RECONNECTING FORT WAYNE: Transportation Car Sharing

Prepared for City of Fort Wayne, Indiana

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Reconnecting Fort Wayne: Transportation

Car Sharing

Reconnecting Fort Wayne: Transportation is a six part report designed to promote sustainable transportation planning in Fort Wayne. The first five reports, published in December of 2007. are innovative approaches or tools for analyzing current conditions and offering more transportation choice and lower household transportation cost. These reports include:

Car Sharing Housing + Transportation Streetcars **Transportation Management Associations UPASS: Unlimited Transit Pass**

A sixth report, on transportation funding in Fort Wayne, will be produced in early 2008 to complete the series.

Acknowledgements

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About the Center for Neighborhood Technology

The Center for Neighborhood Technology (CNT) was CNT serves as the umbrella for a number of projects and founded in 1978 to research, adapt and test new community revitalization strategies relevant to urban communities, especially strategies that harnessed the environmental and economic value of the more efficient use of naturalresources. Over the years, CNT has worked to disclose the hidden assets of the Chicagoland economy and urban areas more broadly; demonstrate the multi-bottom line benefits of more resource-efficient policies and practices; and show how the value of what we demonstrated could be captured to benefit communities and their residents inclusively. CNT's work, especially in the areas of energy, transportation, materials conservation and housing preservation, helped fuel a generation of community development institutions and learning, garnering us a reputation as an economic innovator and leader in the field of creative sustainable development.

affiliate organizations, all of which help the organization fulfill its mission: to promote the development of more livable and sustainable urban communities. CNT's transportation work is focused on using transportation assets to serve both the environmental and economic development goals of regions and communities. CNT works to boost demand for clean, efficient and affordable mass transit; increase the supply of traditional and non-traditional mass transit services; disclose the linkages between transportation costs and housing affordability; create model value-capture mechanisms that take advantage of the intersection of efficient transportation networks with community economic development programs; and promote policy initiatives that increase public participation in investment decisions and make more resources available for sustainable investments.

More information about CNT is available at www.cnt.org.

The Potential for Car Sharing in Fort Wayne, Indiana

A Summary of the Opportunities

This report is the result of CNT's investigations into the potential for a car sharing organization in Fort Wayne to improve the City's transportation network. Car sharing organizations allow member individuals and organizations access to a fleet of cars, parked in decentralized locations, twenty-four hours a day. Car sharing can reduce transportation cost burdens for households and reduce the negative environmental impacts of heavy auto use.

This report provides an overview of how car sharing works and how it can benefit Fort Wayne, as well as start-up strategies and recommendations for next steps based on the specific opportunities available in Fort Wayne.

What is Car Sharing?

Car Sharing is a Business

Whether organized as a non-profit or a for-profit, car sharing is a business that must work within a marketplace. It needs entrepreneurial leadership that can be the public face of a new mobility option for Fort Wayne. Like any small business entrepreneur, the Board of Directors and general manager of a Fort Wayne car sharing organization must to be able to:

- Develop business plans and financial projections;
- Identify and secure public and private resources;
- Form and maintain strategic partnerships;
- Connect with customers; and, most importantly,
- Learn from experience and revise operations based on that experience.

Car Sharing is a Public Service

At the same time, car sharing is also a public service. It can be understood as the newest addition to Fort Wayne's transportation network. Like Citilink, it can offer residents a way to get around and to participate fully in community life without the cost and inconvenience of car ownership. Car sharing is a service that provides substantial public benefits, for the city, for the environment, and for individuals.

It is these public benefits of car sharing that provide the rationale for public support. In cities across the country, government financial and other support has been essential to launching new car sharing operations.

How Car Sharing Works

Car sharing makes cars available by the hour for city residents who don't need a car for everyday travel. Car sharing is distinct from carpooling and car rental. Unlike carpooling, car sharing vehicles are owned or leased by the car sharing organization, not by individual drivers. Unlike car rental, car sharing vehicle locations are decentralized, with in-car technology restricting access to members who have reserved the car in advance, either online or over the phone. For those with only occasional need for a car, therefore, car sharing can provide the convenience of access to a car when needed at a fraction of the cost of car ownership.

The broadest application of car sharing is for use by individuals, who either wish to avoid owning a car altogether, or who can reduce their car ownership by using car sharing. Car sharing is also used by businesses and organizations with occasional need for car. Car sharing allows these organizations to avoid the cost of owning company cars, or requiring employees to drive to work in order to be able to use a car during the day.

