Senate Commerce Committee Nominee Questionnaire, 118th Congress
Instructions for the nominees: The Senate Committee on Commerce, Science, and Transportation (the "Committee") asks you to provide typed answers to each of the following questions. It is requested that the nominee type the question in full before each response. Do not leave any questions blank. Type "None" or "Not Applicable" if a question does not apply to the nominee. Begin each section (i.e., "A", "B", etc.) on a new sheet of paper. Electronically submit your completed questionnaire to the Committee in PDF format and ensure that sections A through E of the completed questionnaire are in a text searchable and that any hyperlinks can be clicked. Section F may be scanned for electronic submission and need not be searchable.

A. BIOGRAPHICAL INFORMATION AND QUALIFICATIONS

1. Name (Include any former names or nicknames used):

   Patrick John Fuchs

   Nickname: "Paco" in place of Patrick.

2. Position to which nominated:

   Member, Surface Transportation Board.

3. Date of Nomination: 1/25/2024

4. Address (List current place of residence and office addresses):

   [redacted]

   Surface Transportation Board
   395 E Street, SW
   Washington, DC 20423

5. Date and Place of Birth:

   February 3, 1988. Milwaukee, Wisconsin.

6. Provide the name, position, and place of employment for your spouse (if married) and the names and ages of your children (including stepchildren and children by a previous marriage).

Katherine Den Boer, Director – Communications & Policy, CTIA (spouse).
[redacted]

7. List all college and graduate schools attended, whether or not you were granted a degree by the institution. Provide the name of the institution, the dates attended, the degree received, and the date of the degree.

Master of Public Affairs, University of Wisconsin – Madison, 2010-2011.

International Academic Program, National University of Singapore, January – May 2009.

Bachelor of Arts, Economics (major), Political Science (major), University of Wisconsin – Madison, 2006-2010.

8. List all post-undergraduate employment, including the job title, name of employer, and inclusive dates of employment, and highlight all management-level jobs held and any non-managerial jobs that relate to the position for which you are nominated.

Board Member, Surface Transportation Board, 2019 to Present. (Vice Chairman, 2019 to 2020).

Senior Professional Staff Member, United States Senate, Committee on Commerce, Science, and Transportation, 2017 to 2019. (Professional Staff Member, 2015 to 2017).

Policy Analyst, Executive Office of the President, United States Office of Management and Budget (OMB), Office of Information and Regulatory Affairs, 2011 to 2015. (Presidential Management Fellowship, 2011 to 2013).

Foreign Service Detail – Policy Analyst (Presidential Management Fellowship), United States Department of State, United States Embassy in The Hague, Netherlands, 2013.

Project Assistant, National Center for Freight and Infrastructure Research and Education, University of Wisconsin – Madison, 2009 to 2011.

Analyst Intern, United States Government Accountability Office, Physical Infrastructure Division, 2010.

Management: At the Surface Transportation Board, I am one of five voting members on agency policy and procedures, including the annual budget. In my current role, I manage a small staff team in my office. At the Commerce Committee, I was the lead staffer on rail, hazardous materials, merchant marine issues, and other infrastructure policy areas. In this capacity, I oversaw more junior staff's research and legislative work and detailees'

various assignments. At the OMB, I managed regulatory and information collection reviews, consisting of staff from multiple Federal agencies, on rail, maritime, and other issues. At the Department of State, I conducted in-depth economic policy analysis and oversaw the work of locally-employed economic staff.

9. Attach a copy of your resume.

Please see attached.

10. List any advisory, consultative, honorary, or other part-time service or positions with Federal, State, or local governments, other than those listed above after 18 years of age.

City Administration Intern, City of Middleton, Wisconsin, 2009.

Member, Financial Institutions Advisory Board, University of Wisconsin – Madison, 2008 to 2009.

Policy Intern, Office of the Lieutenant Governor, State of Wisconsin, 2008.

Office Assistant, University of Wisconsin – Madison, Department of Population Health Sciences, 2007 to 2008.

11. List all positions held as an officer, director, trustee, partner, proprietor, agent, representative, or consultant of any corporation, company, firm, partnership, or other business, enterprise, educational, or other institution.

Member, TPJ Capital LLC, 2014 to 2017. (I was a non-managing member of this limited liability company, which invested in residential real estate in Wisconsin. I sold my membership interest in October 2017.)

12. Please list each membership you have had after 18 years of age or currently hold with any civic, social, charitable, educational, political, professional, fraternal, benevolent or religiously affiliated organization, private club, or other membership organization. (For this question, you do not have to list your religious affiliation or membership in a religious house of worship or institution.). Include dates of membership and any positions you have held with any organization. Please note whether any such club or organization restricts membership on the basis of sex, race, color, religion, national origin, age, or disability.

Millwood Lane HOA, Member, 2021 to Present.

Chevy Chase West Neighborhood Association, Member, 2018 to 2020.

Wisconsin City/County Manager Association, Member, 2009 to 2011.

Distinguished Lecture Series, Wisconsin Union Directorate, Committee Member, 2007 to 2010.

Pi Alpha Alpha, Public Affairs Honor Society, President of University of Wisconsin - Madison chapter, 2010 to 2011.

Pi Sigma Alpha, Political Science Honor Society, Member, University of Wisconsin - Madison chapter, 2009 to 2010.

Member, Financial Institutions Advisory Board, University of Wisconsin-Madison, 2008 to 2009.

I have been a member of two gyms: Washington Sports Club, 2018 to 2020, and Lifetime Fitness, 2023 to Present.

I am not a member of a club or organization that restricts membership on the basis of sex, race, color, religion, national origin, age, or disability. Consistent with the instructions, I will not list my membership in a religious house of worship or institution.

13. Have you ever been a candidate for and/or held a public office (elected, non-elected, or appointed)? If so, indicate whether any campaign has any outstanding debt, the amount, and whether you are personally liable for that debt.

No.

14. List all memberships and offices held with and services rendered to, whether compensated or not, any political party or election committee within the past ten years. If you have held a paid position or served in a formal or official advisory position (whether compensated or not) in a political campaign within the past ten years, identify the particulars of the campaign, including the candidate, year of the campaign, and your title and responsibilities.

I have not held office with or rendered services to a state or national political party.

15. Itemize all political contributions to any individual, campaign organization, political party, political action committee, or similar entity of $200 or more for the past ten years.

I have not made political contributions.

16. List all scholarships, fellowships, honorary degrees, honorary society memberships, military medals, and any other special recognition for outstanding service or achievements.

Fellowships

Presidential Management Fellowship, United States Office of Management and Budget, 2011 to 2013. As part of this fellowship, I also served a detail with the United States Department of State.

Special Recognition for Outstanding Service or Achievements

Special Achievement Award, United States Office of Management and Budget, 2014, for "tireless efforts and outstanding work in improving regulatory outcomes as well as key and timely contributions in areas outside of his normal areas of responsibility."

Meritorious Honor Award, United States Department of State, 2013, for "extraordinary contributions to substantive economic analysis and to Embassy outreach, visibility, and credibility." Shared with Gilles Everts.

Special Achievement Award United States Office of Management and Budget, 2013, for "enthusiasm, imagination, and effectiveness in improving regulatory outcomes and processes."

Director's Achievement Award, University of Wisconsin – Madison, Robert M. La Follette School of Public Affairs, 2011, for an "outstanding academic record" and "evidence of being an outstanding public policy thinker and communicator."

Other academic recognitions include Distinction from the College of Letters and Science, University of Wisconsin – Madison, 2010 (Economics, Political Science); Distinction in the Major (Political Science), University of Wisconsin – Madison, 2010; and Dean's List, University of Wisconsin – Madison, 2007 to 2010.

17. List each book, article, column, letter to the editor, Internet blog posting, or other publication you have authored, individually or with others. Include a link to each publication when possible. If a link is not available, provide a digital copy of the publication when available.

Written Material

Bittner, Fuchs, Baird, and Smith. (September 2011). WisDOT Policy Research Program: *Addressing Elderly Mobility Issues in Wisconsin* (Final Report No. 0092-10-

19). Madison, WI: Wisconsin Department of Transportation Research & Library Unit and National Center for Freight & Infrastructure Research & Education. (attached)

Berger, Collins, Fuchs, Ley, and Rosen. (Spring 2011). *City of Milwaukee: The Collection of Municipal Fees*. Prepared for the City of Milwaukee Budget and Management Division. Madison, WI: University of Wisconsin. (attached)

Recordings

I was a guest on Steptoe's Supply Chain University, and the recording is publicly available: https://www.youtube.com/watch?v=Jwk6PUu-nn0

In my role at STB, I have participated in various video presentations, but I am unaware of another published video recording (aside from recordings of Board proceedings).

Other

While at the OMB, I was the staff member assigned to lead the production of the Information Collection Budget of the United States for fiscal years 2011, 2012, and 2013. I am listed as a principal contributor to these publications. I am also listed as an OMB contributor to the President's Budget for fiscal years 2013, 2014, and 2016. In my role at STB, I am listed as a voting member on our published decisions and other agency actions.

In addition, I participated in a 2011 Transportation Research Board session: Gollnik, Wittwer, Kleinmaier, and Fuchs. (January 2011). Poster Session 611: Northwest Passage Corridor-wide Commercial Vehicle Permitting. Madison, WI: National Center for Freight & Infrastructure Research & Education. However, I am not listed on the final publication.

18. List all speeches, panel discussions, and presentations (e.g., PowerPoint) that you have given on topics relevant to the position for which you have been nominated. Include a link to each publication when possible. If a link is not available, provide a digital copy of the speech or presentation when available.

The following list includes speeches from my time with the Surface Transportation Board and the Senate.

- Agricultural Transportation Working Group meeting (05/17);
- American Association of State Highway and Transportation Officials conferences (02/15, 02/16, 02/17, 04/17, 03/18);
- American Forest & Paper Association meeting (09/16);
- American Fuel & Petrochemical Manufacturers Spring Transportation & Infrastructure joint meeting (04/21);
- American Public Transportation Association conferences (03/16, 02/17, 11/17, 03/22, 12/23);
- American Short Line and Railroad Association conference and meeting (04/16, 03/17);

- Association of American Railroads conferences (06/15, 01/17);
- Association of Independent Passenger Rail Operators annual meeting (01/24);
- Association of Transportation Law Professionals meetings (11/16, 11/19, 11/21, 11/22, 11/23);
- ASTM International, F49 Committee meeting (11/23);
- Bank of America Securities Global Transportation & Airline conference (05/21);
- Brotherhood of Maintenance of Way Employes State Representative meeting (05/17);
- Eno Center for Transportation Fellows panel (06/17);
- Federal Railroad Administration Project Delivery conferences (10/15, 11/17);
- FMC Memphis Supply Chain Innovation Team meeting (08/21);
- Freight Rail Customer Alliance meeting (04/16);
- Midwest Association of Rail Shippers conferences (07/19, 07/22, 07/23);
- National Association of Railroad Passengers conference (04/16);
- National Mediation Board annual meetings (01/16, 01/17);
- National Railroad Construction and Maintenance Association conference (01/20);
- North American Rail Shippers conferences (05/19, 05/22);
- National Industrial Transportation League summit (01/20);
- Private Railcar Food and Beverage Association (PRFBA) town hall chat at the PRFBA General Membership meetings (02/20, 10/22);
- Rail Customer Coalition meetings (01/16, 06/16, 11/16);
- Rail Electrification Council meeting (11/23);
- Rail Supply Institute Expo conferences (10/22, 10/23);
- RailTrends conferences (11/19, 11/20);
- Railway Age Next-Generation Freight Rail conference (03/23);
- Southwest Association of Rail Shippers annual conference (03/20);
- States for Passenger Rail Coalition legislative meeting (01/24);
- Steptoe Regulatory Symposium (12/21);
- Supply Chain University (09/21);
- Surface Transportation Board Rail-Shipper Transportation Advisory Committee meetings (04/15, 11/15, 08/16, 02/17);
- T3 Fertilizer conference (11/22);
- The Mercury Group conference (08/23); and
- Transportation Research Board annual meetings (01/20, 01/21).

I have lectured students on various aspects of public policy and government relations, with specific examples from surface transportation policy, and I have provided career information to graduate students. These events include:

- Georgetown University, *Nonmarket Strategies and Government Arenas* (multiple occasions);

- Michigan State University, *Railway Management Certificate Program* (June 2023);
- Leadership Institute, *Managing Congressional Hearings* (04/17); and
- University of Wisconsin-Madison, various career panels (multiple occasions).

During my employment with the OMB, I also presented externally on regulatory reform and design:

- Organisation for Economic Co-operation and Development (OECD), *8th Session of the Regulatory Policy Committee*, 04/13.

19. List all public statements you have made during the past ten years, including statements in news articles and radio and television appearances, which are on topics relevant to the position for which you have been nominated, including dates. Include a link to each statement when possible. If a link is not available, provide a digital copy of the statement when available.

Aside from Board actions, speeches, and press releases, I have not issued public statements for news articles, radio, or television.

I have been quoted in various publications from my speeches and in interviews. Examples include:

- Wilner, Frank N., *Railroads & Economic Regulation*, Simmons-Boardman Books, 2023.
- Lassen, David, *STB may seek to continue collecting expanded railroad performance data*, July 20, 2022.
  https://www.trains.com/trn/news-reviews/news-wire/stb-may-seek-to-continue-collecting-expanded-railroad-performance-data/
- Wilner, Frank N., *Can STB Avoid Political Division?*, Oct. 18, 2022.
  https://www.railwayage.com/regulatory/can-stb-avoid-political-division/
- Stagl, Jeff, *Heard at MARS meeting: Elaborations on labor pinch, poor rail service*, July 26, 2022.
  https://www.progressiverailroading.com/class_is/news/Heard-at-MARS-meeting-Elaborations-on-labor-pinch-poor-rail-service--67149

20. List all digital platforms (including social media and other digital content sites) on which you currently or have formerly operated an account, regardless of whether or not the account was held in your name or an alias. Include the full name of an "alias" or "handle", including the complete URL and username with hyperlinks, you have used on each of the named platforms. Indicate whether the account is active, deleted, or dormant. Include a link to each account if possible.

Linkedin
Patrick Fuchs: https://www.linkedin.com/in/patrick-fuchs-658b7b15

X (aka Twitter)
Patrick Fuchs: @ biefstuu

More than five years ago, I deleted my Facebook account. I was listed as Paco Fuchs on that site.

My YouTube name is Patrick Fuchs, under handle PatrickFuchs-bv9ue. I generally do not post, but I recall that, in college, I uploaded a video of a friend's television appearance.

To the extent that I have posted reviews on sites like Google or Amazon, they are generally under Patrick Fuchs, Paco Fuchs, P F, or similar derivations of my email or name. I am not a frequent review poster. I also have a Venmo account.

The above information is to the best of my recollection. I have signed up for several services over the years, including news sites, but I do not actively post or the accounts are defunct.

21. Please identify each instance in which you have testified orally or in writing before Congress in a governmental or non-governmental capacity and specify the date and subject matter of each testimony.

Nominations Hearing: Hearing Before the Senate Committee on Commerce, Science, and Transportation (Apr. 11, 2018).

Board Member Views on Surface Transportation Board Reauthorization: Hearing Before the Subcomm. on Railroads, Pipelines, and Hazardous Materials of the House Committee on Transportation & Infrastructure (May 12, 2012).

22. Given the current mission, major programs, and major operational objectives of the department/agency to which you have been nominated, what in your background or employment experience do you believe affirmatively qualifies you for appointment to the position for which you have been nominated, and why do you wish to serve in that position?

During my time on the Board, we have issued more than 500 decisions spanning the agency's jurisdiction. If confirmed, I would bring adjudicatory, regulatory, and oversight experience developed as a Board Member, and I would also continue to use the knowledge acquired from my time with the Senate Commerce Committee and the OMB.

My adjudicatory experience includes a wide range of transactions, petitions, and complaints. For example, during my time with the STB, we adjudicated the combination of the two smallest Class I rail carriers, Canadian Pacific Railway and Kansas City

Southern, creating a new single-line route traversing through the heart of the country, receiving support from more than 450 rail shippers, and diverting thousands of trucks to rail each year. As another example, we adjudicated the significant acquisition of PanAm Systems by CSX Transportation, facilitating more than $100 million in estimated capital investment in New England rail lines and helping create better connections for shippers to and from the Northeast. If confirmed, my knowledge of recent transactions would help the agency's monitoring efforts, particularly concerning conditions the Board has imposed in those transactions, and my work on a significant number of petitions and complaints would help me efficiently and competently process future cases.

I also have experience deciding regulatory matters. For example, during my service on the Board, we set policy clarifying that demurrage charges must be within the reasonable control of the customer to avoid, helping to spur more effective private negotiations and problem-solving between rail carriers and those they serve. We also added new transparency measures to help rail customers review and verify the accuracy of demurrage charges and facilitate the resolution of disputes with rail carriers. As another example, we streamlined the threshold inquiry in rate cases by defining a set of factors that could establish a prima facie showing of market dominance. I am well-positioned to adjudicate any case that might be filed under the Board's statutes and regulations, including the policies and rules that I helped advance.

During my tenure, the Board has engaged in intensive oversight of the rail industry. In 2022, the Board conducted a two-day hearing on rail service problems and set new transparency, accountability, and improvement measures. The Board required certain railroads to submit service recovery plans with on-time performance and local service targets, and it required all Class I rail carriers to publicly report certain customer-centric metrics. Service has improved across the industry, and my experience examining and addressing recent problems would help the agency's efforts to ensure sustained improvement.

If confirmed, I would continue to apply the experience described in my prior response to this questionnaire. While with the Senate Commerce Committee, I developed, drafted, and negotiated legislation to improve the nation's transportation network. For example, through my work on the *Surface Transportation Board Reauthorization Act of 2015* (P.L. 114-110), the first reauthorization of the Board since its creation in 1996, I acquired a deep understanding of the Board's dispute resolution processes, structure, and authorities. As another example, through my work on the *Fixing America's Surface Transportation (FAST) Act* (P.L. 114-94), which included the redesign of grant programs, the first passenger rail reauthorization in over seven years, and the reform of permitting processes, I acquired detailed knowledge of the effects of Federal policies on rail operations and investment decisions.

Further, also described in my prior response, during my time with the OMB, I managed the regulatory review of rail regulations of national importance from Executive Agencies, and the review of all information collection requests of the Surface Transportation Board. I gained experience applying my economic and data analysis skills to the rail industry.

Moreover, my positions at both the Commerce Committee and the OMB included significant work on transportation issues outside of rail policy, such as maritime, hazardous materials, and multimodal matters, thereby preparing me for the Board's other responsibilities, such as certain oversight functions for household goods carriers or non-energy, non-water pipelines.

I have long found that our nation's rail system moves goods essential to the country's well-being, and the Board has important responsibilities to help ensure the system is sound, efficient, and competitive. In addition, the Board also plays a significant role in overseeing the passenger rail operations that carry people to medical appointments, family visits, and business meetings. I wish to serve in this position because the fair and efficient use of the Board's authorities makes a meaningful contribution to the success of our nation's economy and the public's broader quality of life.

23. What do you believe are your responsibilities, if confirmed, to ensure that the department/agency has proper management and accounting controls, and what experience do you have in managing a large organization?

The Board's Chairman legally holds foremost responsibility for the agency's administration, and all Board members help oversee administrative functions. Former Chairman Begeman took strong action to fix identified deficiencies at the agency, including modernizing and securing the Board's information technology (IT) system and expanding the use of deadlines for Board proceedings. I fully supported these efforts and helped reinforce improvements to the IT system and decision-making efficiency. Chairman Oberman has continued to improve the agency's financial management and information security practices. Through my role in approving the budget and overseeing the Board's policies and procedures, I would continue to help ensure that the agency is using resources prudently and that the agency continues its progress.

Separately, through my work with the Commerce Committee, I understand that the *Surface Transportation Board Reauthorization Act of 2015* included management transparency measures concerning rate cases, regulatory proceedings, and complaints. The agency must fulfill the law's deadline requirements, and it is important that the law's mandated reports are highly informative and accessible to the public.

During my time with the OMB, I gained experience managing interagency regulatory review teams to help make appropriate resource allocation decisions. Further, with the OMB, I managed information collection request reviews that involved consideration of privacy impacts, data quality, and information technology.

24. What do you believe to be the top three challenges facing the department/agency, and why?

1. Conclusion of outstanding regulatory and adjudicatory proceedings. The Board has worked diligently to decide proceedings with legal deadlines, many of which

consumed significant resources, and the agency has also focused attention on emergent problems with great public interest implications. With many of those matters adjudicated or addressed, the Board's docket still includes several outstanding proceedings with extensive evidentiary records and significant public comment, and the public deserves timely decisions. Parties on opposing sides have an interest in certainty. The Board must work expeditiously and efficiently to conclude proceedings with a developed record but not yet final Board action.

2. Continued modernization of agency analysis. The agency collects substantial information on rail traffic and has a body of precedent extending over a century. The agency has prioritized improving its data analytics capabilities. New technologies, particularly machine learning and beyond, present opportunities to examine service, rate, and practice matters more thoroughly and quickly and to facilitate greater public accessibility and engagement. Within individual proceedings, by better using the data it already collects, the Board could reduce its supplemental data requests of parties, deepen its analysis of competition-related effects, or strengthen its examination of evidence. Similarly, the Board should explore whether and how new technologies might simply exit and entry licensing proceedings, among other types of cases, particularly through the processing and analyzing of the agency's unique repository of geographic information system data and case law. At the same time, the Board should guard against security risks and other potential problems with new technologies. In general, the Board should continue to improve its data management practices and facilitate increased use of advanced computing tools.

3. Oversight of service performance and merger effects. As noted above, the Board has conducted intensive oversight of rail service problems and has issued decisions to advance transparency, accountability, and improvement. Separately, the Board has approved, with conditions, the first major merger in more than 20 years. Both matters require continued oversight. While the Board has seen widespread service improvement, it must ensure that improvement is sustained. The Board must also ensure that CPKC fulfills the numerous environmental, competition-related, and other conditions the agency imposed as part of its transaction approval.

B. POTENTIAL CONFLICTS OF INTEREST

1. Describe all financial arrangements, deferred compensation agreements, and other continuing dealings with business associates, clients, or customers. Please include information related to retirement accounts, such as a 401(k) or pension plan.

   I hold a Thrift Savings Plan and a Federal government retirement account. I also participate in the Federal Employees Retirement System, a defined benefit retirement plan.

2. Do you have any commitments or agreements, formal or informal, to maintain employment, affiliation, or practice with any business, association, or other organization during your appointment? If so, please explain.

   No.

3. Indicate any investments, obligations, liabilities, or other relationships which could involve potential conflicts of interest in the position to which you have been nominated. Explain how you will resolve each potential conflict of interest.

   None.

4. Describe any business relationship, dealing, or financial transaction which you have had during the last ten years, whether for yourself, on behalf of a client, or acting as an agent, that could in any way constitute or result in a possible conflict of interest in the position to which you have been nominated. Explain how you will resolve each potential conflict of interest.

   None.

5. Identify any other potential conflicts of interest, and explain how you will resolve each potential conflict of interest.

   In connection with the nominations process, I have consulted with the Office of Government Ethics and the Surface Transportation Board's ethics official to identify conflicts of interest. Any potential conflicts of interest will be resolved in accordance with the terms of an ethics agreement that I have entered with the Board's ethics official. A copy of the ethics agreement will be provided to this Committee.

6. Describe any activity during the past ten years, including the names of clients represented, in which you have been engaged for the purpose of directly or indirectly influencing the passage, defeat, or modification of any legislation or affecting the administration and execution of law or public policy.

During my time on the Board, my responsibility has been to help administer and execute law and public policy within the agency's jurisdiction.

During my employment as a Senate staffer, an important part of my job involved activities that directly and indirectly influenced the passage, defeat, or modification of legislation and affected the administration and execution of law or public policy.

During my employment with the OMB, I provided objective analysis and recommendations to senior Administration officials on proposed and final regulations of national importance, including significant rules governing transportation safety and housing programs. I also advised senior policy officials on legislative proposals and reviewed Congressional testimony.

During my employment with the U.S. Government Accountability Office and National Center for Freight and Infrastructure Research and Education, I was involved in reviews that covered, in part, the execution of Federal transportation programs and policies. While working for the City of Middleton and the Office of the Lieutenant Governor, State of Wisconsin, I drafted memos for officials on state and local government issues.

C. LEGAL MATTERS

1. Have you ever been disciplined or cited for a breach of ethics, professional misconduct, or retaliation by, or been the subject of a complaint to, any court, administrative agency, the Office of Special Counsel, an Inspector General, professional association, disciplinary committee, or other professional group? If yes:

    a. Provide the name of court, agency, association, committee, or group;
    b. Provide the date the citation, disciplinary action, complaint, or personnel action was issued or initiated;
    c. Describe the citation, disciplinary action, complaint, or personnel action;
    d. Provide the results of the citation, disciplinary action, complaint, or personnel action.

    No.

2. Have you ever been investigated, arrested, charged, or held by any Federal, State, or other law enforcement authority of any Federal, State, county, or municipal entity, other than for a minor traffic offense? If so, please explain.

