansion of the car sharing concept to mobility sharing in which all kinds of cars, transit passes, and other mobility options are available on demand.

the new mobility - a collaboration between car sharing organizations, transit providers, car rentals, taxi companies, and inter-city rail that makes available a variety of mobility options for car sharing members.



Part I: An Ignition Guide

For Portland, Oregon

Chapter 1: Mobilizing Your Car Sharing Organization

The first chapter describes how to steer the car sharing organization through pilot status and into a position where it can experience growth and prosperity. The sub-chapters, listed below, represent the steps toward the incorporation of an effective and legally recognized enterprise.

1-1 Establish A Small Start-Up Group

1-2 Determine The Scope And Scale Of The Enterprise

1-3 Dedicate An Enormous Amount Of Time And Effort

1-4 Write A Mission Statement

1-5 Choose Your Corporate Form

1-6 Incorporate The Organization

1-1 Establish A Small Start-Up Group.

Successful car sharing ventures around the world have been built on the sweat and vision of a core group of organizers. Group decision making and involvement can diminish the burden on individual founders, and can improve the overall direction of the car sharing organization. A small committee of dedicated and driven individuals should organize the car sharing venture.

How do you find other people who may have an interest in starting a car sharing group? Given the experiences elsewhere, such people are likely to be environmentally involved folks who understand the unsustainability of the single-occupant, single-owner automobile culture, and are ready to work long and hard to provide a more sustainable alternative.

Because this core group of adherents is crucial to the formation and health of the organization, it is essential that the start-up team can work well together, can resolve differences of opinion, and can agree on appropriate courses of action. The group members should be capable of hashing out the issues, of strong, perhaps impassioned discussions, of taking a vote, and then of moving forward without resentment.

Limiting the size of the group allows for an easier, more flexible decision making process. A circle of friends is a useful model for this structure.

A wider outreach may be necessary in order to attract people who can offer the skills and experience needed to start up this equivalent of a car rental business. Start-up members who have computer skills, management expertise, advocacy and community-building experience, and an understanding of fleet logistics are essential to the business success of the start-up.

A variety of existing activist groups sponsor regular meetings. Presenting the car sharing concept at these forums can bring you into contact with activists who have experience and enthusiasm.

To prepare for the meetings, you might send invitations and communicate by word-of-mouth, post flyers in sympathetic places, and generally do all you can do to raise the profile of the topic before your meetings. If possible, use mailing lists from sympathetic organizations, especially ones listing transportation and environmental advocates. Try to recognize the people who are most likely to be of assistance, and present your ideas in an effort to gain their support.

Complete your groundwork before the first meeting. While you're seeking input and generating enthusiasm, you should nevertheless have concrete prospects and realistic steps involved in establishing your vision. The better prepared you are before the meetings, the more credibility you will have. Be sure that people can leave their names, telephone numbers, and e-mail addresses for a network of interested folks for the future.

1-2 Determine The Scope And Scale Of The Enterprise.

Most successful car sharing organizations start small. A couple of dedicated individuals, often friends, share a vehicle and the financial and legal arrangements. Operations in cities as diverse as Zurich, Quebec City, and Eugene have begun in this way. Only one company, the S.T.A.R. Company in San Francisco, began as a large-scale project, and its large initial scale contributed to its downfall.

Start-up Case Study: S.T.A.R.

A well-funded effort dubbed STAR (Short Term Auto Rental) began a pilot project in San Francisco in 1983. The scope of the effort was large, as the group targeted a dense community of 9000 residents in a development known as Park Merced.

After the first year of operation, 350 members were sharing 60 used cars. However, S.T.A.R. was bankrupt less than a year later. A post-mortem analysis found that the operation could have provided the service to its 350 members with as few as 25 new cars. Because S.T.A.R. invested in so many vehicles up-front, it never had a chance to learn from experience what volume of demand a certain fleet size can carry.

Even if you are thinking “big”--of attracting hundreds of members, it is wise to learn by conducting a small-scale demonstration project. Start with at least a few vehicles and a small, cohesive group of dedicated members, and conduct a pilot project to figure out the details, iron out the kinks in the operation, and garner attention and credibility. You will have the opportunity to learn as you go. The successes and failures of the pilot project can inform the character of the ensuing car sharing organization.

Several car sharing groups in the Pacific Northwest are currently at the pilot project stage. They have put off the initiation of full-fledged operations until they’ve reached a threshold size of a few dozen members. For instance, there is a start up in Victoria, B.C. that has chosen a critical-mass target of around 45 members.

1-3 Estimate Your Time Commitment.

Members of the initial group should be aware of what they're getting into, be reasonably free of conflicting demands for attention, and be dedicated to the volume of work it takes to start up a successful business.

Most start-up organizations devote at least a year to research and development of just their formal organization and pilot project. The Eugene Car Co-op suggests budgeting six to 12 months at a minimum for a start-up operation. The Quebec City car sharing cooperative took three years to implement; even after all of this research, it took another year's efforts before beginning its Montreal branch. We want to emphasize the importance of "measuring twice, cutting once"--of figuring out the details before rushing into an actual car sharing venture.

Despite the fact that a group of people can spread the responsibilities to avoid burn-out, founding car sharing organization is far more demanding than a Saturday afternoon hobby. Moreover, it is not likely to provide any staff with a living wage in the first several years.

It is, after all, the equivalent of starting a business.

Start-up Member Profile : Benoit Robert of Auto-Com

Benoit Robert, the founder of the growing Auto-Com group in Quebec City, Canada, has overseen his organization from feasibility studies through to its current 175 members sharing 18 vehicles. His recent start-up

branch in Montreal began operations in September 1995, and now boasts forty members. Following is a sample of his warnings:

"Before we started our operations in Quebec City, three years of work had been done, despite that, a full year of planning was needed to start up in Montreal."

"Are you personally planning to work full time for several years for the car sharing enterprise you would like to establish in your community? . . . it also means you can't afford to be sick, you can't go away for a holiday . . ."

"Are you personally willing (and able) to make the financial sacrifice required during an extended period of time to establish this organization? Only one person will probably get paid the first year (not much, maybe \$500-700 a month). If everything goes well, the second year you might be two people living off a total payroll of \$1800 per month (like in Quebec City)."

Mr. Robert's experience is instructive. The chosen start-up structure appears to make some difference in the personal time and effort involved with the venture. Depending on the selected division of labor and the ability to learn from previous start-up car sharing organizations, the personal sacrifices mentioned may not need to be so extreme. Nevertheless, the days will be long, the pay will be low, and the only reward will be the service to your idealistic mission.

1-4 Write A Mission Statement.

The mission statement declares the motivations of the car sharing organization. As a statement of fundamental ideals, the mission may include ecology, democratic participation, service, community service, and stewardship of place. These typical car sharing goals transcend the narrow focus of a car rental, and can inspire the transportation sharing enterprise to find new and innovative roles.

Be sure to have fellow founders agree from the start on a clear direction for the organization. For instance, will the operation focus on providing affordable mobility to lower income groups or will its priority be to get dues-paying car sharing members away from environmentally-destructive auto ownership? Oregon's first car sharing club in Eugene furiously debated just this issue. Members left. So, do not let fundamental disagreements fester beneath the surface.

The mission statement can provide a rudder. Difficult car sharing policy decisions can be made in reference (conscious or unconscious) to this set of core values. Outside influences might otherwise have too much sway on the group's early decisions.

Mission Statement Case Study: CarShare Cascadia

The statement below is the product of our groundwork for car sharing in Portland. It might provide a framework for the mission statement for the true start-up. Or it might be

pitched in favor of a more comprehensive or more targeted set of beliefs. Its purpose here is to provide an example:

“CarShare Cascadia is dedicated to enhancing mobility resources within the Portland region. We are a customer-based and -driven group seeking to facilitate environmentally- and ecologically-efficient transportation choices. We assure a high level of service and customer satisfaction and encourage community participation within the organization. CarShare Cascadia is built on the concept of assuring its sustainability from within.”

Mission statements require periodic review and update. Based on interviews and readings, it appears that a supermajority vote of the decision makers is an appropriate check against unwarranted or poorly designed amendment. Avoid allowing the mission statement to be too heavily amended, as it bogs down procedural moves. Maintain core values, keep them to the point, and adjust as conditions require.

1-5 Choose Your Corporate Form.

The long-term success of your enterprise depends on the up-front effort you make to craft an effective organizational structure.

Do not fall into the trap of choosing an organizational structure because of idealistic arguments or vague preconceptions. It is advisable to shop around and closely examine the practical strengths and weaknesses of each of the corporate forms--the for-profit corporation, the nonprofit corporation, and the cooperative corporation. A carefully organized version of one of these three could probably serve the environmental and service missions of your enterprise.

The For-Profit Corporation

It is naive to assume that the for-profit corporate structure is in and of itself exploitative. For instance, if you wish, you can direct a for-profit to emphasize customer or community service. You have the opportunity to organize a business to forego profit. You can create a participatory management atmosphere.

The for-profit corporation today is obsessed with surviving in the marketplace. To do so, the firm must manage a four-part discipline: satisfy the shareholders' profit expectations, surpass the customers' expectations of good service, satisfy labor and suppliers, and, as a part of the business' unwritten social compact, meet community involvement expectations.

What are the practical strengths of corporations? They provide extra personal incentives to organizers: profit, control, and a greater feeling of ownership. Moreover, because the business management has final say, the organization is maneuverable and quick in its decisions.

Therefore, an entrepreneurial approach may work where utopian efforts fail. Idealized democratic cooperatives, for instance, are made up of fallible human beings that often fight among themselves.

However, there may be other routes to an innovative, participatory organization that can realize the human potential of its organizers and pioneer new markets.

The Nonprofit Corporation

If you are attracted by tax exempt status or to the idealism of nonprofit community service organizations, examine very closely your preconceptions about their usefulness in the car sharing context.

The greatest advantage of nonprofit status is tax exemption under Section 501 of the Federal tax code. The 501(c)(3) exemption relieves the most taxation burden and also places the organization in a better position to attract grants and donations. Many people believe that, by declaring nonprofit status, an organization can gain tax exemption.

However, federal tax exemption under Section 501 is virtually impossible for a car sharing enterprise. The

coveted 501(c)(3) designation is available only to religious, charitable, scientific, literary, and educational organizations. The IRS will recognize that car sharing primarily benefits its paying members.

Moreover, the holy grail of tax exemption is not even worth the search. Tax exemption means a huge paperwork burden. Your operation will be closely regulated. The time and effort focused on keeping the distant bureaucracies happy will divert energy from your goal providing a useful service in the local marketplace.

Finally, *tax exempt organizations are prohibited from engaging in political activity.* The organization may not advocate vehicle maintenance standards, transit service, or dense urban land use. Even its educational activities will be publicly scrutinized.

It is advisable to protect the identity and spirit of your neighborhood-based, entrepreneurial organization from federal bureaucratic entanglements. They can straight-jacket an enterprise, destroy its maneuverability, damage its chances for survival in the marketplace, and thus harm the ideals for which the car sharing club exists.

The nonprofit corporate form offers few unique advantages to a market-based mutual-benefit enterprise.

The Cooperative Corporation

A cooperative is owned and controlled by the people who use its services. To further their mutual benefit, members build and finance the operation together and usually make decisions through a one-person, one-vote democracy.

The cooperative is similar to the for-profit corporation in its capital investments, business practices, and its board of directors and officers. However, the cooperative structure exists to benefit its members with lower prices and democratic control over service range and quality, rather than generate a high return to its investors. Its emphasis on service often benefits the local community. We recommend it for your start-up enterprise.

Why Choose the Cooperative Form?

The democratic, consumer-owned cooperative is the most choice for common car sharing organizations. It closely realizes the simple idea of owning and sharing a car together.

Democratically elected and representative co-ops are great for ensuring local ownership and control. They do not exist to serve distant stockholders or to meet the objectives of a distant governmental agency. They have the potential to be very responsive to local needs. An exception to this rule could be the influence of lenders and insurance providers over the cooperative.

Another advantage is that member proprietorship can separate the car sharing organization from a run-of-the-mill short-term car rental. Member ownership results in dedicated and loyal long-term customers. It will reduce customer payment delinquency. Meanwhile, people trash rental cars because the cars are not theirs. Once they turn in the rental car keys, they are no longer associated with that car or other users. Dedicated members of a cooperative, share a respect and trust that reduce operational overhead. For instance, you can create a foster parent program, by which a member adopts one of the fleet vehicles. The members feel proprietary and loyal toward the operation.

Co-op membership does not have to mean more hassle:

Membership Case Study: the PSU Bookstore

The Portland State Bookstore Co-op shows that the privileges of membership in a cooperative need not come with greater hassles and responsibilities. Members have the invitation to attend and participate in the annual meeting in February, and a right to be heard regarding the policies and future of the operation. However, there is no obligation to actively participate. One can debate that the prices of books are still high, especially for non-members. However, the PSU Bookstore shows that membership in a co-op can be as hassle free as any other consumer experience.

The precedents of official Car Sharing Organization (CSO) status favor a network of neighborhood-size groups whose rates and policies get voted on in "Member Forums". A CSO is a car sharing club that meets international standards for service quality and ecological soundness, including: a fleet to member ratio of 1 car per 10 users; a fleet of environmentally sound, cost efficient vehicles; prices structured so that the operation functions as a supplement to transit, walking, and bicycling; prices structured so that members have incentive to drive less; a minimum rental time for each individual at one hour. Moreover, *members must have the right to participate in organizational business decisions.*

A virtual corporation could emerge from the five newly-formed car co-ops along the Cascadia Corridor, providing members access to mobility options throughout Cascadia. Not meeting the international standards for participatory member ownership might affect collaborative relationships with car sharing organizations along the Cascadia Corridor. Co-ops are based on the principle of cooperation with one another. The co-op structure, in the case of car sharing, could foster more cooperation and trust than could a for-profit corporation.

Common Mistakes To Avoid

The most dangerous mistake a founder can make is to idealize the cooperative. False expectations of these organizations can lead to great frustration. Co-ops are made

up of ordinary people with egos, differing opinions, and the ability for communicative misunderstandings.

Moreover, co-ops cannot escape the laws of economics and regulation that govern the mainstream business world. The same type of economic constraints that affect the for-profit corporation (see above) also push and pull on the cooperative business. Poor service, high prices, low wages, or informal seat-of-the-pants management still leads down.

Co-op Case Studies: Voices of the Veterans

"It would be a mistake to think that the Company is a tyrannical structure devoted to exploit the poor consumers in maximizing the profits of its owners while thinking that the Co-op is an ideal structure, democratic and flexible that holds only advantages. . .

". . . Taking this decision involves going far beyond a simplistic ideological debate, it must be a pragmatic decision on which might depend the achievements of the environmental and social objectives that motivates you interest in car-sharing. . .

". . . Choosing [the cooperative form] also involves taking into account the tremendous personal sacrifices you must accept, to establish and support the organization.

". . . Choose a corporate form that will reduce the risk that you suffer frustration and that you get discouraged after awhile."

--Benoit Robert, founder of the AutoCom co-op in Quebec City and the CommunAuto company in Montreal.

"If, ten years ago, you would have asked me if co-ops were the best way to serve [social-ecological ideals], I would have said yes. But today there are private companies doing the same thing. There are natural food stores that are non-co-ops that have just wonderful goals and that put us to shame. . . There is a food co-op in New Hampshire that has no social goals. Membership service is their driving force."

--Holly Jarvis, general manager at Food Front in Northwest Portland.

"The success of the co-op is directly related to the amount of up-front effort you put in [to carefully organize]. There is a misplaced belief in collective representation as a cure-all. Naiveté leads to trouble."

--Dr. Jim Cornelius, Agricultural Extension Economist, Oregon State U.

Strategies for Successful Cooperatives

The most effective co-ops delegate power to a small elected board that can reach decisions on goals and procedures. Experience suggests that the most effective size of the decision making board ranges between seven and thirteen members. Keep the board small, tight-knit, and personal.

Be sure the members involved know how to behave in a democratic meeting, so that the inability of board members to communicate does not slow the group's decision making.

The use of professional advice, especially a capable manager, has often been cited as a key to success. Whatever its profit or non-for-profit purpose, a car sharing organization is essentially a firm. Look for role models and advisors from the business community. A good place to start gathering knowledge is the Weekly Business Journal.

You also may want to plan your growth. How can you adapt the organization for growth in membership? How can you create a feedback mechanism that acts on members' suggestions for service improvements and increased selection?

The advantage of the cooperative is that it creates the opportunity and incentive for loyal members to invest themselves in the organization. If your co-op can acknowledge its status as a member-owned, democratic, environmentalist, *business* corporation, then it can effectively serve the mission of car sharing.

Case Study: Are Americans too individualistic to share?

There is evidence that, despite our reputation, Americans, just like anyone else, are able to recognize the benefits of enlightened self-interest and cooperation. In the United States today, some 50,000 cooperatives serve over 40 million households. Companies like SunMaid Raisins,

Sunkist, Ocean Spray, and Land O'Lakes are farm cooperatives. Yellow Cab is worker-owned. On the West Coast, one-third of all Californians are members of cooperatives. The Pacific Northwest, especially the Puget Sound region, is a center for some of the most successful cooperatives in the country. REI, with 300,000 members is the largest consumer cooperative in the United States. Group Health Cooperative of Puget Sound is the largest HMO in the Northwest. It has nearly 450,000 members and is the 10th largest employer in Washington.

In times of economic hardship or uncertainty about the future, such as the late 1800's or the 1930's, more people have become interested in cooperatives. The most recent surge of co-ops, originating from social upheaval in the 1960's, are giving way once again to practical, business-minded co-ops. Whether Americans can share cars remains to be proven. One thing is true: if we can share our cars, we can share just about anything. Says a former Eugene, Oregon car co-op founder: "I don't have anything to do with car co-ops anymore. I just don't think the species has evolved in America. People would rather share their wives than they would their cars. This is the land of 'My Own'. And you know what a pain cars are anyway."

1-6 Incorporate Your Organization.

This section will provide you with the information and the motivation to formally incorporate as a business. The process is exciting: you are creating something new!

Why Incorporate?

There are a number of reasons why even the smallest, closest group that shares a vehicle should acquire an official legal charter and structure. The most immediate reason is to protect its members from vehicle-related liability. A registered legal name, purpose, and organization is the key to gaining limited liability under the law.

Moreover, the Articles of Incorporation are a constitution: they provide an opportunity to determine in writing the enterprise's mission and organizational structure. The most effective enterprises, including non-for-profit community services, adopt the management methods of successful businesses. Car sharing organizations in particular are economic enterprises that must have carefully managed fleets and finances, in addition to offering a quick, reliable service.

You also incorporate to be taken seriously. Articles of incorporation and bylaws are the foundation for earning the confidence of potential lenders, dues-paying members, and insurance providers. A formal corporation will also be more likely attract and keep quality staff with professional

management skills. Competent management is a key factor in the success or failure of car co-ops.

Finally, incorporate for durability. Membership may change, individual managers may leave, and crises may occur, but the corporation can outlast them in "perpetual existence".