Car sharing has spread rapidly through the United States, from a single operator in Portland in 1998 to dozens of cities nationwide. Though the particular policies and organizational structures of U.S. car sharing organizations vary, the experience of car sharing from a member perspective is consistent in its broad outline. Membership in a car sharing organization typically requires a driving record check to gain approval from the organization's insurance provider, and a credit or debit card for billing purposes. Once a member is approved she is sent a smartcard or key fob which contains an RFID¹ tag for car access. Members may reserve any car in the organization's fleet through an online reservation system or over the phone. The member's smartcard unlocks the car, and keys are inside.

No large-scale car sharing organizations allow for one-way trips due to the logistical challenges involved, so the member must return the car to its dedicated spot at the end of her trip. The member is billed for the hours of her reservation. Mileage policies vary across car sharing organizations; many include a mileage allotment for each reservation and charge for miles above the allotment. Gas is generally included in the hourly fee, so that cars are equipped with gas cards which can be used at any filling station.

The Economics of Car Sharing

The first great insight of car sharing is to convert fixed costs into variable ones. For car owners, the greater costs of driving a car (lease or loan payments, insurance, parking, scheduled maintenance, registration and other fees) are fixed; they must be paid regardless of whether the car is used every day or not at all.² For car sharers, nearly all the costs are variable. Car sharing typically involves an initial sign-up fee of under \$100, and an annual renewal fee of \$25-\$50. Apart from these fees, members pay only for the hours that they drive.

The second great insight of car sharing is that using resources more efficiently can reduce costs for everyone. Again, this insight relates to the high fixed costs attached to automobiles. A car that is driven twenty-five miles every day has a lower per-mile total cost than one that is driven only five miles a day. Car sharing allows individuals to benefit from this increased efficiency by spreading the fixed costs associated with owning and operating a vehicle over a large number of users.

The Public Benefits of Car Sharing

For Fort Wayne's residents: The average American household spends over 18% of its income on transportation the vast majority of which is for car ownership and use.³ Car sharing allows individuals to maintain the convenience of access to a car when needed without the heavy costs of car ownership.

For the environment: car sharers drive less than car owners, decreasing the impact of auto emissions which contribute to local air pollution and global climate change.⁴

Organizational Strategies for Start-Up

Car sharing organizations in the United States have been organized as for-profit corporations, notfor-profit corporations, and cooperatives. Although car sharing organizations are rarely directly owned and operated by government, municipal governments have played a significant role in many car sharing start-ups.

Until recently there were two multi-city for-profit car sharing companies operating in the United States; however, Zipcar announced the acquisition of its competitor, Flexcar, in November 2007. Zipcar operates substantial fleets in major cities along the East and West coasts of the U.S., in Canada and England, as well as much smaller fleets serving University campuses (eight cars, for example, on the Ohio State University campus). In addition, a few for-profits serve individual cities whose business models are distinct from the multi-city for-profit. Community Car, for example, serves Madison, Wisconsin with a fleet of 13 cars and no plans for national expansion.

Not-for-profit car sharing organizations generally operate in a single metro area. Chicago, Philadelphia, San Francisco, Austin and Minneapolis are all currently served by not-for-profit car sharing, with fleets ranging in size from less than a dozen (Austin) to more than four hundred (Philadelphia).

Less common in the United States is the co-op model for car sharing, generally limited to smaller operations like those in Eugene, Oregon and Rutledge, Missouri.

Government-run car sharing is rare in the United States. The closest example is Aspen, Colorado's car sharing organization, which, although incorporated as a separate not-for-profit organization, is staffed by City employees.

Start-Up Strategies

CNT has identified four different uses for car sharing that could form the basis of a car sharing start-up in Fort Wayne.

- 1. Institutional Fleets: Replace institutional fleets with car sharing cars;
- 2. Neighborhood Car Sharing: Place cars in neighborhoods near downtown;
- **3.** Access to Work: Establish a carpool/car share program in low- and moderate-income communities South of downtown;
- **4. Access to College:** Target car sharing membership to local college and university students.

(1) Institutional Fleets: Throughout the country, governments⁵ and businesses are converting their fleets into car sharing memberships. Car sharing is a desirable alternative to institutional fleets of cars for several reasons:

- The internet reservation system ensures efficient use of cars;
- The in-car technology limits car use to approved individuals; and
- The monthly billing allows for cost accountability and an accurate allocation of costs to divisions or programs.