    Yes. In April 2007, at the age of 19, I received a civil charge (non-criminal) for an ordinance violation for possession of marijuana. The University Police of the State of Wisconsin issued the charge. I pleaded no contest to an amended charge of a non-traffic ordinance violation for miscellaneous conduct on UW lands. This case resulted in no fine and $105.00 in court costs.

3. Have you or any business or nonprofit of which you are or were an officer ever been involved as a party in an administrative agency proceeding, criminal proceeding, or civil litigation? If so, please explain.

    No.

4. Have you ever been convicted (including pleas of guilty or *nolo contendere*) of any criminal violation other than a minor traffic offense? If so, please explain.

    No.

5. Have you ever been accused, formally or informally, of sexual harassment or discrimination on the basis of sex, race, religion, or any other basis? If so, please explain.

No.

6. Please advise the Committee of any additional information, favorable or unfavorable, which you feel should be disclosed in connection with your nomination.

None.

D. RELATIONSHIP WITH COMMITTEE

1. Will you ensure that your department/agency complies with deadlines for information set by congressional committees, and that your department/agency endeavors to timely comply with requests for information from individual Members of Congress, including requests from members in the minority?

   Yes.

2. Will you ensure that your department/agency does whatever it can to protect congressional witnesses and whistleblowers from reprisal for their testimony and disclosures?

   Yes.

3. Will you cooperate in providing the Committee with requested witnesses, including technical experts and career employees, with firsthand knowledge of matters of interest to the Committee?

   Yes.

4. Are you willing to appear and testify before any duly constituted committee of the Congress on such occasions as you may be reasonably requested to do so?

   Yes.

(Nominee is to include this signed affidavit along with answers to the above questions.)

F. AFFIDAVIT

PATRICK FUCHS being duly sworn, hereby states that he/she has read and signed the foregoing Statement on Biographical and Financial Information and that the information provided therein is, to the best of his/her knowledge, current, accurate, and complete.

Patrick Fuchs
Signature of Nominee

Subscribed and sworn before me this 2 day of FEB, 2024.

Notary Public

MARLON F. BARRERA
NOTARY PUBLIC
MY COMMISSION NUMBER 7534173
COMMONWEALTH OF VIRGINIA

Patrick Fuchs

[redacted]

PROFESSIONAL EXPERIENCE

Surface Transportation Board 01/19-Present

Board Member, Vice Chairman (01/19-01/20)

Oversees the economic regulation of certain surface transportation modes, particularly the freight rail industry. Adjudicates rail rate, practice, and service disputes, as well as rail restructuring transactions, including mergers, line sales, line construction, and line abandonments. Conducts hearings on issues of national and regional importance. Engages with rail carriers, rail customers, political officials, and members of the public to develop a comprehensive understanding of current problems and potential solutions. Collaborates with other Board members to develop sound regulatory policy, balancing the need for reasonable protections for customers with the need for rail carriers to innovate, invest, and grow. Monitors rail service data to identify emerging areas of interest. Communicates agency policy to broader audiences.

Issued more than 500 decisions on wide-ranging transportation matters. Key work:

- Approved the combination of the two smallest Class I rail carriers, Canadian Pacific Railway and Kansas City Southern, creating a new single-line route traversing through the heart of the country, receiving support from more than 450 rail shippers, and diverting thousands of trucks to rail each year.
- Conducted a two-day hearing in 2022 on rail service problems and set new measures for transparency, accountability, and improvement. Service has improved across the industry.
- Developed and issued a proposal to enhance competition in the rail industry by increasing shippers' options following inadequate rail carrier service, potentially strengthening incentives to avoid future problems.
- Conducted intensive multi-day hearing on the return of passenger rail service discontinued after Hurricane Katrina, resulting in a settlement agreement and continued Board oversight.
- Approved CSX Transportation's acquisition of Pan Am Systems to facilitate more than $100 million in capital investment in New England rail lines and help create better connections in the Northeast.
- Adopted a new voluntary arbitration program for small-rate disputes, creating an efficient and beneficial program that balances broad participation with the need for a fair, workable process.
- Set policy clarifying that demurrage charges must be within the reasonable control of the customer to avoid, helping to spur more effective private negotiations and problem-solving between carriers and shippers.

U.S. Senate, Committee on Commerce, Science, and Transportation 01/15-01/19

Senior Professional Staff Member, Surface Transportation and Merchant Marine

Advanced the policies and priorities of the Chairman and Committee Majority members by developing, drafting, and negotiating legislation to improve the nation's transportation network, including significant rail and maritime reauthorization bills. Represented the Senate on rail and hazardous materials issues during the successful conference committee of the *FAST Act* (P.L. 114-94). Managed full and subcommittee hearings on surface transportation regulation, passenger rail policy, and maritime security, among other issues. Conducted oversight of agencies within the Committee's jurisdiction, including the DOT, STB, FMC, and NTSB. Collaborated with the Committee's communications team and conducted stakeholder outreach to build support for legislation. Served as Professional Staff Member from 2015 to 2017. Key work:

- *Railroad Reform, Enhancement, and Efficiency Act* (S. 1626), the first passenger rail reauthorization in more than seven years, led by Senator Wicker, instituted reforms to improve Amtrak's performance, support its National Network, and increase safety (part of P.L. 114-94).
- *Surface Transportation Board Reauthorization Act of 2015* (S. 808), the first reauthorization of the STB since its creation in 1996, led by Senator Thune, improved the agency's dispute resolution processes, enabled more proactive problem-solving, and increased efficiency and transparency (P.L. 114-110).
- *National Transportation Safety Board Reauthorization Act* (S. 2202), the first reauthorization of the NTSB in more than a decade, increased the transparency of the agency's safety recommendations, enhanced investigative authorities, and improved agency operations (part of P.L. 115-254).

- Several bills signed into law that addressed opioid abuse in transportation, streamlined permitting processes, and improved transportation operations, including the *Fighting Opioid Abuse in Transportation Act* (part of P.L. 115-271), the *Track, Railroad, and Infrastructure Network Act* (part of P.L. 114-94), and the *Railroad Infrastructure Financing Improvement Act* (part of P.L. 114-94).
- Legislation to enhance the authorities of maritime agencies and improve infrastructure, including the *Federal Maritime Commission Authorization Act of 2017* and the *Maritime Administration Authorization and Enhancement Acts for Fiscal Year 2017, 2018, and 2019*.

Executive Office of the President, Office of Management and Budget 06/11-01/15

Policy Analyst, Transportation and Security

Led government-wide reviews to provide objective analysis and recommendations to senior Administration officials on proposed and final regulations of national importance, including significant rules governing transportation safety and housing programs. Analyzed complex economic and financial data to help ensure Federal agencies, including DOT, accurately assessed the costs and benefits of regulations and selected the most cost-effective alternatives. Built excellent relationships with senior career staff to achieve policy improvements. Advised senior policy officials on legislative proposals, reviewed Congressional testimony, and drafted reports to Congress on government-wide management initiatives.

Improved more than 40 proposed and final regulations, more than 70 surveys and program evaluations with statistical methods, and a Presidential management initiative. Key work:

- Managed a government-wide paperwork burden reduction initiative, including changes that led to paperwork time savings of about $2 billion annually.
- Received a Special Achievement Award in 2014 from the OMB for "tireless efforts and outstanding work in improving regulatory outcomes as well as key and timely contributions in areas outside of his normal areas of responsibility."
- Received a Special Achievement Award in 2013 from the OMB for "enthusiasm, imagination, and effectiveness in improving regulatory outcomes and processes."
- Represented the Office of Information and Regulatory Affairs and presented on behalf of the U.S. Government at the OECD Regulatory Policy Committee in Paris, France (04/13).

U.S. Department of State, U.S. Embassy in The Hague, Netherlands 02/13-06/13

Policy Analyst (Foreign Service Detail/Presidential Management Fellowship), Economic Section

Developed complex economic and financial analyses on budget, labor, and banking issues for senior officials at the Department of State, the Department of the Treasury, and the National Security Council. Supervised Embassy-employed economic staff responsible for analyzing Dutch government reports and economic data. Coordinated and collaborated with senior diplomats in Brussels and The Hague to ensure consistent economic reporting. Built relationships with foreign officials to gain insight into critical issues for U.S. strategic interests.

- Received a Meritorious Honor Award from the Department of State for "extraordinary contributions to substantive economic analysis and to Embassy outreach, visibility, and credibility."

EDUCATION

University of Wisconsin

Master of Public Affairs, La Follette School of Public Affairs (05/11)

- Received Director's Award to recognize the outstanding academic record in the graduate school class.

Bachelor of Arts, Economics; Bachelor of Arts, Political Science (05/10) | International Academic Program at National University of Singapore (06/09)

- Awarded Distinction in the Major, Political Science.
- Awarded Distinction from the College of Letters and Science, Economics, Political Science.

Addressing Elderly Mobility Issues in Wisconsin

Jason Bittner, Patrick Fuchs, Tim Baird, and Adam Smith
National Center for Freight & Infrastructure Research and Education
University of Wisconsin–Madison

Final Report No. 0092-10-19
CFIRE 04-05
September 2011

Wisconsin Department of Transportation Research & Library Unit

National Center for Freight & Infrastructure Research & Education
Wisconsin Transportation Center
University of Wisconsin, Madison

WISCONSIN DOT
PUTTING RESEARCH TO WORK

Technical Report Documentation

1. Report No. CFIRE 0405	2. Government Accession No.	3. Recipient's Catalog No. **CFDA 20.701**	
4. Title and Subtitle WisDOT Policy Research Program: Addressing Elderly Mobility Issues in Wisconsin		5. Report Date **September 2011** 6. Performing Organization Code	
7. Author/s Jason Bittner, Patrick Fuchs, Tim Baird, Adam Smith		8. Performing Organization Report No. **CFIRE 04-05**	
9. Performing Organization Name and Address National Center for Freight and Infrastructure Research and Education (CFIRE) University of Wisconsin-Madison 1415 Engineering Drive, 2205 EH Madison, WI 53706		10. Work Unit No. (TRAIS) 11. Contract or Grant No. T002688	
12. Sponsoring Organization Name and Address Wisconsin Department of Transportation 4802 Sheboygan Avenue Madison, WI 53707		13. Type of Report and Period Covered **Final Report [7/10/10-9/6/11]** 14. Sponsoring Agency Code 0092-10-19	
15. Supplementary Notes Project completed by CFIRE as part of the Wisconsin DOT Policy Research Program. This report also represents a portion of the matching obligation against DTRT06-G-0020.			
16. Abstract The aging of baby boomers poses significant challenges to Wisconsin's existing transportation infrastructure and specialized transit programs. From 2010 to 2035, the number of elderly Wisconsinites is projected to grow by 90 percent, an increase of 702,760 persons. By 2035, residents age 65 and over will comprise nearly a quarter of the population of Wisconsin, as every county in the state will experience growth in the elderly share of their population over the next 25 years. The U.S. Department of Transportation's 2003 National Household Travel Survey found that personally-owned vehicles account for over 90 percent of trips taken by elderly residents; the extrapolation of this data suggests an overwhelming majority of Wisconsin's future elderly residents will be accustomed to driving. Because elderly persons are vulnerable to a decline in visual, cognitive, and psychomotor skills, a dramatic increase in the number of elderly drivers has serious safety implications for the state. Elderly drivers are more likely to have crashes on a per-mile basis, more likely to be at fault in a multicar crash, and more likely to be killed or injured than are younger people in a crash of comparable magnitude. When elderly drivers are forced to stop driving or self-regulate in response to declining abilities and safety concerns, they face increased isolation from social, family, and civic activities and decreased access to medical services. These safety and social ramifications demand an examination of the state's current driver licensing and education practices, infrastructure design protocols, and specialized and public transit efforts. This report provides analysis of Wisconsin's existing services, coordinated by the DOT and other State agencies, collects information from elderly residents, and reviews national and international best practices to allow the Wisconsin Department of Transportation (WisDOT) to better manage approaching demographic challenges. Recommendations are provided that include changes in internal structure to address older residents' mobility concerns, education and outreach opportunities, and development of incentives to provide off prime hour services.			
17. Key Words WisDOT, Wisconsin, DMV, transportation, aging, mobility, elderly, older drivers, senior citizens, transit	18. Distribution Statement **No restrictions. This report is available through the Transportation Research Information Services of the National Transportation Library.**		
19. Security Classification (of this report) **Unclassified**	20. Security Classification (of this page) **Unclassified**	21. No. of Pages 163	22. Price **-0-**

Form DOT F 1700.7 (8-72) Reproduction of form and completed page is authorized.

DISCLAIMER

This research was funded by the the Wisconsin Department of Transportation. The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the information presented herein. This document is disseminated under the sponsorship of the Wisconsin Department of Transportation and the US Department of Transportation, University Transportation Centers Program, in the interest of information exchange. The US Government assumes no liability for the contents or use thereof. The contents do not necessarily reflect the official views of the National Center for Freight and Infrastructure Research and Education, the University of Wisconsin–Madison, the Wisconsin Department of Transportation or the US DOT's RITA at the time of publication.

Neither the United States Government nor the Wisconsin DOT assumes liability for its contents or use thereof. This report does not constitute a standard, specification, or regulation.

The United States Government and the Wisconsin DOT do not endorse products or manufacturers. Trade and manufacturers names appear in this report only because they are considered essential to the object of the document.

Table of Contents

Introduction

The aging of baby boomers poses significant challenges to Wisconsin's existing transportation infrastructure and specialized transit programs. From 2010 to 2035, the number of elderly Wisconsinites is projected to grow by 90 percent, an increase of 702,760 persons.[1] By 2035, residents age 65 and over will comprise nearly a quarter of the population of Wisconsin, as every county in the state will experience growth in the elderly share of their population over the next 25 years. The U.S. Department of Transportation's *2003 National Household Travel Survey* found that personally-owned vehicles account for over 90 percent of trips taken by elderly residents; the extrapolation of this data suggests an overwhelming majority of Wisconsin's future elderly residents will be accustomed to driving.[2]

Because elderly persons are vulnerable to a decline in visual, cognitive, and psychomotor skills, a dramatic increase in the number of elderly drivers has serious safety implications for the state. Elderly drivers are more likely to have crashes on a per-mile basis, more likely to be at fault in a multicar crash, and more likely to be killed or injured than are younger people in a crash of comparable magnitude.[3] When elderly drivers are forced to stop driving or self-regulate in response to declining abilities and safety concerns, they face increased isolation from social, family, and civic activities and decreased access to medical services.[4] These safety and social ramifications demand an examination of the state's current driver licensing and education practices, infrastructure design protocols, and specialized and public transit efforts. The analysis of Wisconsin's existing services, collection of input from elderly residents, and review of national and international best practices will allow the Wisconsin Department of Transportation (WisDOT) to better manage these approaching demographic challenges

This research study is divided into five distinct tasks. For the first task, Current Practices, the research team reviews Wisconsin state and local government elderly driving and transit programs and initiatives. We describe common themes garnered from interviews with state- and local-level managers of the most expansive programs for elderly mobility. For the second task, Demographic Analysis, the research team examines state- and county-level projections to ascertain future population shifts, both in terms of absolute elderly population growth and elderly population share growth. For the third task, Elderly Input, the research team presents information received from a large-scale survey documenting elderly Wisconsinites' transportation habits, needs, preferences, and satisfaction levels. We obtained 4,099 responses from a geographically and demographically diverse subset of the state elderly population. In addition, we hosted 16 separate focus groups of seniors and service providers around the state, with a particular emphasis on visiting rural areas. We visited two gatherings of tribal nations for

---

[1] Ofstead, C. (2010, March). Demographics of Aging in Wisconsin. Retrieved March 28, 2010, from Wisconsin Department of Health Services, Division of Long Term Care, Bureau of Aging and Disability Resources: http://dhs.wi.gov/aging/demographics/index.htm

[2] About 60 to 80 percent of POV trips (depending on age) consist of elderly persons as drivers, and the rest are as passengers. U.S. Department of Transportation. (2003, November). Safe Mobility for a Maturing Society: Challenges and Opportunities. Retrieved March 28, 2010, from Office of the Assistant Secretary for Transportation Policy: http://ostpxweb.dot.gov/policy/data/safemobility.pdf

[3] Rosenbloom, S. (2003, July). The Mobility Needs of Older Americans: Implications for Transportation Reauthorization. Retrieved March 27, 2010, from The Brookings Institution, Center on Urban and Metropolitan Policy: http://www.brookings.edu/~/media/Files/rc/reports/2003/07transportation_rosenbloom/20030807_Rosenbloom.pdf

[4] Bailey, L. (2004, April). Aging Americans: Stranded without Options. Retrieved March 27, 2010, from Surface Transportation Policy Project: http://www.transact.org/library/reports_html/seniors/aging.pdf

even broader qualitative data coverage. We present our findings from these focus groups and discuss common themes.

For the fourth task, Best Practices, the research team provides an overview of the most innovative and effective licensing, education, roadway design, equipment, and alternative transit initiatives nationally and internationally. We examine exemplary elderly mobility plans from other states and synthesize published research from external organizations. Finally, for the fifth task, we issue analysis and recommendations based upon information accumulated in the previous four tasks. Policy recommendations account for the funding constraints and jurisdictional issues faced by WisDOT.

Prior research efforts by Wisconsin state agencies presented opportunities for this study. The Wisconsin Department of Health Services' Bureau of Aging and Disability Resources, together with the Wisconsin Department of Administration's Demographic Service Center, published detailed population projections for elderly residents through 2035 and a long-term state plan for managing the coming retiree boom; both resources were helpful for analyzing demographic data and trends.[5]

The research team confronted a research void as it aimed to collect quantitative and qualitative data on elderly transportation issues in Wisconsin. We also faced the challenge of applying population and economic projections to Wisconsin transportation issues. Research efforts from other states, such as Michigan and Pennsylvania, were invaluable to this report, as were independent studies conducted by local governments in Wisconsin. A 2008 report on the state' transportation coordination model, prepared by Nelson\Nygaard Consulting Associates, offered valuable suggestions for improving intergovernmental harmonization.[6] However, because the report focused on coordination and not specifically on elderly mobility needs, it neglected to examine many of the broader educational, technological, and infrastructure-related improvements that would enhance existing WisDOT efforts. This study endeavored to fill that research void and provide actionable recommendations while remaining cognizant of the various fiscal and intergovernmental barriers encountered by public bodies and non-profit agencies.

[5] For the long-term plan, see Schmidlkofer, J. (2009, July). Wisconsin Plan for Older People 2010-2012. Retrieved March 2010, 25, from Wisconsin Department of Health Services, Division of Long Term Care, Bureau of Aging and Disability Resources: http://dhs.wi.gov/aging/Publications/Final%20State%20Plan%2007-24-09.pdf. For the projectins, see Ofstead, 2010.

[6] Nelson\Nygaard Consulting Associates, 2008.

1. Current Practices

Wisconsin, like states across the nation, will see a dramatic increase in its population of older adults over the coming years. As driving skills tend to deteriorate with age, many elderly individuals find that they must rely upon other options for transportation in order to accomplish daily activities and remain active in their communities. A study recently released by Transportation for America predicts that more than 15.5 million older Americans will have only "poor" access to public transportation by 2015,[7] yet, most Americans want to "age in place," rather than move to areas with more comprehensive transportation options. Meeting the challenges posed by this demographic shift requires that state and local agencies consider the structure and function of the transportation system with respect to older Wisconsinites.

Within the state, an array of programs and policies exist that support mobility of elderly individuals. This section seeks to identify current practices related to meeting the transportation needs of Wisconsin's older populations, focusing upon state government efforts but also incorporating the activities of other groups. The overview of current practices begins with a discussion of practices pertaining to elderly drivers including outreach and education efforts, self-assessment tools, licensing and vehicle equipment, and roadway design. The discussion of current practices then continues with a description of specialized and public transit programs administered by the Wisconsin Department of Transportation (WisDOT), programs funded and administered by other state agencies, local initiatives and programs, and efforts toward coordinating transit services. The final section presents themes gathered throughout the review of current practices, suggesting several possible issues that state and local officials should consider in efforts to improve elderly mobility in Wisconsin.

Older Drivers in Wisconsin

For many elderly residents of Wisconsin, the ability to access and drive one's own vehicle serves a critical role in retaining independence and connections in the community. Physical impacts associated with the aging process, however, along with changing regulations and roadway design features may compromise an individual's ability to safely operate one's own vehicle. This section highlights current practices with respect to elderly drivers in Wisconsin.

1.1 General Outreach and Education

Communication about transportation policies, standards, and services is an important part of ensuring that older drivers understand current guidelines, their own abilities, and other transportation options. Additionally, information-sharing between interested stakeholders is critical in creating a consistent, comprehensive approach to issues surrounding older drivers.

1.1.1 WisDOT informational resources for older drivers

The Wisconsin Department of Transportation website offers a number of general online resource pages geared toward older drivers or those interested in learning about elderly mobility in Wisconsin. For a more detailed description about the specific resources offered, see Appendix 1. The WisDOT Medical Review Unit has composed a publication titled "Be Safe, Not Sorry: Older Driver Workbook." This document provides responses to common questions and concerns facing aging drivers including information about the license renewal process and additional medical tests that aging drivers may need to undergo. It also provides a basic self-

[7] Transportation for America (2011). *Aging in Place, Stuck without Options: Fixing the Mobility Crisis Threatening the Baby Boom Generation.* p. 4. Accessed: http://t4america.org/docs/SeniorsMobilityCrisis.pdf

assessment tool and a general guide to identifying alternative means of transportation.[8] Self-assessment resources assist a driver in determining their ability to continue driving safely. The general information guide to other transportation options also provides aging drivers with a starting point to identify suitable alternatives available in specific locations.

1.1.2 Educational resources for older drivers

A number of external organizations furnish educational resources and assessment tools to elderly drivers. Two of the most notable groups include the American Automobile Association (AAA) Foundation for Traffic Safety and AARP. In addition to various web-based tools and resources, the AAA provides a brochure to those interested in assisting older drivers and a short video: "The Older & Wiser Driver."[9] AARP offers a seminar called "We Need to Talk," geared towards families of older drivers to assist them in discussing mobility transitions with their aging family members. AARP also designed a Driver Safety Program course geared toward aging drivers. This course is currently offered online and in more than 30 communities throughout Wisconsin sponsored by senior centers, Aging and Disability Resource Centers, medical centers, retirement housing facilities, and other organizations.[10] A number of other states require insurance companies to provide discounts to drivers who complete such courses; however, Wisconsin is not among these states.

1.1.3 Older driver training services

Independent groups including the National Highway Traffic Safety Administration and the Insurance Institute for Highway Safety provide training resources and services for older drivers. For example, the American Occupational Therapy Association (AOTA) lists 17 facilities in Wisconsin that provide driving specialist services to individuals over 65. Occupational therapists can provide support to older drivers recovering from an injury or those experiencing cognitive or physical changes impacting driving abilities. These specialists, including private therapy providers and medical centers, offer a range of services related to driving skills including evaluation, training, driving simulation, and information on alternative transportation services.[11] Additionally, AOTA, along with AARP and AAA, sponsors a program called CarFit, which is a free educational program for older drivers. This program helps drivers adjust vehicle equipment (including mirrors and seats) to promote safe and comfortable driving positions while introducing assistive devices and informational materials. A number of Wisconsin communities have hosted CarFit events in the past.[12]

1.1.4 Reporting at-risk drivers

The Medical Review Unit has also taken a lead role in helping to improve reporting with respect to at-risk drivers. While there is no mandatory requirement for physicians or other medical professionals to report medically at-risk drivers, WisDOT's Medical Review Unit has developed resources to aid law enforcement officers, medical professionals, department staff, and private citizens in reporting and tracking medically at-risk drivers. First, the Unit developed the Driver

---

[8] Wisconsin Department of Transportation (Spring 2008). *Be safe, not sorry: older driver workbook*. Accessed: http://www.dot.state.wi.us/drivers/docs/bds345.pdf

[9] AAA Foundation for Traffic Safety. *SeniorDrivers.org*. Accessed: http://www.seniordrivers.org/home/

[10] AARP. *AARP Driver Safety Program Classroom Course Locator.* Accessed: http://www.aarp.org/applications/VMISLocator/searchDspLocations.action

[11] American Occupational Therapy Association, Inc. *Find a Driving Specialist*. Accessed from: http://myaota.aota.org/driver_search/index.aspx

[12] Additionally, as of 8/13/11, three upcoming CarFit events had been scheduled for Wisconsin. Accessed: http://www.car-fit.org/carfit/RegisterCarFit/WI

Condition or Behavior Report form. Since the Medical Review Unit cannot take any formal action without external information, this critical form helps start the process of evaluating an at-risk driver (this process is discussed further in section 1.3). In 2010, the Unit received 4,280 of these forms.[13] Department records indicate that historically, about 75 percent of these forms are filed in regards to a driver over the age of 55.[14] Law enforcement officials submit about 75 percent of all Driver Condition or Behavior Report forms (with fewer filed by medical professionals and private citizens). Law enforcement officials can file these forms via their automated reporting system, TraCS (Traffic and Criminal Software), providing for convenient and user-friendly reporting. Since officers are accustomed to using TraCS for a wide range of reports, identifying at-risk drivers simply represents a similar duty. The Medical Review Unit also created three brochures to help law enforcement officials, medical professionals, and private citizens (respectively) determine appropriate instances in which to report at-risk drivers, as well as guidelines for reporting.[15] Though the office does not formally offer counseling services, Medical Review Unit staff do provide information and advice to drivers and their families. For instance, the Unit keeps a page of pertinent phone contacts for each county including transit providers, county aging units, AARP, etc.[16] The Unit formerly employed a nurse practitioner to provide outreach to the medical and law enforcement communities and encourage reporting; however, the position has remained vacant for several years. In addition, 2007 was the last year in which the Unit collected detailed information about the informant type and the age of the driver.[17]

1.2 Licensing Policies and Assistive Vehicle Equipment

Policies guiding drivers license renewal and cancellation, along with the provision of supportive equipment or technology, also contribute to the mobility of safe drivers while supporting public safety goals for all transportation system users.