Steps to Incorporation

1. Register your business name with the Oregon Secretary of State as soon as possible in order to protect it and your organization. Just like with liability coverage, be safe!
2. Send for the state's requirements for incorporation. Find an attorney who is current on Oregon cooperative law and an accountant who can help get the books set up. Choose professionals that are familiar with the type of corporation that you are forming, and that are comfortable working with a group that wants to do as much of its own work as possible. However, run any significant decision you make by a professional. Have him or her review your papers before you submit them to state or federal agencies.
3. Submit your Articles of Incorporation to the state, and then adopt by-laws. File your Articles of incorporation with Secretary of State in Oregon to receive certificate of incorporation. Let the Articles be a general statement of purpose, and save the specifics of the operation for the bylaws. File the state certificate of incorporation with the Multnomah county recorder of deeds.

4. Find as much information as possible about starting and operating a successful, small to mid-sized business. The Small Business Administration office Downtown offers a "Small Business Checklist" and a resource guide to publications. The Weekly Business Journal is helpful, too.
5. Obtain business licenses and other local permits. Contact the local government before you start doing business.
6. Obtain a fed tax ID # from the IRS. Forms are available free from IRS office in the Federal Building. Co-ops use the Form #SS-4.
7. Learn from the pioneers. The legal trailblazing for such an effort has been completed by the Eugene Car Co-op. They have available the Eugene Car Co-op Start-up Kit, which includes examples of Articles, Bylaws, and membership agreements that work under Oregon Cooperative Law. They will help a serious start-up co-op.

Chapter 2: Surveying and Serving a Market

"Why would I want to join a car sharing organization when I can buy or rent a car?"

Most of us tend to take the form of transportation that we find personally most advantageous. Marketing a service on its social benefits alone may win over a few environmental activists, but it will not attract a broader base of consumers. The following pages will provide you with strategies for appealing to a large number of people.

Car sharing thrives by reconciling personal travel behavior and sound community policies. By serving residents, it reinforces the local economy, society, and environment. The goal is to generate a pattern of environmentally healthy individual lifestyle choices in the marketplace that repeats itself at the regional scale of development. Successful car sharing is *ecopreneurial*--a private enterprise with a community development vision.

To pioneer a successful mobility sharing business, you want to be able to offer a service that makes the ecologically sound choice into the most attractive personal choice:

2-1 Prove That Car Sharers Save Money

2-2 Offer Convenience, Safety, Reliability, And Freedom

2-3 Craft An Image Of Style, Status, Comfort And Fun

2-4 Bank On Your Ecological, Member-Owned Identity

2-5 Conduct A Neighborhood Market Survey

2-6 Wage A Strategic Marketing Campaign

2-1 Prove That Car Sharers Save Money.

Does car sharing really save money?

This is the \$64,000 Question. You will want to be able to answer it confidently in the affirmative, because people are going to ask.

It might seem intuitive that car sharing holds substantial economic advantages over private ownership, but you must be able to make your case with a rigorous cost comparison. Show the comparative price advantage of car sharing over private auto ownership and renting. Moreover, be thorough and compare all of the urban transportation alternatives, including bicycling, transit, and used and leased cars.

Research and analysis of traveling costs can be difficult and frustrating. A comparison model that covers all of the cost categories takes time to develop. It is unlikely that you will find comprehensive cost data on any one of alternatives in one place or form.

Evidence from Europe

Automobil Revue Katalog 95 lists the fixed expense of an Opel Astra Caravan at the equivalent of \$5,840. If a Swiss Opel owner drives 6,200 miles (10,000 km) in a year, he or she spends, on average, \$7,920 a year to own and operate the vehicle.

In Europe, car sharing is attractive to people who do not need a car to commute to work every day, and therefore drive less than 12,000 kilometers (7,400 miles) per year. Research from Switzerland indicates that car sharers cut their driving by somewhere between fifty and sixty-five percent.

In the United States, AAA estimates the cost of owning and driving a Ford Escort 15,000 miles is \$5,400 per year. If depreciation costs and operating costs were adjusted to reflect driving 7,500 miles, the Ford Escort would cost roughly \$3,800 per year to operate. Mid-sized models such as the Taurus, which are more comparable to the Opel Caravan, will cost more than the Escort. However, the Escort is the star of the next part...

The Cost Comparison Model

To speed you along, we created a model and ran a cost comparison, shown below. Below is an explanation of methods of data collection and analysis, as well as assumptions, for each travel mode. While our model produced actual results, it would be wise to interpret our run at them as rough approximations--a first run at a full-fledged cost feasibility study. Improve on our methods in your run!

The CarShare Cascadia Cost Comparison® model applies four categories of costs to compare the ten alternative ways of getting around the Portland area:

Cost Categories

The four cost categories include:

A. Operating Costs include the cost per mile driven of gasoline and oil, maintenance (including tune-ups and repairs), and tires, and parking charges.

B. Ownership Costs are fixed costs incurred even if you never turn the ignition key. These include, license and registration fees, property taxes, debt interest finance charges, and insurance. Insurance costs include premiums of property damage and liability, comprehensive and collision policies. They also include depreciation, which is the difference between purchase price and projected trade-in value. For yearly depreciation costs, divide the price difference by the number of years the vehicle is owned.

C. Organizational Costs are specific to car sharing operations: staff salaries, book-keeping, computer reservations, and office equipment.

D. Other Costs includes a year of transit passes, and depreciation cost adjustments for lower-than-average miles driven.

Transportation Alternatives

There are about ten transportation alternatives:

1. Just walk. We estimated the full depreciation in a year of a \$70 pair of deluxe walking shoes. From this figure we subtracted a symbolic \$35 guess-estimate representing greater health and well-being. Walking is such a deal! Billy Joel was right: a pair of sneakers DOES give you more mileage than a Cadillac.

2. Just bicycle. Our costs are based on a hypothetical four year depreciation of an \$800 bicycle to \$400, as well as a \$150 per year maintenance and operations cost.

3. Depend on transit. The year's cost is twelve \$42 monthly passes aboard Portland's Tri-Met. We included a \$5 "Bikes Aboard Transit" pass for cyclists.

4. Own and operate a new car. In 1995, the American Automobile Association (AAA) estimated the average cost of owning and operating a new Ford Escort in the United States for one year, based on a four-year/60,000 mile retention cycle.

A Ford Escort serves as a convenient model for comparison between owning, renting, and car sharing because car sharing fleets usually consist of efficient, practical base model cars. Whether or not your car sharing fleet happens to include the hoary little Ford Escort is a matter for your decision making board.

The AAA break-down of the ownership and operating costs provided an excellent base on which to build a comparison. Although the AAA least-use scenario was the motorist driving 15,000 miles a year, we reduced the number of miles the car owning motorist drives in a year to 5,000 miles.

The reason for this is that car sharing is potentially attractive only for people who already drive infrequently --around 5,000 miles or less per year. These are people who regularly use transit and who do not need a car in the driveway every day. Or, perhaps these are couples who do not need to have a second car in the driveway. Perhaps it is a business with trip-making employees. Whatever the reason, we reduced the miles driven per year to 5,000.

When we cut the mileage by two-thirds, we cut the given AAA Operating Costs by two thirds, to \$405 per year. To estimate the reduced Ownership costs for driving only 5,000 miles, we subtracted \$1,282 from the 15,000 mile Ownership depreciation costs. This figure was derived by interpolating from differences in given depreciation costs for driving 10,000, 15,000, and 20,000 miles per year. Insurance costs remained constant as provided by AAA. We adjusted the license fees to represent Oregon specifically.

5. Own and operate a used car. At first we tried to estimate the Ownership Costs of owning a used Ford Escort by interpreting a mileage-based depreciation table in the Kelley Blue Book. However, the cost of used cars

vary wildly depending on the age and condition of the vehicle. Finally, we settled on the Sixty-Six Rule: depreciation cost of a decent, several-year-old car will be roughly 66% of that of a new car. Therefore, both the used car depreciation costs and the low-mileage discounts are 66% the size of the parallel depreciation costs and discounts for a new car. Likewise, vehicle insurance rates and finance payments were estimated at 66% of the new car. However, vehicle operation costs were, in total, guess-estimated to be 66% *higher* than those of the new car. Nobody is trying to build a moon rocket, here! We are only coming up with a ball-park estimate, one close enough to make our point . . .

6. Lease a car. Damerow Ford will lease a base model Ford Escort for \$170 per month as long as one drives 15,000 miles or less during the year. Damerow will cover all other costs except gas and bodily injury insurance.

7. Rent new cars and ride transit. Budget Car Rental offers a \$27 per day rate on Sunday. However, there are long term membership discounts, and a person can get one day free for every five days rented, and one week free for every five free days. If the user reserves several days in advance, the price drops more.

We created a scenario of renting a car for personal use once per week, based on the lifestyle of an economics professor at Portland State. In a year, Dr. Mildner gets ten days free (one free day for every five), plus two weeks of driving free (one free week of driving for every

five free days). Given a 10% corporate discount rate of \$24, Dr. Mildner pays a total of \$960 for 40 paid days of renting 50 times in a year, plus two weeks free.

Dr. Mildner buys monthly bus passes. Dr. Mildner estimates that he saves \$1,500 per year through renting rather than owning the Ford Taurus. Our model predicted that he would save \$854 dollars by renting rather than owning a Ford Escort.

8. Rent used cars and ride transit. There are several used rental companies in town that rent used Ford Escorts. Their rates did not seem to reflect the true lower cost of used vehicles. In Salem, for instance, there is a used car rental that rents for only \$15 dollars a day. We applied the 66% rule to used car rentals: that used vehicle rates and vehicle-specific insurance costs will be only 66% of that of new vehicles.

9 and 10. Share a new or used car and ride transit. In a car sharing club, one Ford Escort would serve ten people. Therefore, depreciation and insurance costs in our model are equal to total vehicle costs divided by ten. In estimating the difference between clubs that purchase new cars and clubs that purchased used cars, we used our Sixty-Six Rule from the used car option.

According to the 5,000-member ATG car sharing club in Switzerland, former auto owners drive less than half as much as they did before switching to the car co-op. To be conservative and nice to the competition, we only cut the mileage by half. Total mileage for the single vehicle

would be 2,500 per member, or 25,000 miles. Total depreciation, based on AAA estimates for 25,000 miles would be \$4,026, or \$403 per member.

The most difficult estimation for the car sharing option was the Organizational Costs. Based on the experience of the Quebec co-op founder finally being able to live on his salary after attracting 150 members, we estimated that 150 members would support a single staff person salary of \$25,000 and further administrative and non-vehicle capital costs of another \$50,000 per year. Bureaucracy would then cost members \$500 yearly.

11. Own a professional basketball franchise and commute in a \$22M, tilt-wing V-22 Osprey. The Paul Allen Category. CarShare Cascadia still prefers sneakers.

Results of the Cost Comparison Example

The encouraging news is shown on the table on the next page. Where possible, we made our assumptions and estimates that benefit comparative advantage of the competitors of car sharing. Nevertheless, car sharing appears to be the least expensive driving option. The analysis is a guess-estimated answer to the \$64,000 dollar question that heads this section, to be sure. However, our methods do establish a beach head for your more rigorous, presentable cost comparison.

Cost Comparison Matrix: Ten Mobility Alternatives

Variables		Walk	Bike	Bus	Sharing Used	Renting Used	Sharing New	Owning Used	Renting New	Leasing New	Owning New
					2500	40	2500	5000	40	5000	5000
	Distance per Year in Miles				2500		2500	5000		5000	5000
	Number of Days (Paid) Rented					40			40		
	Daily Rental Rate (\$)					16			24		
Operating Costs	Gas and Oil (\$0.48 per mile)	0	0	0	120	0	120	240	0	240	240
	Maintenance (\$0.024 per mile)	0	150	0	165	0	83	274	0	0	165
	Total	0	150	0	336	0	203	514	0	240	405
Ownership Costs	Comprehensive Insurance	0	0	0	21	113	32	113	161	0	161
	Collision Insurance	0	0	0	40	213	61	213	304	0	304
	Personal/Property Insurance	0	0	0	41	410	41	410	410	410	410
	License & Registration/4 Years	0	0	0	6	5	6	38	5	10	10
	Depreciation	70	100	0	266	0	403	1740	0	0	2636
	Financing or Rental Charge	0	0	0	36	640	55	0	972	2160	545
Total	70	100	0	410	1381	598	2514	1852	2580	4066	
Organization Costs	Operations and Administrative	0	0	0	333	0	333	0	0	0	0
	Car Sharing Staff wages	0	0	0	167	0	167	0	0	0	0
	Total	0	0	0	500	0	500	0	0	0	0
Other Costs	Depreciation for +/- Mileage	-35	0	0	97	0	139	-846	0	0	-1282
	Year's Monthly Transit Passes	0	0	509	516	516	516	0	516	0	0
	Total Cost Per Year	35	250	509	1859	1897	1956	2182	2368	2820	3189

2-2 Offer Convenience, Safety, Reliability, And Freedom.

The previous page compares the dollar cost of owning and operating a new Ford Escort, estimated by the AAA, and the cost of riding transit according to Tri-Met. Even a *small* new car costs on average more than four thousand dollars yearly to own and operate--nearly ten times the cost of transit. Yet, nearly ten times as many people drive to work as take transit. Other factors besides cost must dominate the travel mode decision!

Convenience

More people drive because the private automobile provides convenient travel: it is quick, easy, comfortable and accessible. Moreover, the personal automobile represents freedom. It provides the autonomy to go whenever, wherever, and however your want.

To be competitive, car sharing must offer much of the same. Focus always on making the service fast, easy, and convenient in order to draw and keep satisfied members. Saved maintenance and cleaning hassles, and a simple monthly mailed user fee are important conveniences. However, for most people, *travel* convenience is the bottom line.

Focus on making reservations and usage easy. Allow members to reserve by phone and use vehicles 24 hours

daily, even during dangerous inclement weather. Give the maximum autonomy to members. Let them be their own judges about the appropriate times and places to use what are, essentially, *their* vehicles.

Reserving a vehicle should be a short one or two minute phone call. When members call to reserve, all they need to know is whether the desired car is free. All the co-op needs to know is which vehicle members want and when they want to pick it up and return it.

Getting to a vehicle should be short, easy, and pleasant. Locate vehicles at designated spots near and accessible to member residences. Focus on neighborhoods with the largest number of people who live near one another so that each vehicle will conveniently serve the most people nearby. That way you will not have a car in one neighborhood, and people who want to use it living in another part of the city. Use the "Ten Members within Ten Minutes" rule: locate in a neighborhood where a single co-op car can be within a ten minute walk, bike ride, or bus ride of ten members. The 24 hour "car on call" stationed nearby in the neighborhood holds the convenience advantage over the rental car reservations ordeal, and is also within close range of private cars.

Car sharing an accessible transit system supplement one another. The neighborhood that offers excellent transit, bicycling, and walking access to the amenities of urban life has a large potential car sharing market. More people there do not own cars or perhaps already drive only a few thousand miles per year.

Such a car sharing-prone district has:

1. An interconnected, grid-like street system with many routes
2. Close by work, schools, services, and shopping opportunities
3. Continuous sidewalks that are buffered from moving traffic
4. Topography suitable for walking and bicycling
5. Human scale development pattern with density and small lots
6. Street-facing buildings along the sidewalks
7. Transit stops that are accessible on foot

In the ideal car sharing neighborhood, it must be expensive and difficult to drive, maintain, and park a car. Residents there find that the occasional driving privileges of car ownership are barely worth tolerating its inconveniences. Residents already favor alternative ways of getting around: transit, bicycling, and walking.

For instance, potential residents of apartment buildings Downtown without on-site parking pay around \$95 a month to park. Find concentrations of such residences, and target these areas for potential candidates for a car cooperative service.

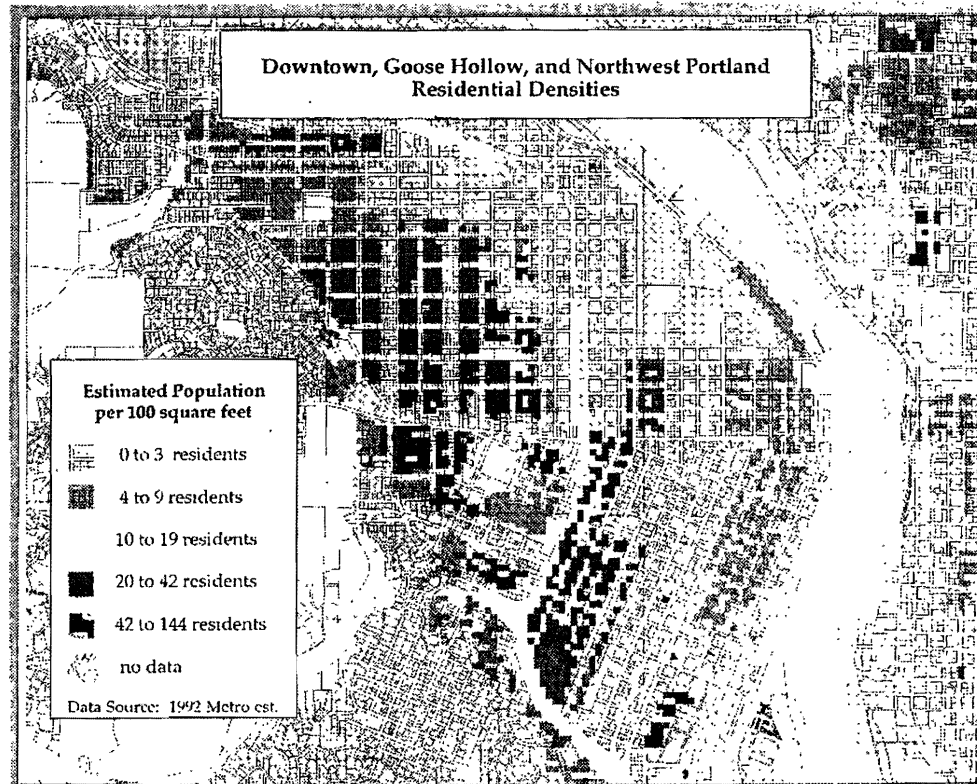
Neighborhood Case Study: Northwest Portland

“I had to move away from my old neighborhood because of the lack of parking, says Karen, an administrative assistant at Metro’s Data Resource Center. I lived in the Northwest around 19th and Johnson and it took an average of 15 to 20 minutes to find a parking space up there. It was terrible. Anything from Burnside to Lovejoy, between 19th and 24th is a [parking] nightmare.” Karen’s problem is not unusual. In a recent opinion survey sponsored by Tri-Met, residents of Northwest were asked to name the top problems in Northwest. Fifty-two percent of them named parking as the single worst problem. Traffic congestion was a distant second with 18% of the vote, and crime had 12% of the vote. Northwest is also the most difficult neighborhood in which to drive. The neighborhood has six of the twelve most hazardous intersections, based on the rate of accidents for vehicle volume. According to the Northwest Neighbor, “It’s the intense mixture of pedestrians and vehicles that results in proportionally more accidents in Northwest Portland. In fact vehicles actually travel more slowly on many streets here than in more automobile-oriented neighborhoods.” (Northwest Neighbor, March 1996). The Hawthorne area of Southeast Portland is beginning to experience similar woes, according to the Southeast Examiner.

According to the Census Bureau, a greater percentage of the population in Northwest District Association walks, bicycles, and rides transit. In 1990, more than

20% of this population and that of Goose Hollow to the south walked to work, as opposed to about 3% of the population of Portland in general. Forty percent of the neighborhood households did not even own a vehicle in 1990. The problem for drivers is that Northwest, Goose Hollow, the University District, and the neighboring part of Downtown Portland together have one of the highest population densities on the West Coast (see map below). Vehicles stationed here would be in walking distance of many member.