Fleet management costs like car acquisition, car maintenance, gasoline charges and insurance are handled by the car sharing organization. The institution's expenses are reduced both because car sharing technology increases accountability and decreases wasteful use, and

because the institution is only paying for the car use that it needs, not for the ownership of a fleet.

Car sharing for fleet management has been implemented in a variety of ways. Sometimes fleet departments contract for exclusive use of cars during business hours. These cars are then made available during evenings and weekends to any member. In other scenarios, the institutions in question simply become car sharing members like any other organizational member, without exclusive access rights.

Car sharing for fleet management works best when cars in the same location can be used both by organizational and individual members at different times. On a small scale, however, cars might be moved from a location convenient to the institution during the day to a convenient location for individual use on the weekends.

(2) Neighborhood Car Sharing: Car sharing is both an economic and a life style decision. The final selection of the initial target neighborhoods needs to reflect both considerations. This report includes an analysis of car sharing potential of Fort Wayne neighborhoods based on quantitative geographic and demographic criteria that CNT has found predict car sharing success. Ultimately, there is no substitute for on-the-ground knowledge about the economics and culture of individual neighborhoods.

The initial neighborhoods selected for car sharing in Fort Wayne need to be "in town" where the density, amenities and bus access are highest.

(3) Access to Work: Fort Wayne is a dispersed city making any form of public transportation challenging, including getting to work. Many work locations are poorly served by public transportation. One way to address this problem is to use the car sharing cars for carpooling to work during the week and as car sharing cars in the evening and on the weekend. Car pooling could give employees a convenient, efficient way to get to work without owning a car, but it requires that several employees from the same company or institution live nearby in the car sharing neighborhoods.

(4) Access to College: College students already carrying student loan debt can ill afford the cost of owning and operating a private car, but often they see no alternative. A combination of bus access to college and car sharing in the evening and weekend, however, could dramatically decrease their transportation expenses. One innovative financing strategy might be to include the cost of bus and car sharing in financial aid – on the condition that the student does not own a car.

Organizational Capacities

Regardless of what model of car sharing is implemented in Fort Wayne, there are several core capacities of all car sharing operators which must be addressed:

- Fleet management involves new vehicle acquisition and financing; maintenance, repair and regular cleaning.
- Technology involves acquiring, installing and servicing in-car technology units which control access, and track usage and car location; acquiring and managing reservation and billing software and associated databases. There are several off-the-shelf software products designed specifically for car sharing organizations. Licensing reservation system

software from one of these providers is typically more cost-effective than developing new software.

- Member services involves new member processing, responding to inquiries from potential members, and dealing with member problems (e.g., "the car I reserved isn't there;" "I'm going to a job interview and this car is covered in dog hair," etc.). This requires twenty-four hour customer service, typically including a call center and staff on call.
- Marketing and outreach involves marketing to potential members, and building relationships with neighborhood groups, businesses, government and other important local partners.

Neighborhood Selection

Car sharing works for places where people already have some flexibility in their transportation choices. In neighborhoods where many daily trips can be accomplished by walking, biking, or transit, car sharing can provide the missing link in the transportation network that allows people to have access to a car when needed without the costs and hassles of ownership.

Car sharing in the United States is primarily focused on individual members originating trips in residential neighborhoods. Although there are no definitive measures in the car sharing literature for determining car sharing success, available studies focus overwhelmingly on neighborhood characteristics like population density, how residents get to work, and the like. CNT identified four criteria for predicting car sharing success:

- Household size: while car sharing is useful for a wide range of household sizes, larger households are more likely to find advantages in car ownership over car sharing.
- How people get to work: because car sharing works best for people who don't need a car to get to work, commuters who walk, bike or take transit are more receptive to car sharing membership.
- Car ownership: lower levels of car ownership indicate higher car sharing market potential.
- Population density: Car sharing works best in urban neighborhoods where many users can walk to a car sharing car parked nearby. The higher the neighborhood density all things considered the more likely that residents will find car sharing accessible and useful.

For this analysis CNT has also included a measure of transit service to reflect the influence that transit can have on car sharing success.