1.2.1 License renewal and screening

Currently, each Wisconsin resident with a valid driver's license must have it renewed every eight years. Unlike some other states that mandate accelerated renewal schedules for older drivers, Wisconsin does not use any age-based provisions. At the time of renewal, all licensees must answer medical questions and undergo a test of vision skills. All drivers must renew at a DMV service station, unless they are temporarily out-of-state and cannot renew in person. This initial screening provides an opportunity to identify at-risk drivers.

1.2.2 License cancellation and assessment

As noted above, the license cancellation process often begins with a Driver Condition or Behavior Report form filed in regards to a driver. The submittal of this form often requires a driver to provide the Medical Review Unit with a medical report. Upon receipt of this report, Unit staff check results against the medical licensing standards described in Wisconsin administrative rules.[18] If the driver meets standards but needs restrictions, license restrictions

---

[13] Matthew Brelie (7/21/11). Personal correspondence.
[14] ibid.
[15] Wisconsin Department of Transportation (9/2007). *Be safe, not sorry: law enforcement guide for reporting drivers to WI-DMV*. Accessed from: http://www.dot.state.wi.us/drivers/docs/bds343.pdf
Wisconsin Department of Transportation (9/2007). *Be safe, not sorry: medical professional guide for reporting drivers to WI-DMV*. Accessed from: http://www.dot.state.wi.us/drivers/docs/bds344.pdf
[16] Matthew Brelie (7/21/11). Personal correspondence.
[17] Matthew Brelie 7/15/11). Personal correspondence.
[18] Wis. Admin. Code TRANS 112 (Jun. 2007). Accessed: http://legis.wisconsin.gov/rsb/code/trans/trans112.pdf

are then issued. If the driver exhibits a condition that is likely to get worse, the Medical Review Unit may require continuous medical reporting. If the condition is temporary but some impairment is present, the Unit may require a driving test. Finally, if the driver fails to meet standards, the license is cancelled.[19] In 2009 the Department canceled 1,445 licenses due to medical conditions (across all age groups). After a license is cancelled, the Medical Review Unit sends out a formal cancellation notice and a separate letter describing the appeal process and the judicial review process. Upon cancellation of a license, a driver may appeal the decision to the Medical Review Board, a panel of volunteers from the medical community. There are generally about ten individuals completing the appeals process each month. As noted above, the Medical Review Unit does not automatically distribute information about other transportation options but do have information and contacts by county on hand. If such information is requested, they distribute it.

1.2.3 Special license plates

Drivers with limited ambulatory abilities due to a disability (as defined by law and as certified by an authorized health care specialist) may apply for and receive a disabled parking identification permit, disabled license plate, or disabled veterans license plate (in the latter case, only when the disability resulted from an injury incurred in active U.S. military service). These provisions apply to drivers of any age; however, elderly drivers may benefit more frequently than others. Certification of disabled permits or plates is required every four years. Recipients of disabled permits or plates may use parking spaces reserved for disabled individuals, are exempt from most posted parking time limits greater than one-half hour, are exempt from fees in most metered parking spaces owned or leased by a municipality, and may obtain fuel from a full-service pump at the same price as the fuel from a self-service pump (if the location offers both types of service, the recipient is the driver, and the driver asks for the same price available for self-service).[20] These designations support elderly mobility by lowering the level of physical effort that individuals with limited ambulatory abilities must exert in transporting themselves between vehicles and destinations.

1.2.4 Assistive technology and financial support

The Wisconsin Assistive Technology Programs include the WisTech and WisLoan Programs, which provide support to individuals with disabilities for assistive technology, including vehicle upgrades like wheelchair lifts and other adaptive features including devices that make it easier to get in and out of vehicles and operate vehicle controls. WisTech provides technical assistance and demonstrations of these technologies while WisLoan makes low-interest financing available for “modified vehicles, wheelchairs, and ramps.” This program is funded under the Assistive Technology Act of 1998.[21] Another program that provides financial support to elderly drivers is the Non-Emergency Medical Transportation (NEMT) program of Medicaid. While most NEMT funds are dedicated to transit or other mobility solutions, NEMT may also reimburse clients on a per-mile basis for driving themselves to and from medical appointments. For a more complete discussion of NEMT, see “Other Wisconsin Agency Elderly Mobility Programs.”

---

[19] Matthew Brelie 7/15/11). Personal correspondence.

[20] Wisconsin Department of Transportation. *Important information for use of Disabled Plates, Disabled Veteran Plates, or Disabled Parking Identification Permits.* Accessed: http://www.dot.wisconsin.gov/drivers/forms/mv2752.pdf

[21] Wisconsin Department of Health Services. *Wisconsin’s Assistive Technology Program (WisTech).* Accessed: http://www.dhs.wisconsin.gov/disabilities/wistech/index.htm

1.3 Highway Design

Highway design and engineering practices can make a particularly significant impact upon older drivers' ability to navigate the state's roadways. Declining vision and physiological skills can impede a driver's ability to recognize traffic signs and other important highway elements. Reduced cognitive skills hamper a driver's ability to quickly recognize, process, and respond to large amounts of information about a roadway situation. Changes in design practices also present challenges for drivers unaccustomed to the new facility types.

1.3.1 FHWA guidance

State design practices frequently rely on national guidance from the Federal Highway Administration (FHWA). The FHWA is currently updating the Highway Design Handbook for Older Drivers and Pedestrians, a document that was last published in 2001 and provides guidelines and recommendations to highway designers and engineers.[22] The handbook identifies a three-step guide to help officials determine when specific recommendations should be implemented. The extent to which WisDOT guidance adopts these recommendations is not immediately clear; however, WisDOT's design manual does echo at least some of these recommendations. For example, in calculating intersection sight distance for vehicles turning left from major roadways, WisDOT requires a time gap of 8.0 seconds, which conforms to the FHWA Highway Design Handbook for Older Drivers and Pedestrians.[23] Further, for new intersections, WisDOT encourages designers to achieve an angle as close to 90 degrees as possible, with a minimum of 70 degrees, another practice supported by FHWA.[24] In some design areas related to older drivers, however, the FDM does not appear to offer guidance. For example, regarding the proper width of lanes receiving traffic from left lanes, the FHWA guide encourages 12-foot-wide lanes to best balance the needs of elderly drivers and pedestrians.[25] The FDM does not appear to offer a recommendation for this design element.

While WisDOT employs pavement markings in compliance with the requirements set forward by the Manual on Uniform Traffic Control Devices, it is unclear whether these meet the FHWA-recommended contrast levels, which aid older drivers in identifying road edges, along with curbs, medians, and other obstacles. On the other hand, WisDOT maintains its own Traffic Signal Design Manual, providing guidance on traffic signals throughout the state. This supports a level of statewide consistency, one of FHWA's recommendations for mitigating any confusion that varied signal designs across jurisdictions may cause.

1.3.2 New design practices

The installation of modern roundabouts is a significant issue for older drivers. Roundabouts represent a departure from traditional intersection designs in Wisconsin and necessitate a behavioral adjustment for elderly drivers and pedestrians alike. WisDOT's Facilities Design Manual includes specific guidelines for outreach and education activities associated with the

---

[22] Federal Highway Administration (May, 2001). *Highway Design Handbook for Older Drivers and Pedestrians*. U.S. Department of Transportation. Publication No. FHWA-RD-01-103. Accessed: http://www.fhwa.dot.gov/publications/research/safety/humanfac/01103/

[23] Wisconsin Department of Transportation. Facilities Development Manual. Chapter 11, Section 10, pp. 12-13. Accessed: http://roadwaystandards.dot.wi.gov/standards/fdm/11-10.pdf#fd11-10-5.1.4

[24] Wisconsin Department of Transportation. Facilities Development Manual. Chapter 11, Section 25, p. 6. Accessed: http://roadwaystandards.dot.wi.gov/standards/fdm/11-25.pdf#fd11-25-1.5

[25] Federal Highway Administration (May, 2001). *Highway Design Handbook for Older Drivers and Pedestrians*. U.S. Department of Transportation. Publication No. FHWA-RD-01-103. Accessed: http://safety.fhwa.dot.gov/intersection/resources/fhwasa09027/resources/Highway%20Design%20Handbook%20for%20Older%20Drivers%20and%20Pedestrians.pdf

introduction of a roundabout into a community.[26] These activities include a public meeting at a relatively early stage in the design process as well as attendance at village or town board meetings and local service organizational meetings. The manual also points out that informational brochures, videos, and a WisDOT web site devoted specifically to roundabouts can help aid public education and outreach efforts. Indeed, the Department has developed a range of publications and multimedia resources providing outreach and information about roundabouts.

1.3.3 Traffic Signing and Marking Enhancement Grants Program

In 2005 and 2006, the state administered the Traffic Signing and Marking Enhancement Grants Program, which provided $3.8 million in funds to local municipalities for traffic signs and pavement markings that would improve visibility for elderly drivers and pedestrians. The program was eliminated from the 2007-2009 budget.

1.3.4 Inclusion in department plans

In preparation of the 2006-2008 Strategic Highway Safety Plan, the Wisconsin Department of Transportation identified 26 issue areas, including "Sustain proficiency in older drivers." While this plan did not prioritize this area among its top ten issues, the document did include a brief discussion of related agency activities.[27] Additionally, *Connections 2030*, the state's long-range multimodal transportation plan, addresses the needs of older individuals in a number of chapters.[28]

Transit for Elderly in Wisconsin

Wisconsin administers state- and federally-funded programs designed specifically to meet the transportation needs of older individuals who cannot or choose not to drive. Public transit programs with services intended for the general public also benefit elderly individuals. While most of these services are operated at local or regional levels, the Wisconsin Department of Transportation, along with other agencies at state and local levels, administers state and federal funding programs and provides technical support to services that support the mobility of older individuals. See Appendix 2 for a summary of programs that contribute to elderly mobility in Wisconsin.

1.4 WisDOT Elderly Mobility Programs

There are four main transit programs that WisDOT administers to support elderly mobility: the Specialized Transportation Assistance Program (s. 85.21), Tribal Transportation for Elders (s. 85.215), the Elderly and Disabled Transportation Capital Assistance Program (Section 5310/s. 85.22), and the New Freedom Initiative. Each program carries different goals, implementation procedures, funding sources, and requirements. Together, these four programs provide nearly $20 million annually in support of mobility for elderly and disabled individuals.[29]

---

[26] Wisconsin Department of Transportation. *Facilities Design Manual*. Accessed: http://roadwaystandards.dot.wi.gov/standards/fdm/11-26.pdf#fdm11-26-15

[27] Wisconsin Department of Transportation. *Wisconsin Strategic Highway Safety Plan, 2006-2008.* Accessed: http://www.dot.wisconsin.gov/library/publications/topic/safety/hwy-strategic-safety-plan.pdf

[28] Wisconsin Department of Transportation. *Connections 2030.* Accessed: http://www.dot.state.wi.us/projects/state/2030-background.htm

[29] Wisconsin Department of Transportation. *2011-13 Biennial Budget Request*. Accessed: http://www.dot.wisconsin.gov/about/docs/11-13budgetrequest.pdf

1.4.1 Specialized Transportation Assistance Program

The Specialized Transportation Assistance Program for Counties (s. 85.21) is a state-funded initiative to improve mobility for elderly and disabled populations. Allocations are based upon each county's share of elderly and disabled individuals though no county can receive less that 0.5 percent of the total annual appropriation (in 2011, this was $68,117). In 2011, 22 counties received the minimum level of aid. Recipients may apply funds to a wide range of eligible expenditures including the direct provision of transit service, payment for service by any public or private organization, fare reimbursements to passengers or cost reimbursements to drivers, planning or management studies, coordination of services, training, or the purchase of capital equipment. About half of counties spend all aid received through this program on direct service provision, and almost all spend at least a portion on direct services.[30] Some counties contract with private non-profits and have successful, efficient systems; however, problems may occur if there is poor coordination with public officials or if priorities are shifted elsewhere (away from providing transportation for elderly individuals). Funding under this program requires a locally-provided match of 20 percent. In 2008 the program provided nearly 4 million trips across Wisconsin. The vast majority of the trips provided by direct services are medical in nature.[31] In 2011, $13.6 million was appropriated for the program.[32] For fiscal years 2012 and 2013, the program will also be funded with $13.6 million in state funds.[33] Notably, this program requires recipients to incorporate anticipated expenditures in local coordination plans. For more information about coordination efforts, see Section 2.5.

1.4.2 Tribal Transportation for Elders Program

The Tribal Transportation for Elders Program began in 2009 and is a state-funded program open to all federally recognized tribes in Wisconsin. Tribes determine the distribution of funds and in 2010, all 11 tribes received and equal share of the total funds ($247,500), or $22,500.[34] Program funding will remain the same in fiscal years 2012 and 2013.[35] These funds, which require no match, can go towards direct service provision, the purchase of services, fare reimbursements to passengers or cost reimbursements to drivers, planning or management studies, or coordination of services. Most of these funds go toward demand-response, door-to-door transportation services that use minivans or minibuses. Most trips provided by tribal services involve medical care, grocery shopping, or community or recreational events. Because of the small level of funding that each tribe receives, tribes supplement transit funding with gaming revenues from casinos, non-profit or donation funding, funding from federal or local programs, or other sources.[36]

1.4.3 Elderly and Disabled Transportation Capital Assistance Program

The Elderly and Disabled Transportation Capital Assistance Program supports the purchase of specialized transit vehicles that are used for people with disabilities and the elderly. For this program, WisDOT applies for Section 5310 funding from the Federal Transit Administration and receives an amount based upon the state's estimated population of elderly and disabled

---

[30] Thomas Robinson (11/19/2010). Personal correspondence.
[31] Ibid.
[32] Al Runde. *Urban Mass Transit Assistance*. Legislative Fiscal Bureau Informational Paper 23 (January 2011). Accessed: http://legis.wisconsin.gov/lfb/Informationalpapers/23_Urban%20Mass%20Transit%20Assistance.pdf
[33] 2011 Wisconsin Act 32. Accessed: https://docs.legis.wisconsin.gov/2011/related/acts/32.pdf#page=0
[34] Wisconsin Department of Transportation. Tribal Transportation for Elders. Accessed: http://www.dot.wisconsin.gov/localgov/docs/tribal-elders.pdf
[35] 2011 Wisconsin Act 32.
[36] Thomas Robinson (3/9/2011). Personal correspondence.

individuals. Wisconsin supplements these aids with state funding. Through the state program (s. 85.22), private non-profit organizations apply to WisDOT and compete for funding. A local public body (often the Aging and Disability Resource Center) may also apply if it is the approved coordinator of elderly and transportation services or if there exists no such private, non-profit group.

In recent years, federal funding for this program has remained relatively constant; however, the 2010 Census may significantly impact funding levels. In 2010, the state received $2.3 million in federal assistance and added about $913,000 in state aid.[37] In fiscal years 2012 and 2013, the program will receive similar amounts in state funds for an estimated total of about $3 million in each fiscal year.[38] Applications are reviewed biennially and are evaluated based on identification of transportation needs, coordination with other agencies, service to all elderly and disabled persons in the service area, and the managerial and financial capacity of the applicant. Generally, any provider who meets some scoring threshold receives some funding; however, it may be less than the amount requested based upon their score or the availability of funds. The sum of awarded state and federal aid cannot exceed 80 percent of a project's costs.

Most applicants for this program are "sheltered workshops," groups that take disabled individuals to central locations to do work in safer, controlled environments. Other agencies focus on medical trips. The program manager estimated that a little over one third of the service provided through the vehicles in this program goes toward transportation for elderly individuals. Recipients most commonly allocate aid from this program toward door-to-door services—60 percent of recipients are exclusively door-to-door and 40 percent are a combination of door-to-door service and fixed route service, usually between a senior center and a medical clinic. The state procures a variety of vehicles for the program, from standard minivans—which account for about 15 percent of expenditures—to minibuses seating 7 to 15 individuals, to large buses, though these are somewhat less common. Many vehicles purchased through the program are wheelchair accessible.[39]

Recipients of federal funds from this program must certify that the project was derived from a "locally developed coordinated public transit-human services transportation plan." [40] This requirement is intended to ensure that local officials are taking steps to integrate various transportation programs to best serve target communities while limiting redundancy; however, these plans do not guarantee the elimination of service gaps.

1.4.4 New Freedom

The New Freedom Initiative provides formula-based federal funds to states and large urbanized areas to promote inclusion and access for people with disabilities. In 2010, the Madison and Milwaukee Urbanized Areas received $83,650 and $432,839, respectively, based upon their relative shares of individuals with disabilities. Small urbanized areas received $648,471 and non-urbanized areas received $433,168.[41] WisDOT applies for this funding and awards it to successful applicants on a point-based, competitive basis. Eligible recipients include private non-profit organizations, local public bodies, and public transportation operators. In recent

[37] Wisconsin Department of Transportation. *Elderly and Disabled Transportation Capital Assistance Program.* Accessed: http://www.dot.wisconsin.gov/localgov/docs/elderly.pdf
[38] 2011 Wisconsin Act 32.
[39] Thomas Robinson (1/27/2011). Personal correspondence.
[40] Wisconsin Department of Transportation (Oct. 2010). *Toolkit: Transportation Coordination Plans*. Accessed: http://www.dot.wisconsin.gov/localgov/transit/toolkit.htm
[41] Wisconsin Department of Transportation (2/17/2010). *New Freedom funding and apportionments.* Accessed: http://www.dot.wisconsin.gov/localgov/transit/newfreedom-funding.htm

years, more recipients have dedicated New Freedom funding to mobility management programs. In 2010, there were 56 mobility managers across the state: 27 funded by New Freedom, 20 funded by the Job Access Reverse Commute/Wisconsin Employment Transportation Assistance Program, and 9 funded through other sources.[42] For more information on mobility management, see Section 2.5. Voucher programs and other projects related to the mobility manager also commonly receive New Freedom funds. For mobility management and capital projects funded through this program, New Freedom reimburses recipients at a rate of 80 percent. Funds dedicated to defray operating costs only receive a 50 percent reimbursement, which discourages applicants with operating projects, particularly in consideration of higher matching rates offered through other programs.[43] Recipients of New Freedom funds must also meet the coordination requirements outlined above.

1.5 Other Wisconsin Agency Elderly Mobility Programs

While WisDOT-administered programs contribute significantly to the mobility of Wisconsin's elderly non-drivers, other state agencies also fund and operate important programs in support of this goal. Elderly individuals may account for small proportions of some of these programs, but each acts as a part of the network of transportation opportunities available to aging Wisconsinites.

1.5.1 Non-Emergency Medical Transportation

The Wisconsin Department of Health Services (DHS) administers the Non-Emergency Medical Transportation Program (NEMT), which provides transportation for Medicaid recipients to and from non-emergency medical appointments that they could not otherwise physically access, using either a common carrier (e.g., taxi service) or, when necessary, special medical vehicles (SMVs). This program provides $60 million annually for transportation. States are required by the Medicaid program to ensure that all recipients are able to reach their medical appointments and provide rides or reimbursement for rides to those who are unable or cannot afford to drive, ride public transportation, or otherwise travel on their own to medical facilities. While seniors represent a relatively small minority of Medicaid recipients, they are likely over-represented in terms of their use of NEMT services because they may "have reduced driving capabilities and reduced ability to use public transportation and may use more medical transportation services than younger Medicaid recipients."[44]

The costs of providing non-emergency transportation service are partially covered by federal matching funds; the match rate is determined by whether the state claims transportation as an "optional medical service" or an "administrative service." Claiming costs as an optional medical service allows states to receive a higher matching percentage as determined by the state's Federal Medicaid Assistance Percentage—in Wisconsin, the 2011 Quarter 3 rate is 65.92%[45]—but this arrangement requires that the service be provided "by a vendor to whom the Medicaid agency makes a direct payment." Claiming transportation as an administrative expense, on the other hand, provides the State more flexibility in running the program (allowing, for example,

[42] Wisconsin Department of Transportation (9/27/2010). *Mobility Mangement in Wisconsin*. Presentation to CalACT Fall Conference. Accessed: http://www.calact.org/assets/Ingrid%20Koch%20Presentation-MM%20Monday.pdf
[43] Ingrid Koch (3/4/2011). Personal correspondence.
[44] Nelson\Nygaard Consulting Associates (Dec. 2004). *The Impact of Federal Programs on Transportation for Older Adults*. Accessed: http://assets.aarp.org/rgcenter/post-import/2004_17_transport.pdf
[45] The Henry J. Kaiser Family Foundation (2010). *Wisconsin: Temporary Federal Medicaid Relief*. Accessed: http://www.statehealthfacts.org/profileind.jsp?cat=4&sub=154&rgn=51

reimbursement of recipients instead of vendors) but matching funds are limited to a 50% rate.[46] In the past, Wisconsin claimed its NEMT services as an administrative expense, but the state recently switched to the optional medical service model to take advantage of higher match rates, contracting with LogistiCare Solutions, LLC to take over statewide NEMT brokering.[47] In adopting LogistiCare, which is active in 38 states, the state also hoped to eliminate fraud and abuse, reduce NEMT expenditures, and collect and report transportation data.[48] However, some stakeholders expressed concern that this move will jeopardize local providers of NEMT services and that service quality or consistency may suffer. In fact, in the first days of LogistiCare's management of NEMT services, one local provider backed out of its contract with the company, citing numerous errors in customer records and significant communications difficulties.[49] A follow-up piece quoted a company representative citing customers who gave insufficient notice for trips as the possible root of the issue. The official added that a large majority of trips in the first several days were complaint-free.[50]

1.5.2 Older Americans Act transportation support

The Older Americans Act was signed into law in 1965 to provide a variety of supportive services to the elderly and their caregivers. Title III-B of the Act specifies a variety of supportive services that can be provided using federal grant money, including counseling, education, housing assistance, employment, abuse prevention, and others; the act also provides for funding transportation that enables access to other services or enhances access to existing transportation services. In Wisconsin, local aging units determine the services to be provided and in the past, approximately $200,000 (or about 10 percent) of Title III-B funds goes toward transportation. These services are of particular benefit to rural seniors—one in four uses the service, compared to one in eight urban seniors.[51]

1.5.3 Medicaid Infrastructure Grants

Medicaid Infrastructure Grants are a component of the 1999 Ticket to Work and Work Incentives Improvement Act. The grants funds state efforts to "develop the infrastructure to support competitive employment opportunities for people with disabilities" by improving Medicaid programs, coordinating and integrating Medicaid and other social service providers, and enhancing the comprehensiveness of back-to-work programs.[52] Although these programs do not specifically target the elderly, their elevated rates of disability suggest that these programs benefit older workers. With a minimum grant of $500,000 with no matching requirement for

---

[46] Health Care Financing Administration and the National Association of State Medicaid Directors' Non-Emergency transportation Technical Advisory Group (Aug. 1998). *Designing and Operating Cost-Effective Medicaid Non-Emergency Transportation Programs: A Guidebook for State Medicaid Agencies.* pp. 3-4. Accessed: http://ntl.bts.gov/lib/12000/12200/12290/medicaid.pdf

[47] Greg DiMieceli. (2010, July 2). Personal correspondence.