Many residents who live there like to be able to drive when they need, but find that the freedom hardly worth the cost and hassle of owning a car. If a car co-op can offer reserved parking in such a congested district, it could gain a competitive edge over auto ownership. Moreover, its large percentage of university students, professionals, and artists matches the population characteristics of start-up neighborhoods in Europe, Quebec, and Eugene. Downtown- Northwest is ideally suited for a car sharing operation.



Besides dense neighborhoods, individual housing complexes can also be great sources of members within a short distance of one another. The housing property could also provide a shared car lot on site. Therefore, one strategy would be to identify housing complexes exhibiting the potential for synergy between dense housing land use and car sharing. There are numerous large housing projects in Portland--some are co-op housing projects.

Case Study: The Eugene Car Co-op as a housing developer

"I am very interested in the land use--transportation connection," explains Greg Bryant, of the Eugene Car Co-op. Bryant and co-founder Danielle Janes have created a non-profit land trust that develops affordable housing in the local University district.

The Eugene Car Co-op recognized that vast parking lots undermine the compact, mixed-use, attractive development that so vital to transit, cycling, and walking. Even as they inconvenience the community, parking lots encourage automobile usage.

So the Eugene Car Co-op decided to play an active role in leveling the regulatory playing field for alternative travel and compact land uses.

The team championed an exemption in the new Eugene land use code that eliminates the standard

minimum parking requirements for certain new housing developments. According to Danielle Janes, "If a developer of apartments wants to not build parking and have his/her tenants not own cars, they will be able to just have an agreement for that purpose, like the 'no pets' policy." For such developments, the City of Eugene waves 90% of the usual parking requirement.

The Eugene Car Co-op's timing was fortunate, in that they caught the city during a major zoning code rewrite, and quietly proposed a little zoning exemption as a safe, small, "simple thing," threatening to no potential enemies. Finding no opposition to the innocuous, beneficial zone change, the City of Eugene incorporated the exemption into the new code. As a result, builders in Eugene may now limit on-site parking to one spot per ten residents, given that the spots are dedicated to "shared car" parking. This exemption is innovative, and unique--probably the first of its kind in the United States.

Moreover, the Eugene Car Co-op transcended its narrow service role. Its land trust is a community development-oriented housing developer. Having attained a loan, the group will build housing that takes advantage of the Co-op sponsored parking exemption. By taking part in the political decision making process and the physical land development process, the Eugene Car Co-op is guaranteeing a 'built-in-house' market for car sharing.

One last strategy for unbeatable convenience: offer a variety of mobility options. The natural advantage of a shared fleet is that it can offer access to several vehicle types. If the car sharing organization can offer on demand the driving rights to pickups, passenger vans, and sedans as well as compacts, it has created a unique modern convenience.

Safety

If possible, focus car sharing in neighborhoods and districts with relatively low vehicle-related crime rates. Visit the Police Bureau Planning department and ask for latest annual reports on vehicle-related crime by neighborhood (Police Bureau). Well-lit public streets with a high level of use and pedestrian traffic have more "eyes on the street" than quiet residential side streets. If possible, station fleet vehicles near the watchful eyes of "foster parent" car sharing members who can adopt and informally monitor a vehicle.

Moreover, follow the lead of StattAuto and charge a "moonshine rate". Encourage members to drive free to their destination and wait until morning to return the car to its designated spot, thus avoiding a walk alone in the dark. Research the possibility of other measures that can prevent personal attacks.

Establish a reputation for safety. Encourage constant self-improvement and education in members. Purchase

vehicles with best-in-class crash safety records. Yearly reports are available in Consumer Reports magazine.

Make members feel well-provided-for. Install safety equipment in the vehicles, from tool and first aid kits to safety blankets and child seats.

Reliability

Offer clean and reliable cars to car sharing members. Keep the vehicles in excellent condition to minimize breakdowns. Have your vehicles maintained at extremely high environmental and safety standards. Publicize this achievement.

Stop-and-go central city driving is hard on vehicles. Using the same incentives for members that encourage them to improve their driving safety skills, encourage them to learn how to take it easier on the vehicles while driving.

Finally, minimize failed reservations caused by demand overload for borrowing vehicles.

2-3 Craft An Image Of Style, Status, Comfort And Fun.

Like it or not, our transportation behavior is often affected by concern for our personal image. What we do, wear, eat, and drive makes a statement about who we are.

Therefore, craft the corporate image of a club filled with dynamic, forward-thinking folks . . . people who have the privilege of driving a variety of sporty and friendly cars; who are flexible and independent enough to be able to walk, bicycle, and ride transit; and, who are like-minded, share contacts, and have fun together.

An Exclusive Club

How could joint ownership confer status, currently a component of private ownership? Rather than emphasize sharing as an alternative to auto ownership, leverage its image with precedents for high status collective ownership such as golf, condo, or work-out gym clubs. Draw on the soccer or crew club. Advertise that the privileged member leads an ultra-modern lifestyle, with various vehicle models at his or her disposal. Take a lesson from Marlboro Man: associate positive images with the use of your services. Remember that the richest man in the Portland metro area peddles *shoes* in a multi-media center.

An Attractive Fleet

Toward this end, realize that, like that of UPS, your vehicle fleet determines your image. Choose sporty, popular, friendly little cars like Honda Civic and Geo Metro. Be aware that Ford Aspire and Hyundai hatchback are ugly little duckies. Keep as private-looking a fleet of cars as possible, with only a small, single visible car share club emblem. This is not pizza delivery fleet, nor is it for Tri-Met field inspections. A sterile, institutional fleet will carry a stigma.

You will probably run into activists who push for *alternative fuel vehicles*. However, large trucks and older cars cause most air pollution. Car sharing fleets are made of small cars like the 1996 Honda Civic, which already meets California's strict Year 2000 emissions standards. Electric vehicles will give little environmental improvement for the extra cost and hassle.

The challenge of trailblazing a new pattern of ownership and mobility that can carry connotations of freedom and status is great enough without also trying to pioneer new tastes in atomic toasters and Japanese "minimum attribute vehicles". We advise leaving the golf carts at Disneyland and the 18-hole green.

2-4 Bank On Your Ecological, Member-Owned Identity.

Car sharing is a special kind of business. Its members have ownership and influence over the service and its policies. Moreover, it is not-for-profit, having a more idealistic mission. If you can serve both the self-interests and the social beliefs of travelers, then it will appeal to customer loyalty in this environmentally aware era.

Banking On Co-op Advantages

If you are a co-op, do not hide your cooperative identity in the closet for fear of scaring away mainstream business. Advertise your special identity to attract business. The service is for members' benefit and for their community--not just for someone's profit can generate a strong, loyal customer base. *The longevity of members' commitment to belong to the club and make use of its service is one of the most important factors in the success of car sharing clubs.* For instance, ATG in Switzerland, with over 5000 members in 1995, had not lost one single member since its establishment seven years earlier.

Banking On An Environmental Reputation

You can foster great public relations by doing good things that enhance your image and role in the

community. Perhaps there is a leadership void in the community for advocating for tougher auto emissions and maintenance standards. Become a community resource on safe, environmentally sound vehicles, driving behavior, and regulations.

Advertising the service on its environmental contributions alone may not attract many customers. However, the pure non-for-profit motive, the ecological implications, as well as the democratic style are great for public relations. They help people to discover that it just makes more sense to travel lightly on the earth, as well as on the wallet.

2-5 Conduct A Neighborhood Market Survey.

Survey the market potential of a promising neighborhood. Do not rely on car co-op surveys done in other regions or countries. The few known mobility sharing surveys that have been conducted in the U.S. pre-date 1985. The only way to get a realistic estimate of a neighborhood's potential is to survey.

What kind of people are generally attracted to car sharing? Successful car co-ops in Germany and Switzerland began in neighborhoods with a high concentration well-educated environmentalists, professionals, and artist-types.

Consider neighborhoods with high density and pedestrian amenities, and that are well-served by transit. Transit usage is one of the most significant factors that increases the likelihood of joining.

Having chosen a neighborhood that roughly meets the demographic and transit-friendly criteria, develop a market survey that can answer these questions:

What will be the amount of demand for the service at its initiation?

What kinds of demographic groups are most likely to be car sharers?

How will the introduction of your service alter the mobility and accessibility choices that people make? In one year? In two years?

Which kinds of trips will people want to use the service for?

Find the likely ratio of weekday to weekend demand for cars. Demand is likely to peak on weekends, car rental prices become more competitive, central city parking is free, and more drivers take longer trips to the countryside or between towns.

Market Survey Case Study: AutoCom in Quebec City

AutoCom chose to establish itself in a dense, pedestrian-oriented "alternative" neighborhood in central Quebec City. A large number of environmentalists, university professors and students, and young professionals lived within its relatively small geographic area.

Within this promising neighborhood, AutoCom surveyed the affect of age, income, and other household characteristics on the likelihood that an individual would express interest in the opportunity to become a car sharer.

To gauge the long-term demand, respondents were divided into four categories: immediate adopters, potential adopters (would consider adopting within 12 months of a start-up), eventual adopters (would consider adopting within 24 months), and non-adopters.

The car sharing founders were surprised by the results. By subsequently changing their marketing strategies, the group eventually became successful, has broken even, and is now growing into other eastern Canadian cities.

Among their survey findings:

- *Respondents who did not own a car were far more interested in adopting than were people who did. However, more than a third of the individuals who owned a vehicle were potential eventual adopters. The survey concluded that, although the likelihood*

for adoption was higher among non-auto owners, one could expect a long term reduction in vehicle use rates, because effect of a car sharing club on trip behavior will grow in the long-term.

- *Unlike auto ownership itself, the amount of auto usage in terms of annual mileage driven by respondents was not a statistically significant indicator of a person's propensity to adopt.*
- *A low-middle income range significantly increased the likelihood of joining:*

We noticed that the most interested individuals are the ones whose households have a net income ranging between CAN\$10,000 and CAN\$29,000 . . . These results are very interesting as they demonstrate that the service could target the niche composed of the households whose incomes are high enough to increase their transportation expenses, but low enough to make the purchase of a car prohibitive.

- *Couples without children were more likely to join than were couples with children. However, single parents were more interested in the service than were couples.*
- *Respondents who used public transportation were more interested in adopting than were others. Half of the potential and eventual adopters said that*

expected savings on their bus pass increased the likelihood of joining the car cooperative.

- *However, members of the local car pool program in Quebec were no more likely to want to adopt the service than other residents.*
- *Reluctance to purchase or replace a vehicle was a significant variable that increased the likelihood of joining. It would also be good for people who have cars that are about to die and don't want to have to pay for a new one.*
- *When they analyzed the statistical significance of age, income, and other household characteristics in the decision whether or not to become a car sharer, they were surprised and delighted to discover that age, gender, and other factors had no effect on the propensity to join:*

The absence of a relationship between the age, sex, and education level of the respondents is positive because it enlarges the potential targeted population.

The surprises that CommunAuto in Quebec received from the survey results should be a lesson to start up groups elsewhere: scope out the current, local market.

2-6 Wage A Strategic Marketing Campaign.

To be an effective marketing machine, conduct a marketing campaign that targets the neighborhoods and demographic groups that your market survey reveals to be most likely adopters.

Make your service visible to the kinds of members from these most-likely groups that are optimum for the car sharing operation.

For instance, an overly homogenous population can create peak loads for particular vehicles. A car sharing club heavily laden with Portland State University students and professors risks a peak demand overload during term breaks and summer vacation.

Diversity in membership can balance the loads over time, given that different user groups have different needs at different times. For instance, individuals will want to rent cars on weekends. Meanwhile, businesses would be more likely to rent to cars on weekdays. People who work for large employers who have emergencies, errands, or work-related trips to take care of during the work day might find membership useful. StattAuto in Germany offers 20% membership discounts to businesses that agree to use vehicles only during the weekdays.

Allow auto owners to join the club. Give them the opportunity to reduce or eliminate their need for their own auto. Give people the freedom to choose the

economical, efficient option. You can achieve your objectives for economy, efficiency, and ecology by appealing to a larger market on the basis that car sharing is much cheaper than a second car.

You might consider offering discounted membership to *couples* who join the co-op. That is, if a couple wants to join, give them a "family discount". In deciding the size of the couples discount, the co-op may want to:

- Make the discount large enough for couples to maintain a significant price advantage over ownership of a private auto;

- Keep the discount small enough to maintain the financial health of the organization; and,

- Be reasonably fair to members who are single that do not have family discounts; be careful not to overburden singles unfairly

Try to attract a higher percentage of *active* users, or people who use the vehicles more than once a month. There are certain demographic groups or types of households that are more likely to be regular users. Target neighborhoods and households who have education and money to support a stable service.

Finally, find out what your targeted demographic group reads and watches. Advertisements must be carefully directed at the targeted neighborhoods and demographic groups. Use the local press such as the Northwest

Examiner. Do not waste your time with the national press.

Media Exposure Case Study: The Eugene Car Co-op

When the Eugene Car Co-op organizers began to get calls from the national media, they were excited. Magazines such as the New Age Journal and newspapers like the New York Times published articles about the start-up.

However, in the end, the national coverage did more harm than good. First, the media created unrealistic expectations, contributing to a feeling of let-down among activist circles. The effect rippled up to Portland, where car sharing enthusiasts assumed that, because of relative silence on the publicity front, the Eugene Car Co-op had failed. Such was not the case. The Eugene Car Co-op had simply re-focused its marketing back to Eugene.

When CarShare Cascadia told our friends in Eugene about an interested free-lance journalist for E-Magazine, Eugene Car Co-op president Danielle Janes warned, "Turn those people away and focus on the business." In Janes' experience, the national media is a useless marketing tool, giving only a minimal response: "The local media is much more important. Know what your local market reads and watches."

Chapter 3: Attracting Investment and Insurance

The most obvious start-up cost for the car sharing venture is the enormous front-end expenditure on automobiles. The most obvious institutional barrier to car sharing is the reluctance on the part of the insurance agencies to cover liability. This chapter argues that the most sustainable solution to these challenges lies in the pocketbooks of your members.

3-1 Fuel Your Own Enterprise With Membership Dues And User Fees

3-2 Screen Your Members For Credit Worthiness

3-3 Solve The Insurance Quandary Before Starting The Operation

3-1 Fuel Your Own Enterprise With Membership Dues And User Fees.

This section discusses the significant risk in accepting start-up monetary assistance from agencies or foundations.

While up-front costs are sizable, there are substantial benefits to growing organically, with sustainable internal sources of funds and enthusiasm. Such growth allows the venture and its members to remain focused on core principles.

There is the temptation to search for some other entity like a foundation or an agency to fund your growth. The search for grants and funding is a natural inclination of a not-for-profit community benefit type organization. However, car sharing depends on the local market.

Foundations or agencies with interests in the environment and in transportation appear to be realistic prospects for funding assistance. But start-up assistance often comes with strings attached. Also, a significant time commitment is required to write grant proposals, and follow up down the road. Grant writing is an arduous process, and the rates of acceptance are painfully low. Be aware of the time commitment. The labor-intensive grants and funding create a cycle of dependence on an outside source, diverting the founders' attentions and loyalties away from the business of marketing the service to a more sustainable source of money: dues paying members.

The only successful car sharing organizations have been those who grew slowly in the first years: a few members and

vehicles at a time. Sometimes beginning as a formal "pilot project", the operations more often began between a few friends and a used car. Heavy debt or funding dependence never crept in to these organizations because they funded their own growth.

Should the leadership determine a willingness to accept the risks of outside financing, it should be done only on the following conditions:

1. The financial support is accepted for a limited term only, for assistance with the significant start-up cost of vehicle acquisition (to be discussed in the next section).
2. Conditional assistance conforms to the car sharing organization's mission statement.

We believe that the benefits of financial support can outweigh the risks discussed on the previous page. However, be sure assistance is accepted on a limited-term basis, within a financial structure that assures your long-term self-sustainability through a growing membership base.

Grant Funding Case Study: The Northwest Pilot Project

Portland's Northwest Pilot Project operates two vans offering transportation services for their poor and elderly clientele. They receive a portion of their funding from Tri-Met (under their Volunteer Programs, Inc.), but must therefore meet Americans with Disabilities Act wheelchair lift requirements on their new vehicles. The cost of

conversion is in the thousands of dollars, and the effect on the vehicle is detrimental. While NWPP as a social service nonprofit would have trouble operating their vans without such assistance, it comes at the price of flexibility and sometimes, efficiency of operation.

Membership-based Funding Case Study: AutoCom

The car sharing group in Quebec City, Canada charges a one-time initiation fee of \$500. The following price breakdown includes gasoline and insurance costs. All costs are in Canadian dollars.

Hourly and Daily Rate

*\$1.20/hr Tuesday-Thursday Off-peak hours
\$1.50/hr Friday-Monday Peak hours*

*Package A (>3500km/yr) \$350.00 annual subscription
\$0.14 per km*

*Package B (1500-3500 km/yr)
\$140.00 annual subscription
\$0.21* per km*

*Package C (<1500 km/yr)
\$35.00 annual subscription
\$0.27*12/day 15/day*

** Packages B and C km costs drop to \$0.14 and \$0.17, respectively, after the initial 100 km*

Mr. Robert has based his fees on the co-op's system operating cost, and has adjusted prices according to demand.

3-2 Screen Your Members For Credit Worthiness.

The operation must cover its expenses and keep a little cash in reserve for vehicle acquisitions or for unexpected maintenance needs. A sound financial footing hinges on members paying their fees in a timely manner.

Therefore, screen new members. Keep the application process long. The Eugene car co-op, for instance, recommends hour-long consultations with new members in order to give them ties to the co-op. Orient new members. Make sure they are clear about what their responsibilities and privileges are as members of the co-op. A sampling of wise screening policies:

- Refuse membership to anyone with a bad credit history. Not only are such individuals statistically more likely to not pay their bills, they will also wreck the vehicles more often. Allow your co-op's insurance provider to dictate the credit history thresholds for approval.
- Screen out membership applicants with poor driving records. Refuse membership to anyone with more than 2 accidents (regardless of fault) or moving traffic

violations in past 3 years, or a definition being set by what qualifies for the lowest rates with the insurance.

- Request a damage deposit of at least several hundred dollars from those with close-to-perfect credit histories and / or less-than-perfect driving records.
- Do not require a deposit from applicants with perfect credit histories and driving records.
- Ask if the applicant has a stable job history.
- Be sure of the applicant's ability to incur new debt. Total fixed expenses can be no more than 50% of their take-home income.
- Members should only be those who sign a contract which states that a long-term commitment is required.
- Start a several month long trial membership period after which there is a debriefing with the new member. Take this opportunity to survey the member about the performance of the service and his or her satisfaction with it and suggestions for improvement. Make new member orientation and debriefing a job priority for staff.
- Send out monthly statements quickly.
- When preventative measures fail, respond with aggressive follow-up on overdue accounts. Refuse service to anyone who does not pay a monthly bill within 30 days.

A vigorous application process will give the impression that the operation is serious, professional, and that it protects its members--and that it protects its insurance provider! Members will likely prefer that the operation screen its

applicants in order to add safety as well as the perception of quality and exclusivity of the club.

Bad Debt Case Study: S.T.A.R.

Once upon a time, in the early 1980's, the largest car sharing organization in the world operated in San Francisco, California. S.T.A.R. (Short-Term Auto Rental) Co. boasted 350 members and 60 vehicles. The company became a shooting star, however, reporting month-after-month of losses until it folded within two years.