CNT has analyzed neighborhood-level data in Fort Wayne using GIS software and an in-house computer program which ranks neighborhoods according to the following measures of the above criteria:

- % One Person Households
- % Journey to Work Alone
- % Households with No Vehicle
- % Households One or No Vehicle
- % Single-Parent Households
- Households per Residential Acre
- Households per Acre
- Count of Bus Lines

This scoring resulted in the following map of the projected receptivity of Fort Wayne neighborhoods to car sharing:



Figure 1: Fort Wayne Car Sharing Screener Analysis Results

The detailed data on which the map is based is included in Appendix A.

The selection of neighborhoods in which to launch a car sharing program should not solely be based on the analysis of Census data, but should also take into account the knowledge of neighborhood characteristics that is only available to local residents. CNT's quantitative ranking, furthermore, does not establish minimum threshold criteria for car sharing service. Finally, the specific business model selected will influence the threshold criteria for success. CNT's analysis is based on a model of car sharing in which individuals are the primary target market. A car sharing start-up that begins with a substantial institutional member base, such as the City fleet department, would have a different cost structure than the model presupposed by these variables.

Car Sharing Vehicle Locations

Once the initial car sharing neighborhoods are selected, locations need to be found for the vehicles with the following characteristics:

- Near transit stops;
- Visibility of vehicle to the street for publicity and safety;
- Ability to install signs;
- No or very low cost.

Initial Vehicle Scale

CNT recommends that Fort Wayne begin a car sharing program with eight vehicles, located in pairs in the target neighborhoods. Experience has shown that participants need the assurance that cars will be available when needed. Placing two cars at each location addresses this concern in a very visible manner.

Start-Up Investment

Starting a car sharing organization requires significant funding. Major costs to consider include:

- leasing cars
- maintenance and repairs
- fuel
- insurance
- parking
- in-car technology (licensing fee as well as cost of hardware)
- reservation and billing system (licensing fee or software development)
- call center
- staffing
- marketing and outreach

The amount of the needed investment and the cost offset by member-derived revenue will depend in part on the business model chosen and on the pace of expansion. We estimate that a start-up which grew to 12 cars in its first two years would require approximately \$750,000 over that time period.

Other car sharing start-ups have turned to federal funding, like Congestion Mitigation and Air Quality funds or congressional earmarks, for initial grant financing. Inexpensive loan financing can come from banks with strong commitments to the Community Reinvestment Act and to community development, or from foundations making Program-Related Investments.

Next Steps

- **1. Identify Leadership Group:** Identify business, institutional (hospital and educational) and governmental policy-makers whose organizations would benefit from car sharing. Recruit them for a Task Force and orient them to the charge.
- 2. Neighborhood Selection: When a Fort Wayne car sharing planning group is formed, it should review the map and data provided by CNT, identify six to eight potential neighborhoods and carry out an evaluation process which includes neighborhood surveys and focus groups. Ultimately the process needs to result in a decision linked to preliminary

commitments of community residents to join and use car sharing. Once the initial neighborhoods are selected, major employers should be asked to identify their workers in those neighborhoods. They should then be invited to focus groups to explore if and how carpool-carshare could work for them.

- **3. Car Sharing for Fleet Management:** A survey is needed of the largest employers, including the City of Fort Wayne, to identify the number and size of their fleets, as well as their willingness to consider a cost-saving alternative.
- 4. Colleges and Universities: As part of the planning for car sharing, local colleges and universities should be asked to explore whether transportation costs can be included in financial aid. Once the initial neighborhoods are selected, local colleges and universities should be asked to identify their students who live in the car sharing neighborhood(s). They should then be invited to focus groups to explore if and how car sharing could work for them.
- **5. Organizational Structure:** The Task Force should determine the appropriate organizational structure for a Fort Wayne car sharing organization. The Task Force might take responsibility for incorporating the organization. If a Transportation Management Association (TMA) is organized for Fort Waye, it might operate car sharing.
- **6. Fundraising:** The Task Force should also take responsibility for obtaining the start-up funding for car sharing in Fort Wayne.

Conclusion

Car sharing can work for Fort Wayne. It will require institutional commitment and development of a detailed business plan. During the course of this evaluation, CNT spoke with representatives of the transit agency, city government, community, and universities. While the central role that private cars currently play in Fort Wayne's transportation network was acknowledged by all, there was interest in experimenting with car sharing and testing out the opportunity.