[48] Wisconsin Department of Health Services. Request for Proposal: Non-Emergency Medical Transportation Services Management. Accessed http://www.dhs.wisconsin.gov/rfp/DHCF/archive/1690/RFP-1690-DHCAA-SM-NEMT-Services.pdf

[49] Shawn Doherty. "Vital Signs: Badger Cab severs LogistiCare contract." The Capital Times. Accessed July 6, 2011. Available: http://host.madison.com/vital_signs/article_ab9ce0b0-a75b-11e0-84d3-001cc4c002e0.html

[50] Shawn Doherty. "Vital Signs: LogistiCare official answers critics." The Capital Times. Accessed July 24, 2011. Available: http://host.madison.com/news/local/health_med_fit/vital_signs/article_16bb94ba-a8cc-11e0-abe8-001cc4c002e0.html#ixzz1RnR70pVp

[51] Nelson\Nygaard Consulting Associates. (2004, December). *The Impact of Federal Programs on Transportation for Older Adults*. Accessed June 23, 2010 from AARP: http://assets.aarp.org/rgcenter/post-import/2004_17_transport.pdf

[52] Department of Health & Human Services Center for Medicare and Medicaid Services. (2006). *2006 Edition-Announcement: Medicaid Infrastructure Grant To Support the Competitive Employment of People with Disabilities*. Accessed July 1, 2010 from https://www.cms.gov/TWWIIA/downloads/2006migsolicitation.pdf

successful applications, Wisconsin and 38 other states have successfully applied for grants from the program. Wisconsin's program, called Pathways to Independence, includes provisions to remove barriers to entry to the workforce. While funding for the transportation component of this program is not specifically identified, surveys of disabled persons in Wisconsin revealed that their second most commonly cited priority was to "improve transportation options," and listening sessions in Wisconsin communities showed a similar concern for transportation issues, especially in rural areas.[53]

1.5.4 Wisconsin Senior Employment Program

Another program supporting elderly mobility is the Wisconsin Senior Employment Program (WISE), also known as the Senior Community Service Employment Program (SCSEP). This job training and placement program seeks to place unemployed and lower-income seniors (55 and older, with preference given to those 65 and older) in unsubsidized jobs. The program is funded by Title V of the Older Americans Act and administered nationally by the U.S. Department of Labor and at the state level by the Wisconsin Department of Health Services, which in turn funds non-profit organizations that provide part-time community service training and placement services. Currently, six non-profit organizations run WISE programs in 28 Wisconsin counties.[54] WISE enrollees who cannot otherwise travel to work receive vouchers for bus and cab fare.[55] Additionally, SER-Jobs for Progress National, Inc., a non-profit that runs SCSEP programs, advises SCSEP administrators and providers to make transportation a priority by educating workers on how to use public transportation or partnering with schools or social service organizations to provide cars, vans, or buses for workers. SER also suggests that a lack of existing transportation resources can be a source of jobs for program participants and "provide needed services to the community if the necessary arrangements can be made."[56] This program is funded at $300,000.

1.5.5 Veterans Affairs programs

Finally, the Wisconsin Department of Veterans Affairs supports two program that support mobility for veterans of any age. The County Transportation Grant provides financial assistance to counties to provide transportation to Veterans Affairs medical appointments. A total of $100,000 is available annually. The Disabled American Veterans, a non-profit organization, provides a volunteer-operated fixed-route vanpool service between predetermined locations and medical facilities. In addition to $100,000 from the Department of Veterans Affairs, this program is supported by donations from individuals, corporations, and other organizations. State contributions to these programs continue at the same levels in the 2011-2013 biennium.[57]

1.6 WisDOT General Public Transportation Programs

In addition to the programs discussed above, WisDOT administers a number of other public transit and employment services programs that increase and enhance transportation options for older residents. These consist primarily of bus systems and shared-ride taxicab service

[53] Ibid.
[54] Wisconsin Department of Public Instruction. (2009, May). *Wisconsin Senior Employment Program (WISE) Overview*. Accessed July 2, 2010 from http://dpi.wi.gov/pld/pdf/wise-overview.pdf
[55] Monica Snittler (4/8/2010). Personal correspondence.
[56] SER-Jobs for Progress National, Inc. *Hallmarks of Successful SCSEP Projects*. Accessed July 2, 2010 from http://www.ser-nationalnews.com/scsep-best-practices/213-hallmarks-of-a-successful-scsep-projects
[57] 2011 Wisconsin Act 32.

systems, which operate in places where bus service is infeasible. See Figure 1, below, for a map of the public transit systems throughout the state.

1.6.1 Federal Formula Grant Program for Urbanized Areas

The Federal Formula Grant Program for Urbanized Areas (Section 5307) is a federally-funded program that assists transit systems in large communities with capital or operating expenditures. Funds are distributed to transit systems in urbanized areas (with populations greater than 50,000) through a formula based on population, population density, and revenue miles of service provided (the number of miles all vehicles traveled while in service). Under the tiered funding structure, Milwaukee County and Madison's systems (Tier A1 and A2, respectively) receive set appropriations and may only use Section 5307 funds for capital and capitalized maintenance expenditures. Smaller Tier B recipients may also dedicate funding to operating costs and the state distributes this funding, along with state operating funds (to be discussed later), based upon each system's net operating deficit. Capital assistance from the Section 5307 program is provided at 80 percent of project costs while operating assistance may cover 50 percent of the net operating deficit.[58] In 2010, WisDOT distributed $47.5 million in Section 5307 funding.[59] Significantly, observers expect the Fox Valley system to move to Tier A2 following the results of the 2010 Census. In this case, the state's federal allocation for Tier B systems would decline.[60] Indeed, the budget projects $38 million in federal revenue for transit in the upcoming budget biennium.[61]

1.6.2 Rural and Small Urban Area Public Transportation Assistance Program

The Rural and Small Urban Area Public Transportation Assistance Program (Section 5311) is similar, but supports capital and operating expenses for systems serving non-urbanized areas (populations between 2,500 and 50,000). Municipalities are the most common recipients, though some counties and transit agencies receive aid through this program. Under this program, the state receives federal funding based upon a formula incorporating factors like land area and ridership. Then, program administrators create a pot of combined federal and state funds and distribute it to individual recipients. See the following section for more details regarding this process. Of the federal operating assistance provided, about two-thirds of these funds go toward shared-ride taxi services while the balance of aids are dedicated to bus systems. Bus systems tend to dominate capital costs, however. On average, bus systems and shared-ride taxi systems evenly split Section 5311 funding. Shared-ride taxi systems receive a significant share of riders from older individuals accessing medical care, making this aspect of the program particularly important with regards to elderly transportation. In the last number of years, this program has received more funding based on growth in the number of programs eligible for aid. Currently, 54 systems receive funding through Section 5311; five of these systems are new to the program since 2007.[62] In 2010, the state distributed $13.4 million under this federal program.

---

[58] Wisconsin Department of Transportation. *Federal Formula Grant Program for Urbanized Areas.* Accessed: http://www.dot.wisconsin.gov/localgov/docs/fedformula.pdf

[59] Al Runde (Jan. 2011). *Urban Mass Transit Assistance*. Legislative Fiscal Bureau Informational Paper 23, January 2011. Accessed: http://legis.wisconsin.gov/lfb/informationalpapers/2011/23_urban%20mass%20transit%20assistance.pdf

[60] Joseph Kapper (3/8/11). Personal correspondence.

[61] 2011 Wisconsin Act 32.

[62] Jake Miller (3/10/2011). Personal correspondence.

1.6.3 Urban Mass Transit Operating Assistance

As noted above, state funds distributed through the Urban Mass Transit Operating Assistance program (s. 85.20) supplement federal funds by aiding transit systems with operating expenditures in local jurisdictions larger than 2,500. Bus systems eligible for aids from this program must offer a reduced fare (one-half or less of peak adult fare) for elderly and disabled riders during nonpeak hours. The state budget identifies a separate appropriation for each of four funding tiers (the three identified above plus Tier C, referring to those systems serving populations between 2,500 and 50,000). Program funds are distributed such that combined federal Section 5307 funds and state s. 85.20 funds cover an equal share of operating expenditures for all transit systems within a tier while ensuring that federal funds do not cover more than 50 percent of an individual system's operating deficit. In recent years, the combined funds subsidized Tier B systems at about 58 percent of operating expenditures, while Tier C systems received funds to cover around 65 percent of operating costs. In 2010, 73 systems received aid with over 90 percent of funding distributed to bus systems.[63] Bus system recipients of operating funds must provide a non-farebox local match of 20 percent of state aids received.

In the second year of the state's 2011-2013 budget biennium, operating aids will decline from about a $115 million across all four tiers to about $106 million, a funding reduction of about 10 percent. However, a new state program intended to support paratransit services will provide $2.5 million to transit systems operating in urban areas over the next two budget years.[64]

1.6.4 Federal Discretionary Capital Assistance Program

The Federal Discretionary Capital Assistance Program (Section 5309) is a federally-funded discretionary grant program that assists transit systems with capital project costs. Local public bodies are eligible to apply. When Wisconsin receives funds, WisDOT allocates a portion to Milwaukee County and the remainder is distributed by need and availability. In 2010, the state received $6.9 million in Section 5309 funds. The state also received nearly $82 million in transit capital funding from the American Recovery and Reinvestment Act during the 2009 and 2010 federal fiscal years.[65]

1.6.5 Rural Transit Assistance Program

The Rural Transit Assistance Program (RTAP) allocates federal funds to further the development of skills and abilities for persons involved in providing transit service in Wisconsin's rural and small urban areas. In 2010, Wisconsin received $196,313 in RTAP funds.[66] The Wisconsin RTAP program, which is administered by a consulting firm, offers a number of training courses geared toward rural transportation providers. The program also provides scholarships for individuals to attend these courses, conferences, or other transit-related events.[67]

---

[63] Al Runde (Jan. 2011). *Urban Mass Transit Assistance*. Legislative Fiscal Bureau Informational Paper 23, January 2011. Accessed: http://legis.wisconsin.gov/lfb/informationalpapers/2011/23_urban%20mass%20transit%20assistance.pdf

[64] 2011 Wisconsin Act 32.

[65] Al Runde.

[66] Ibid.

[67] Wisconsin Rural Transit Assistance Program. Accessed: http://www.wisconsinrtap.com/

1.6.6 Supplemental Transportation Rural Assistance Program

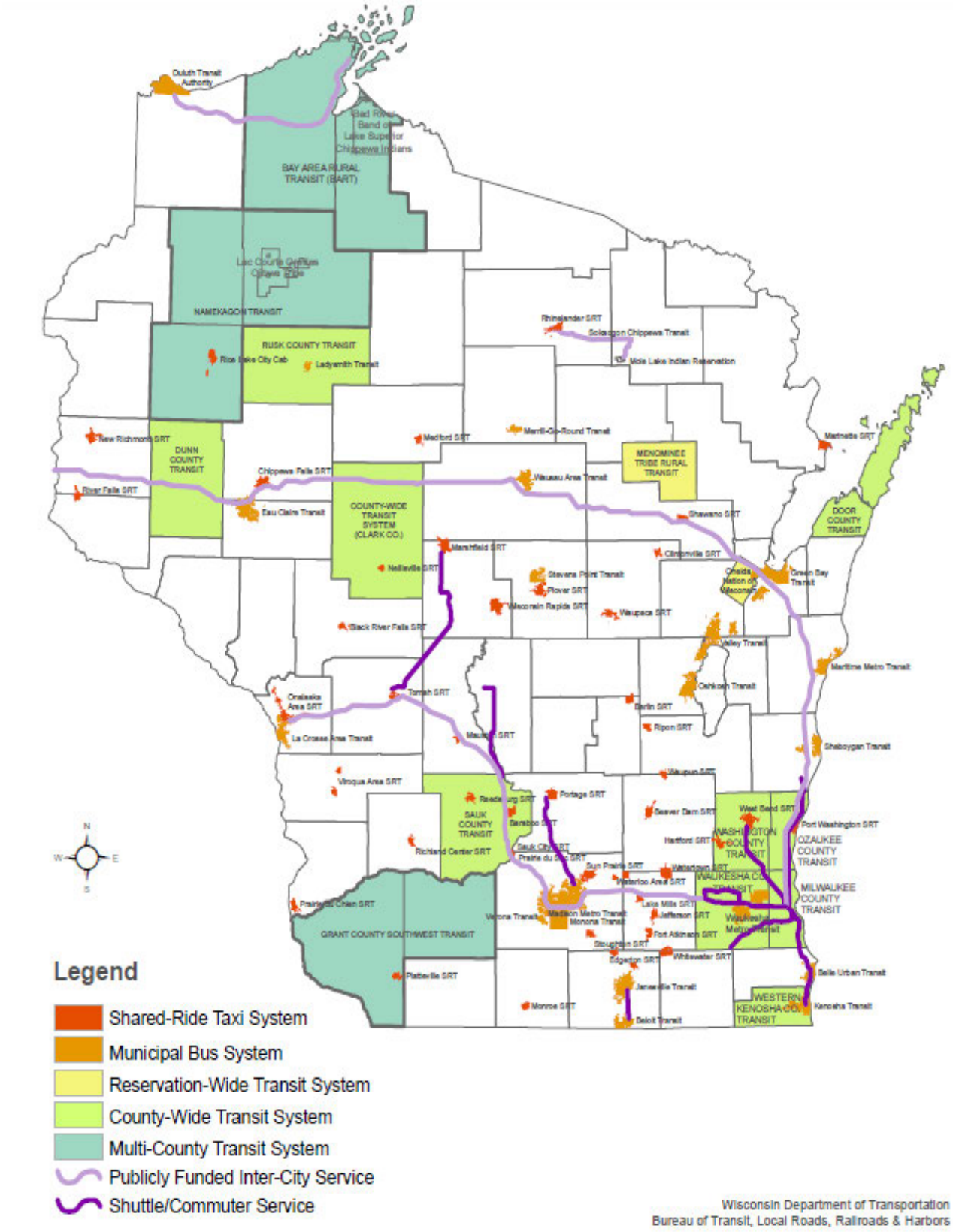
The Supplemental Transportation Rural Assistance Program (STRAP) was a four-year federal pilot program under SAFETEA-LU that provided operating and planning funds for public transit projects in non-urbanized areas. The program emphasized coordination between transportation services and addressing the needs of non-ambulatory residents, making it particularly relevant to issues surrounding elderly mobility. The federal government provided funding for 80 percent of project costs under this pilot; it is unclear whether a similar program will be reexamined in the future. In 2010, the state awarded $1.7 million in federal funds under STRAP.[68]

1.6.7 Wisconsin Employment Transportation Assistance Program

Finally, the Wisconsin Employment Transportation Assistance Program (WETAP) is comprised of local, state, and federal funding from the federal Job Access Reverse Commute Program (JARC) and the state Transportation Employment and Mobility (TEAM) and Employment Transit Aids (ETA) Programs. This program is geared toward meeting the transportation needs of low-income workers, including older working adults. Eligible applicants include local public bodies, public transit providers, non-profit agencies, and metropolitan planning organizations.[69] The JARC program focuses specifically on transporting low-income individuals to and from jobs and on developing transportation services accessing employment opportunities in suburban areas.[70] In 2010, Wisconsin received about $2.4 million in JARC funds. WisDOT and the Department of Workforce Development supplement this funding through the TEAM and ETA programs. In 2011, WETAP provided $3.3 million in federal funds, combined with $580,000 and $2.6 million in state and local funds, respectively.[71] Over the 2011-12 and 2012-13 budget years, legislators appropriated $332,600 to the TEAM program and $464,800 for ETA.[72] Projects receiving JARC funding must comply with the coordination requirements outlined for the Elderly and Disabled Transportation Capital Assistance and New Freedom Programs. WETAP requires a 25 percent local match.

[68] Wisconsin Department of Transportation. *Supplemental Transportation Rural Assistance Program*. Accessed: http://www.dot.wisconsin.gov/localgov/docs/strap.pdf
[69] Wisconsin Department of Transportation. *Wisconsin Employment Transportation Assistance Program.* Accessed: http://www.dot.wisconsin.gov/localgov/transit/wetap.htm
[70] Al Runde.
[71] Wisconsin Department of Transportation. *2011 WETAP Projects.* Accessed: http://www.dot.wisconsin.gov/localgov/docs/wetap-2011.pdf
[72] 2011 Wisconsin Act 32.

Figure 1.1 Wisconsin Public Transit Systems, Wisconsin Department of Transportation



1.7 Coordination Efforts, Mobility Management, and Volunteer Drivers

Financial support from state and federal programs does not guarantee that local service providers can meet the transit needs of older individuals. Indeed, following reductions in aid from a number of state and federal programs, stakeholders involved in elderly mobility must continue to identify ways in which to most efficiently utilize funds while exploring options for controlling costs.

1.7.1 Transportation Coordination

An important way to support efficient use of resources is through transportation coordination, a process by which human service agencies, transportation providers, consumer groups, and public officials work together to develop and improve services for transportation disadvantaged individuals by ensuring that transportation resources funded by different programs are coordinated.[73] This element is particularly important for elderly mobility because of the high fragmentation of funding sources, program goals, and agencies and organizations involved, whether directly or indirectly.

The Interagency Council on Transportation Coordination (ICTC), created in 2005, is a state-level body composed of the Departments of Transportation, Health Services, Veterans Affairs, Workforce Development, and the Office of the Commissioner of Insurance. This group has worked to improve coordination from the state level. In 2007, the ICTC held a conference on the future of coordination. The Council also convened a statewide Stakeholder Advisory Committee, fostered joint administration of funding programs between the Departments of Transportation and Workforce Development, and promoted a Commissioner of Insurance survey relating to volunteer drivers. In 2008, the group worked with a consultant to develop the Wisconsin Model of Coordination. This document identified four critical strategies to improving human service transportation coordination at state and local levels: strengthen the ICTC as the lead entity for statewide coordination efforts, encourage county and/or regional coordination councils, require county and/or regional coordination councils, and encourage regionalization through incentives and rewards.[74]

However, since the development of the statewide model, the group's progress on these initiatives is unclear. A report developed by the group in 2008 specifically recommended that the governor grant the Council a more formalized role with clear responsibilities and authority, as well as the resources to support these efforts.[75] In absence of an executive order or legislation targeting coordination at the state-level, however, the Council has become relatively inactive compared to its initial efforts.

As part of its efforts, the Department of Transportation collaborated with Regional Planning Commission planners to develop a coordination planning process and toolkit in 2008. Federal transit law requires that projects receiving federal funding through the Elderly and Disabled Transportation Capital Assistance, Job Access and Reverse Commute, and New Freedom

---

[73] Wisconsin Department of Transportation (1/26/2011). *Transportation coordination.* Accessed: http://www.dot.state.wi.us/localgov/coordination/index.htm

[74] Nelson/Nygaard Consulting Associates (Jul 2008). *Wisconsin Human Service Transportation Coordination Model.* Wisconsin Department of Transportation. Accessed: http://www.dot.state.wi.us/localgov/coordination/docs/finalreport-090508.pdf

[75] Inter-Agency Council on Transportation Coordination (10/2008). *Report of the Inter-Agency Council on Transportation Coordination to Governor Jim Doyle*. Accessed: http://www.dot.state.wi.us/localgov/docs/kit-ictc-report.pdf

programs be “derived from a locally developed, coordinated public transit-human services transportation plan.” WisDOT also requires that s. 85.21 funding correspond to county coordination plans. In 2010, WisDOT updated the coordination planning toolkit. While use of this toolkit is optional, the department will be developing a mandatory coordination planning process in 2012.[76] Coordination between local service providers has improved service for elderly riders; however, enhanced regional coordination and more experience in the coordination planning process will identify further improvements in the future.

1.7.2 Mobility Management

In particular, New Freedom has helped build technical capacity and support coordination by focusing upon the mobility management concept. Mobility management is a key aspect of coordination, providing a local perspective and services that focus on the individual. Mobility management maximizes use of resources; improves customer access; identifies needs, gaps, and barriers in service; and develops strategies to fill needs for the transportation disadvantaged.[77] Mobility managers complete a range of activities depending on local needs; many implement projects initially identified in the county coordination planning process. These include new transit services; car loan or repair programs; carpool and rideshare programs; volunteer driver and escort programs; call centers; CarFit events; and travel training programs. In addition to these activities, program managers indicate that counties are increasingly collaborating with each other and rethinking the ways in which they provide rides. Significant potential still exists, however, for improved efficiencies as a result of coordination between services.

1.7.3 Volunteer Drivers

As mentioned above, some transit services rely upon volunteer drivers. While a number of funding programs include volunteer reimbursement as an eligible expenditure, Wisconsin does not provide civil immunity for volunteer drivers.[78] However, the state’s Commissioner of Insurance manages a list of insurance providers that cover volunteer drivers under personal automobile insurance policies.[79] These groups cover volunteer driving even if the volunteer received reimbursement from the transit service provider. However, coverage appears to exclude volunteers who drive vehicles owned by the transit service provider.

1.8 Examples of Local Programs

The aid programs outlined above fund a variety of services implemented at the local level. One popular model is the shared-ride taxi, which provides on-demand transportation services to individuals, optimized by choosing routes that serve multiple individuals at once. Programs vary widely in funding sources, responsible agency, fleet size, service hours, advance notice necessary, fares, and service areas.

---

[76] Wisconsin Department of Transportation (1/26/2011). *Transportation coordination.*
[77] Wisconsin Department of Transportation (2010). *New Freedom Application.* http://www.dot.state.wi.us/localgov/transit/newfreedom-application.htm
[78] Sundeen, M and Farber, N. *Volunteer Driver Liability and Immunity: A 50 State Survey*. National Conference of State Legislatures. Accessed: http://ncsl.org/print/transportation/vol_driverliabl06.pdf
[79] Wisconsin Office of the Commissioner of Insurance. Volunteer Driver Insurance. Accessed: http://oci.wi.gov/consumer/volunteerins.htm

1.8.1 Ozaukee County

Ozaukee County Transit Services administers service in Ozaukee County and has utilized funding from the Specialized Transportation Assistance Program, Older Americans Act, Rural and Small Urban Area Public Transportation Assistance Program, Urban Mass Transit Operating Assistance Program, and WETAP to support its shared-ride taxi program. The County contracts with G & G Enterprises to provide drivers and dispatch while the County owns, fuels, and maintains the vehicles. The program provides service throughout the county and fares are dependent upon the number of zones crossed (but range from $2.25 to $5.25 for older citizens). While this service started serving only elderly and disabled individuals, its expansion and shift to a shared-ride format open to all riders resulted in more riders and lower costs. At this point, the elderly and disabled program was able to focus on out-of-county transportation, mostly for medical appointments. While the shared-ride taxi program is popular amongst users and has experienced increased ridership over time, challenges in terms of limited hours of operation and funding remain. An assessment of the program also mentions two free transportation services offered within the county, but provides no discussion on coordination efforts with those services.[80]

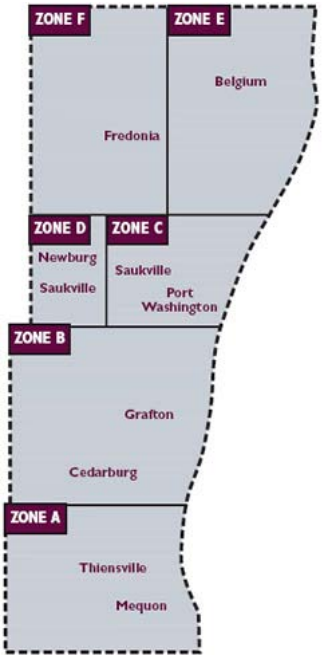


Figure 1.2 Ozaukee County Shared-Ride Taxi Zones, Ozaukee Transit

1.8.2 Eau Claire County

Eau Claire County offers a similar, but distinct, demand-response paratransit service. Eau Claire Transit (ECT), a city department, manages this countywide service along with a more traditional fixed route bus system and city-based paratransit system. ECT contracts with a private group (Tender Care Transport) for service delivery. This program is funded through the Specialized Transportation Assistance Program and most vehicles in the fleet are used vans originally purchased for other programs through the Elderly and Disabled Transportation Capital Assistance Program. Three carriers provide medical transportation and there is also an active,

[80] *Ozaukee County Shared-Ride Taxi*. Accessed: http://www4.uwm.edu/cuts/bench/ozaukee3.pdf

but limited, volunteer driver service. Additionally, the Western Dairyland group provides mobility management and travel training services within the County while Tender Care attempts to group trips based on hospital and clinic locations and scheduling. These coordination efforts, along with the centralization of operations under ECT, help streamline service delivery and mitigate the fragmentation of funding sources.[81]

Figure 1.3 Eau Claire Paratransit, Tender Care Transport

1.9 General Themes and Discussion

In the course of reviewing current practices with respect to elderly mobility in Wisconsin, a number of general themes surfaced. These themes include staffing and funding shortages, a lack of technical capacity, data management issues, coordination challenges, changes and uncertainty at the federal level, land use considerations, and feedback loops with regard to program evaluation. The identification of these issues may suggest ways to improve and better support transportation for Wisconsin's older residents.

1.9.1 Staffing and Funding Shortages

On the state and local level, shortages of funding and staffing represent a major challenge to improved services for elderly mobility. In particular, local communities are reporting difficulty providing matching funds. Small transit systems must cover 35 percent of their costs through farebox and property tax revenue and may not apply for assistance with these costs. For example, Waterloo lost its service because covering these costs became financially infeasible.[82] Another reason for funding shortages is a response from the growth in need around the state. With more systems applying for aid, state and federal funding is becoming less adequate. While the addition of mobility managers in different parts of the state has raised awareness of service

[81] SRF Consulting Group, Inc. (Jan. 2008). *Eau Claire County Rural Transportation Project.* Accessed: http://www.dot.wisconsin.gov/localgov/docs/kit08-strap-eauclaire.pdf
[82] Jake Miller (3/10/2011). Personal correspondence.

gaps, funding to fill those gaps with appropriate transit services is insufficient. In addition, declining funding levels and uncertainty surrounding the future of federal and state programs creates disruption and hampers the consistency and reliability that serve as features of well-utilized transit services. A steadier stream of funding would encourage higher ridership and awareness, strengthening the general place of services within each community. Additionally, some program guidelines restrict aid that can be directed toward local programs. The federal funding cap of 50 percent of a program's operating deficit is one such issue.