The US Department of Transportation sponsored an autopsy report. Its evaluation found that one of the failures that contributed to STAR's demise was customer non-payment. Management did not bother to run credit checks on new applicants to the rental club, nor did it vigorously follow up on non-paying accounts. Credit checking procedures would have saved up to \$900 per month, or 34% of STAR's total monthly loss. Rigorous checking procedures were eventually instituted and stopped the hemorrhaging, but to save STAR from bankruptcy.

Part of STAR's problem may have been its status as a standard rental company. The loyalty of car sharing members should be higher in a cooperative, and therefore lead to less abuse of the business and its vehicles.

3-3 Resolve The Insurance Quandary Before Starting The Operation.

Automobile insurance, along with capital funds, is likely to be extremely troublesome. It can be frustrating that institutions rather than the market limits your possibilities. How you deal with this reality, however, will determine whether or not you can get good coverage.

The Problem

The concept is so new and so unfamiliar to insurance brokers that they generally dismiss it without further thought. Of the several insurance agents approached during the CarShare Cascadia project, only one broker expressed any interest in seeking a policy that addressed the needs of the effort (Jones interview, 1996). Even then, when the request was shopped among her affiliates, not a single offer was extended.

Further discussion with this insurance agent revealed a general industry discomfort regarding the concept of shared vehicles. It was suggested that, instead of registering vehicles as jointly owned among several members, a more satisfactory practice would be to register them under the umbrella car sharing organization. For this reason, the carsharing organization should take care to have followed the steps outlined in Chapter Two before seriously seeking answers to the insurance issue. The organization is likely to be taken more seriously.

Possible Solutions

An argument to use with insurers is that members of car sharing groups are loyal for years, and are more prone to take care of the cars than users of rental cars. To start out, it may be best to get an insurance policy with a set list of users, so that the insurer knows who will be driving, and to change the policy every time a new member is added. In this way, the car sharing group can build a good reputation with the insurer and eventually get a better, more permanent solution.

The solution for AutoCom in Quebec took is that their insurer charges the organization according to the number of miles driven in the shared fleet of cars. In the United States, S.T.A.R. in San Francisco operated in a similar fashion, a factor that helped the company get off the ground and last as long as it did.

Better yet, StattAuto in Germany is now also a green bank that insures its own members and funds its own capital investments. As a bank, it provides low interest loans to car sharing members and to ecologically-minded enterprises. However, to reach this wonderful place, the car sharing organization must reach a critical mass of members.

Oregon Insurance Case Study: The Eugene Car Co-op

The University District in Eugene has a lot of college students who would be interested in car sharing. Asked

about the Under 25 insurance problem:, Greg Bryant said, "We struggled with that one. We wanted to do the right thing. You want to have this service for people who need it. Perhaps, we thought, we could charge them the same rate and spread the extra insurance cost over all the members. There are a lot of responsible undergrads and graduate students who have trouble getting access to a car. We went to the insurance companies. Finally, we decided to make the membership rates for Under 25 reflect the higher insurance fees. You have to do what you have to do to be make it successful--it does not do any good to be so idealistic that the cooperative struggles. When it comes to automobiles, in this country, you just kind of have to go along with what the insurance company says is the truth." Greg Bryant also emphasizes looking at applicants' credit history, repeating the importance of being as financially straight-forward as possible. "You can't fool around with cars. You have to be careful with cars."

The Eugene group provides more advice regarding insurance. This is recorded in the Resource Guide section of the Car Sharer's Companion.

Chapter 4: Managing Your Operation

Finally, you come to where the rubber meets the road; the operation. This chapter will cover the basics of mobilizing and managing a fleet service: keeping the optimum amount of vehicles for a given level of demand; holding prices so that income is just above costs; and keeping driving more expensive than riding transit. Concentrate on establishing a viable service first.

Lastly, we discuss the exciting future of mobility sharing in Portland and Cascadia. Here is the last step, the long-term vision: look toward the day when metropolitan transit leaders, activists, business people, and car share organizers from up and down the Cascadia Corridor can create collaborative relationships between car sharing, rental cars, transit, bicycling, inter-city rail: a new era of mobility.

4-1 Visualize Your Operation Ahead Of Time

4-2 Find The Optimum Fleet Size And Mix

4-3 Find The Optimum Pricing Structure

4-4 Coordinate With Other Transportation Providers

4-1 Visualize Your Operation Ahead Of Time.

Before you buy that first car, visualize the operation in motion. Anticipate how a change in one detail of the system will affect the rest. What will be the operating methods, scenarios, and likely problems with operations, members, and organizers? Visualize how would the operation would work in a specific Portland neighborhood. Where are cars stationed in comparison to where members live?

Twelve Useful Tips

What follows is a series of examples of the type of advance planning and consideration you want to make. Several of them go into the details of the operation. This is the type of forward thinking you may want to do:

- Computerize your operations to save work. Save your operation time on collating, bookkeeping, label-making, reservations, use records, user accounts, and other duties. Save labor costs, save paper, save the Tongas, and save time!
- Build incrementally toward a sophisticated reservations system as the operation grows. The Eugene Car Co-op suggests starting up with an answering machine. Users dial the machine from outside phone units to play back previous reservations and compare this with times of use needed. Users then hang up and call a second time to request the schedule time.
- When membership begins to overload the answering machine, contract to an existing 24 hour scheduling operation like a security service, taxi operations manager, or a hotel desk.
- When it appears that the operation has reached a critical mass and is on its way toward long term growth and success, establish an automated, computer-based interactive vehicle scheduling and reservations system to create efficiency and cost effectiveness.
- While the operation is small, give members a duplicated set of car keys. As the co-op grows, weld a safety box containing a set of car keys on the vehicle itself. Members can then access the box with a membership key or i.d. card.
- Place a set of user instructions on the cover of a binder containing by-laws, member agreement, and in-car documents. Keep a binder in each vehicle.
- Before driving the vehicle, it will be to the user's advantage to circle the vehicle and survey and report any damaged or missing co-op property. The user have incentive to do this to protect his or herself from any potential liability.
- Make it the users' responsibility to keep the vehicle filled up with gasoline. It will be the user's incentive, upon entering the vehicle, to check the fuel level and act

accordingly. Pay for gasoline using a co-op gas card that is stored in the glove compartment, sign the receipt and place it in a receipt pouch in the glove compartment.

- For members' and staff convenience, replace manual logs with an on-board computer that tracks the time and mileage taken.

Steps for small-fleet maintenance and repair:

- Contract out to a trustworthy professional repair shop for heavy vehicle maintenance and repair. Reimburse members who have a broken-down car towed or repaired by the company on contract with the co-op. Make contingency plans for when members break down out of town. Count on a high frequency of repairs, due to the difficult stop-and-go nature of city driving.
- Once your co-op reaches a size at which doing general light upkeep duties informally or through volunteers begins to become a complicated hassle, contract out to a car service center for minor repairs and tune-ups. The time and hassle the co-op would spend doing minor upkeep itself is not worth the money saved.

Vehicle Servicing

In order to minimize inconvenience to members, the organization will want to take vehicles out of service for maintenance during off-peak times.

The simplest method would be to reserve the vehicle for a set number of hours under the name of the co-op organization, just as any member would schedule personal use of the vehicle. Service disruption during car appointments with the mechanic will sooner or later necessitate the existence of reserve vehicles. However, for no other reason is any member of staff or the organization allowed to schedule free use of the cars, even for organizational business. The incentive to use other means of travel should apply even to the organization itself. This rule will add credibility to the co-op in the eyes of its members.

Contract out to expert companies. Do so for towing and maintenance, and everything else but the exact service that the co-op itself provides. Study the cost-effectiveness of contracting out every aspect of the operation that is peripheral to the primary services it provides to members.

Even consider leasing vehicles from either Budget or from dealers. Leasing a vehicle rather than purchasing it outright is becoming an increasingly common fleet management technique. Typically there is a maximum yearly mileage beyond which the lessee must pay a supplementary charge. This is the critical issue of car share leasing: what is the expected yearly mileage, and does this mileage render the option of leasing impracticable? If not, advantages are considerable: the venture is able to replace its vehicles on a three- or four-year rotation, without ever having to purchase a vehicle outright. There are also significant tax advantages to leasing.

4-2 Find The Optimum Fleet Size And Mix.

The size of the fleet will be important to manage and control. Aim for the cars being used about 50% of each day. The rule of thumb for car rental fleets in the past has been that the company breaks even when the vehicle is driven around 1,100 miles per month--about 35 miles each day.

The best approach to fleet size management is to learn as you grow, while drawing on the expertise from the existing car sharing and rental industries. The Eugene Car Co-op is trying to get a group of West Coast car sharing organizations to pool together and purchase the fleet management training software from StattAuto, the 4,000-member car co-op in Germany. In this section, we introduce you to the issues and to potential strategies for fleet management.

Fleet Size Issues to Address

How many vehicles should be owned in the shared-fleet enterprise? How much overflow demand is expected? What revenue flow results? What are threshold sizes after which the fleet operation achieves economies of scale?

Develop a set of service functions and determine the demand for the level of each service. For example, the expected delay in successfully reserving a desired vehicle will depend on the number of customers who want the vehicle during a given time period.

Demand will vary with peak and off-peak price of fleet services. Higher weekend usage can be controlled to some extent by higher weekend prices. How can demand load be optimally smoothed between periods of high use and low use (e.g., weekends versus weekdays)? Match the shared car fleet weekly demand pattern to that of car rental fleets, which sit idle on weekends. It would be worth checking present day demand patterns for rental fleets. Create a diverse membership base of weekend drivers and businesses, so that use of the vehicles by one group balances that of the other

Vehicle Mix

Appropriate vehicle choice is a key decision for the car sharing venture. Successful enterprises have selected subcompact hatchbacks as their basic utilitarian vehicle, because ninety percent of all urban trips that people make require two seats or less.

Successful car sharing operations have branched out from the initial concentration on base vehicles to offer specialty vehicles. Once it has reached the necessary critical mass, the car sharing venture should consider offering vehicles that can satisfy a wider range of need. Such resources tend to be concentrated in the most centrally located car sharing lot, allowing reasonable access for all members. Vehicles provided have included bicycles, work bicycles (three-

wheelers with large baggage compartments), vans, pickups, station wagons, and even buses.

The sky is the limit here: decision makers may decide to broaden the services offered to include such items as boats, vehicle racks, and any range of items that surveys reveal to be in demand by members and that can be shown to offer a reasonable return on investment. Let membership preferences guide the expansion of services offered.

4-3 Find The Optimum Pricing Structure.

What prices should be charged the user and how may they be minimized?

How can the demand load be best smoothed by pricing strategies between peak and off-peak usage periods?

What price structure encourages users to take the most efficient travel mode?

Service deficiencies may occur simply because of too few cars, but they are more likely to occur due to a load imbalance, or peak demand periods that burden the entire system. Such imbalances, if addressed through vehicle purchase, translate into idle vehicle stock during all but a few peak periods weekly. It represents an inefficient provision of capital.

Variable pricing schemes are likely to alleviate these issues, though they also make the car sharing venture less attractive relative to private vehicle ownership and car rentals. Respond to fluctuations in supply and demand with prices.

Variations by time of day are highly likely to occur. These have been documented in several of the car sharing references, most notably those produced to describe STAR. Usage patterns are greatest in the afternoons, with evenings and mornings also displaying significant vehicle use. As might be expected, little vehicle usage occurs at night. If the organization attempts to satisfy greater than 90% of requests, and therefore must do so for the peak afternoon period, with no other equalizing factors, a significant underutilization of vehicles is likely to occur. For this reason, a tiered set of usage fees modeled on the congestion pricing concept makes economic and operational sense. Afternoon users will be penalized relative to other times of use. Nighttime users will have the smallest hourly fee.

Similarly, there are likely to be wide variations of use according to the day of the week. For this reason, the car sharing organization is likely to need a tiered system according to day of use, as well. Consider contracting to rental agencies during peak demand periods, if needed. Users will want to feel that they can get a vehicle when they need one.

Finally, seasonal variation is likely in vehicle usage patterns. While a tiered system is unlikely to address these demand-supply mismatches, it will nevertheless be important for the

organization to recognize the likelihood, and to plan accordingly.

Because the mission is to emphasize the most environmentally friendly choice for trips, the venture must keep the cost of its primary service above that of transit. The venture's leaders may decide that users of the less-efficient modes of transport must subsidize transit passes for all members, in an effort to ensure that members' first choice for urban trips is the transit system. Such an internal cross-subsidization might come in the form of a slightly higher temporal or mileage rate.

Pricing Case Study: S.T.A.R.

STAR's efforts to maximize its competitiveness damaged the venture's goal of encouraging transit travel. With a vehicle readily accessible only ten minutes away, fewer residents would chose transit. The venture's leaders failed to price their automobiles services in relation to transit cost. Fully 30% of households traveled less by transit when offered the STAR vehicle option, while only 6% reported traveling more by transit. Moreover, when the company finally began raising its prices, there was a little effect on demand for its services: its prices had been below what the market supported.

4-4 Coordinate With Other Transportation Providers.

The is a reason why the discussion about potential collaborative relationships with transit agencies and other car sharing groups comes at the last section.

It is a long term goal. In the near term, there is an organization, a market, and a basic car sharing operation to establish. Success at home will then naturally lead to beneficial collaborative relationships . . .

The Natural Progression of a Car Sharing Operation: Advice from the Eugene Car Co-op

Concentrate on making car using functions smoothly. Then build the number of stations you have. While you can say you will make arrangements for inter-city cross-organizational car sharing, paying for taxis and trains with a mobile card, workbikes, discounted bus passes-- focus on getting the car using to work before all else. I wish someone had told me that before I wasted my time getting all the transportation information for members and finding out about the other possibilities

Transit Agencies

Transit providers can be great allies once you can prove that your business supplements theirs.

How to make friends with Tri-Met, the lead transit agency of the Portland metro area? Locate vehicles near transit stations and important bus stops. Currently, Tri-Met's favorite child is the West Side Light Rail line. Park-and-ride transit stations are already under construction. Patti Fink, the planner at Tri-Met with whom a car sharing operation could collaborate, has expressed interest in the concept of collaboration with a serious car sharing operation.

A collaboration could lead to car sharing member mobility options such as discounted transit passes. Discounts should be negotiated on the basis of bulk purchasing and the similarity of missions between the car sharing organization and the transit provider. Transit agencies offer monthly passes at half-rate for some groups.

Car Rentals

Can car rentals really be your friends? How can car co-ops and car rentals have compatible interests? However, as is the case between car co-ops and transit, car renting and car sharing can actually supplement one another. Despite the zero-sum contest direct dollar cost comparisons like the one we presented in Chapter 2 imply, the real world of relationships is more complicated. If one sees the transportation system as a sort of ecosystem of different transportation options, partly competing and partly collaborating, one's eyes are opened to the potential for mutually beneficial relationships.

Regulatory Institutions

What the Eugene Car Co-op was able to obtain from the new minimum parking requirements code of Eugene was nothing less than a coup (see Chapter 2-2). By developing good working relationships with the planning agency and by presenting good arguments in advocating for a special exception, the Eugene Car Co-op is now able to develop housing with a parking requirement reduction of ninety percent.

What can the car sharing organization do to obtain a favorable regulatory and institutional climate in which to operate? It can work for laws auto licensing, driving insurance standards, automobile ownership and use taxes that will make it easier for the enterprise to compete with automobile ownership. It can follow the Eugene route and look for opportunities to create synergistic relationships between high-density land uses and car sharing.

In any case, connect with local pedestrian, bicycling, and transit advocacy organizations in pushing for reform at the appropriate forums. Develop good working relationships with agency planners and representatives.

Car Sharing Co-ops of Cascadia

Advocate for high-speed inter-city rail transportation along the Cascadia Corridor. Currently, a transit trip between

Portland and Eugene or Seattle takes one-and a half times as long as it would in a personal vehicle.

It will be to the benefit of car sharing organizations up and down the Corridor to build long-term collaborative relationships. For instance, the Eugene Car Co-op is interested in pooling resources to purchase fleet management and training software from StattAuto sources in Germany. The North American Car Sharing Association can help coordinate the co-ops. Fleet purchasing discounts might be possible if the organizations can coordinate their automobile acquisitions. Finally, collaboration can facilitate eventual cross-use of cars by members of the different car sharing clubs.

Envision the day when an All-Cascadia travel pass or "mobilcard" is available to members of the string of car cooperatives along the Cascadia Corridor .

*Case Study of the "new mobility":
Auto Teilet Genosenschaft (ATG)*

Founded in Stans, Switzerland in 1987

1990: 200 members

1994: 2500 members

1996: 6000 members

In awarding the 1995 Swiss Alternative Marketing Award to ATG founder Conrad Wagner, the judges "found it important that Conrad Wagner never viewed car sharing as

an isolated gap in the market, but as a part of a larger transportation network." ATG pioneered the pursuit of an alliance with transit agencies. He located a third of all ATG cars at transit stations and near streetcar or bus stops. Car co-op members began making direct transfers to and from transit. The public transit agencies were convinced. A virtual corporation between driving, walking, and transit is emerging. Mutually beneficial agreements between service providers make it easy for users to transfer from driving to walking and riding, and vice-versa. During the 1994 Earth Day celebrations, ATG and Swiss transit agencies formally announced their alliance their services united into what they presented as "the new mobility".

The judges of the Swiss "Alternative Marketing Award" were impressed with how Wagner pioneered the expansion of the idea of sharing a car together to save the environment into an industry that is also good deal for its customers. Wagner will tour Portland and the Northwest this summer.

Part II: A Resource Guide

For Portland, Oregon

Section I: Car Sharing Resource Guide

The Car Sharing Resource Guide is a directory to more in-depth information about the subjects discussed in Part I. The Resource Guide reveals the sources that inform the advice and information given in the handbook chapters. Moreover, it provides a list of potential car sharers--the beginnings of a network in Portland.

CarShare Cascadia has organized the subject-by-subject resource directory to match the subjects of the four chapters covered in the Ignition Guide. For instance, the information resources that informed our discussion of market surveys in section 2-5 of "Chapter 2: ...Market" in the handbook appear in a parallel section 2-2 in this resource directory. For every subject, there is a bibliography of sources. Short annotations indicate what aspect of a subject each source addresses.

For the most part section points you in the direction of informative resources about each field of concern. To actually investigate these resources, you can find them discussed in alphabetical order in Section II of the Resource Guide, the Annotated Resource Bibliography.

Section I: Car Sharing Resource Guide

The following pages present a subject-by-subject index to car sharing information sources. It also includes a list of potential car sharers (see bottom of next page). However, it begins with a "Top Ten" list of must-read sources . . .

Prelude: The Top Ten

The resources below appear again and again, under numerous subject headings, because they are informative about a variety of the car sharing issues. We have listed the best all-around resources here at the top for your convenience. See the Annotated Resource Bibliography at the end of the Car Sharer's Companion for further details:

Bryant, Greg and Janes, Danielle, Eugene Car Cooperative, January 21, 1996 interview.

Cambridge Systematics, Inc., "Evaluation of the Short-Term Auto Rental (STAR) Service in San Francisco, CA," 1985.

Eugene Car Co-op Start-up Kit, Eugene Car Co-op, 1994.