The biggest barrier to success is the question of "which comes first" in the effort to build a less autodependent transportation system. Fort Wayne currently does not have extensive transit service, and use of the existing system is sparse. The city does have some walkable neighborhoods and areas with mixed-use development. CNT sees opportunities to expand transit, walking, and bicycling opportunities. Car sharing would develop best alongside these other transportation alternatives. This is especially true if the City develops Eco-Pods (described in the U-PASS report) to capitalize on a variety of new locally based transportation options. Car sharing could be especially successful if there is a large institutional player, such as the City, a large corporation, or university that is willing to participate by using car sharing for some of its fleet needs. This institutional commitment would provide a guaranteed revenue stream and an initial membership base. Car sharing could grow over time as redevelopment and new development occurs in the central core of the city.

Endnotes

- ¹ RFID stands for Radio Frequency Identification. Each member's card transmits a unique radio signal identifying the member to the card reader installed in the car (often just behind the windshield).
- ² For someone who drives 10,000 miles/year, the percentage of total auto costs which are fixed costs of ownership approaches 80%. Calculated from AAA's "Your Driving Costs 2007".
- ³ U.S. Bureau of Labor Statistics, Consumer Expenditures Survey. http://www.bls.gov/cex/home.http://www.bls.gov/cex/home.htm
- ⁴ Citycarshare, "Bringing car-sharing to you community", 2005, p5. http://www.citycarshare.org/download/CCS_BCCtYC_Long.pdf
- ⁵ Wendy R. Barrott, Director, Energy and Environment Services, City of Fort Wayne, suggested that the City fleet management department might be approached with this idea.
- ⁶ Idea suggested by J. Charles Lewton, Dean of Student Affairs, Ivy Tech Community College, Fort Wayne.

NAME	ent One- son HH	t Journey to Drive Alone	t Journey to rk Walk	ercent eholds no ehicle	ercent holds one ehicle	ercent Iolds one or Vehicle	ent Single Household	eholds per ential Acre	Households per Acre	of Bus Lines	Median Household Income	Total Population
	Perc	Percent Work I	Percent Wo	Pe House V	Pe House Ve	Pe Househ no	Perce	House Reside		Count o		
Northside	34%	86%	3%	5%	42%	47%	33%	6.6	3.8	3	38,623	4685
Oxford	25%	69%	1%	17%	45%	62%	24%	7.0	3.8	3	27,483	4495
West Central	59%	61%	8%	27%	47%	74%	58%	18.1	3.3	9	21,269	4305
Pettit-Rudisill	27%	69%	1%	11%	47%	58%	27%	6.5	4.4	2	27,372	3956
Bloomingdale	33%	75%	3%	15%	44%	58%	33%	9.8	4.2	2	30,071	3403
East Central	49%	65%	14%	25%	47%	72%	49%	9.2	1.8	8	24,659	2747
South Suburan Civic	34%	72%	1%	10%	52%	62%	32%	3.3	1.8	4	28,093	2279
Frances Slocum	37%	84%	2%	10%	39%	49%	37%	5.9	3.8	1	37,118	2028
Hamilton Assoc For Neighborho	34%	78%	3%	14%	40%	54%	34%	8.6	4.5	2	32,324	2000
Arlington Park	14%	85%	0%	1%	21%	22%	14%	3.5	1.9	0	68,704	1924
Spy Run	44%	70%	3%	14%	53%	67%	44%	11.3	2.7	3	26,178	1871
Five Points	37%	85%	3%	8%	43%	52%	35%	5.3	2.2	2	33,594	1732
Bass-Leesburg Civic	25%	82%	3%	6%	34%	41%	30%	2.0	0.4	1	37,715	1704
Oakdale	27%	80%	5%	9%	34%	43%	27%	7.7	5.0	4	38,027	1686
North Anthony Area	35%	84%	3%	4%	41%	46%	33%	6.5	4.1	3	38,651	1610
Fairfield	27%	81%	1%	13%	32%	45%	27%	8.9	4.9	3	36,025	1527
Glenwood Park	31%	85%	1%	4%	37%	41%	31%	2.9	2.1	2	49,740	1522
Anthony Wayne	17%	80%	0%	11%	36%	47%	17%	3.3	2.5	3	31,421	1505
Hanna-Creighton	26%	69%	0%	31%	45%	76%	26%	6.7	2.0	3	17,115	1468
Nebraska	33%	72%	5%	13%	38%	51%	32%	9.2	3.0	2	30,069	1424
LaRez	30%	54%	4%	26%	44%	70%	30%	8.2	2.2	4	21,982	1401
Broad River	32%	71%	6%	12%	42%	54%	31%	7.3	3.5	1	31,409	1317
Village Woods	17%	80%	0%	11%	36%	47%	17%	3.5	2.6	1	31,445	1310
Mount Vernon Park	27%	66%	1%	10%	51%	61%	27%	4.8	3.0	1	26,590	1308
Hoagland Masterson	35%	64%	6%	16%	46%	63%	35%	11.2	3.9	3	28,333	1276
South Wayne	27%	78%	7%	7%	36%	43%	27%	8.7	4.9	2	38,890	1269
Lincoln Park Homeowners	38%	86%	2%	11%	41%	52%	38%	5.4	2.6	2	35,380	1247
Pine Valley	12%	92%	0%	1%	14%	15%	12%	2.8	1.3	0	77,989	1243
Southwood Park Community	28%	85%	3%	6%	32%	38%	28%	5.5	3.7	0	45,777	1150
Greater McMillen Park	23%	77%	0%	12%	47%	60%	22%	5.0	2.8	2	25,601	1131
Williams Park	25%	66%	2%	17%	44%	62%	25%	8.3	2.7	2	25,904	1097
Crestwood Colony Civic	25%	88%	1%	3%	44%	47%	25%	4.8	3.1	0	31,493	1071
Brookview Civic	43%	70%	3%	14%	52%	66%	43%	10.8	3.9	3	26,381	1021