Low staffing levels at the state level also hamper program outreach, evaluation, and administration for initiatives related to the transportation of older individuals. For instance, the WisDOT Medical Review Unit's nurse practitioner formerly provided outreach to medical and law enforcement communities and kept track of distribution of informational materials; however, this position remains vacant. This position was important in sharing information about the state's reporting process and for developing educational resources for older drivers, their families, and medical and law enforcement professionals. Some WisDOT program managers indicated that, even when sufficient data for program evaluation is present, staff cannot review and analyze it frequently enough to proactively identify problematic issues or other trends. Likewise, auditors are generally focused on other issues. With higher staffing levels in the past, the department could prepare in-house studies to evaluate programs in specific regions around the state; however, regional staff is not engaged with specialized transit issues. A lack of proper program evaluation activities can result in poor program performance and negative impacts for elderly mobility.

1.9.2 Technical Capacity

Significant barriers to local technical capacity were also clear with respect to transit programs geared toward elderly individuals. High levels of staff turnover and the fact that transportation accounts for only a small share of many program administrators' duties stand in the way of applicants and grantees acquiring experience and familiarity with applying for program funds and implementing the programs. There are also limited opportunities for transit program administrators to come together and share best practices or specific challenges.

1.9.3 Data Management Issues

Related to technical capacity, a lack of consistent and efficient reporting at the local and state levels hampers program evaluation and guidance efforts. For instance, the lack of comprehensive budget reporting limits the degree to which program managers can track local coordination activities and utilization of a range and variety of funding sources. With more comprehensive data, WisDOT program managers could more effectively provide technical support to counties and other local agencies in terms of making service decisions and optimizing funding allocations. In 2007, the Medical Review Unit stopped collecting specific data about reports of at-risk drivers. Without this data, the Unit may have difficulty tracking the success and effectiveness of their informational documents and evaluating the effectiveness of the process guiding at-risk driver reporting and license cancellation. Dealing with paper forms may also create unnecessary delays and difficulties in compiling summary data for the purposes of program evaluation. Better crash data could help state and local roadway designers prioritize locations for engineering countermeasures that reduce risks for older drivers. Improved data collection and data systems hold the promise for a wide array of stakeholders who interact with issues of elderly mobility.

1.9.4 Coordination Challenges and Opportunities

Based upon the high degree of fragmentation in funding sources, program goals, and agencies and organizations involved in supporting elderly mobility, the coordination of services continues to present a challenge to state agencies and local communities alike. Service gaps and duplication of services or efforts may result from a lack of communication between groups. However, opportunities for enhanced coordination activities in the future is great as programs experience funding shortfalls and incentives to share resources grow.

While WisDOT and the ICTC have prioritized coordination and organized sessions to help communities come together and identify opportunities, few strong mandates exist for local providers to communicate with each other. Most programs (with the exception of the Specialized Transportation Assistance Program for Counties and the three federal programs identified above) include no requirement for coordination. Additionally, the future of the ICTC itself is unclear. The group was active in its first several years of development; however, as noted in the group's own 2008 report to Governor Jim Doyle, the Council would benefit from a formalized role and enhanced authority and resources to effectively coordinate transportation at the state level.[83]

Mobility managers can also continue to bolster coordination efforts from the consumer's perspective. These individuals can bring resources together and encourage collaboration among different groups, and funding for such positions has been a priority under New Freedom funding in recent years, though a number of federal programs can provide funding for such positions. This role can be particularly helpful for elderly individuals because they can act as point person for all of the area services and connect individuals with a service based upon needs and eligibility. They can also focus upon raising awareness of existing programs and helping to eliminate duplication with respect to existing services. In addition, they may organize a call center, provide travel training, or start new transit or volunteer driver programs.

An opportunity also exists to help older drivers transition to other alternatives. By working with aging drivers to plan for future mobility, and providing older individuals who lose their license with resources for other options, transportation professionals can help ease a significant transition while building ridership for existing services.

1.9.5 Federal Changes and Uncertainty

Another theme that surfaced relates to the impacts of federal programs and projects, including the American Recovery and Reinvestment Act (ARRA), the 2010 Census, and the uncertainty surrounding the reauthorization of the transportation bill. These uncertainties relate to the lack of stable funding discussed above. While ARRA provided a temporary boost to a number of programs, the impact of federal transportation reauthorization on elderly mobility is uncertain. Requirements, funding levels, and entire programs may shift considerably with a new federal transportation bill. Additionally, the 2010 Census is expected to impact the state's federal transit revenue significantly, particularly for the Federal Formula Grant and the Elderly and Disabled Capital Assistance Programs.

Moving to longer application cycles (like for the 5310/s. 85.22 program, which went from a one year program cycle to a two year cycle about five years ago) reduces administrative costs but forces administrators to make projections on a longer timescale. Additionally, this exacerbates local technical capacity issues, particularly in areas with high administrator turnover.

[83] Inter-Agency Council on Transportation Coordination (10/2008).

The FHWA's updated Highway Design Handbook for Older Drivers and Pedestrians is also scheduled to come out in 2011, and may hold a range of new practices guiding roadway design attuned to the needs of older drivers.

1.9.6 Planning and Land Use Considerations

A more minor theme raised in discussions relates to planning with respect to elderly mobility. Many transportation services are designed with the goal of empowering elderly individuals to "age in place" by providing services that allow them to stay in their own homes while maintaining community connections. However, land use patterns may significantly impact the efficiency with which elderly transportation services may be operated. Consideration of elderly mobility impacts in housing and land use plans can provide cost-effective opportunities to connect older individuals with services and activities. Additionally, roadway designs and plans should consider the needs of older drivers and pedestrians.

1.9.7 Feedback and Program Evaluation

Another theme relates to the methods of program evaluation currently practiced by local and state administrators. While standardized metrics are generally not appropriate for specialized transportation services, qualitative data could lead to service improvements. However, many programs lack consumer feedback information about transportation services that could be garnered through surveys or focus groups. In the absence of such data, state program managers generally judge success and failure of local efforts based upon the perceived technical capacity of local administrators, as well as the quality of applications received. First-hand assessments from users or potential users would provide better indications about the degree to which a program is meeting the needs of elderly residents.

1.9.8 Education, Outreach, and Marketing

Heightened education, outreach, and marketing could help address several challenges identified in the course of background research. For instance, putting driver self-assessment information and brochures that clearly outline transportation services available to elderly residents in a specific area could help simultaneously boost utilization of services and help older drivers make the difficult transition to using other mobility options. Additionally, a number of communities rely heavily upon volunteer drivers for at least some transportation services. In areas where a lack of volunteers acts as a barrier, increased marketing and partnerships with local volunteer organizations may increase participation, particularly if potential volunteers are eligible to be reimbursed for expenses. An outreach campaign featuring materials distributed to regional and local facilities like senior centers could help support safer driving habits, better understanding of state policies, and increased awareness of transit services.

2. Demographics

By 2030, more than one in five Americans will be over age 65, and one in 11 will be over age 85. As the population of seniors grows, many of its older members—especially women and the disabled—will face serious mobility constraints, often with little family assistance. Wisconsin will not be an exception to this trend. Indeed, counties across the state are expected to see dramatic growth in their elderly populations, often in areas where access to transportation services is constrained by low population densities.

According to a 2005 study by the University of Wisconsin – Milwaukee's Employment and Training Institute, 177,399 elderly persons in Wisconsin lack a drivers license or state-issued photo ID out of a total population of 780,947 persons over age 65. Only 38,199 persons, or approximately 5 percent, reside in a nursing home. [84] As some nursing home residents may still hold a valid driver's license, a significant portion of elderly Wisconsinites who live independently lack automobility. The study notes that 70 percent of unlicensed seniors are female; older women are also more likely to live alone due to having never married or been widowed or divorced, resulting a disparity between older men and women in the availability of a spouse for assistance with transportation difficulties.

The following graphs, tables, and maps detail the research team's analysis of the demographic characteristics of Wisconsin's elderly population.

2.1 Demographic Predictions

According to the Wisconsin Department of Administration's Demographic Service Center, the number of Wisconsinites age 65 and over is expected to grow by 89.9 percent from 2010 to 2035, while the general population will only increase by 15.3 percent. In absolute terms, there will be 702,760 more elderly residents (65 and over) in Wisconsin by 2035 than in 2010. By 2035, elderly residents will comprise nearly a quarter of the population.[85]

Table 2.1: Demographic Projections of Elderly and General Population Growth, 2010-2035

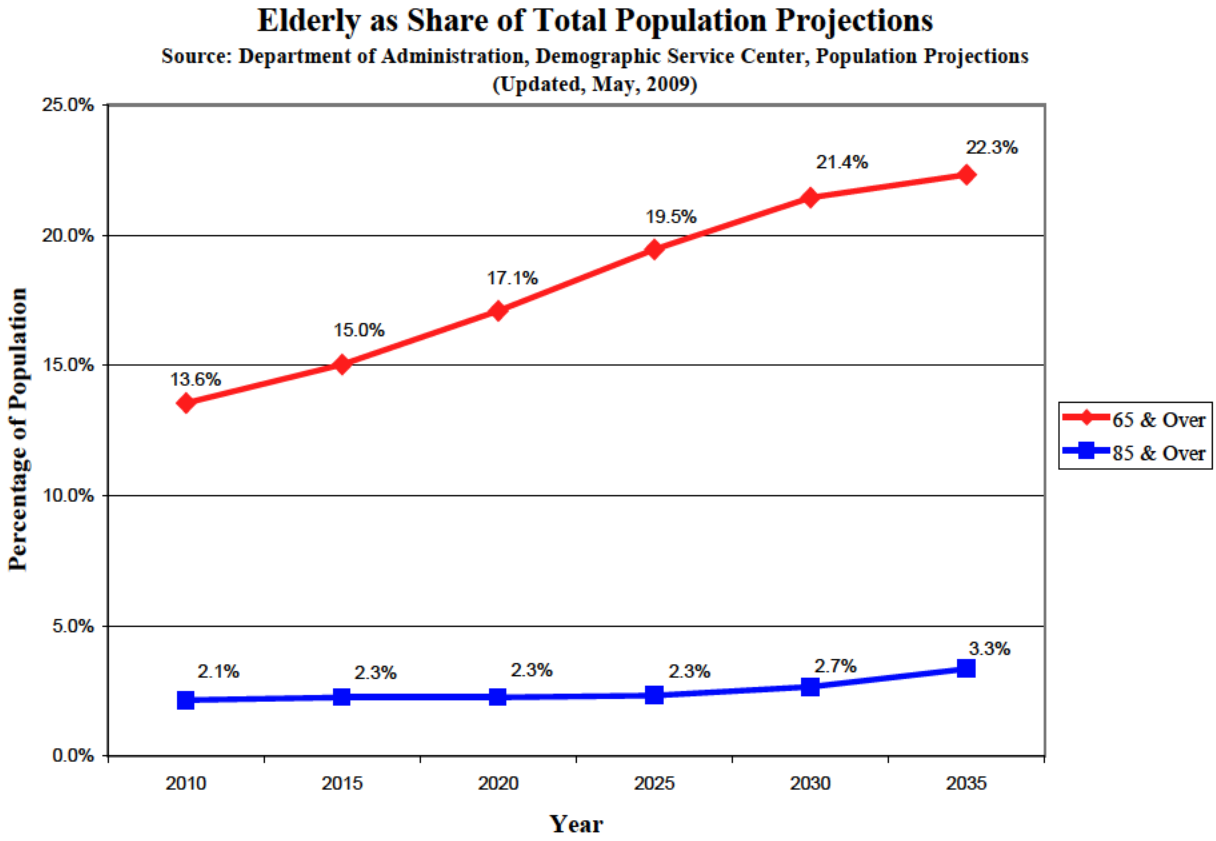
	2010	2015	2020	2025	2030	2035	2010 to 2035 65+ Pop. Growth	2010 to 2035 65+ Growth Rate
65 & Over	782,810	900,170	1,060,620	1,243,600	1,402,900	1,485,570	702,760	89.8%
(Pop.Share)	*(13.6%)*	*(15.0%)*	*(17.1%)*	*(19.5%)*	*(21.4%)*	*(22.3%)*		
85 & Over	123,980	135,460	139,780	148,980	173,600	222,550	98,570	79.5%
(Pop.Share)	*(2.1%)*	*(2.3%)*	*(2.3%)*	*(2.3%)*	*(2.7%)*	*(3.3%)*		
All Ages	5,772,370	5,988,420	6,202,810	6,390,900	6,541,180	6,653,970	881,600	15.3%

[84] Pawasarat, John. (2005, June). *The Driver License Status of the Voting Age Population in Wisconsin*. Retrieved March 27, 2010 from Employment and Training Institute, University of Wisconsin-Milwaukee: http://www4.uwm.edu/eti/barriers/DriversLicense.pdf

[85] Wisconsin Department of Administration, Demographic Service Center. (2009, May) Population Projections.

Since the elderly population is anticipated to grow at a rate much faster than that of people under age 65, their share of the state's population is expected to increase rapidly. As shown below in Figure 2, the population over age 65 is expected to grow from 13.9% in 2010 to 22.3% in 2035; the population share of those over age 85 will grow more modestly, but still expand from 2.1% to 3.3% over the same time period. [86] In short, the demands placed on transportation services for seniors are likely to expand greatly, while the size of the working-age population will grow much more slowly.

Figure 2.1: Elderly Population Share



Changes will also be seen within the expanding population of elderly residents. Wisconsin's population pyramid will take on a vastly different shape over the next 25 years as baby boomers retire and life expectancy continues to grow. While elderly women significantly outnumber elderly men in 2010, the margin will be greater yet in 2035. In 2035, women age 85 and over will comprise a 4.2% share of the total female population, while men age 85 and over will only comprise a 2.29% share. In 2010, men over 65 comprise 11.6% of the male population, which is expected to grow to 19.9% in 2035. Elderly women make up a greater percentage of the female population; their share of 15.0% in 2010 is expected to rise to 23.5% by 2035.

As shown in population pyramids below (figures 3 and 4), the oldest age groups will become significantly larger, while the percentages of both men and women of working age (15-64) will decline universally across age categories. The 'top-heaviness' of the projected 2035 pyramid is representative of the challenges posed by the aging of baby boomers

[86] Ibid.

Figure 2.2: 2010 Population Pyramid

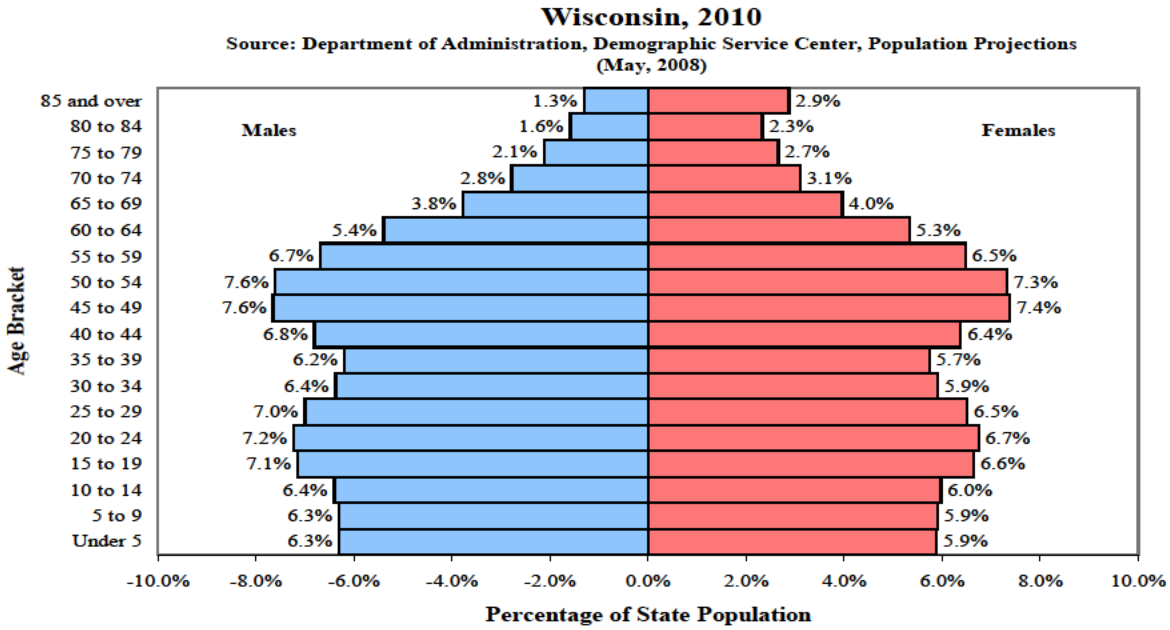
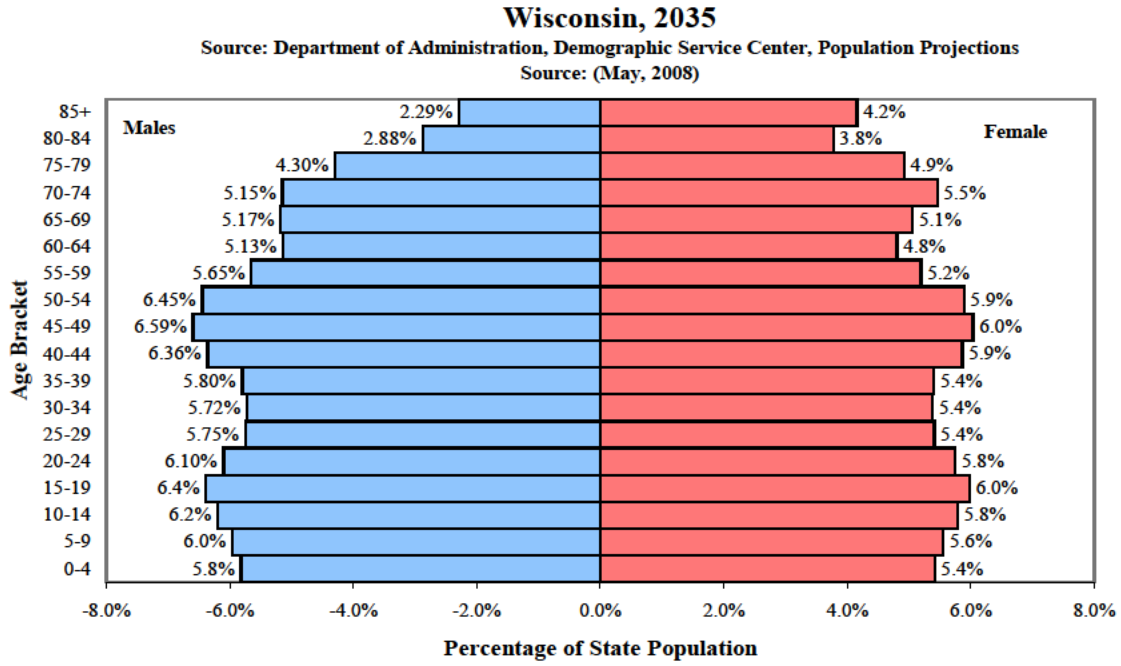


Figure 3.3: 2035 Population Pyramid



2.2 County-Level Predictions

While Wisconsin's elderly population is anticipated to grow across the state, great variations exist between different regions in the magnitude of this growth. Based on the same Department

of Administration data used above, we analyzed county-level projections of elderly population growth.

Across the state, the elderly share of population is projected to increase in every county between 2010 and 2035. Many Wisconsin counties will see their elderly populations double, and St. Croix County's 65 and over population is expected to nearly triple, increasing by 188%. While no county's elderly population share currently exceeds 25%, over half of Wisconsin's counties will exceed this level by 2035. Seniors will make up at least a third of the populations of 11 counties, and nearly half of Door County will be age 65 or older. In absolute terms, Dane County will experience the largest growth in its elderly population, increasing by 73,091. Milwaukee County and Waukesha County, growing at 56,813 and 46,470, respectively, will experience the next-highest elderly population increase.

Figure 4: Elderly Population Projections by County

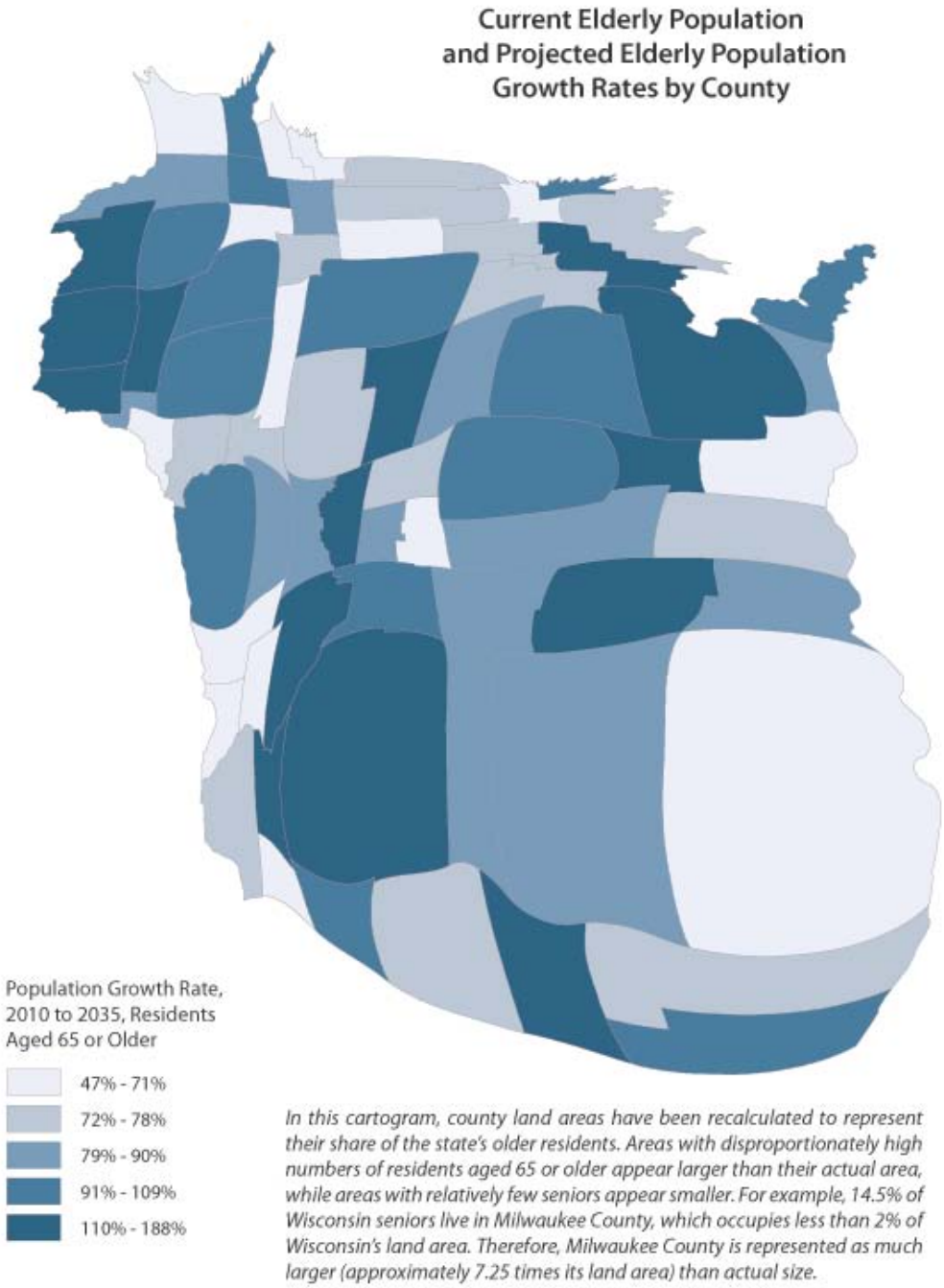
County	2010 65+ Population	2035 65+ Population	2010 65+ Share	2035 65+ Share	2010-2035 65+ Pop. Growth
Adams	4590	9624	21%	38%	110%
Ashland	2625	4276	15%	25%	63%
Barron	8479	16244	18%	30%	92%
Bayfield	2973	5808	18%	32%	95%
Brown	28757	62987	11%	20%	119%
Buffalo	2514	4226	18%	28%	68%
Burnett	3853	7129	23%	38%	85%
Calumet	5328	13322	11%	19%	150%
Chippewa	9423	19004	15%	25%	102%
Clark	5039	7413	14%	18%	47%
Columbia	8126	15699	14%	23%	93%
Crawford	2950	4942	17%	27%	68%
Dane	50229	123320	10%	19%	146%
Dodge	12561	22494	14%	22%	79%
Door	6959	13994	23%	44%	101%
Dunn	5279	12663	12%	23%	140%
Eau Claire	12994	26682	13%	22%	105%

County	2010 65+ Population	2035 65+ Population	2010 65+ Share	2035 65+ Share	2010-2035 65+ Pop. Growth
Fond du Lac	15104	27198	15%	23%	80%
Forest	2233	3766	22%	37%	69%
Grant	8321	14710	16%	28%	77%
Green	5466	10800	15%	23%	98%
Green Lake	3583	5821	18%	29%	62%
Iowa	3171	6697	13%	23%	111%
Iron	1669	2701	24%	39%	62%
Jackson	2924	5022	14%	21%	72%
Jefferson	10573	20076	13%	20%	90%
Juneau	4524	8323	16%	27%	84%
Kenosha	18031	35438	11%	17%	97%
Kewaunee	3309	6233	15%	24%	88%
La Crosse	15072	29786	13%	23%	98%
Lafayette	2586	4135	16%	25%	60%
Langlade	4326	7560	20%	32%	75%
Lincoln	5416	9176	17%	27%	69%
Manitowoc	13607	23089	16%	25%	70%
Marathon	18804	36250	14%	22%	93%
Marinette	8798	15383	19%	33%	75%
Marquette	2976	5389	19%	31%	81%
Menominee	502	867	11%	24%	73%
Monroe	6162	11564	14%	21%	88%
Oconto	6303	13799	16%	27%	119%
Oneida	8087	13975	21%	33%	73%

County	2010 65+	2035 65+	2010 65+	2035 65+	2010-2035
Ozaukee	13023	24524	15%	24%	88%
Pepin	1297	2319	17%	26%	79%
Pierce	4466	11476	11%	21%	157%
Polk	7749	16758	16%	28%	116%
Portage	8874	19753	12%	24%	123%
Price	3150	5627	20%	35%	79%
Racine	25761	45254	13%	21%	76%
Richland	3136	4803	17%	26%	53%
Rock	21515	37220	13%	20%	73%
Rusk	3009	4987	19%	32%	66%
St. Croix	9365	26988	11%	18%	188%
Sauk	9160	19388	15%	24%	112%
Sawyer	3435	6804	19%	33%	98%
Shawano	7210	12455	17%	26%	73%
Sheboygan	16310	29056	14%	21%	78%
Taylor	3178	5585	16%	28%	76%
Trempealeau	4649	8144	16%	25%	75%
Vernon	4949	8230	16%	23%	66%
Vilas	5654	9900	25%	38%	75%
Walworth	14328	32468	14%	24%	127%
Washington	17536	39894	13%	24%	127%
Waukesha	56131	102601	14%	23%	83%
Waupaca	9710	17478	18%	30%	80%
Waushara	4777	8522	19%	31%	78%
Wood	13439	23426	17%	30%	74%

The rates of growth in elderly populations across Wisconsin counties do not necessarily correlate with current populations: many counties expected to see dramatic increases in their over-65 population currently have comparatively small numbers of elderly residents. As shown in Figure 6 (below), Milwaukee County currently constitutes the largest number of the state's seniors but is projected to grow at a much slower rate than the majority of the state. Conversely, many counties with small elderly populations, especially in the northern and western regions of the state, are expected to experience rapid growth.