From Short-Term Leasing to Car Sharing: Results from the Market Study, AutoCom, 1991.

Honigsberg, Peter J., et. al., We Own It: Starting and Managing Cooperatives, 1991.

Janes, Danielle, President of Eugene Car Co-op--February 1996 written questionnaire answers.

Jarvis, Holly, General Manager, Food Front--March 1996 interview.

LaFond, Michael, "Cooperative Transport: Berlin's StattAuto (Instead of Cars)," RAIN, Summer 1994.

Switzerland Alternative Marketing Award committee, "A Plaque of Honor for Conrad Wagner, AutoTeilet Cooperative, Stans," Press Release, 1994.

Wagner, Conrad, and Katzev, Richard, "Car Sharing: More Mobility, Preservation of the Environment and Savings in Your Pocket," press release, April 1996.

1. Resources on Starting an Organization

1-1 Establishing a small start up group.

The first source that we have to offer on starting a group is an a list of potential car sharers in Portland as of March 1996. A current list of names will be available in the future from Dr. Katzev of Public Policy Research:

*Potential car sharers in Portland, Oregon
(individuals who have expressed interest in sharing cars)*

Betts, Kellyn--282-1252

Bissell, Mike -- lamppost @ teleport.com

Brook, David--dbrook@aol.com

Clark, Graham--psu01647@odin.cc.pdx.edu
 Coleman, Heather--
 Davis, Tom--psu01681@odin.cc.pdx.edu
 Drake, Marion-- ?
 Duh, Steve--psu00984@odin.cc.pdx.edu
 Katzev, Richard--rkatzev@reed.edu
 Karl, Joanna--797-1790
 Lehto, Alan--psu03712@odin.cc.pdx.edu
 Strickland, Tracy-- ?
 Rudman, Grant -- ?
 Taylor, Josh --223-6455
 Welsch, Alex-- ?
 Winter, Caleb--caleb@lclark.edu
 Franklin, Jason--psu01159@odin.cc.pdx.edu
 [Your Name Here?]

Car sharers in other cities in Cascadia and beyond:

Bradshaw, Chris: Ottawa-- aa122@freenet.carleton.ca
 Litman, Todd: Victoria-- litman@islandnet.com
 Robert, Benoit: Quebec City-- fax(418)525-5258
 Bryant, Greg: Eugene -- 541 683-1504
 Janes, Danielle: Eugene-- 541 683-1504
 Axelsson, Tracey: Vancouver BC-- info@fraserbasin.bc.ca
 Dauncey, Guy: Victoria-- gdauncey@islandnet.com
 Fritzel, Anne: Victoria/Ontario-- 4aaf1@qlink.1ueensu.ca
 Lamparter, Bernd: lamparter@pi4.informatik.uni-mannheim

Alternative Technology Group--February 1996 meeting[*Car sharing was the discussion topic of the night, with Graham Clark of CarShare Cascadia presiding. The method worked and six people expressed interest.*]

"cOgO," Mobility Partners/Access [*a friendly West Coast ridesharing and car sharing start-up--good people to know*]

Co-operative Auto Network (CAN), "Executive Summary," Vancouver, B.C., January 31 (draft) [*a friendly West Coast ridesharing and car sharing start-up--good people to know*]

Eugene Car Co-op Start-up Kit, Eugene Car Co-op, 1994. [*Steps to setting up a group of car sharers*]

"Quartet starting network to pool cars, costs," Vancouver Sun, February 2, 1996. [*We write about it. They just do it.*]

1-2 Determining the scope and scale of your car sharing enterprise.

"Beyond Car-pooling," New Age Journal, September/October 1994, p. 18.

Bryant, Greg and Janes, Danielle, Eugene Car Cooperative, January 21, 1996 interview, February and March 1996 correspondence. [*Pilot Project and Legal Preparations*]

Cambridge Systematics, Inc, "Evaluation fo the Short-Term Auto Rental (STAR) Service in San Francisco, CA," U.S. Dept of Transportation 1985. [*what happens when you start too large, too fast--evidence favoring small pilot projects*]

"From Short-Term Leasing to Car Sharing: Results from the Market Study," AutoCom, 1991. [*a market survey gauged the size of potential demand*]

Janes, Danielle, President of Eugene Car Co-op--February 1996 questionnaire answers [*concentrate first on establishing a smooth-running car operation on the small scale*]

LaFond, Michael, "Cooperative Transport: Berlin's StattAuto.(Instead of Cars)," RAIN, Summer 1994, Volume XIV, Number 4; p. 2-7

"Self-Service Rent-A-Car," Popular Mechanics, October 1995, p. 24. [*Renault-Citroen are proposing a large scale operation serving 100,000 people in Paris*]

1-3 Estimating your time commitment.

Eugene Car Co-op Start-up Kit, Eugene Car Co-op, 1994. [*the comprehensives and attention to detail betray the amount of effort it takes to properly prepare a start-up*]

Janes, Danielle, President of Eugene Car Co-op--February 1996 questionnaire answers [*a long time spent in planning*]

Robert, Benoit, AutoCom and CommunAuto founder, January 1996 letter correspondence. [*Dedicated his life to making the operation work.*]

Switzerland Alternative Marketing Award committee, "A Plaque of Honor for Conrad Wagner, AutoTeilet

Cooperative, Stans," Press Release, 1994. [*Dedicated his life...*]

1-4 Writing a mission statement.

Co-operative Auto Network (CAN), "Executive Summary," Vancouver, B.C., January 31 (*draft mission statement*)

Cornelius, Jim, Agricultural Extension Economist, OSU-- March 1996 phone interview [*speaks to importance of good organizational planning*]

Cotterill, Ronald, Consumer Food Cooperatives, Interstate Printers & Publishers, Inc., Danville, Illinois 1982., p. 175-252.

Covey, Stephan, The Seven Habits of Highly Effective People, 1987. [*Excellent advice on organizational mission statements; uses case studies to describe their positive effect on staff and customers*]

European Car Sharing Society (ECS) Constitution, ECS, Berlin, Germany. [*A mission statement example*]

Jarvis, Holly, General Manager, Food Front--March 1996 interview [*mission statement revision battles*]

1-5 Choosing a corporate form.

Bryant, Greg and Janes, Danielle, Eugene Car Cooperative, January 21, 1996 interview, February and March 1996 correspondence. [*Size of decision making group in co-op*]

Calvert, Tim, founder of Laughing Horse Bookstore Co-op-- March 1996 interview [*factors of a successful co-op*]

Cornelius, Jim, Agricultural Extension Economist, OSU-- March 1996 phone interview [*factors of successful co-ops*]

Cotterill, Ronald, Consumer Food Cooperatives, Interstate Printers & Publishers, Inc., Danville, Illinois 1982., p. 175-252.

Eugene Car Co-op Start-up Kit, Eugene Car Co-op, 1994. [*example articles of incorporation and bylaws*]

Gunn, Christopher and Hazel, Reclaiming Capital: Democratic Initiatives and Community Development, Cornell University Press, 1991, pp. 99 - 105. [*evidence that Americans are amenable to cooperatives, and that co-ops have much to offer: local ownership, etc.*]

Honigsberg, Peter J., et. al., We Own It: Starting and Managing Cooperatives, Bell Springs Publishing, 1991. [*compares for-profits, nonprofits, and co-ops; gives advice about co-op structure and factors for success*]

Janes, Danielle, President of Eugene Car Co-op--February 1996 questionnaire answers [*advice regarding decisions*]

Jars, Holly, General Manager, Food Front--March 1996 interview [*strengths and weaknesses of cooperatives*]

LaFond, Michael, "Cooperative Transport: Berlin's StattAuto (Instead of Cars)," RAIN, Summer 1994, Volume XIV, Number 4, p. 2-7 [*the European way*]

Robert, Benoit, AutoCom and CommunAuto founder, January 1996 letter correspondence. [*warnings against naive idealism regarding cooperatives*]

Small Business Administration [*puts out two free information sources for new business*]

Sohl, Kay, The Oregon Nonprofit Corporation Handbook, Technical Assistance for Community Services, 1993.

Switzerland Alternative Marketing Award committee, "A Plaque of Honor for Conrad Wagner, AutoTeilet Cooperative, Stans," Press Release, 1994. [*a successful business that is a co-op . . . a successful co-op that is a . . .*]

Tax-Exempt Status for Your Organization, Publication 557 of the Internal Revenue Service, U.S. Department of the Treasury, January 1995. [*not*]

Urban Studies and Planning Workshop 558, January 1996 focus group meeting [*focus group preconceptions*]

"What is a Cooperative?" Center for Cooperatives, Davis, CA, 1995.

The Whole Co-op Catalog, Twin Pines Cooperative Foundation, 1995.

1-6 Incorporating your organization.

Cotterill, Ronald, Consumer Food Cooperatives, Interstate Printers & Publishers, Inc., Danville, Illinois 1982., p. 175-252. [*steps to incorporate with articles and bylaws*]

"The Eugene Car Co-op," RAIN, Summer 1994, Volume 14, Number 4, p. 6. [*ten steps to starting a co-op.*]

Eugene Car Co-op Start-up Kit, Eugene Car Co-op, 1994. [*a larger list of steps than reference above*]

Honigsberg, Peter J., et. al., We Own It: Starting and Managing Cooperatives, Bell Springs Publishing, 1991.

Janes, Danielle, President of Eugene Car Co-op--February 1996 questionnaire answers

Sohl, Kay, The Oregon Nonprofit Corporation Handbook, Technical Assistance for Community Services, 1993. [*How and why to get a lawyer and accountant*]

2. Resources on Marketing the Service

2-1 Showing that car sharers save money.

Cochran, Jeffery, and Sparrow, F. T., "Optimal Management of a Shared Fleet with Peak Demands," *Applications of Management Science*, Vol. 4., 1985, pp. 81-105. [*Provides an example of a rigorous cost comparison method*]

Kelley Blue Book Auto Market Report: Official Guide to 1989-1995 Used Car Values, Sept-Oct 1995, NW Edition.

Kelley Blue Book 1996 New Car Guide, Sixth Edition.

Dr. Mildner, Gerry, Portland State University--February 1996 interview

Wagner, Conrad, and Katzev, Richard, "Car Sharing: More Mobility, Preservation of the Environment and Savings in Your Pocket," press release, April 1996.

"Your Driving Costs, 1995 Edition," AAA, 1995.

2-2 Offering convenience, safety, reliability, and freedom.

Brocklehurst, Ann "Cars for Conscience -Stricken Drivers", The Herald-Tribune (European Edition), July 1993.

Bryant, Greg and Janes, Danielle, Eugene Car Cooperative, January 21, 1996 interview, February and March 1996 correspondence. [*Funding a car co-op oriented housing development*]

Demographic Trends of Northwest Portland, 1940 - 1990, Portland Bureau of Planning, October 1995.

Honigsberg, Peter J., et. al., We Own It: Starting and Managing Cooperatives, Bell Springs Publishing, 1991. [*offering a convenient, reliable customer service*]

LaFond, Michael, "Cooperative Transport: Berlin's StattAuto (Instead of Cars)," RAIN, Summer 1994, Volume XIV, Number 4, p. 2-7 [*the prerequisites of a marketable service*]

LUTRAQ: Making the Land Use-Transportation Air Quality Connection, Volume 6: Implementation, 1000 Friends of Oregon, October 1995. [*pedestrian friendliness factors*]

McCarthy, Patrick, "The Shared Vehicle Fleet: A Study of Its Impact Upon Accessibility and Vehicle Ownership," Journal of Transport Economics and Policy, January 1994, p. 75-94. [*convenience and vehicle marketability*]

"New Statistics Feed Parking Permit Debate," The Northwest Examiner, February 1996, p. 1. [*Northwest Portland parking congestion*]

Portland Police Bureau Planning Division: 1995 Crime Statistics [*by neighborhood and type of auto-related crime--not printed--available at Police Bureau*]

Sgt. Elmore, detective on the Auto Theft Task Force, Portland Police Bureau, --March 1996 phone interview. [*crime avoidance factors*]

Switzerland Alternative Marketing Award committee, "A Plaque of Honor for Conrad Wagner, AutoTeilet Cooperative, Stans," Press Release, 1994. [*ATG example of a variety of marketing pitches*]

"Taming Traffic Troublespots", The Northwest Neighbor, March 22, 1996, p. 1. [*More traffic congestion in NW*]

2-3 Crafting an image of style, status, comfort and fun.

Sparrow, Thomas, "Purdue University Urban Car Experiment," Automotive Transportation Center, Purdue University. [*the type of vehicle makes a difference*]

Switzerland Alternative Marketing Award committee, "A Plaque of Honor for Conrad Wagner, AutoTeilet Cooperative, Stans," Press Release, 1994.

2-4 Banking on your ecological, member-owned identity.

Bradshaw, Chris, "Co-Transportation: An alternative to Car Ownership," Bradshaw Communities, Ottawa, Canada, press release, April 1994.

Brocklehurst, Ann "Cars for Conscience -Stricken Drivers", The Herald-Tribune (European Edition), July 1993.

Gunn, Christopher and Hazel, Reclaiming Capital: Democratic Initiatives and Community Development, Cornell University Press, 1991, pp. 99 - 105.

LaFond, Michael, "Cooperative Transport: Berlin's StattAuto (Instead of Cars)," RAIN, Summer 1994, Volume XIV, Number 4, p. 2-7

Switzerland Alternative Marketing Award committee, "A Plaque of Honor for Conrad Wagner, AutoTeilet Cooperative, Stans," Press Release, 1994.

2-5 Conducting a neighborhood market survey.

"From Short-Term Leasing to Car Sharing: Results from the Market Study," AutoCom, 1991.

Sparrow, Thomas, "Purdue University Urban Car Experiment," Automotive Transportation Center, Purdue

University." *[a survey, pilot study, and focus group debriefing that gauged market demand]*

Urban Studies and Planning Workshop 558, January 1996 focus group meeting *[focus groups bring out issues]*

2-6 Waging a strategic marketing campaign.

Alternative Technology Group--February 1996 meeting *[targeting activist groups]*

Cambridge Systematics, Inc., "Evaluation of the Short-Term Auto Rental (STAR) Service in San Francisco, CA," U.S. Department of Transportation 1985. *[Lack of a marketing effort; different demographic groups having different demands]*

"From Short-Term Leasing to Car Sharing: Results from the Market Study," AutoCom, 1991. *[survey example]*

Janes, Danielle, President of Eugene Car Co-op--February 1996 questionnaire answers *[focus on the local media]*

LaFond, Michael, "Cooperative Transport: Berlin's StattAuto (Instead of Cars)," RAIN, Summer 1994, Volume XIV, Number 4, p. 2-7

3. Resources on Financing

3-1 Fueling your own enterprise with membership dues and user fees.

Bloch, Steve "Beyond Car-pooling," New Age Journal, September-October 1994, Page 18.

Boulton, Julian, Northwest Pilot Project Fleet Manager--March 1996 interview [*problems with grants*]

Bryant, Greg and Janes, Danielle, Eugene Car Cooperative, January 21, 1996 interview, February and March 1996 correspondence. [*grant funding advice*]

Calvert, Tim, founder of Laughing Horse Bookstore Co-op--March 1996 interview [*why a CSO should depend on the market, not on grants*]

Cambridge Systematics, Inc., "Evaluation of the Short-Term Auto Rental (STAR) Service in San Francisco, CA," U.S. Department of Transportation 1985. [*evidence of user fee price inelasticity of demand--co-ops can raise per mile fees*]

LaFond, Michael, "Cooperative Transport: Berlin's StattAuto (Instead of Cars)," RAIN, Summer 1994, Volume XIV, Number 4, p. 2-7

3-2 Screening your members for credit worthiness.

Cambridge Systematics, Inc., "Evaluation of the Short-Term Auto Rental (STAR) Service in San Francisco, CA," U.S. Department of Transportation 1985. [*bad debt horror story*]

Eugene Car Co-op Start-up Kit, Eugene Car Co-op, 1994. [*a recommended policy for screening members*]

3-3 Solving the insurance quandary before starting the business.

Bryant, Greg and Janes, Danielle, Eugene Car Cooperative, January 21, 1996 interview, February and March 1996 correspondence. [*insurance advice*]

Eugene Car Co-op Start-up Kit, Eugene Car Co-op, 1994. [*an example of an insurance program for a car co-op*]

LaFond, Michael, "Cooperative Transport: Berlin's STATTAUTO (Instead of Cars)," RAIN, Summer 1994, Volume XIV, Number 4, p. 2-7 [*StattAuto insurance*]

Janes, Danielle, President of Eugene Car Co-op--February 1996 questionnaire answers [*insurance advice*]

Progressive Insurance quote service --February 1996 phone interview.

4. Resources on Operations Management

4-1 Visualizing your operation ahead of time.

Bryant, Greg and Janes, Danielle, Eugene Car Cooperative, January 21, 1996 interview, February and March 1996 correspondence. *[repairing the vehicles; reservations]*

Cambridge Systematics, Inc., "Evaluation of the Short-Term Auto Rental (STAR) Service in San Francisco, CA," U.S. Department of Transportation 1985.

Eugene Car Co-op Start-up Kit, Eugene Car Co-op, 1994.

4-2 Finding the optimum fleet size and mix.

Cambridge Systematics, Inc., "Evaluation of the Short-Term Auto Rental (STAR) Service in San Francisco, CA," U.S. Department of Transportation 1985.

Cochran, Jeffery, and Sparrow, F.T., "Optimal Management of a Shared Fleet with Peak Demands," Applications of Management Sciences, Volume 4, pages 81-105. *[provides a method to meet shared car demand efficiently. Involved.]*

Potter, Bill, Metro Property Resources Management Director, January 1996 interview.

Sparrow, F. Thomas, et. al, "The Mobility Enterprise: Improving Auto Productivity," Automotive Transportation Center, Purdue University, January 1982.

4-3 Pricing for demand and revenues.

Cambridge Systematics, Inc., "Evaluation of the Short-Term Auto Rental (STAR) Service in San Francisco, CA," U.S. Department of Transportation 1985. *[evidence of user fee price inelasticity of demand--co-ops can raise per mile fees. Also: what happens when you price too low for transit and costs]*

Cochran, Jeffery, and Sparrow, F.T., "Optimal Management of a Shared Fleet with Peak Demands," Applications of Management Sciences, Volume 4, pages 81-105.

4-4 Coordinating your services with other transportation providers.

European Carsharing Society (ECS) Constitution *[example of a coordinating association of car co-ops]*

Fink, Patti, planner, Tri-Met, January 1996 meeting *[the planner at Tri-Met with whom a car sharing operation could collaborate expresses great interest in the concept]*

Fischer, Chuck, Salem Rideshare Coordinator, internet correspondence, March 1996. *[another potential activist ally, and a contact in Salem, OR.]*

Switzerland Alternative Marketing Award committee, "A Plaque of Honor for Conrad Wagner, AutoTeilet Cooperative, Stans," Press Release, 1994. *[new mobility]*

Wagner, Conrad, and Katzev, Richard, "Car Sharing: More Mobility, Preservation of the Environment and Savings in Your Pocket," prese release April 1996. [*deals with Hertz*]

Section II: Annotated Resource Bibliography

The Annotated Resource Bibliography is CarShare Cascadia's alphabetized, fully annotated bibliography of car sharing.

Here is where the inquiring car sharer can discover the source spring from which our advice flows. Sources include interviews with persons who had knowledge and experience in our areas of study; meetings; correspondences with people either involved or interested in car sharing and alternative transportation; local neighborhood information; literature research.