NAME	Percent One- Person HH	Percent Journey to Work Drive Alone	Percent Journey to Work Walk	Percent Households no Vehicle	Percent Households one Vehicle	Percent Households one or no Vehicle	Percent Single Parent Household	Households per Residential Acre	Households per Acre	Count of Bus Lines	Median Household Income	Total Population
Creighton Home	34%	65%	6%	16%	46%	62%	34%	10.6	5.6	2	28,235	998
New Glenwood Civic	30%	85%	1%	4%	37%	41%	30%	3.5	2.1	2	50,001	986
Walden	30%	85%	1%	4%	37%	40%	30%	3.6	2.5	1	50,007	985
North Highlands	38%	86%	2%	11%	41%	52%	38%	6.4	4.2	0	35,377	955
Canterbury Green	48%	89%	2%	8%	53%	61%	48%	9.3	6.5	1	38,587	950
Lincoln Village	25%	87%	0%	3%	34%	38%	25%	3.6	2.5	1	50,515	926
Rudisill-Plaza	25%	65%	0%	13%	47%	60%	25%	3.5	2.3	1	28,096	920
Westfield	36%	85%	3%	9%	38%	48%	36%	5.1	1.5	1	34,491	912
Ranchwood	37%	84%	3%	9%	44%	53%	37%	4.2	2.9	1	36,775	900
Eastland Gardens Community	32%	78%	1%	12%	43%	55%	32%	2.7	2.0	0	30,837	864
Southwest Waynedale	44%	87%	2%	11%	50%	60%	44%	4.8	2.5	1	30,957	802
Fairfield Terrace/Belmont	28%	87%	2%	6%	31%	37%	28%	5.5	3.3	3	46,763	796
Michigan Avenue	34%	69%	5%	15%	44%	60%	33%	8.7	3.5	2	27,689	774
Poplar	35%	64%	6%	16%	46%	62%	35%	9.3	4.4	2	28,316	752
Sunnybrook Acres	24%	87%	0%	2%	32%	34%	24%	2.8	1.8	0	51,466	744
Old Trail	44%	87%	2%	11%	50%	60%	44%	3.8	1.9	1	30,960	714
Kyle Road	28%	85%	1%	6%	35%	40%	28%	2.2	1.0	1	40,708	698
Williams-Woodland Park	35%	64%	6%	16%	46%	63%	35%	11.8	5.9	2	28,334	698
Pontiac Place	23%	77%	0%	13%	47%	60%	23%	6.9	4.4	1	25,667	682
Maplewood Park	20%	89%	1%	1%	28%	29%	20%	3.0	2.3	1	49,988	677
Memorial Park	28%	70%	2%	15%	47%	62%	28%	5.5	1.3	2	25,489	675
Brookside / Parkerdale	24%	87%	0%	2%	32%	34%	24%	2.9	2.3	0	51,441	675
Haverhill	22%	86%	1%	2%	24%	26%	22%	3.7	2.3	0	65,263	673
Tower Heights	30%	79%	4%	9%	36%	45%	30%	4.0	1.8	0	33,106	662
West Rudisill	27%	79%	6%	8%	35%	43%	27%	6.6	3.6	1	38,621	648
Parkview Addition	37%	84%	3%	9%	44%	53%	37%	4.8	3.6	0	36,799	642
Woodhurst Community	28%	87%	2%	6%	31%	37%	28%	3.8	2.4	1	46,763	627
Brentwood Park	49%	82%	2%	20%	45%	65%	49%	5.7	3.8	2	25,639	626
Northcrest	39%	82%	6%	7%	51%	57%	39%	3.8	2.5	2	31,294	613
East Side Community	29%	72%	0%	12%	45%	57%	29%	5.4	1.2	2	26,706	610
Lafayette Place Improvement	27%	81%	1%	10%	39%	49%	27%	7.4	4.5	2	29,374	599
Royal Oaks	17%	88%	0%	1%	26%	28%	17%	2.7	1.9	0	53,100	588
Harvester Community	29%	72%	0%	11%	44%	56%	29%	5.2	1.8	2	27,029	587