Figure 5: Elderly Population Cartogram



In this cartogram, county land areas have been recalculated to represent their share of the state's older residents. Areas with disproportionately high numbers of residents aged 65 or older appear larger than their actual area, while areas with relatively few seniors appear smaller. For example, 14.5% of Wisconsin seniors live in Milwaukee County, which occupies less than 2% of Wisconsin's land area. Therefore, Milwaukee County is represented as much larger (approximately 7.25 times its land area) than actual size.

2.3. Socioeconomic Characteristics

In order to further characterize the resources, needs, and challenges of the state's current and future elderly population, we examined socioeconomic indicators, including religious adherence, poverty rate, access to healthcare, and access to food.

Data on religious adherence, as measured and defined by the Association of Statisticians of American Religious Bodies, was obtained for Wisconsin counties. Adherence rates ranged from 28% to 96% (see Figure 7, below) with a statewide average of approximately 69%.[87] While this data is not specific to older Wisconsinites, who may attend religious services more frequently than the population as a whole, it suggests variation between counties in both the needs of older adults for transportation to and from religious events (often on weekends), and the capacity of churches and other religious communities to act as service providers, coordinators, or resources for publicizing and/or staffing transportation services for the elderly.

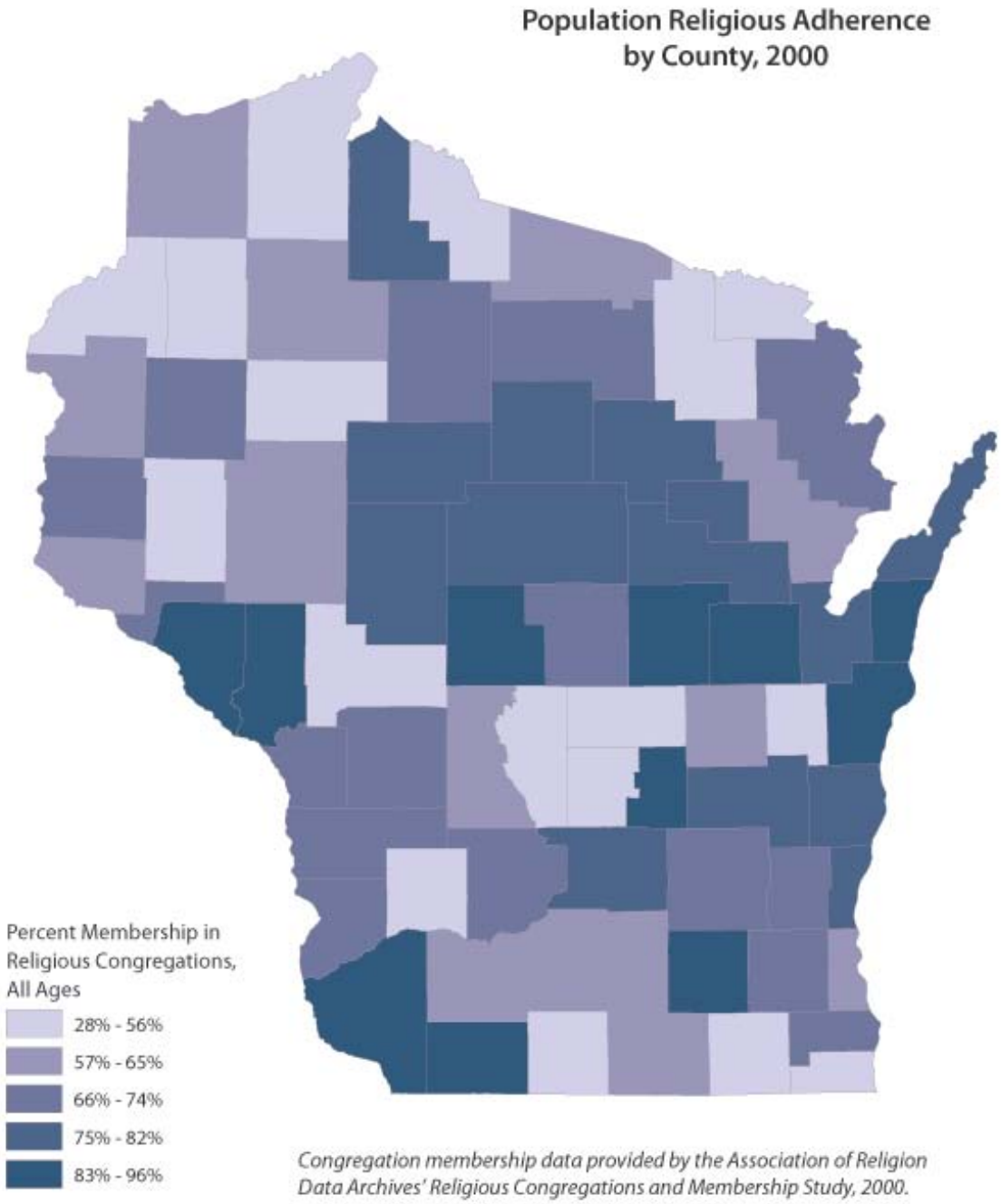
Across the state, approximately 7.4 percent of Wisconsinites over 65 are estimated by US Census Bureau's Current Population Survey to be below the poverty line. By county, poverty rates for seniors vary from 4.0 to 13.4 percent. For obvious reasons, seniors in poverty are likely to encounter increased difficulties obtaining adequate transportation, and even low-cost transportation services may constitute a financial burden.

Lack of adequate transportation can be especially harmful to older residents of areas with poor access to grocery stores and other sources of nutritious food. According to USDA estimates, 26,498 elderly Wisconsin residents reside within designated food deserts—areas lacking access to supermarkets within a reasonable distance. However, this figure may understate the number of rural seniors with limited access to food: food deserts in rural areas are limited to areas over 20 miles, a "drivable distance," from supermarkets.[88]

According to the Dartmouth Atlas of Health Care's 2006 statistics on healthcare availability, the 127 Hospital Service Areas (HSAs) serving Wisconsin (as well as residents of neighboring states, in some cases) have an average of two available hospital beds, four registered nurses, and 15 full-time equivalent hospital employees per thousand residents. Per 100,000 residents, the state's HSAs employed 213 doctors of all specializations, and 90 primary care physicians. These figures compare to national averages of 2.41 hospital beds, 3.69 nurses, 14.0 full-time equivalent employees, 202.0 doctors, and 71.9 primary care physicians.[89]

[87] Association of Statisticians of American Religious Bodies. "Religious Congregations and Membership Study, 2000."
[88] Ver Ploeg *et al*. "Access to Affordable and Nutritious Food—Measuring and Understanding Food Deserts and Their Consequences." USDA Economic Research Service, 2009.
[89] "Hospital and Physician Capacity." The Dartmouth Atlas of Health Care, 2006.

Figure 6: Religious Adherence Rates



3. Elderly Input: Surveys and Focus Groups

The research team gathered input from elderly residents in two ways: surveys and focus groups. Our aim was to document elderly Wisconsinsites' transportation habits, ascertain their satisfaction with current programs and services, and identify concerns and potential service gaps. We administered the Wisconsin Transportation Services Survey for Older Residents to reach a diverse cross-section of elderly residents and quantify transportation habits and needs. Concurently, we hosted 16 separate forums around the state, with a particular emphasis on visiting rural areas. For broader qualitative data coverage, we also visited two gatherings of Wisconsin's tribal nations.

3.1 Wisconsin Transportation Services Survey for Older Residents

3.1.1 Survey Design

The research team created a survey that would reflect the mobility challenges of Wisconsin seniors by drawing upon studies undertaken elsewhere in the United States. We tailored the survey to the particular programs and services available in Wisconsin, and time and financial constraints of the project. In particular, the research team opted for a market research design of the survey, rather than a scientific sample. Although the results cannot be reliably generalized to characterize Wisconsin's elderly population as a whole, the results do provide guidance on certain trends across Wisconsin and specific to particular regions.

In the early stages of the design process, the research team examined several transportation surveys aimed at the general public, conducted by Wyandotte County, Kansas; Grand Island, Nebraska; and New Jersey Transit.[90,91,92] These surveys sought to identify current transportation usage, gather information about transportation difficulties (in terms of times, geography, and activities), and profile current and potential users of transportation services. Our goals in this survey were similar but more focused. In some cases, language and structure from these transportation surveys suited our needs. For example, the structure of questions examining what service qualities elderly residents would require to consider using public transportation was taken from Grand Island's TAP Transportation Survey. In general, questions regarding usage of and satisfaction with transportation options were modeled on existing surveys, with modifications relevant to the options available in Wisconsin communities.

However, the research team expanded on these surveys in several ways. As publicity has been identified as a potential stumbling block to greater utilization of transportation services for the elderly, we sought to determine the degree to which older Wisconsinites were aware of transportation options in their community, in addition to the transportation services they currently use. Additionally, we wanted to obtain a more detailed picture of respondents' health than whether or not respondents considered themselves disabled was considered desirable: some conditions that may be considered a 'disability' do not impair ability to drive or use transportation services, although seniors who are ill or frail but not disabled may nevertheless experience transportation difficulties. We developed metrics of health in consultation with a University of Wisconsin epidemiologist.

The research team oriented requested demographic information towards identifying factors that could increase or decrease access to transportation, including income, marital status,

[90] "Wyandotte County Community-Based Transportation Survey." Wyandotte County, Kansas.
[91] "TAP Transportation Survey for Residents," Grand Island, Nebraska.
[92] "Passenger Transportation Survey," New Jersey Transit, 2006.

household composition, type and area of home, disability status, and English language proficiency. These factors may all have an impact on the elderly person's resources for getting the transportation they need and their ability to use public transportation services.

Throughout the survey design process, the research team worked to balance a desire for precise and detailed information—for example, soliciting opinions on specific service characteristics of a favored mode, as opposed to overall assessments—with the need to develop a concise instrument that would not be perceived as an undue burden by respondents, including those with age-related attention or cognitive deficits. Although the large number of completed responses we received indicates that these competing priorities were well-balanced, at least one county reported that older residents had found the survey too long.

3.1.2 Survey Distribution

The survey was distributed in printed format and online. For the printed format, Gail Schwersenska, director of the Office on Aging for the Wisconsin Department of Health Services, solicited orders from the Wisconsin Aging Network. The Wisconsin Aging Network consists of staff from County Aging Units, Tribal Aging Units, and Aging and Disability Resource Centers (ADRC). The Aging Network submitted requests for 21,625 paper copies of the survey. Nearly 80 percent of counties (56 of 72 counties) submitted requests. The number of requests ranged from 2,000 surveys for La Crosse County to 50 surveys for several counties, including Monroe, Pepin, and Lafayette. The research team mailed the surveys in December 2010 and collected them at the end of February 2011.

For the online version of the survey, the research team generated custom links for all 72 counties and 11 tribal nations. The links directed survey respondents to a website hosted by Qualtrics Survey Software. Each link contained a unique identifier for each county and nation, which allowed the research team to track distribution and send targeted follow-up notifications. The research team e-mailed the links and distribution instructions to the directors of the Aging Units and ADRCs in December 2010.

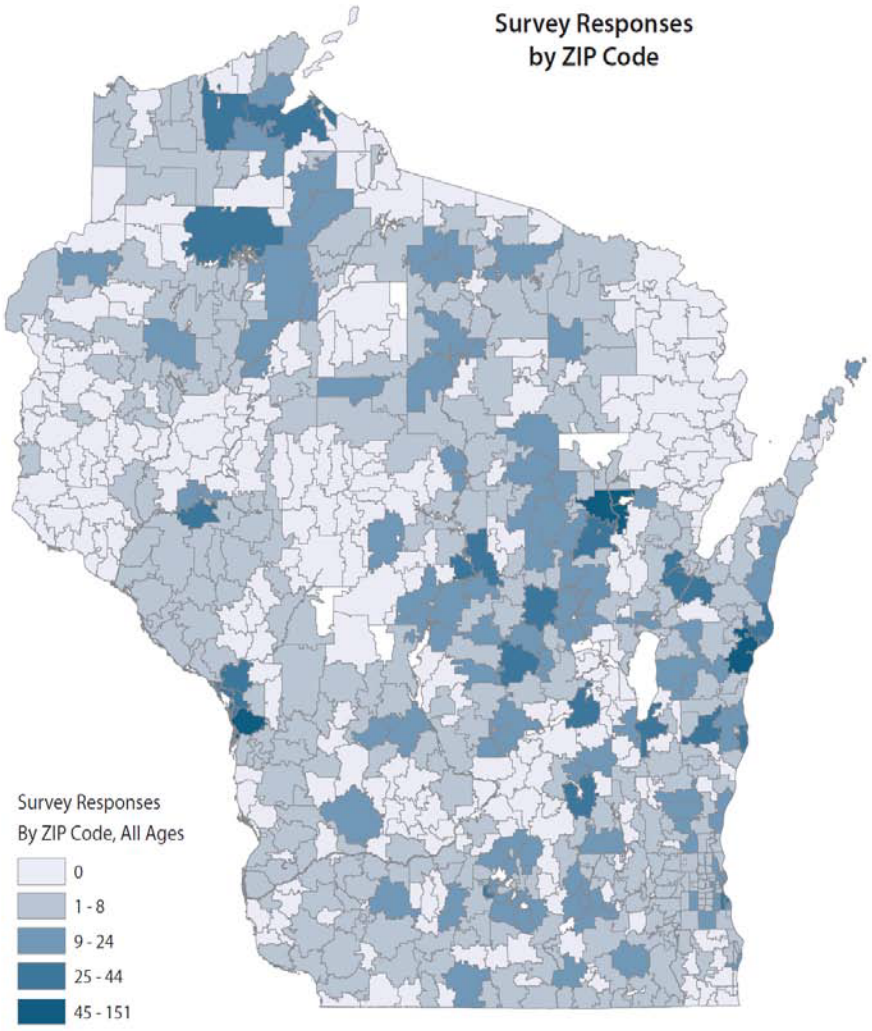
When staff from the Aging Network received printed and online versions of the survey, they primarily distributed it in four ways. First, Aging Network staff placed the survey in a highly visible areas in local senior centers or places frequently visited by seniors, including banks, grocery stores, and clinics. Some local senior centers designated computers with which to take the online version of the survey. Second, Aging Network staff distributed the survey to elderly service providers, including public and specialized transit staff and assisted living facility attendants. Third, Aging Network staff published a notification of the survey and its corresponding link in local newspapers and senior-focused newsletters. The research team drafted sample notifications with instructions for seniors to obtain directly a copy of the survey. These notifications resulted in a high number of surveys mailed independently by seniors from around the state. Fourth, Aging Network staff allowed the research team to distribute and collect surveys at each of the 16 focus groups hosted for this study.

Although the research team identically distributed surveys to Aging Network staff, each locality selected its own on-the-ground distribution method, consistent with one of the four methods described above. The distribution aimed to maximize response rates and geographic and demographic diversity, provide flexibility for different local conditions, and minimize added burden to Aging Network staff. As a result of differing on-the-ground distribution methods, the research team lost some comparability of its results but gained a broader picture of the transportation needs and habits of Wisconsin seniors.

3.1.3 Survey Response Rates

The survey received 4,099 responses in printed and online formats from 69 of 72 counties. One of the three counties without responses—Clark County—received 114 responses for its own senior transportation survey administered in July and August 2010.[93] The two other counties without responses—Pierce[94] and Marinette Counties[95]—compiled comprehensive needs assessment and human services transportation plans with a public input component. Many counties, such as Dunn, Ozaukee, and Eau Claire, completed independent studies in recent years and sent responses to this survey. Thus, the research team received direct input from nearly 96 percent of counties and had access to information on all counties. Figure 3.1 below shows the broad geographic coverage of the survey.

Figure 3.7: Survey Responses by Zip Code



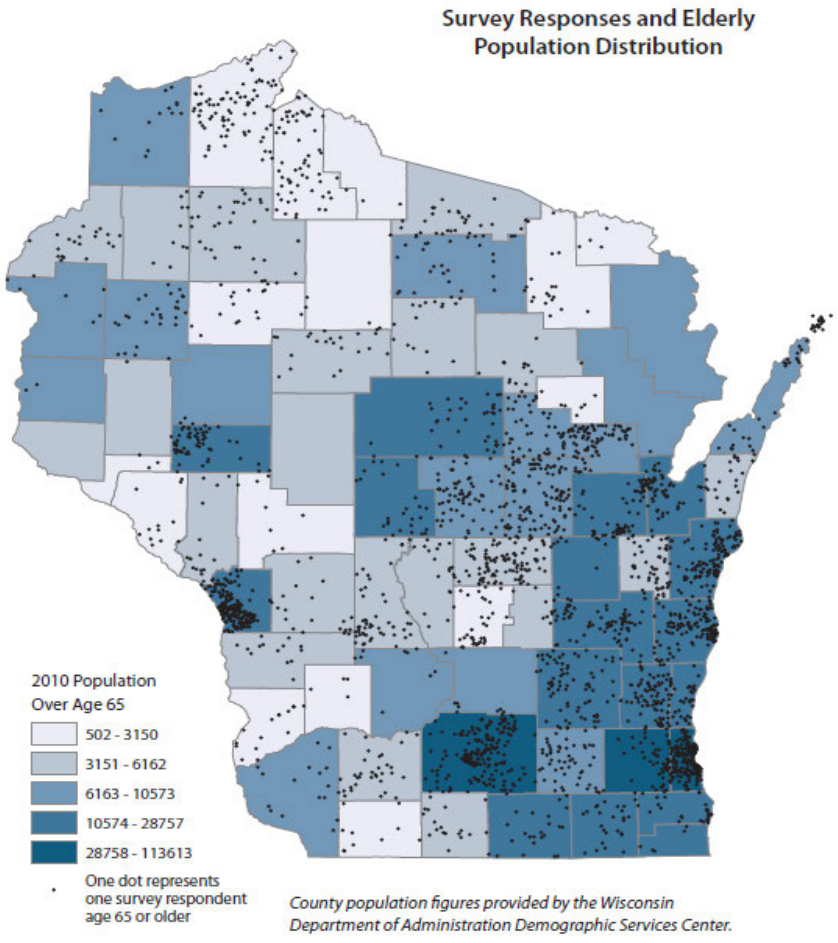
[93] Internal data provided by Mary Sladich on December 9, 2010.
[94] For Pierce County, see http://psrc.org/assets/1730/PCCTC_Plan.pdf and http://www.co.pierce.wa.us/xml/abtus/ourorg/comsvcs/housing/NeedsAssmnt2008finaldocument.doc.pdf
[95] For Marinette County, see http://www.newrat.org/counties/coord_plans/florence-marinette-oconto.pdf

The paper version of the survey received 3,600 responses and the online version received 499 responses. The research team manually entered the paper responses with a protocol for dealing with ambiguous responses (See Appendix E). With 21,625 total paper copies distributed, the paper survey had a 16.6 percent response rate. Because nearly 85 percent of respondents who began the online survey completed it, the research team surmises a number of counties did not distribute a high percentage of the surveys mailed.

3.1.4 Survey Response Coverage

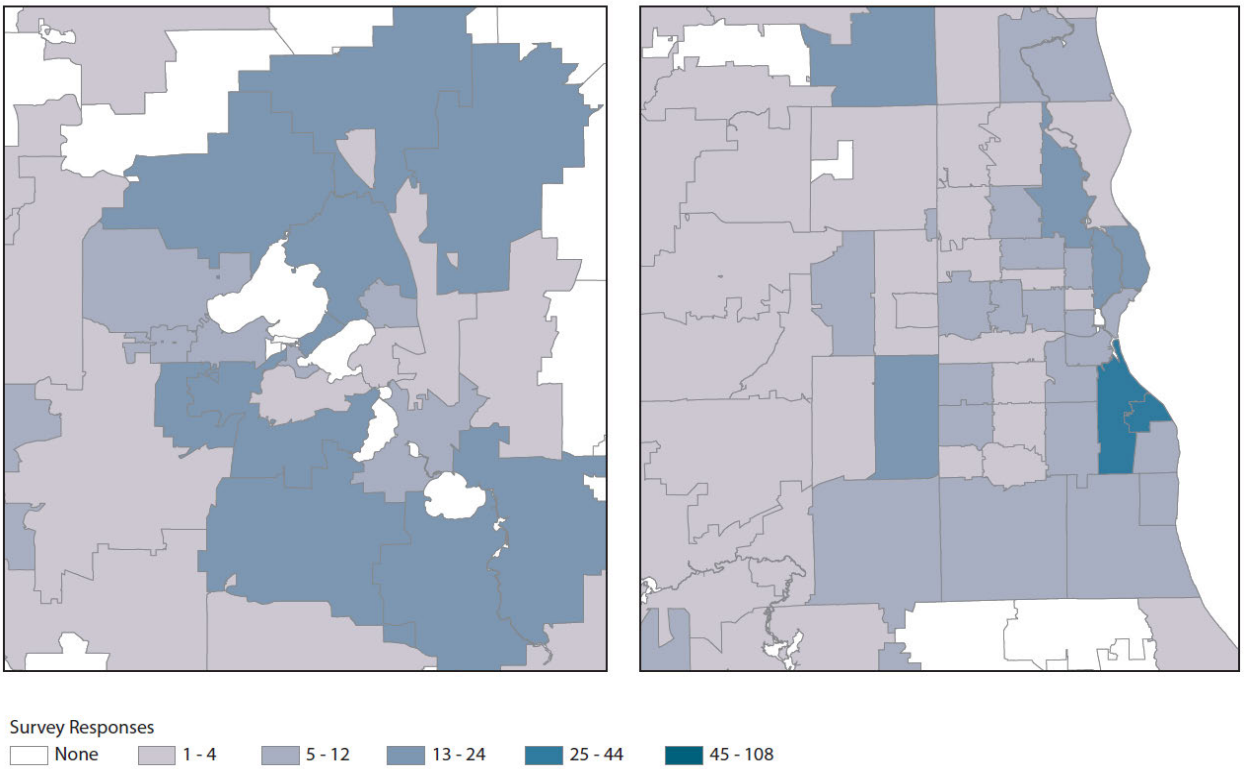
The geographic distribution of responses closely tracked elderly population densities. In other words, the areas with highest elderly populations also had the most survey responses. Additionally, counties for which elderly residents comprise a large percentage of the population, such as Door County, have proportionally higher response rates. Figure 3.2 shows the relationship between survey responses and elderly population distributions.

Figure 3.8: Survey Responses and Elderly Population Distribution



As indicated by Figure 3.2, Milwaukee and Dane County—the two counties with the highest elderly populations in the state—have two of the highest survey response rates. Not only did these counties return a high number of responses, they returned broad geographic distribution within the counties themselves. Figure 3.3. shows the responses by zip code within the counties, suggesting effective on-the-ground distribution methods.

Figure 3.9: Survey Responses for Dane (left) and Milwaukee (right) Counties



3.1.5 Survey Responses—Demographics

The survey asked respondents for information about their age, neighborhood, living situation, race, ethnicity, health, and income. The research team compared these results to established benchmarks, including the American Community Survey and the National Health Interview Survey. Where the survey and benchmarks substantively differed on critical variables, the research team conducted additional analysis.