It has been the object of CarShare Cascadia's objective to make available as much information as possible. We hope that we have done so, or at least given you a direction toward which to launch your own research. We look forward to the day when the residents of the Portland metropolitan region can easily and affordably travel lightly on the earth.

Annotated Resource Bibliography

Alternative Technology Group, February 1996 meeting

On February 11, 1996, during the height of the 1996 flooding, six members of the Alternative Technology Group showed up to hear Graham Clark of CarShare Cascadia present the concept of car sharing. The Alternative Technology Group members were extremely receptive and enthusiastic about starting a car sharing cooperative in Portland. The level of their commitment ranged between a willingness to help start a project to being active car sharing members. CarShare Cascadia or its successors will be likely to present the idea again to ATG and to similar activist groups, in order to fish for potential leadership.

The experiment results support the advice given by members of the Eugene Car Co-op: activist gatherings are great places to find members.

Bloch, Steve "Beyond Car-pooling," New Age Journal, September-October 1994, Page 18.

An article introducing car sharing and spotlighting the Eugene Car Co-op, its personable founding members, and their 1972 VW Bug. The prices and structure of the organization are covered, as are the potential sources of resistance of consumers to the car sharing lifestyle.

When the article was published, co-op members paid an initial fee of \$250 (\$200 of which is refundable when leaving the co-op) plus payments of \$15 for insurance, group-discount bus passes, and the use of utility bikes. Usage fees were \$.50 an hour and \$.15 per mile.

This provides an example of a pricing structure.

Boulton, Julian, Northwest Pilot Project Fleet Manager--March 1996 interview.

The Northwest Pilot Project is a nonprofit social service agency providing housing and transportation service for elderly and homeless residents of Northwest Portland and Downtown.

The NWPP began as an experiment in Northwest Portland and was a volunteer-run program. Today they have three apartments and a fleet service consisting of two late-model minivans. Julian Boulton manages the transportation program, which has one more staff person and a volunteer.

Grant Money

In the late 1980's NWPP obtained a 16V2 grant through Tri-Met with money originating from the federal government and bought its first van.

Tri-Met offers its 16V2 grant that provides capital assistance to non-profit agencies. Tri-Met has created a new agency called Volunteer Transportation Incorporated (VTI) that helps non-profits write grants. The 16V2 is designed to

assist nonprofit agencies; VTI targets programs that are run with volunteers.

In 1992, Tri-Met funded a second vehicle. Because of the ADA, the federal government money came with the handicapped access requirement. The van floor was lowered to the ground and an elevator installed into the sliding door. Moreover, the government converted it to an alternative fuel. Total cost of the retrofits: \$35,000 dollars. The alternative fuel system caused problems and was converted back to gasoline. Meanwhile, the ADA required low floor bottoms out and knocks the transmission and front end alignment, shortening the life of the vehicle.

There is a suggested \$3 donation from riders which covers gasoline. Sixty-percent of the total operating costs come from United Way, and for the rest the president of NWPP raises through grants and church donations.

Competition for grant money continues to grow. Government resources for social services are shrinking even as the demand grows, and the non-profit civil service sector struggles to satisfy a greater portion of this demand.

The greatest problem with grant funding is its incompatibility with an independent, entrepreneurial start-up. The methods of finance speak for the character of the organization. Grant funding characterizes social service organizations. Investment funding characterizes a completely different, more self-sufficient, entrepreneurial organization.

Operations.

NWPP, a local small operation, like the Eugene Car Co-op, has a mechanic who manager Julian Boulton recommends as trustworthy: Gary Fields of Allan's Automotive. For minor maintenance, Julián Boulton has an account with Jiffy Lube. Every 3,000 miles, the two NWPP vans get a tune up. Julian used to do minor upkeep himself, but found that the time and hassle was not worth the money saved.]

The Northwest Pilot Project fleet has experienced relatively high maintenance costs because of the difficult stop-and-go nature of driving in the central city. The costs have grown as their vehicle mileage has increased.

There are other social service fleets all over the city and region. The TRP Program in Clackamas County has 100 volunteers. Also, the American Red Cross has a number of vans and volunteers, as does Northwest Portland Ministries. Such projects are nonprofits, at the far end of the spectrum from Hertz or Budget car rentals. Car sharing is likely to land somewhere in between.

NWPP provides us with a view of the challenges for a nonprofit, grant-dependent fleet service:

Bradshaw, Chris, "Co-Transportation: An alternative to Car Ownership," Bradshaw CommuniTies, Ottawa, Canada, press release, April 1994.

Bradshaw CommuniTies is a community development consulting firm in Ottawa. Chris Bradshaw issued this press release to promote the idea of car sharing. The release gives an overview of how car sharing can supplement other modes of travel. He also provides a thorough list of advantages of car sharing.

Chris Bradshaw
187 Pretoria Avenue
Ottawa, Ontario, Canada, K1S 1X1
613-230-4566 phone and fax
aa122@freenet.carleton.ca

Brocklehurst, Ann "Cars for Conscience -Stricken Drivers", The Herald-Tribune (European Edition), July 1993.

A short article that examines the German car sharing efforts as an alternative to car ownership. It mentions a weakness in the armor of StattAuto, which is *weekend price competition by car rental companies*. In Europe, weekends are the most popular time for borrowing, and it is during the weekend that StattAuto's prices "can work out to be slightly higher than the special package deals offered by some car rental companies." *However, article continues, StattAuto has an ace card--its Mobilcard*. The access to the variety of transportation services that the MobilCard membership card provide helps StattAuto compete with the narrowly-focused rental car services. "MobilCard is also a taxi credit card, for instance. There are also group deals on insurance.

StattAuto is also apparently still attempting to get customers discounts on train, bus and subway fares."

Bryant, Greg and Janes, Danielle, Eugene Car Cooperative, January 21, 1996 interview, February and March 1996 correspondence.

Greg Bryant and Danielle Janes had a great amount of experience to offer. They were almost too generous with their time. Below is a sample of their advice:

Co-op Organization

Keep the co-op decision making group small and committed. Some people want decision power but not the work. Agree up front to do the work. Do not have large groups trying to make decisions. The co-op form is not much of a problem. It is basically a business corporation with voting members.

The car sharing idea is not really a social service idea. Its goal is to get people who already own their cars out of them. Some people will want to change the focus to a low income social program.

Reserve your business name as quickly as possible. People steal names.

Finances

Recognize the land use-transportation-connection. We were able to get the city to offer a 90% reduction in parking requirements for housing developments that do not allow residents to own cars. We are developing a property with a

loan from Bank of America. The management of Bank of America is forward thinking. They published a very interesting document entitled "Beyond Sprawl".

Regarding insurance, find a friendly local broker used to doing interesting and off-beat insurance packages. Fleet insurance packages are a good start. The National Co-op Bank does not give you the best rate. Nationwide Insurance on 919 NE 19th Avenue, 1-800-421-1444 ext-194, is a possibility. Just get some sense of the cost: Pick a car model, 5-10 names and drivers licenses to the insurance agents. Do this just to get a sense of the pricing.

Money is tight in the grants and foundations world. The nonprofit sector is picking up the slack from the shrinking public sector. Grants are best to come by through networking. It is easier to find people with money rather than a foundation with money. You would compete with fewer people. Find investors in pro-community enterprises.

Operations

We have a trustworthy mechanic at a local repair shop, and an account with a local towing company. Members do not have to pay if they have the car fixed or towed by these companies with whom the Co-op has an account. If members have car problems out of town, they are given incentive to notify the cooperative before allowing another tower or repair company to do the work.

The Eugene Car Co-op was a demonstration project. We wanted to figure out the details. The Car Co-op is currently on hold while we arrange for a bigger group of people to

join. The materials and techniques of the Car Sharing Start-up Kit worked fine during the demonstration period. The group has an insurance company and has checked their program out with their lawyers.

Calvert, Tim, founder of Laughing Horse Bookstore Co-op, March 1996 interview

Calvert was very interested in marketing alternative fuel vehicles such as electric and hydrogen cars. He felt that they could be a marketing device for a broader audience, and could be something to which a car sharing program could link itself.

He made the point that the enterprise has to make money in order to build its vehicle fleet, operations infrastructure, and, most importantly, to hire and keep competent people to manage the operation:

"Organizers have to be rewarded. . . dividends and control based on how much they work. . ."

"It can't be just static. The field has to expand and be dynamic and growing--an industry of opportunity. It can't just be this backwater thing that just flounders along. It must be a winner for the people organizing it. They must get some benefit . . . some reward such as more money and control."

The democratic cooperative type structure needs people who understand process and communication. Members should

share the load of responsibilities so that there is less burnout and less dependence on a few key individuals.

Success and failure of a cooperative depends on a core group of committed people who believe in the project.

The cooperatives have an advantage in the tax laws called the patronage dividend. Most corporations endure double taxation: the business's income and then the shareholders' profit are taxed. However, the co-op can allocate patronage dividends from its earnings. Individual members pay taxes on the dividends, and but the cooperative business does not. The business may pay at least 20% of the patronage dividend in cash to members so that they can pay taxes on the dividend. The patronage dividend is a great way for a cooperative to dodge taxes and recapitalize using the saved money. However, most car-co-ops do not issue stock. They depend solely on the member and usage fees.

Calvert was adamant that the operation find entrepreneurial sources of income rather than grants or funding:

"Ditch the funding agencies. If you get wrapped up in trying to attract funds and funding, you are stepping away from the dynamics of the marketplace. Funding is like a narcotic buffering the operation from reality if it is not selling."

Cambridge Systematics, Inc., "Evaluation of the Short-Term Auto Rental (STAR) Service in San Francisco, CA," U.S. Department of Transportation 1985.

A large, unique, albeit short-lived shared vehicle program operated in San Francisco during the early 1980's. Unfortunately, STAR lived down to its name and became a truly short-term operation. The U.S. Department of Transportation, eager to learn the lessons of the unique operation and its potential elsewhere, hired a consultant to evaluate the failed STAR Company. The evaluators perused company rental and financial records and interviewed organizers and members. It assessed the market for the STAR services, analyzed the demand for the STAR service, the Company's financial and operational performance, and the Company's ability to meet its idealistic objectives. The well-documented STAR experience provides insight into future application of the shared vehicle concept:

The STAR Company operated for about sixteen months. The first period was marked by rapid growth in membership, rentals, and mileage. By the end of the first year of operations, the STAR Company had 350 member households and 60 vehicles.

However, STAR's financial performance was damaged by a series of operational problems:

TRANSPORTATION GOALS UNMET

*Overall trip-making increased as a result of STAR. Members got more trips for their dollar by using STAR. Overall VMT would increase with an increase in mobility options.

*STAR membership did not lead to greater transit usage. The STAR service had a slightly negative or negligible

impact on transit and ridesharing use. The types of trips for which STAR vehicles were used suggested that its services competed with private ownership, rentals, and taxis.

Rental rates were low to encourage individuals to switch from car ownership. However, higher rates were needed to meet both the company's financial objectives and its mission regarding a change in transportation habits. Two rate increases were introduced that helped STAR climb toward these two goals.

INABILITY TO MAKE MEMBERS PAY

Also damaging to the finances was customer non-payment of bills. The company eliminated this problem using credit-checks--a lesson for future car sharing operations.

MARKETING FAILURE

STAR did not mount an adequate marketing effort. Moreover, the poor state of its fleet of used vehicles probably hurt the company's image. Given higher levels of demand for each vehicle, the operation could have achieved fleet economies of scale. Although there seemed to be no increase in profitability with increasing size over the range of membership size observed, a targeted marketing campaign may have attracted a higher percentage of active users. In addition, the start-up bogged down due to the insurance industry's hesitation to cover the unfamiliar service.

CAR PURCHASING MISTAKES

STAR bought too many vehicles up-front and burdened itself with too many larger vehicles and not enough smaller vehicles.

THE TIME PATTERN OF MEMBERS' DEMAND

The ratio of weekend to weekday rentals improved from 1.41 to 1.11 after a per mile surcharge (what was it) was instituted.

LABOR COSTS

Staff costs reported are understated, because the owner donated much management time to the operation. Rent included office space, parking spaces, gasoline pumps, and car washing equipment.

INSURANCE

Rates were based on 11% of gross rental receipts exempting all short-term rentals and membership fees. The insurer apparently did not expect a significant percentage of short-term rentals. Meaning, that the insurance business, like the traditional auto-rental business, did not expect there to be a short-term rental market.

CONCLUSION

The failure of STAR serves as a warning. The project failed despite its ideal site and demographics. It was well-served by public transportation. It also had significant financial advantages: "However, with a different (higher) pricing structure, rigorous credit checking, a higher utilization rate, and a dependable vehicle fleet, it is possible that a STAR-type operation could succeed financially at another site."

The S.T.A.R. evaluation can be borrowed from Tom Davis at CarShare Cascadia.

Cochran, Jeffery, and Sparrow, F. T., "Optimal Management of a Shared Fleet with Peak Demands," Applications of Management Science, Vol. 4., 1985, pp. 81-105.

The article shows how shared car demand is to be met. It provides a procedure for start-up organizations to estimate potential fleet operation and management costs for a car sharing program. It introduces the peak-period fleet use pricing.

Moreover, the consumer cost of sharing is compared to the cost of owning and operating a personal car. The article concludes that under most circumstances the savings that result are so substantial that they will offset the inconvenience of having to obtain a share vehicle when one is needed.

"cOgO," Mobility Partners/Access

A mobility sharing enterprise recently started in San Francisco. The founders seem to be taking an entrepreneurial approach similar to that of the successful Conrad Wagner's ATG in Switzerland.

Their first offering is the "intercity Rideshare information Service (iRiS)" a pc-based rideshare board based on the

concept borrowed from college campuses. People use advertising space on the electronic board, for someone else to come along who is going to the same destination. The iRiS operates as a "ride match" system. Significantly for the Northwest, iRiS will soon be available in Seattle as well as San Francisco. According to the article, the founders, Joseph Willemsen and Paul Fleming hope to have the program "running in other urban areas in the near future," in order to create a seamless service for users traveling the northern West Coast.

For the longer range, Willemsen and Fleming are also developing the cOgO car sharing club, modeled after StattAuto. The cOgO club will have cars, trucks, and vans. Like Conrad Wagner's ATG operation in Switzerland, cOgO is an entrepreneurial venture aimed at providing an affordable, ecological means of travel.

For more information on cOgO, contact Joseph Willemsen or Paul Fleming; 55 New Montgomery, Suite 524; San Francisco, CA 94105; Phone (415) 777-COGO; Fax (415) 896-COGO; Email jwillems@well.com

Co-operative Auto Network (CAN), "Executive Summary," Vancouver, B.C., January 31 (draft)

This is the mission statement and summary of activities of the car co-op start-up in Vancouver, B.C. The contact here is Tracey Axelsson: "info@fraserbasin.bc.ca".

Cornelius, Jim, Agricultural Extension Economist, OSU--March 1996 phone interview Cornelius, Jim, Agricultural Extension Economist, OSU--March 1996 phone interview

Jim Cornelius had a lot of information to offer regarding cooperatives in Oregon.

In his experience, the success of a co-op was related to the amount of time and effort the organizers put in up front.

A problem with democratic decision making in business is that votes usually settle around the norm rather than what is most effective.

He believed that the same objectives of a co-op organization can be achieved short of formal incorporation.

He felt that the major practical advantage to the co-op form were financial advantages.

He had much information to send about co-ops, *including an existing tractor sharing co-op in the Willamette Valley*, a very similar concept to a car sharing co-op.

Cotterill, Ronald, Consumer Food Cooperatives, Interstate Printers & Publishers, Inc., Danville, Illinois 1982., p. 175-252.

This book includes several chapter that outline the process for incorporation of a cooperative. It also gives an in-depth

examination of the financial advantages and disadvantages of being a cooperative.

Demographic Trends of Northwest Portland, 1940 - 1990, Portland Bureau of Planning, October 1995.

U.S. Census Bureau data.

"The Eugene Car Co-op," RAIN, Summer 1994, Volume 14, Number 4, p. 6.

A founder of the Eugene Car Co-op relays the experiences and lessons for starting up a viable cooperative organization. The article advertises the Carsharing Start-up Kit, produced from the Eugene group. Their recommended start-up program is quite comprehensive--a role model or sounding board for efforts in other cities. Lessons from the RAIN article:

1. Find a small group of committed people to make initial start-up decisions
2. Gather all the available information and make contacts with other groups
3. Be prepared to work patiently at least 6-12 months before start-up
4. Have the details of rates, insurance, members, contracts before buying cars.
5. Verify that potential members are good credit risks.
6. Get donation funding or used cars to save money.

7. Include bus passes, transit discounts, and bike sharing in member benefits.
8. Connect with local pedestrian, bicycling, and transit advocacy groups.
9. Register the name of your organization with the Secretary of State ASAP.
10. Car sharing can start simply with a few people, a car, and an ans. machine.
11. Use the Eugene Carsharing Start-up Kit as a tool for starting an car sharing club.

The Eugene Car Co-op address in 1994 was Eugene Car Co-op; PO Box 30092, Eugene, Oregon 976403, USA or call (503) 345-2708.

Eugene Car Co-op Start-up Kit, Eugene Car Co-op, 1994.

The Start-up Kit is an excellent example of the details that an Oregon Car Co-op must go through to mobilize. The Eugene Car Co-op offers their incorporation process, Articles of Incorporation, Bylaws, and membership agreement for review. They spent months creating these documents for their co-op. It is highly recommended that a start-up in Oregon purchase the Kit from Eugene--it is well worth the money.

European Carsharing Society (ECS) Constitution

The ECS car sharing umbrella association coordinates, assists, and protects from outside parties the car sharing clubs of Europe. Its goal is to promote car sharing as a substitute for ownership and a supplement to transit and other ecological forms of travel. Greg Bryant and Daniel Janes of the Eugene Car Co-op are attempting to solicit membership in a North American version of the ECS, called the North American Car Sharing Association (NACSA).

"European Towncar Cooperatives on Rise," Public Innovations Abroad, December 1995, Vol. 19 #12.

A recent article describing the car sharing movement in Europe. The article is short but it is significant because it is a respected publication read by many transportation engineers and planners in the United States.

"European Transport Forum: Rethinking Roadspace," Surveyor, September 21, 1995, p. 21.

Another general introductory article.

Fink, Patti, planner, Tri-Met, January 1996 meeting

In February 1996 Karen Howard and Tom McGuire hosted a get-together between Carshare Cascadia and Patti Fink, the planner at Tri-Met who is responsible for many rideshare-

type programs. Patti would be the person at Tri-Met with whom a start-up would work in establishing station cars at Tri-Met stations. Although "money is out of the question," she was very open to the concept of collaborating with a well-run car sharing operation.

Patti also wanted to become a member if it were convenient in her neighborhood.

Fischer, Chuck, Salem Rideshare Coordinator, internet correspondence, March 1996.

Salem Rideshare encourages the use of alternative transportation modes in the Willamette Valley and coordinates programs with Cherriots, the Salem area public transit provider. Mr. Fischer had worked with some of the car sharing members in Eugene and is interested in collaborating with the movement as it develops in the Willamette Valley.

From Short-Term Leasing to Car Sharing: Results from the Market Study, AutoCom, 1991.

The information for this summary comes from a draft survey report of the fledgling CommunAuto group of Quebec City, Canada.