NAME	Percent One- Person HH	Percent Journey to Work Drive Alone	Percent Journey to Work Walk	Percent Households no Vehicle	Percent Households one Vehicle	Percent Households one or no Vehicle	Percent Single Parent Household	Households per Residential Acre	Households per Acre	Count of Bus Lines	Median Household Income	Total Population
Sand Point	28%	85%	1%	6%	35%	40%	28%	2.5	1.4	1	40,701	584
Foster Park	27%	78%	9%	5%	37%	42%	27%	5.5	2.7	0	40,086	577
Taylor Street	36%	85%	3%	10%	38%	48%	36%	3.5	0.4	1	34,247	562
Vesey	36%	84%	4%	9%	38%	47%	34%	3.0	0.7	2	35,426	555
Hoevelwood Civic	17%	80%	0%	11%	36%	47%	17%	2.7	1.9	0	31,457	547
Cherry Hill	16%	89%	0%	2%	20%	22%	16%	1.6	0.7	0	66,310	541
Indian Village Community	36%	85%	3%	9%	38%	48%	36%	4.3	2.3	2	34,519	528
Avalon Place Civic	29%	86%	0%	5%	34%	38%	29%	4.4	2.9	0	44,710	524
Village of Buckingham	31%	85%	1%	4%	37%	41%	31%	2.7	1.8	0	49,978	505
Fairmont	27%	82%	3%	8%	33%	41%	27%	8.2	5.3	0	40,636	505
St. Marys River Winchester Roa	29%	86%	0%	5%	33%	38%	29%	2.8	0.9	1	44,762	482
Maplewood Terrace and Downs	21%	89%	1%	1%	28%	29%	21%	3.5	2.4	0	49,811	479
Imperial Gardens Extended	14%	85%	0%	1%	21%	22%	14%	3.6	2.2	0	68,704	472
Hacienda Village	18%	87%	0%	4%	24%	28%	18%	1.4	1.0	0	56,064	471
Statewood Park	31%	85%	1%	4%	37%	41%	31%	2.1	1.6	2	49,981	469
Forest Park Boulevard	31%	86%	3%	3%	40%	43%	30%	3.0	2.1	1	39,948	465
Lakeshores Community	31%	87%	0%	6%	36%	42%	31%	2.8	2.0	0	42,702	457
Kirkwood Park Community	33%	84%	2%	6%	38%	44%	33%	3.4	2.1	1	40,858	447
Springwood/Orchard Woods Civ	25%	87%	0%	3%	34%	38%	25%	4.4	2.3	2	50,450	444
Sunny Meadows	37%	84%	3%	9%	44%	53%	37%	2.2	1.7	0	36,768	428
Blackhawk	18%	87%	0%	4%	24%	28%	18%	4.0	3.1	1	55,769	424
Ludwig Park Community	22%	87%	0%	5%	25%	30%	22%	1.8	1.1	0	46,895	424
North Franke Park	46%	86%	1%	4%	50%	53%	46%	4.0	1.3	1	33,140	422
Interurban Acres	36%	85%	3%	9%	38%	48%	36%	3.0	1.6	1	34,541	422
Westlawn	21%	93%	0%	5%	21%	26%	21%	1.8	1.1	0	66,284	420
Harrison Hill	28%	86%	2%	7%	31%	39%	28%	6.0	3.8	2	44,710	414
Suburan Heights Homeowners	27%	66%	1%	10%	51%	61%	27%	5.0	2.9	2	26,644	411
Blum	37%	84%	3%	9%	44%	53%	37%	2.1	1.7	0	36,768	408
North Triangle	43%	70%	3%	14%	53%	66%	43%	4.4	2.2	2	26,403	407
Summerfield	25%	88%	1%	3%	44%	47%	25%	4.3	2.9	0	31,468	401
Tamarak	37%	84%	3%	9%	44%	53%	37%	2.6	1.8	0	36,768	400
Victoria Park Community	32%	78%	1%	12%	43%	55%	32%	5.6	3.2	1	30,756	399
Concordia Gardens	26%	76%	6%	10%	30%	40%	26%	2.6	1.8	0	43,264	397