Age. Wisconsin residents age 65 and over comprised the target demographic of the survey. As shown by Table 3.1 below, over 80 percent of respondents reported ages over 65, and nearly 20 percent of respondent reported ages over 85. Based on U.S. Census data described in the Demographic Analysis section, the survey overdrew from the 75 to 84 demographic. To gain broader input from all users of specialized and public transit services and to provide some insight into emerging needs, the research team did not exclude respondents below age 65. Instead, the research team performed an age group results comparison, which is detailed in Appendix E.

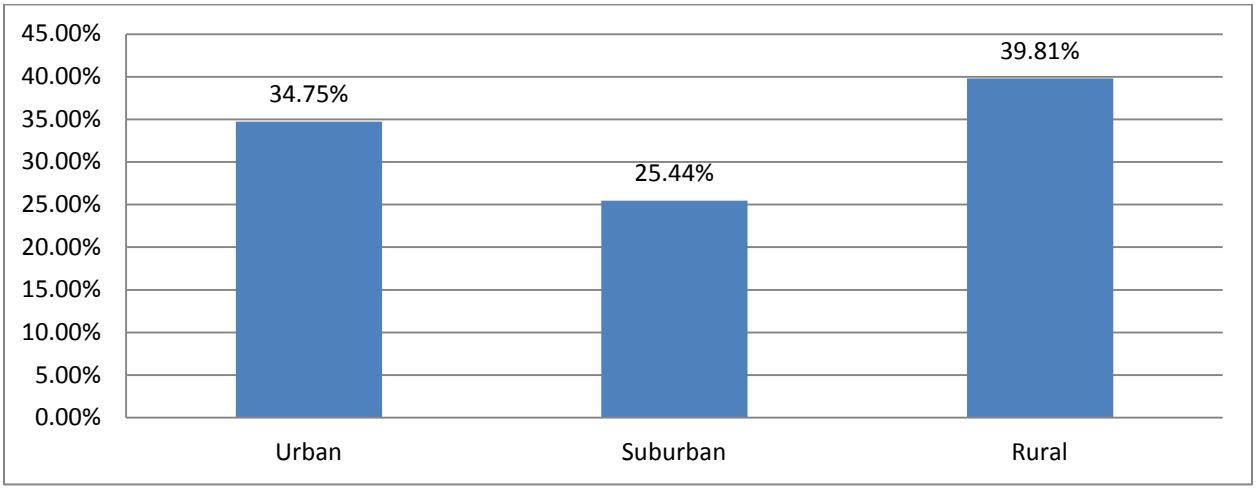
Table 3.2: Responses by Age

Answer	%
Under 60 years	8.62%
60-64 years	9.80%
65-74 years	30.35%

75-84 years	31.54%
85-94 years	18.29%
95 years or older	1.40%

Area. As suggested by the survey response maps in section 3.1.4, survey respondents consisted of a mix of urban, suburban, and rural areas. The research team asked respondents to pick one of the three as the best description of their own neighborhood. As shown by Figure 3.4 below, about 40 percent reported rural, 35 percent reported urban, and 25 percent reported suburban. U.S. Census and recent University of Wisconsin scientific polling data on Wisconsin rural characterizations are largely consistent with the survey results. The survey slightly overdrew from urban areas, likely a result of transportation service usage rates.[96]

Figure 3.10: Respondents by Characterization of Area



Sex. Over 68 percent of survey respondents reported their sex as female. As detailed in the Demographic Analysis section, women comprise a much larger share of the elderly population than men; in 2010 about 60 percent of all Wisconsinites age 65 and over are female.[97] However, the survey overdrew from females by about 8 percent. The research team performed a comparison of the sexes in Appendix G.

Marital status and residency occupancy. Based on the literature and the research team's focus groups, one of the most critical determinants for mobility was a relationship with an able driver.[98,99] As shown in Table 3.2 and Figure 3.5 below, over 40 percent of respondents reported being widowed, and over 45 percent of occupants reported having no other occupants

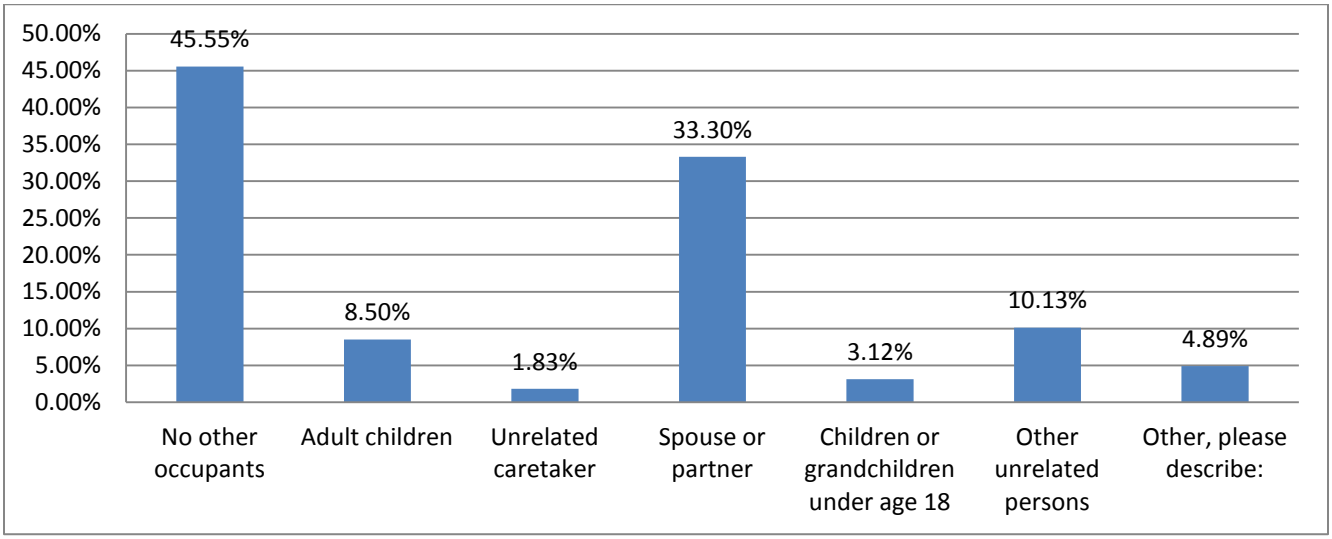
[96] For UW survey data, see http://www.uwsc.wisc.edu/BP32PressRelease3_WIregions_FINAL.pdf. For a more thorough explanation of Wisconsin spatial distributions, see http://www.hindawi.com/journals/ijpr/2011/856534/
[97] Wisconsin Department of Administration, Demographic Service Center. (2009, May.) Population Projections.
[98] Rosenbloom, S. (2003, July). The Mobility Needs of Older Americans: Implications for Transportation Reauthorization. Retrieved March 27, 2010, from The Brookings Institution, Center on Urban and Metropolitan Policy: http://www.brookings.edu/~/media/Files/rc/reports/2003/07transportation_rosenbloom/20030807_Rosenbloom.pdf
[99] Bailey, L. (2004, April). Aging Americans: Stranded without Options. Retrieved March 27, 2010, from Surface Transportation Policy Project: http://www.transact.org/library/reports_html/seniors/aging.pdf

in their homes. The survey results are consistent with Census data, although it overdrew respondents who were never married.[100] The research team performed a comparison of responses based on marital status in Appendix H.

Table 3: Respondents by Marital Status

Answer	%
Never married	9.88%
Separated or divorced	15.27%
Widowed	40.81%
Married	34.04%

Figure 11: Respondents by Other Occupants in Residence



Race, Ethnicity, and Language. Nearly 91 percent of respondents reported White as their race, higher than the 86 percent calculated by the U.S. Census.[101] With 1.63 percent reporting Black as their race and 1 percent reporting Hispanic as their ethnicity, the survey underdrew from these populations by about 4 percent. About 11 percent reported English as their second language, which is consistent with U.S. Census estimates. However, the research team intentionally overdrew from American Indian or Alaska Native population through aggressive outreach efforts, including two site visits at tribal conferences. The results from these outreach efforts are in Appendix F. The research team engaged in these efforts as a result of the unique structure and funding sources of tribal transit programs. Table 3.3 below shows the racial composition of the survey.

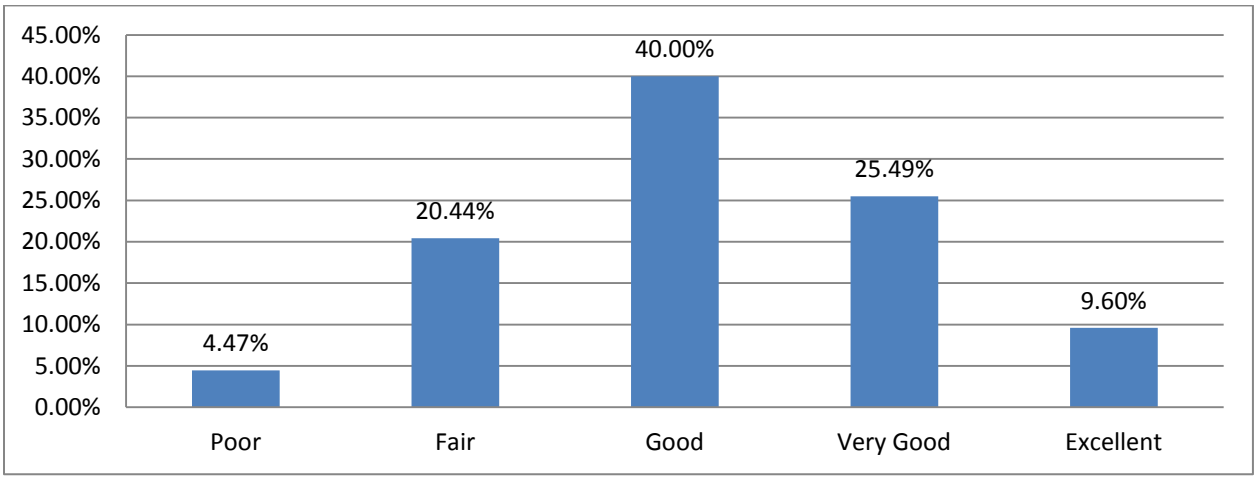
[100] For Census data, see http://www.census.gov/hhes/www/laborfor/Working-Beyond-Retirement-Age.pdf
[101] For U.S. Census information for Wisconsin, see http://quickfacts.census.gov/qfd/states/55000.html

Table 3.4: Respondents by Race

Answer	%
White	90.81%
American Indian or Alaska Native	5.82%
Black or African American	1.63%
Asian or Pacific Islander	0.52%
Other, please describe:	1.22%

Health status. Over 75 percent of survey respondents reported their health as good or better. These results were almost identical to the National Health Interview Study (NHIS) data from 2007 to 2009, in which 77 percent of respondents from the Midwest reported their health as good or better.[102] The distribution of results were also similar, with 35 to 40 percent of respondents reporting good and about 20 to 25 percent reporting fair or poor. Figure 3.6 below shows the distribution of respondents by health status.

Figure 3.12: Respondents by Health Status



Physical functioning difficulties. Related to their responses to health status, survey respondents reported functional limitations that critically affect mobility. For example, about 56 percent of respondents reported difficulty walking one-quarter mile, with 20 percent unable to do. A majority of respondents also reported difficulty both hearing and remembering things people tell them. These results were consistent with the Medicare Beneficiary Study (MCBS) in 2008, with the survey usually slightly titled toward respondents reporting more difficulty.[103] For example, 27 percent of MCBS respondents reported difficulty grasping small objects, compared to 38 percent in this survey. Table 3.4 below summarizes respondents' functioning difficulties.

[102] For CDC NHIS data, see http://205.207.175.93/HDI/TableViewer/tableView.aspx
[103] For MCBS data, see http://205.207.175.93/HDI/TableViewer/tableView.aspx

Table 3.5: Respondents by Physical Functioning Difficulties

Question	Unable to Do	A Lot of Difficulty	Some Difficulty	A Little Difficulty	No Difficulty
Reading ordinary print in newspapers	3.41%	4.56%	12.13%	18.10%	61.80%
Reading street signs or the names of stores	2.34%	3.10%	9.03%	14.09%	71.45%
Hearing things people tell you	0.80%	6.50%	16.16%	29.39%	47.15%
Walking a quarter of a mile	18.63%	10.23%	12.30%	15.13%	43.71%
Lifting, or carrying objects as heavy as 10 pounds	11.56%	10.45%	15.88%	15.66%	46.46%
Handling or grasping small objects	1.88%	5.81%	13.24%	16.91%	62.17%
Losing control of your body	1.35%	2.32%	8.97%	13.40%	73.96%
Losing consciousness	1.64%	0.45%	1.64%	3.70%	92.56%
Making plans or decisions	0.82%	1.78%	7.04%	14.87%	75.49%
Remembering things people tell you	1.03%	4.17%	13.65%	33.05%	48.10%
Concentrating on one thing at a time	0.64%	2.44%	9.49%	20.42%	67.01%
Losing interest in things you usually enjoy	1.05%	2.69%	9.06%	17.34%	69.85%
Feeling sad, empty, or depressed	1.47%	3.80%	11.09%	20.66%	62.98%

Work and Income. About 87 percent of survey respondents reported they were retired, although about half do volunteer or paid work outside of their homes. The time spent in volunteer or paid work was most often 1 to 9 hours. These results were consistent with national averages, where Wisconsin has lowest percentage of retirees working more than 35 hours per work.[104] Survey respondents reported a wide range of incomes, most heavily concentrated in the $10,000 to $24,999 range. Compared to the Current Population Survey (CPS) Annual Social and Economic Supplement, the survey overdrew respondents making less than $25,000 and underdrew respondents making $75,000 per year. For example, he 2008 CPS reported 7 percent of

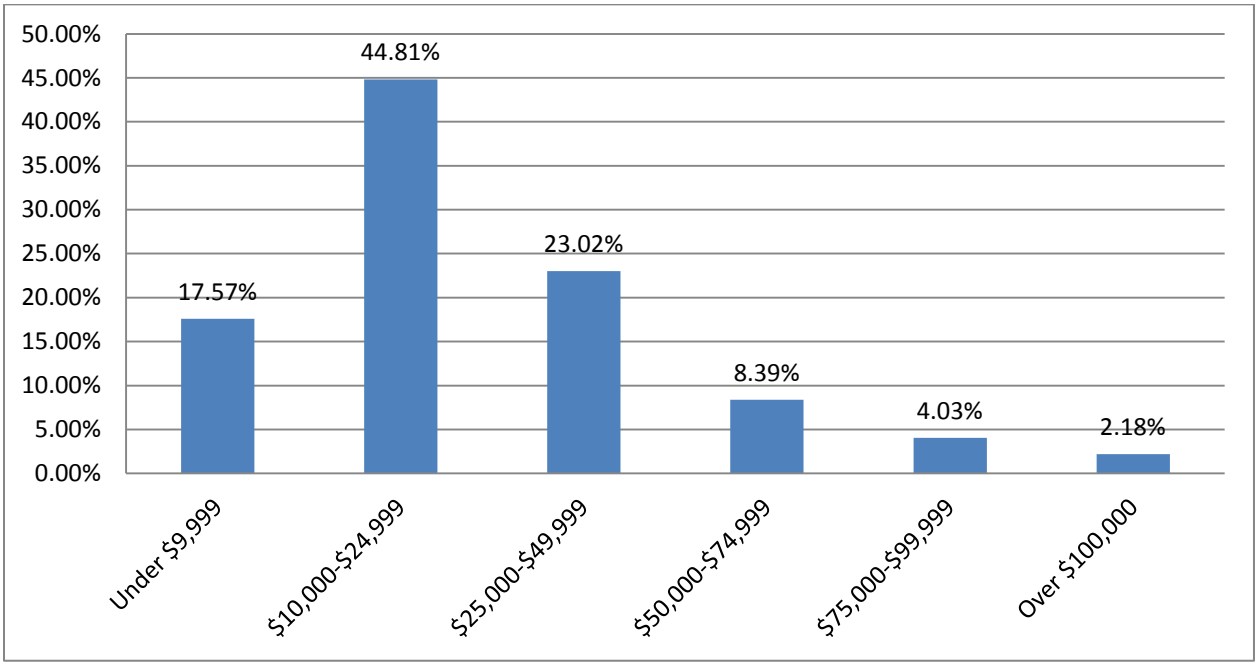
[104] For news article on retirement percentages, see [insert]

respondents below $10,000 income, compared to nearly 18 percent in this survey.[105] Table 3.5 and Figure 3.7 below show work and income distributions for the survey. The research team performed an analysis of survey results based on income in Appendix D.

Table 3.6: Respondents by paid work or volunteer hours

Answer	%
Do not do paid or volunteer work	50.08%
1 to 9 hours	30.09%
10 to 19 hours	8.49%
20 to 29 hours	5.39%
30 to 39 hours	2.40%
Greater than 40 hours	3.55%

Figure 3.13: Respondents by Income



3.1.6 Survey Responses—Transportation Habits

The first objective of the survey was to capture a snapshot of the transportation habits of the Wisconsin elderly population. The research team asked respondents about their selection of transportation modes, their reasons for selecting their most frequently taken mode, and their

[105] For CPS income data, see http://www.census.gov/cgi-bin/broker.

overall satisfaction with their most frequently taken mode. The survey contained specific questions on driving, including questions on license renewal, accidents, and adaptive equipment. Finally, the research team specifically inquired about public and specialized transit use, preferences, and satisfaction. The selection of topics in the survey corresponds with the overview of topics in the Current Practices and Best Practices sections.

Modal choice. A vast majority of survey respondents reported driving on a regular basis. As shown by Table 3.6 and Figure 3.8 below, nearly 46 percent reported driving every day, and only 26 percent reported rarely or never driving. Outside of walking, no other mode had more than 10 percent of respondents report every day use; the next most frequent modal choice selection was private auto use as a passenger. About 80 percent reported a private automobile as their most frequent transportation mode. Despite high auto use percentages, ACS data indicates the survey underdrew private auto users by 10 percent, as shown by Figure 3.9.

Among public and specialized transit modal choice, bus had the most frequent usage with about 18 percent, with nearly ten percent at few times per week or more. About 5 percent of respondents reported bus as their most frequent mode of transportation. Respondents reported similar levels of taxi, mini-bus, biking, and paratransit service use, ranging from 8-12 percent.

Table 3.7: Respondents by Modal Choice

Question	Rarely or Never	A Few Times Per Month	A Few Times Per Week	Every Day
Private auto (you are the driver)	26.08%	5.50%	22.56%	45.86%
Private auto (you are the passenger)	28.41%	35.81%	26.87%	8.91%
Bus	81.74%	8.41%	6.49%	3.36%
Taxi (you are the only passenger)	88.69%	8.11%	2.59%	0.61%
Taxi (shared ride with other passenger)	90.13%	6.20%	2.98%	0.69%
Mini-bus	89.00%	7.47%	2.63%	0.89%
Paratransit service	91.76%	4.14%	3.27%	0.83%
Biking	87.77%	7.20%	3.89%	1.14%
Personal motorized device	92.48%	2.19%	2.12%	3.21%
Walking	37.38%	19.97%	19.76%	22.89%

Figure 3.14: Respondents by Type of Transportation Used Most Often

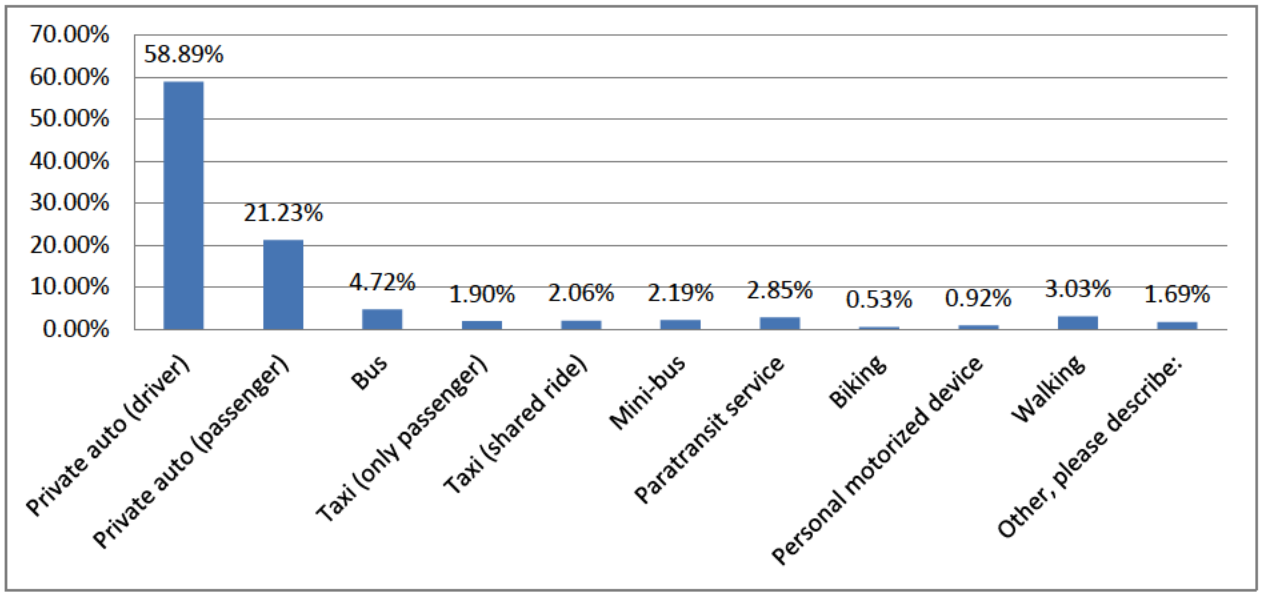
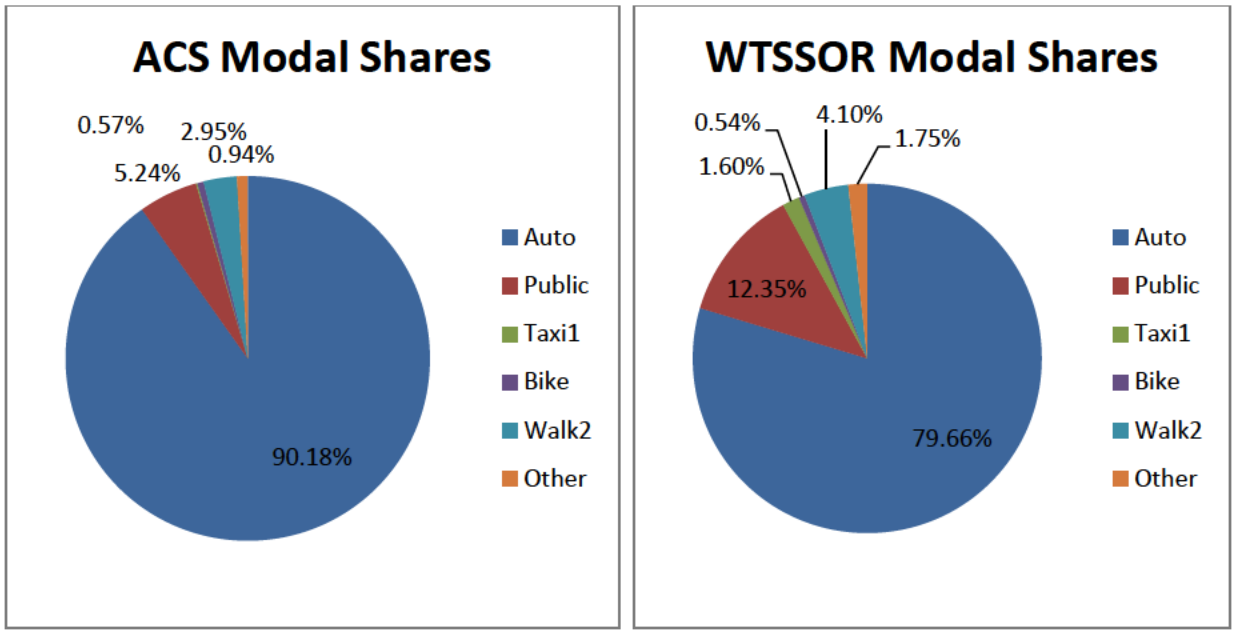


Figure 3.15: Comparison of American Community Survey and WTSSOR Modal Choice



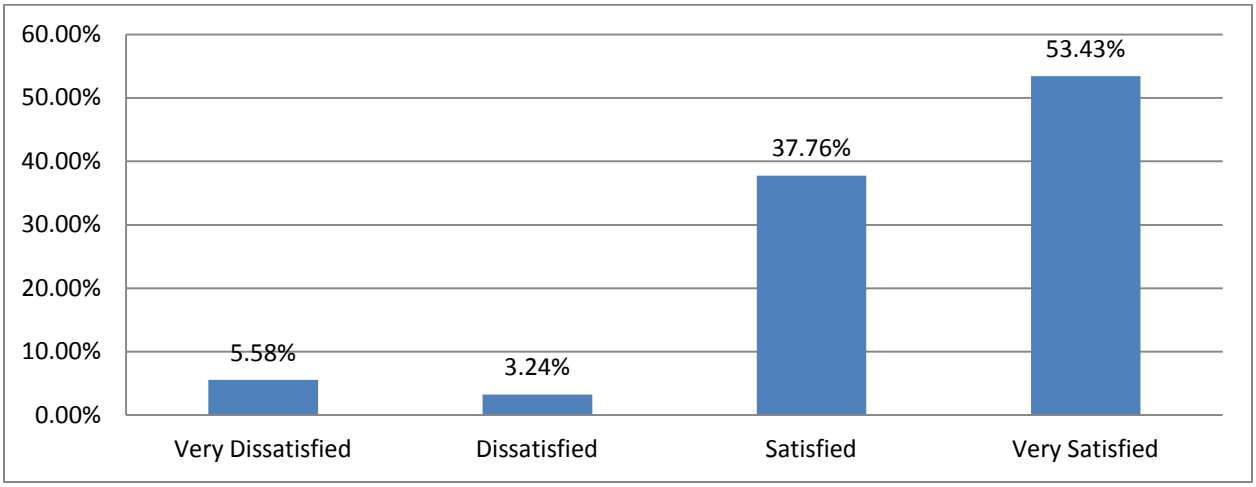
Reasons for Modal Choice. Respondents reported convenience, flexibility, and speed as their strongest reasons for selecting their most frequent modal choice. As shown by Table 3.9, cheapness, safety, and restricted choice ranked lower. Given most respondents selected private auto as their most frequent modal choice, these preferences largely explain why respondents chose to drive—a car can take respondents where they want to go, when they want to go, and the costs of driving are generally not judged to be prohibitive.