The CommunAuto marketing strategy thus far seems sound.

First, target a neighborhood that exhibits characteristics known to contribute to greater membership elsewhere. The basic ingredients include high density, auto congestion, parking congestion, great transit service, and pedestrian-oriented urban design. In Quebec, by focusing its efforts on one or two contiguous, densely-populated neighborhoods, CommunAuto got a maximum number of potential members living within walking distance of dedicated CommunAuto vehicles. Moreover, it does not hurt if the neighborhood has a progressive--it need not be avante garde--"alternative culture". Such a neighborhood could have a higher concentration of college students, singles, idealists, professionals, environmentalists, artists, bohemians, and other dangerous persona.

Second, survey residents in the targeted neighborhood to gauge market demand for a car sharing operation. CommunAuto did so, was able to estimate overall demand from the results, and then to target demographic groups in the neighborhood that were most disposed toward adopting.

And what kind of person seems most likely to join, according to the CommunAuto survey? The following is a summary of market survey results from the Quebec neighborhood.

Methods Summary:

The survey made various hypotheses about different age, income, and household characteristics, and tested the statistical significance of these variables in the response individual to the opportunity to become a car sharer. Respondents fell into four categories: immediate adopters,

potential adopters (would consider adopting within 12 months of a start-up), eventual adopters (would consider adopting within 24 months), and non-adopters.

Results Summary:

Only 8% of the respondents claimed that they would be willing to join at the beginning of the operations (immediate adopters). About 16% of the respondents were potential adopters, while 20% of the respondents were eventual adopters. Therefore, a total of 36% of the respondents in the Quebec neighborhood responded that they would be adopters of the service within two years of a start-up. Half said that the likelihood of adopting would increase in the long term as their income grew or because of coming changes in their car ownership situation.

Results of the survey:

For a summary of the interesting findings of the Quebec City Survey, turn to the case study treatment in Part I: Ignition Guide, Chapter 2; Pages 29 and 30.

Gunn, Christopher and Hazel, Reclaiming Capital: Democratic Initiatives and Community Development, Cornell University Press, 1991, pp. 99 - 105.

A short section in this book describes the state of the cooperative movement in the United States and the potential for cooperatives to satisfy local needs.

Honigsberg, Peter J., et. al., We Own It: Starting and Managing Cooperatives, Bell Springs Publishing, 1991.

This handbook will help you through all of the aspects of starting a cooperative. It is very candid about the strengths and weaknesses of cooperatives.

Janes, Danielle, President of Eugene Car Co-op-- February 1996 written questionnaire answers

Danielle Janes actually answered in writing a four-page questionnaire sent by CarShare Cascadia. Her equally long replies are at least as interesting and informative as anything else in the Car Sharer's Companion. Below is the full written questionnaire; Danielle Jane's answers are in italics:

A. Car Co-op Organization

1. We are duly impressed by your Articles of Incorporation, Bylaws, and Membership Application & Agreement. How much time did this effort take?

Danielle: The articles of incorporation, bylaws and membership application and agreement took several months. It is a little difficult to separate the creation of these items with all the other decisions that were being made at the time. I would recommend going to a lawyer that is friendly with other environmental groups and getting him/her to review cooperative corporate procedures with your potential board of directors. This will cut down on leaning time. It costs around \$160 to incorporate via a lawyer here in Eugene.

2. We are interested in your land use-transportation approach in seeking a zoning exemption in the draft ordinance. Could you describe this exemption for us?

Danielle: *If a developer of apartments wants to not build parking and have his/her tenants not own cars. They will be able to just have an agreement for that purpose, like the no pets policy.*

3. How did you make choices regarding the size of your enterprise? How about fleet composition and maintenance?

Danielle: *The founder of the original car sharing business in Europe, StattAuto Berlin, recommends at least starting with two cars for a neighborhood car sharing station. The size of the fleet will be a main thing to manage and control. Aim for the cars being used about 50% of each day. Fleets should be composed of primarily compacts, according to what I've read in Europe and STAR in San Francisco. Maintenance is done by an outside mechanic, following the maintenance schedules recommended by the manufacturer.*

4. What choices did the cooperative make regarding membership qualifications? What is the procedure to verify that potential members are good credit risks? Should applicant screening include driver's records?

Danielle: *Members must have a clean driving record with that definition being set by what qualifies for the lowest rates with the insurance. STAR recommended verifying*

credit worthiness, but StattAuto has 2,800 members and they are just going to start checking.

5. What decision making process did you follow in considering whether or not to offer membership to auto owners? What (dis)advantage is there in allowing members in two-or-more-person households that owned one auto? Is that a market worth exploring? Would inclusion increase or decrease overall auto or transit usage in the community?

Danielle: *We decided people did not have to give up their cars, but that it would happen naturally. No one wants to unnecessarily pay for both car sharing and a personal car. Carsharing reduces car use tremendously.*

6. How do you avoid crime against vehicles and members? If theft, vandalism, or personal attacks become a problem, how can the organization minimize the damages and costs and maximize safety?

Danielle: *Crime is higher in the U.S., so we plan to use any anti-theft devices or practices that we can afford. Having a participant that lives nearby, helps keep an eye on the cars. Probably the most important device is a computer access control with a magnetic card to get to the car keys (like in StattAuto). Another product I've looked into includes car locks that requires a password.*

7. How would you like to see the relationship between your organization and other car sharing organizations evolve? How important is vitality of the car sharing organizations to one another? Would you be willing to attend a regional

pow-wow? Cooperate on a network of communications with the existing car sharing organizations? Contribute to an electronic clearinghouse?

Danielle: *We are in the process of soliciting member groups to join the North American Carsharing Association (NACSA). Member groups agree to the same rules as the European Carsharing organization (ECS). Perhaps if you are interested, we could split the cost of getting the StattAuto Start-Up Program over to the Western U.S. One of the founders of StattAuto, Carsten Petersen, is very interested in coming to Oregon. Their Start-Up education narrows the learning mistakes of reinventing the wheel from 3 years to 3 months. They have helped so many successfully start in Germany and Austria that they have their educational process down to a science. They offer the computer software, 100 formulas and the training for a set price, plus we'd pay for the airfare and housing. I believe that to be able to handle Portland's incredibly large potential market, to be able to handle the rapid growth, you will need to have the car movements computerized quite quickly. Before we bring Carsten over, I would like to have all of his training material & software translated into English.*

B. Car Sharing Price Competitiveness

1. From the perspective of potential car sharing members, how does the car sharing organization compete with used car ownership, car leasing, and car rentals? Is anyone aware of any available American price comparison study?

Danielle: No, I don't know of useful price comparison studies in the U.S. Our informal study of this is not in any one location. The prices the Board of Directors settled on were quieted unscientific with many wishes based on the Board being users rather than actual needs of the business. A good way to determine pricing is to figure out how much per mile a car costs to run. It differs depending on gas consumption, car age, car mode., etc.

C. Insurance

1. How does a car cooperative overcome the hurdles of insurance when the roster of drivers is so long and unpredictable? Did you use a fleet insurance broker to direct you to insurers that have specialty insurance for fleets?

Danielle: The members of car sharing groups stay with them for years. There is the option of getting normal car rental insurance rates, until we can convince insurers that we are just like the European groups. The power of the North American Carsharing Association will make such a contract more easily attained. We will need to show that like Europe, car sharers in the U.S. will be less prone to create intentional accidents. With Hertz or Avis this

happens a lot. Car sharing members like the idealism of what car sharing businesses are doing. They have an emotional or financial investment in the business that causes them to be careful with the cars. We tried two different kinds of insurance groups (via Ward Insurance) and personal with all the names on the car through Farmers Insurance. Quebec's Auto-Com has an agreement with a local insurer that allows them to pay per km actually used which seems very cost-effective. They are not allowed to do this in Europe.

2. What decision making process that went into the cooperative's choice to cover personal liability but not vehicle loss or damage? Is there a risk in depending on members to come up with the money to cover vehicle damages?

Danielle: The decision of taking out personal liability on the cars, but not vehicle loss was based on using ancient cars that were not worth insuring. I would not recommend using such old cars. You will get more members, more people giving up their personal cars, if you have newer, efficient cars.

3. In San Francisco, STAR's insurer skimmed 11% of its net income. Is this viable today?

Danielle: German insurers now allow StattAuto to just pick up member's individual insurance, which is much cheaper than what STAR had, I believe.

4. Is there a cooperative bank or insurance organization that would smile upon a car sharing program?

Danielle: *Some day when we can prove to them that it works. I pursued the cooperative insurance search, but no one could point me to one. I would not waste any more time on this at the moment.*

5. When the car sharing organization allows members to own co-op scheduled vehicles, do insurance companies cringe? What are the mechanics of this kind of arrangement where a co-op member lends his or her vehicle to the pool?

Danielle: *There is only so much that insurers understand about car sharing. Right now, it frightens them. I am inclined to go with the expensive car rental insurance and business-owned cars. We put together some legal contracts for the non-business owned cars in the Eugene Car Co-op Start-up Kit.*

D. Fleet Management

1. Is there a procedure to estimate potential fleet operation and management costs for a car sharing program? To calculate how many vehicles should be owned for a given demand? How much overflow demand is expected? What revenue flow results? How do you estimate demand when determining optimum fleet size? How do you optimize the fleet size for a given level of demand? What percentage of requests are you willing to refuse because of vehicle unavailability? 1 of 20? 1 of 10? When do you think you will begin to lose customers? What do you think of the

equation from PAYDC in Britain: "As an example, for a scheme with five cars, 17 people can be supported if there is a .25 probability that they will use the car during the peak demand period and can accept a success rate of 9:10. Alternatively, at a higher price, 14 people can be supported--as above--by five cars, with a success rate of 19:20." Do you have a computerized reservations system? How many hours of the week must reservations be staffed? What size staff do you estimate per, say .100 car sharing members (around 10 cars)?

Danielle: *We would benefit greatly and not make so many heart-wrenching mistakes if we got StattAuto's management of fleet software, set of formulas, and training.*

2. A used-vehicle acquisition strategy contributed to the demise of STAR in San Francisco. Do you believe that such a strategy is more viable today?

Danielle: *I though STAR stopped because they bought too many cars outright instead of gradually growing. New cars are easiest to manage but it is a question of whether one has that kind of start-up capital.*

3. What models or price strategies did you follow to adopt to this pricing structure? Describe the process by which you came up with the fee of \$250 (\$200 of which is refundable when leaving the co-op) plus \$15 for insurance, group-discount bus passes, and the use of utility bikes. On what basis did you charge usage fees of \$0.50 per hour/\$0.15 per mile? Why a full-day rate of \$15 + \$0.15 per mile? Did you consider a weekend surcharge?

Danielle: *StattAuto balances high weekend use by members by having business like bakeries, architects, etc., join at a corporate rate. This is 20% less than the normal price and allows the to use the cars only between Monday morning and Friday afternoon. Our prices were based on how much it would cost and how to make sure the cars were returned to the stations. I would also have lower morning rates and higher afternoon rates to balance high demand in the afternoon.*

4. Are your memberships per household or per person? What went into your decision as to whether couples could share a single membership?

Danielle: *Memberships are per person.*

E. Market Demographics

1. Have you done a market survey? What category of people are typically most attracted to this type of service? Would you be willing to pool resources with a viable Portland start-up in survey design?

Danielle: *We have a simple survey, but we never used it. The market will be at first young, idealistic, well-educated people who have access to good public transit for getting to work, to the store, to recreation. I don't know Downtown Portland that well, but it strikes me as a perfect location to start. European car sharers have tried targeting suburbia, but it never seems to work.*

2. What service(s) would be most attractive to potential members?

Danielle: *Concentrate on making car using functions smoothly. Then build the number of stations you have. While you can say you will make arrangements for inter-city car sharing, paying for taxis and trains with a mobility card, workbikes, discounted bus passes--focus on getting the car using to work before all else. I wish someone had told me that before I wasted my time getting all the transportation info for members and finding out about the other possibilities.*

3. What is the best method for getting people to join the enterprise word of mouth, media advertisement, or an appropriate combination?

Danielle: *If you are starting with only a couple of people handling the majority of the start-up and development tasks, be careful about giving too much time to the national media. It is very exciting but it does not help you get more members. Just ignore them or say you aren't available for interviews. You need to focus on the local media, talking with other environmental groups. Announce a bi-weekly time for people to sign up after they have received you initial info via the mail. an answering machine e can take those requests. Seeing the cars actually being used in the neighborhood instead of personal cars, is a big advertisement! A strategy that StattAuto is using is to offer at big eco-conferences that people can test the car sharing for 30 days without having to pay the entrance fee. Greenpeace sponsored a campaign for them at the Global*

Climate conference in Berlin. It is nice to get the new testers all at once so you can get the extra cars all at once.

4. Is there any indication that car sharers might use co-op cars differently in America than in Europe? A greater proportion of weekend use?

Danielle: Probably in big cities with good public transit the use will be the same. There may be a longer learning curve if the members have had high property rights to cars in the past (lower if they've haven't had a car or shared one with other people). I imagine our theft rate is going to be higher. In terms of weekend usage being higher or lower will depend on what access the public transit system provides to recreation al events or areas.

F. Cooperatives

1. What institutional and legal factors impede or aid car cooperatives?

Danielle: Too many people making decisions can impede growth. managers should be given major decision making power with oversight by a monthly board or annual members meeting.

2. What kind of assistance do you recommend getting to write the precise language of your Articles of Incorporation and Bylaws? Did you research Oregon general cooperative law?

Danielle: We researched the Oregon General Cooperative Law and read books on incorporating in Oregon and the U.S.

3. How do federal and state tax code recognize non-profit car cooperatives as different from investor-owned profit corporations? Did the Eugene Co-op get non-profit, non-tax paying status?

Danielle: Unknown, we are not a non-profit though the board of directors is unpaid and upholds the aim of reducing car use and perpetuating car sharing vs. personal car use. No one with the Eugene Car Co-op is going to make a profit over and above the salaries of employees and the reinvestment in more car sharing cars.

4. How do you plan to pay for the automobiles? Have you had any defining experiences with lending institutions? Do you apply for grants or government funding?

Danielle: StattAuto is a green bank. They get funds from members in exchange for giving them interest (around 4%, though interest rates are lower over there). Initially they got bank loans at much higher percentage, 11%. obviously, member financing is easier on their cash flow. I believe the long process for attaining tax-exempt non-profit status (around a year long process) and the low numbers of grants available when you do get it, make this a less viable form of incorporation.

5. Have you asked for any technical or financial assistance from the National Cooperative Bank or a cooperative federation?

Danielle: *No.*

6. What kind of mechanism do you have to guarantee that a portion of your net income be dedicated to long-term capital reinvestment? Where does net income go? Is it apportioned somehow among members?

Danielle: *Income would go for buying more car share cars after reaching 50% use of available ones, workbikes, computer upgrades. No, profits are not apportioned among members like REI's cooperatives.*

7. Do cooperatives -- especially automobile sharing co-ops -- fit Americans? How, in your experience, can a start-up avoid conflicts among start-up members? What are common problems with car sharing members? Americans supposedly have individual habits related to cars that will not be acceptable to group consensus. Do you see this as a problem?

Danielle: *Conflict cannot be entirely avoided, but the frustrations with it can be reduced by having only a couple of people involved in making decisions. These accomplishments are then brought to a larger Board of Directors monthly. Only ask larger groups really specific questions about direction like pricing changes or for example StattAuto in 1995 asked the members to approve making an organically-grown, local grocery delivery*

service a part of membership benefits They don't attempt consensus, make it an election to make decisions in large groups. I have had very negative experiences with the Greens (political /environmental group) when the whole group is subjected to long, drawn out meetings where nothing is decided on or accomplished due to the consensus process. It only works well if you are not trying to accomplish fast paced things like businesses that have to compete and survive in the real world transportation situation.

9. Is it possible to be a combination worker AND consumer cooperative? Are employees of the cooperative also car sharing members? What is the envisioned relationship between members and staff?

Danielle: *It seems that employees should be members.*

Jarvis, Holly, General Manager, Food Front--March 1996 interview.

The interview with the Manager at Food Front was a structured interview, built around a set of questions given to her several days before.

The following is a copy of the questionnaire that we created for co-op managers. The questionnaire was used in two interviews, Holly at Food Front and Tim Calvert at

Laughing Horse Bookstore. Below is the questions and answers from our interview with Holly.

TO: Holly Jarvis, General Manager at Food Front

FROM: Graham Clark and Tom Davis, PSU graduate students

Thank you for agreeing to meet on Thursday at 1:30. Over leaf you will find information on car co-ops. We have so many co-op questions! These revolve around the pragmatics of organizational structure:

1. We are interested in how Food Front became successful. How long have you been in operation, and how long did it take you to get established?

We have been around since the 1970's. I came here four years ago.

2. Is Portland a good city in which to do business? What are is the local climate for co-ops regarding financing, community support, laws, etc.?

Jarvis: *The National Co-op bank is the only way to get a co-op loan: "It is the only game there is." However, Food Front has had trouble with the Co-op Bank. "It is too far away. It does offer competitive financing. It is best to do loans locally. Local banks deal with housing co-ops. However, the local banks want one person to sign off on the line. Co-ops cannot do that, so the co-op is an odd entity to the local banks. First Interstate Bank gives loans to Co-ops.*

3. How did you arrive at the cooperative form of organization? What other models for organization were there available for consideration?

4. Is cooperative corporate structure always the pragmatic business choice? Are there general advantages and disadvantages of non-profit co-ops in:

Efficiency and flexibility in decision making
Professional, high-quality customer service
Aggressive innovation and Expansion into new

markets

Financing and Capital Re-investment

It takes two years for us to make decisions to grow. Therefore, we have slow responses to market forces. There are the little factions and interest groups that you see in any democracy: the anti-meat people here the anti-sugar people there. . . they have very strong beliefs.

The co-op structure allows co-ops to help each other out. We are helping someone in Northeast Portland start up a new food co-op.

5. What are the greatest strengths of Food Front, being a cooperative?

Your customers that are members are very loyal for the long-term. They give a flow of capital contribution.

6. Do you know of OR laws, specifically, that impede cooperatives? What other institutional and legal factors?

Oregon laws are not unusual barriers to cooperatives. Lending and insurance institutions can be.

7. How, in your experience, can a start-up avoid conflicts among founding members? What are common problems with members? Americans are supposedly too individualistic for consensus. Has this been a problem?

We are finally changing our mission statement. There has been lots of divisiveness between old and new members. New members here are often seen as outsiders.

There are also conflicts with non-owner workers. The employees have just unionized because they are underpaid. The co-op decision structure takes too long to raise the wages. The employees just got tired of waiting. I don't blame them. Not all co-ops are that bad, though.

8. Who is in control? Do members vote on policy? How much power should be given to whom? How should a consumer co-op be different?

We decide by simple majority decisions. However, keep a small core group in your cooperative with the most decision making power. Do not use consensus, because it will make the process too hard. Give members a say on specific things, such as the type of cars. Do not get into the can of worms of broad, general policy questions.

The board members must be a strong group. Many have never been in business, retail, or have been employees. Have a nominating committee nominate management staff.

9. Can employees and consumers share membership of a cooperative?

There are consumer-owned co-ops and there are worker-owned co-ops. Each are formed for a different purpose.

10. Can cooperatives be tax exempt non-profits?

Holly had never heard of a tax-exempt, nonprofit co-op.