NAME	Percent One- Person HH	Percent Journey to Work Drive Alone	Percent Journey to Work Walk	Percent Households no Vehicle	Percent Households one Vehicle	Percent Households one or no Vehicle	Percent Single Parent Household	Households per Residential Acre	Households per Acre	Count of Bus Lines	Median Household Income	Total Population
Bullerman Park Forest	17%	88%	0%	1%	26%	28%	17%	3.2	2.3	1	53,100	394
Shorewood	21%	93%	0%	5%	21%	26%	21%	2.3	1.6	0	66,284	390
Concord Hills	24%	87%	0%	2%	32%	34%	24%	3.9	1.9	0	51,475	384
Lakewood Park Community	29%	86%	0%	5%	34%	38%	29%	3.3	1.1	0	44,764	379
Sherwood to Pettit Community	28%	87%	2%	6%	31%	37%	28%	5.4	3.8	3	46,763	369
Wyndemere	37%	84%	3%	9%	44%	53%	37%	1.4	1.0	0	36,768	365
Kekionga Shores	22%	86%	1%	2%	24%	26%	22%	2.7	1.2	0	65,115	365
Manor Park	25%	87%	0%	3%	34%	38%	25%	2.3	1.9	0	50,521	358
Greentree	18%	87%	0%	2%	26%	28%	18%	2.0	1.1	1	52,851	353
Inverness Lakes	21%	93%	0%	5%	21%	26%	21%	1.6	0.7	0	66,284	351
Centerhurst	18%	87%	0%	1%	26%	28%	18%	2.4	1.7	0	53,026	351
Bellair	50%	82%	2%	21%	45%	66%	50%	5.3	3.7	1	24,423	350
Hillcrest	41%	84%	1%	9%	54%	63%	40%	4.6	3.0	3	31,234	346
Aboite Meadows	18%	89%	0%	2%	21%	22%	18%	2.4	1.8	0	69,886	335
Elmhurst Civic	28%	85%	1%	6%	35%	40%	28%	1.9	1.4	1	40,754	330
Copper Hill	18%	89%	0%	2%	21%	22%	18%	2.9	2.1	0	69,869	327
Lake Forest	29%	91%	1%	8%	30%	37%	29%	3.6	2.6	0	49,717	326
Tanbark Trails	24%	87%	0%	2%	32%	34%	24%	4.5	2.6	0	51,475	319
Timber Lake / Covington Woods	21%	93%	0%	5%	21%	26%	21%	2.0	1.3	0	66,284	318
Brierwood Hills	18%	89%	0%	2%	21%	22%	18%	1.3	0.8	0	69,886	314
Monarch Park	30%	90%	1%	7%	31%	38%	30%	4.8	2.9	1	49,755	312
New Kirkwood Park	33%	84%	2%	6%	38%	44%	33%	3.7	2.4	0	40,779	311
Whispering Meadows	21%	93%	0%	5%	21%	26%	21%	2.6	1.7	0	66,284	309
Belle Vista	29%	85%	1%	6%	35%	41%	29%	3.4	1.5	1	40,517	307
Colonial Heritage Community	32%	78%	1%	12%	43%	55%	32%	2.9	1.7	1	30,850	307
Wallen Chase	22%	88%	0%	3%	34%	37%	25%	2.5	1.5	0	52,330	301