Lastly, how has the co-op structure served your social-ecological ideals?

Ten years ago I would have said yes, that co-ops are the best way to achieve social goals. However, today there are natural food stores that are non-co-ops that have just wonderful goals that put many food co-ops to shame.

So it is not the co-op structure itself that leads to ecological principles. There is a co-op in New Hampshire that had no social goals. It members' needs were the driving force.

The consumer owned cooperative does not necessarily treat its workers more fairly.

You might consider an alternative business that still gives ownership to members who pay annual fees, but make it an association--like a condo association--where the business makes most of the decisions, but still gives members a say on some things, like the cars.

Kelley Blue Book Auto Market Report: Official Guide to 1989-1995 Used Car Values, Sept-Oct 1995, NW Edition.

Kelley Blue Book 1996 New Car Guide, Sixth Edition.

Kemmis, Daniel, Community and the Politics of Place, University of Oklahoma Press, 1990, pp. 84 - 107.

Chapter 7, "Reclaiming the Marketplace," has been very influential on this project. The chapter establishes the importance of locally based industries serving unique local needs. It highlights several wood-chip burning and clean-burning stove cooperative efforts in Missoula, Montana.

Lawson, Catherine, PSU fleet operations organizer-- February 1996 interview.

Catherine, a former member of a utopian-style educational cooperative, suggested that we take a more entrepreneurial approach. Co-op members have the tendency to fight among themselves.

LaFond, Michael, "Cooperative Transport: Berlin's StattAuto (Instead of Cars)," RAIN, Summer 1994, Volume XIV, Number 4, pp 2 - 5.

This article can hook the reader on the idea, or, at the very least, pique one's interest. Its account of the German car sharing clubs StattAuto explains the origin of the Germans' program, their current services, and how these services are a step toward their social, economical, and ecological ideals.

Leslie, Fishman, and Wabe, Stuart, "Restructuring the Form of Car Ownership: A Proposed Solution to the Problem of the Motor Car in the United Kingdom," July 1969.

This is the theoretical, twenty page origin of the car sharing idea. An Englishman professor proposed the idea, which was not successfully implemented until nearly twenty years later.

The original societal arguments for car sharing appear in this 25 page long article. A good study of the history and theory behind car sharing. Ask for it from Tom Davis of CarShare Cascadia.

LUTRAQ: Making the Land Use-Transportation Air Quality Connection, Volume 6: Implementation, report by 1000 Friends of Oregon, October 1995.

1000 Friends outlines seven important physical characteristics of pedestrian-friendly neighborhoods.

McCarty, Patrick, "The Shared Vehicle Fleet: A Study of its Impact Upon Accessibility and Vehicle Ownership," Journal of Transportation Economics and Policy

This article provides an example of a survey that explored the relationship between demographic characteristics and the number and type of personal vehicles owned. The survey excluded from its sample household that did not own vehicles. Moreover, the mix of vehicles on the market have changed since the survey was conducted, and the travel behavior patterns of households have evolved as well. This survey might perform as a model, and provides numerous statistical equations that reveal its methodology.

Their results were often very different from the results of the Autocom survey in Quebec.

Dr. Mildner, Gerry, Portland State University--February 1996 interview

Gerry Mildner, an urban economics professor, helped CarShare Cascadia estimate the costs of renting and leasing as opposed to owning a car. He also checked our basic methods of cost comparison analysis.

Gerry does not own his own car. He buses most days and then rents cars occasionally. He estimates that he saves \$1,500 or more each year.

"New Statistics Feed Parking Permit Debate," The Northwest Examiner, February 1996, p. 1.

Residents of Northwest Portland believe that parking is their number one problem.

"Oregon and Southwest Washington 1994 Activity and Travel Behavior Survey", Metro Service District, April 1996.

The Metropolitan Service District has taken a behavioral approach to regional transportation management.

The method used was a trip diary, that collected all activities performed, as well as trips taken, during a given two-day period. The information collected included the origin and destination locations of all trips, departure and arrival times, types of activities and purposes associated with each trip, the type of transportation uses, parking costs if any, and more.... Total completed households: 4,451.

The survey lays out household travel behavior for a range of demographic groups. Surveyed times include household characteristics such as size, income, number of vehicles, number of employed members, and demographic individual person characteristics.

Just available in March, *the survey results are an excellent resource for being able to understand consumer travel behavior..*

Portland Police Bureau Planning Division: 1995 Crime Statistics.

According to the crime statistics offered by the bureau, auto theft, vandalism, and theft from autos is worst in certain Southeast Portland neighborhoods. Northeast Portland had the second highest incidence, while Northwest Portland was third.

Potter, Bill, Metro Property Resources Management Director, January 1996 interview.

In Bill Potter's fleet management experiences in both the public and private sector, the first step in purchasing a fleet of vehicle is to create a specification of the certain kind of vehicle, depending on the type of use market that one will target, a certain size, gas mileage, emissions, etc. Then one narrows down to certain makes and models depending on deals and comparisons of models.

On the government side, state and local agencies are bound by state regulations regarding purchasing. Federal, General Service Administration purchases through a bidding process. On the private side, buying power comes with size. The fleet owner specifies the type and number of vehicles it wants, and then buys from the lowest bidder. Such fleet owners purchase around 200 vehicles per year. Smaller operators that perhaps want 10 to 15 cars generally call fleet sales services. Mr. Porter mentioned that, locally, Damerall Ford has fleet sales people.

Regarding the optimum fleet size for a given demand, Mr. Potter said that a mathematical demand function was too scientific in the practical world. Most fleets evolve, he said, by checking the mileage per vehicle, and making small incremental changes in pricing and fleet mix and size as the operation grows and changes. Generally, he said, the break-even mileage for a fleet vehicle is 1,100 miles per month.

Regarding maintenance, Bill Potter said that there are fleet maintenance companies "out there".

Metro's fleet is funded through general support services funds. Metro departments are allocated a portion of the costs according to the amount of use by that department in the previous year. General support services keep track of the users to reapportion every new fiscal year based on the previous year's usage. Users call the security desk, pick up keys at the security desk, return a "trip slip" that shows mileage traveled and condition of the vehicle, among other things.

Bill Potter said that a lease vehicle provider would be good for a year analysis of costs. The real alternative for a fleet service to owning its own vehicles would be to lease vehicles. Rental companies have this service. The attractiveness of the lease alternative changes greatly for tax exempt organizations. Tax exemption changes the formula dramatically. Metro is exempt and keeps its own vehicles. PSU, which rents or leases (which is it?) has not done a comparative analysis, according to Catherine Lawson. Companies can deduct lease or deduct depreciation from

their taxes. Depreciation is just writing off the value of the vehicle. In the private sector, there is a tax advantage in leasing. If you buy a car and then replace them, you include a capital replacement fund in the monthly expenses. A capital replacement fund maybe compounds interest on top of a monthly infusion of, say, \$500 for a two year replacement cycle on a \$15,000 dollar car.

Bill Potter felt that the greatest hurdle for an American cooperative would be the individuality of our society. He mentioned that each person is so different here, and has individual habits that will not be acceptable to group consensus. He mentioned smoking as an example: "All right, who has been smoking in the automobiles?!"

Progressive Insurance quote service --February 1996 phone interview.

Here is an example of questions that insurers will ask:

Is there a member charge? Just anyone can be a member?

Where should the cars be parked?

What kind of person--why would I want to do this?

The list of drivers is too broad, so you do not fit into any program. We need to know drivers . . . turnover could be tremendous.

We need to have a set list of drivers and their characteristics.

"Quartet starting network to pool cars, costs," Vancouver Sun, February 2, 1996.

A short introduction to the Canadian Auto Network group

"Resources," RAIN, Summer 1994, Volume XIV, Number 4, p. 7.

A 1994 list of names, mailing and Email addresses of information sources and existing cooperatives around the world. Europe, particularly Germany, Switzerland, and Austria have many local cooperative addresses. The United States has few. One excellent contact in Portland is Richard Katzev, who is researching cooperative transport.

The list is nearly two years old, and could be expanded in 1996 to include the fledgling mobility sharing efforts in San Francisco, Portland, Seattle, Olympia, and Vancouver, B.C.

"Rethinking Roadspace," Surveyor, September 21, 1995, p. 21.

This is article, reporting from a 1995 European conference, provides an update on car sharing efforts in Denmark, Britain, and Germany. It also gives a way to calculate fleet size needs for an estimated level of demand

**Robert, Benoit, AutoCom and CommunAuto founder--
January 1996 letter correspondence.**

Benoit had a number of important things to say about taking care to choose the right corporate form. He also expressed the amount of work it takes to start a small business. His comments are printed as case studies in Chapters One and Two of the Ignition Guide section of this handbook.

**"Self-drive Mini Hire-cars Proposed for Amsterdam,"
Transportation 2 (1973, p. 97-102**

A description of the Witkar (whitecar) cooperative in Denmark during the early 1970's. Notable characteristics of the cooperative:

--It evolved from a white bicycle program, a forefather of Portland, Oregon's Yellow Bikes Program.

--It relied on advanced alternative technology and specially-built vehicles, as well as large government loans. Because of this, the program serves as an early example and as the proverbial overturned cart in the road--an example of what not to do, at least in the early years.

"Self-Service Rent-A-Car," Popular Mechanics, October 1995, p. 24.

A short article reporting that Peugeot-Citroen car maker has proposed to station a fleet of electric 2-seat automobiles

throughout Paris. Members of the service would reserve their vehicles using remote control handsets. Between rides, vehicles' nickel-cadmium batteries would be automatically recharged at stations. The plan is to serve between 50,000 and 100,000 Parisians.

The article is a reminder that the improvements in the technologies of electric cars and advanced interactive communications are amenable to the creation of the shared vehicle concept.

**Sgt. Elmore, Detective on the Auto Theft Task Force,
Portland Police Bureau, --March 1996 phone interview.**

"There is nothing to prevent a thief," according to Sergeant Elmore, a detective on the Portland Police Bureau Automobile Theft Task Force. No alarm system, no club, and no lock-entry system can stop a determined thief from entering vehicle cabins or trunks, or from stealing the vehicle itself. Invest in high quality security systems for cars and bikes only as a deterrent, and not as a stand-alone cure.

The most cars are stolen where the most thieves live. Thieves also target regional centers such as Downtown, the Lloyd Center, and suburban malls because of the number of unattended parked vehicles filled with merchandise.

Choose attractive but unassuming vehicles. Criminals are attracted to certain cars. The Jeep Cherokee, for instance, is currently the trophy salmon of the crime world. Toyotas of

any model are targets. Fortunately, base hatchbacks like the Geo Metro and Honda Civic are not, according to the Police Bureau. However, *any* vehicle that calls attention to itself with bright colors, extra features, or visible articles, becomes a statistically more likely target. Store vehicle accessories such as tools out of view and remind members to keep valuables out of a temporarily parked co-op car.

Anti-theft devices, without the above strategies, are no cure. There is nothing to prevent a thief. No alarm system, no club, and no lock-entry system can stop a determined thief from entering vehicle cabins or trunks, or from stealing the vehicle itself. Invest in high quality security systems for cars and bikes only as a deterrent, and not as a stand-alone cure.

Focus car sharing in neighborhoods and districts with relatively low vehicle-related crime rates. Auto theft, theft from autos, vandalism, carjacking, robbery, and assault are frequent enough in Portland to potentially disrupt the financial stability and the reliability of your service. Visit the Police Bureau Planning department and ask for the annual reports on vehicle-related crime by neighborhood.

Station vehicles in high activity streets and monitored areas. After locating within relatively safe neighborhoods, station vehicles on streets with a consistently high volume and mix of activity. *Night clubs can be better neighbors than quiet houses.* Well-lit public streets with a high level of use and pedestrian traffic are generally safer for both cars and people than are quiet residential side streets. If possible, station fleet vehicles near the watchful eyes of "foster

parent" car sharing members who can adopt and informally monitor a vehicle.

Small Business Administration.

The U.S. Small Business Administration exists to provide technical assistance and loans to small businesses. The SBA does not have a reputation for giving loans very easily, especially not loans to cooperatives. However, they do provide two great resources for co-ops who can acknowledge the fact that they are in a business environment. The first is the Resource Directory for Small Business Management. The second includes a "business checklist" and development guide. Look for their local office telephone under the federal government section of the phone book.

Sohl, Kay, The Oregon Nonprofit Corporation Handbook, Technical Assistance for Community Services, Portland, Oregon, 1993.

This local handbook destroyed once and for all our illusions that tax exemption would be easy or desirable to obtain.

Sparrow, F. Thomas, et. al, "The Mobility Enterprise: Improving Auto Productivity," Automotive Transportation Center, Purdue University, January 1982.

Automotive Transportation Center is a research center and educator for social issues such as auto safety, transportation policies at state and federal levels, and informer for new projects. Here they introduce the "mobility enterprise," their catch-all phrase for any sort of group-owned set of mobility resources that increase the efficiency of automobile transportation. The article is very well researched and is full of arguments for the concepts as well as advice regarding the creation of a mobility enterprise. Many of the suggested questions for start-up organizations to ask are extremely pertinent today:

Sparrow, Thomas, "Purdue University urban Car Experiment," Automotive Transportation Center, Purdue University."

This project tested consumer acceptance of a shared vehicle concept called the Mobility Enterprise. A preliminary market potential survey was distributed randomly to 3000 respondents in a metropolitan region. Next, focus group interviews were conducted with interested respondents. Finally, Purdue conducted a pilot program and then surveyed trip diaries:

Cost and personal savings was considered most important by most respondents. Seek an effective user fee structure that capitalizes on the economic incentives to join a mobility enterprise

Cars should be carefully chosen for their appeal as well as their efficiency. In the 1980's, Purdue University's Mobility

Enterprise survey found that, few adopters of the experimental shared fleet service appreciated the small uniform fleet-type vehicle.

The Purdue focus groups identified the continuous shared fleet vehicle maintenance as the most universal point in favor of the mobility enterprise. In recruiting subjects for the Purdue experiment, the most common response of uninterested people is that they already own a car. Lack of convenience was the second major reason.

"The [Mobility Enterprise] shared-fleet concept was not well-received. Most groups felt that it impinged on their freedom of mobility, and tended to dwell on its negative aspects . . . An overwhelming consensus that automobiles are synonymous with personal mobility and freedom"

Ask CarShare Cascadia for a copy to borrow.

Switzerland Alternative Marketing Award committee, "A Plaque of Honor for Conrad Wagner, AutoTeilet Cooperative, Stans," Press Release, 1994.

Introduce yourself to the inspiring and instructive story of AutoTeilet Cooperative (ATG). The founder of ATG, Conrad Wagner, successfully combined his idealistic environmentalism with niche-market entrepreneurship. Wagner was driven by an idealistic "big idea," a social mission. In addition to connecting his business to social issues, he directed his service in the context of the larger

transportation system. The presenters of the Swiss Alternative Marketing Award lauded Wagner for his continued innovation and expansion of the idea of car sharing: growing cooperation with public transportation services, a demand-response telebus company, a growing variety of fleet vehicles available to members, and the continuous formation of new, convincing economical and social arguments in favor of car sharing.

ATG stands as an excellent model for new car cooperatives, especially in business-minded, entrepreneurial society such as the United States.

Copies of this document are available from CarShare Cascadia and Public Policy Research.

"Taming Traffic Troublespots", The Northwest Neighbor, March 22, 1996, p. 1.

More driving problems in Northwest Portland!

Taylor, Joshua--February 1996 interview.

Joshua was very interested in alternative fuel vehicles. Like, marijuana-fueled vehicles or something.

Tax-Exempt Status for Your Organization, Publication 557 of the Internal Revenue Service, U.S. Department of the Treasury, January 1995.

If you *still* believe that you can get tax exempt status, go to the Federal Building, and pick up this free publication.

"Transit Friendliness Map", Metro Service District Growth Management Dept., January 1995.

Graham Clark borrowed this from the Transportation Bureau wall. An ever-resourceful young planner.

Urban Studies and Planning Workshop 558, January 1996 focus group meeting

Fellow graduate students and also professors happen to match the demographics of people that have had a propensity to join car sharing programs. Here are common preconceptions from one particular group of people:

THE GROUP THOUGHT THAT NEW/USED CAR OWNERSHIP ARE BETTER DEALS
In Europe people pay the true social cost of driving.
America highly subsidizes auto travel.

Gas is cheaper in the U.S. and you only have to think about insurance twice a year. Owning a car is easier and cheaper here, minimizing the savings of joining a car cooperative.

The costs of maintaining an older car are lower here in the U.S. than they are in Europe. Europeans require higher standards for upkeep. In Oregon, there is no inspection and

a low renewal fee [?]. Therefore, used cars, along with rentals, are a greater source of competition to cooperatives in the U.S.

THE GROUP THOUGHT THAT CAR RENTALS WILL BE VERY COMPETITIVE

Rental cars in Europe are far more expensive than in the United States. Rental cars are much more price-competitive here. [On weekends especially?]

Any cost comparison analysis to determine co-op feasibility should not only compare co-op to ownership costs, but co-op car costs and rental car prices.

You can rent a car for 15 dollars a day and then add per mile charges.

U-Haul gives you an array of different vehicle types for hauling.

INSURANCE WILL BE A PROBLEM

Americans like to sue more than Europeans do. I am wondering who would be liable in an accident: the member or just the cooperative?

THERE ARE MARKET OPPORTUNITIES

Socially responsible businesses who would be interested during the low-demand weekdays.

This would be a good way for Food Front types to be able to drive without owning a car.

Personal beliefs are a major factor in the beginning. This would be a good way for Food Front types who don't want to own a car to be able to use a car.

There is a small segment of the population like me who would join a cooperative rather than rent a car. People who get a good feeling from giving to a shared community reinvestment rather than to corporate profit.

This would be a good way for two-car families to own just one car.

I personally would want to know if membership is per individual or per household couple. (--fellow with fiance)

PROBLEMS WITH AMERICANS . . .

There is the aspect of the car as a storage area. People like to have a car you can put stuff in and keep stuff in. Like finding lost belongings under your seat.

What if I want to use a car and somebody else has the car? I like my car to be available whenever I need it. I'm going to keep my car . . . I like my car.

I would be unlikely to join because I do not live in walking distance of any center or stores.

Wagner, Conrad, and Katzev, Richard, "Car Sharing: More Mobility, Preservation of the Environment and Savings in Your Pocket," press release, April 1996.

This is probably the most recent AND informative article about an existing successful car sharing program that you can get your hands on at this time. It goes into the nuts-and-bolts details of how ATG works in Switzerland. It includes: a section about the trend toward combination packages between ATG and Hertz.

The article is new, and is at present an unpublished press release. Copies are available from Tom Davis or from Richard Katzev at Public Policy Research in Portland.

"What is a Cooperative?" Center for Cooperatives, Davis, CA, 1995.

The Center for Cooperatives can provide basic information about what a cooperative is. They also publish a list of literature.

The Whole Co-op Catalog, Twin Pines Cooperative Foundation, 1995.

This catalog carries publications from business management to cooperative finance.

Willemssen, Joseph, co-founder of "cOgO" car sharing club, February and March 1996 internet correspondence.

This correspondence established important contact and dialogue with the San Francisco-Seattle cOgO operation.

"Your Driving Costs, 1995 Edition," American Automobile Association, 1995.

This is the source for our cost comparison methods. This brochure is available from AAA in Downtown Portland.