Table 3.9: Reasons for Most Frequent Modal Choice

Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	9.83%	19.52%	33.93%	20.81%	15.91%
It is physically easier to board/operate	4.32%	6.38%	42.62%	31.52%	15.16%
It is more convenient	5.19%	1.79%	38.61%	49.09%	5.32%
It is faster	4.84%	5.85%	37.28%	43.55%	8.47%
It is more reliably on time	4.21%	4.07%	39.01%	43.56%	9.15%
It allows me to go to a wider variety of destinations	5.00%	4.44%	35.98%	48.22%	6.35%
It allows me go to more destinations in one trip	5.91%	4.76%	35.54%	46.57%	7.23%
It is safer	4.97%	14.30%	39.13%	25.12%	16.48%
It is the only kind of transportation available	11.19%	22.45%	25.56%	24.39%	16.41%

Satisfaction level with most frequent modal choice. Respondents reported high satisfaction with their most frequent modal choice, with the majority reporting they are very satisfied. The private auto had higher levels of satisfaction than almost every other mode. About 59 percent of drivers were very satisfied with the private auto, compared to 42 percent who most frequently ride the bus and 39 percent who most frequently take an individual taxi. Mini-buses had higher satisfaction levels compared to other modes, with about 54 percent respondents reporting very satisfied. Shared ride taxis had lower levels of satisfaction compared to other modes, with about 38 percent of respondents reporting very satisfied. Figure 3.17 below shows aggregate satisfaction levels.

Figure 3.17: Satisfaction Level with Most Frequent Modal Choice



Additional Driving Information. About six percent of respondents reported involvement in an accident or injury while driving over the past two years. Respondents reporting accidents or injuries skewed younger; respondents over age 75 reported a disproportionately low number of accidents. For example, respondents age 75 to 84 comprised 18 percent of survey responses and nine percent of accident responses. About four percent of respondents reported difficulty when they last renewed their drivers' licenses, and three percent reported adaptive equipment on their vehicles. For respondents reporting difficulty with license renewal, the distribution of respondents by age was proportional to the number of survey responses by age. Appendix C shows aggregate responses to specific questions on driving.

Public or Specialized Transportation Choice. Although predominant modal choice is private auto, about 40 percent of respondents reported using public or specialized transit services within the last two years. Amongst those services, respondents reported local aging office services as the most frequent modal choice, followed by local bus and medical transportation services. Over half of respondents who used public or specialized transit services used one or more of these three services. Slightly less than half of transit-using respondents reported use of shared ride taxi services. Respondents least frequently used veteran and medical transportation services, with nearly a quarter reporting they never heard of these services. Figure 3.18 and Table 3.10 below show aggregate public and specialized transportation choice.

Figure 3.18: Type of Transit Service Used Most Often

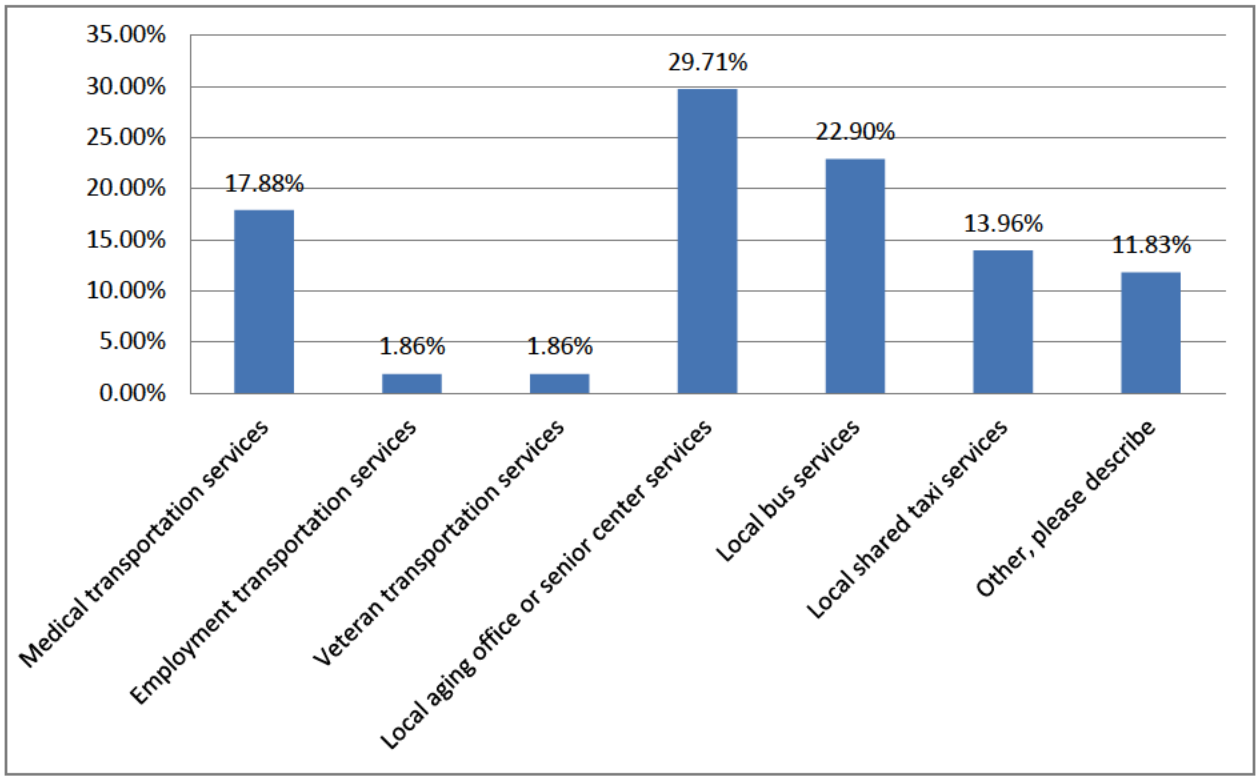


Table 3.10: Respondents by Modal Choice

Question	Never Heard of These Services	Never Use These Services	Sometimes Use These Services	Frequently Use These Services
Medical transportation services	6.78%	47.25%	31.73%	14.24%
Employment transportation services	23.14%	71.33%	3.11%	2.42%
Veteran transportation services	20.07%	74.96%	3.52%	1.46%
Local aging office or senior center transportation services	9.81%	41.06%	29.66%	19.47%
Local bus services	10.74%	46.23%	26.07%	16.97%
Local shared taxi services	11.07%	57.26%	21.82%	9.84%
Other public transportation services	15.73%	57.33%	20.00%	6.93%

Public or Specialized Transportation by Geography. Depending on the county, respondents reported 13.7 percent to 65.7 percent public and specialized transportation usage rates. Figures 3.19 displays reported public or specialized transit use by county. Public and specialized transportation choice by county was likely affected by the survey distribution method, but respondents in counties with higher elderly populations were more likely to report local aging office service use. Figures 3.20 and 3.21 show reported type of public transportation use by county.

Figure 3.19: Transit Service Use, by Geography

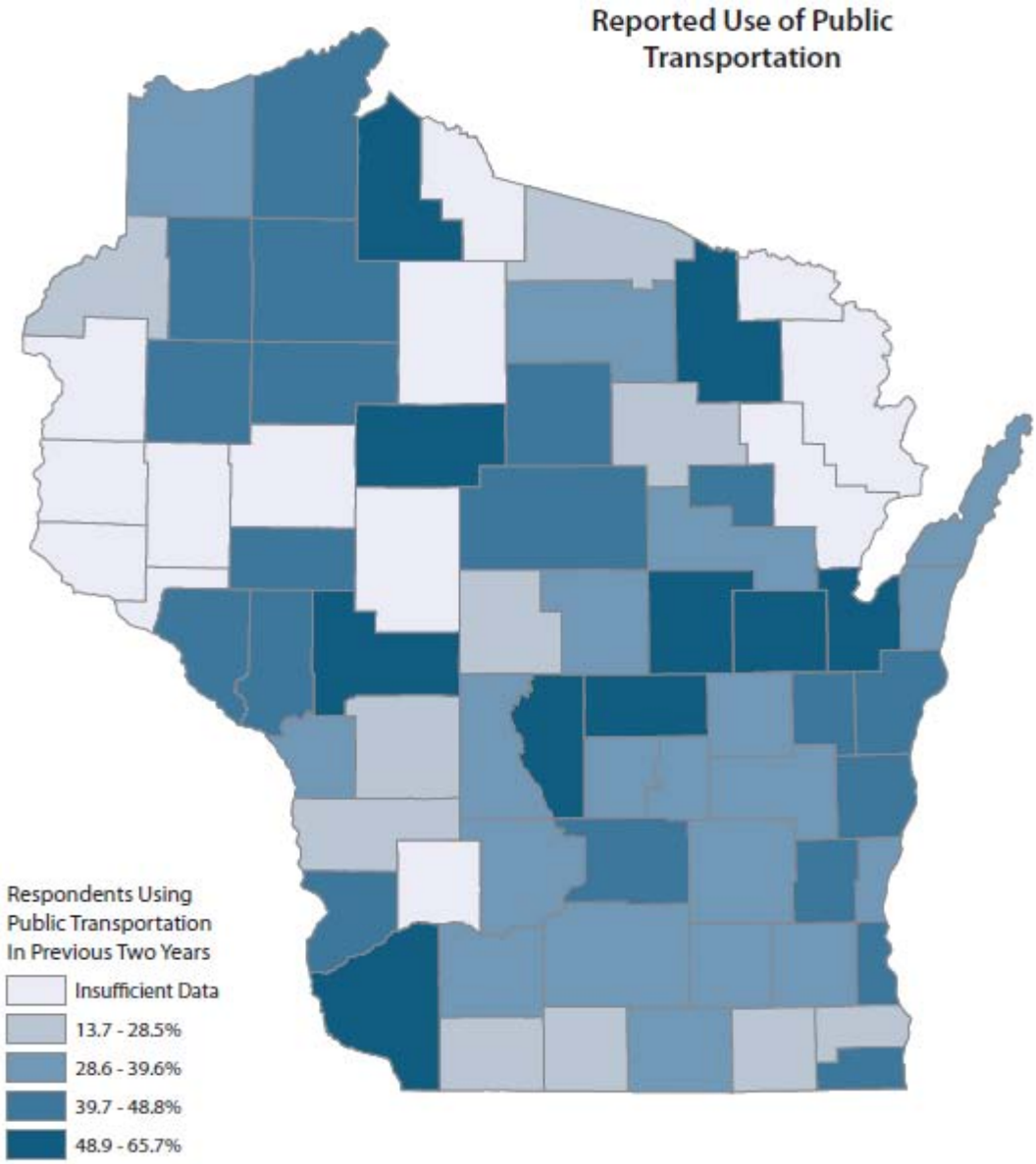


Figure 3.20: Type of Transit Service Used Most Often, by Geography

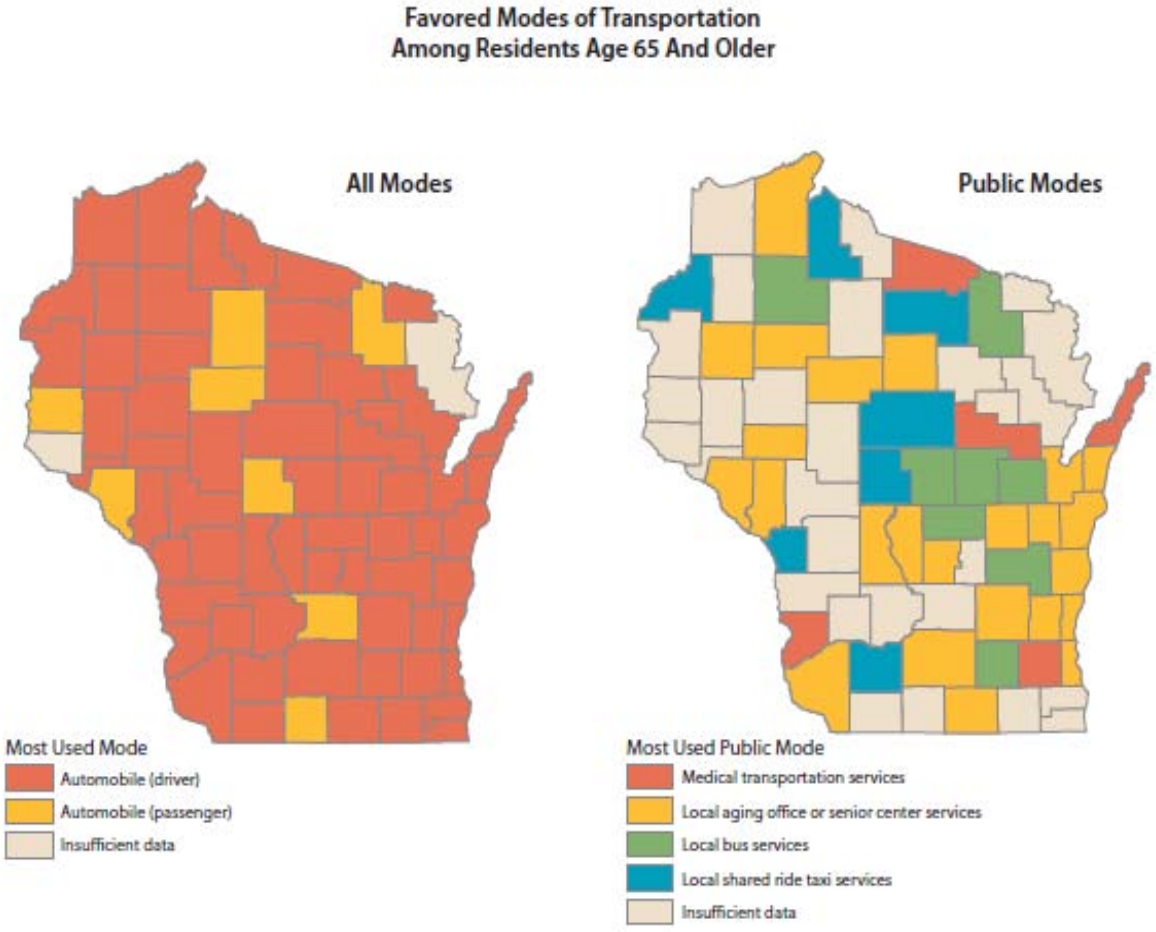
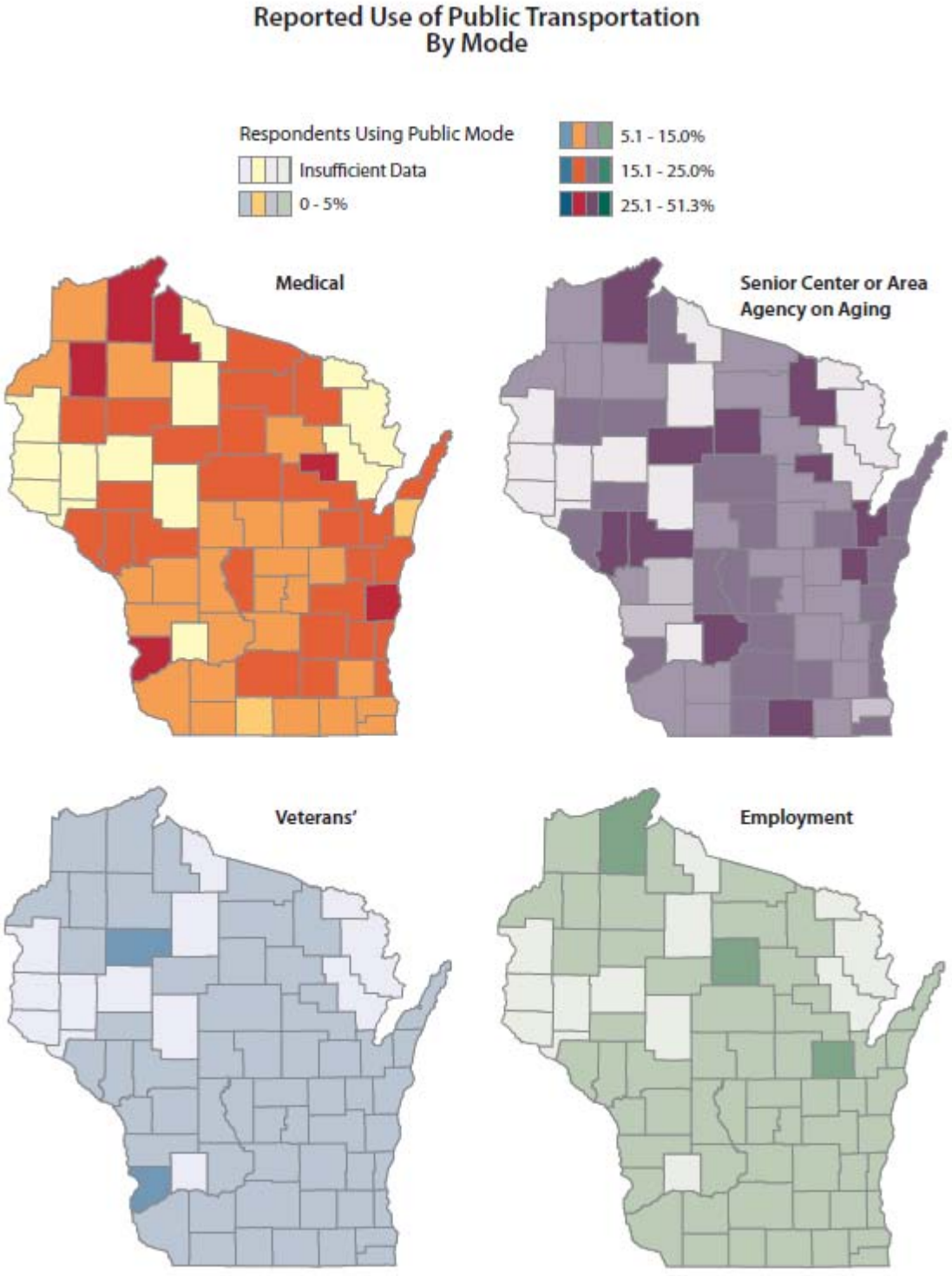
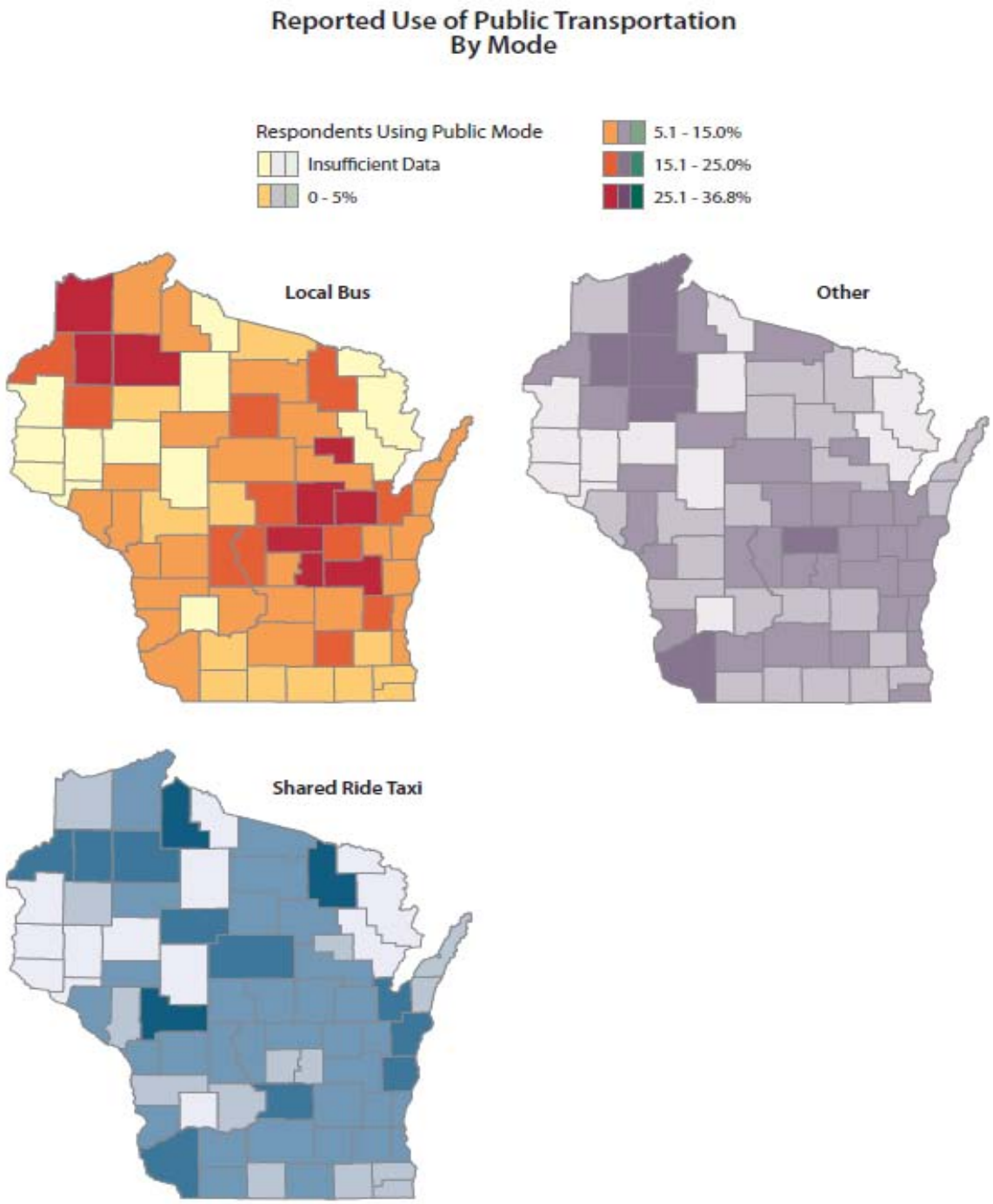


Figure 3.21: Type of Transit Service Use, by Geography





Reasons for Most Frequent Public or Specialized Transportation Choice. Respondents reported the locations pick-up and drop-off points as their most important reasons for their public or specialized transportation choice. Safety, prompt arrival, affordability and accessibility all also highly ranked as important determinants of modal choice. Wait times and availability on short notice ranked lower in terms of importance. Respondents reported physical and language help with service use as the least important reasons for modal choice, but respondents with poor health or with English as a second language valued these factors significantly more highly. Figure 3.11 shows the aggregate importance of factors influencing transit modal choice.

Table 3.11: Reasons for Most Frequent Public or Specialized Transportation Choice

Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	7.56%	7.16%	24.34%	60.94%
Transit stops are near or at my home	9.05%	4.40%	14.11%	72.45%
Transit stops are near or at places I want to go	8.62%	3.33%	14.51%	73.55%
I can reach my destination without a transfer	13.04%	7.40%	19.43%	60.13%
Wait times are short	9.41%	6.59%	27.03%	56.97%
Transit is available on short notice	11.93%	10.72%	27.57%	49.78%
Transit reliably arrives on time	6.57%	4.11%	22.19%	67.13%
Vehicles are easy to board	7.15%	6.10%	20.96%	65.78%
Transit is safe and secure	5.34%	3.72%	17.23%	73.71%
Transit system can work around language barriers	44.04%	13.76%	16.88%	25.32%
Someone helps me use the service	28.94%	11.47%	18.75%	40.84%

Satisfaction with Most Frequently Used Transit Service. Respondents reported overwhelming satisfaction with the type of transit service they used most often. As shown by Figure 3.21, over 90 percent reported they were satisfied or very satisfied with their service. Respondents' aggregate satisfaction levels with their most frequently used public transit service were similar to their satisfaction levels with their most frequently used modal choice overall (most often private auto). As shown by Figure 3.22, respondents' satisfaction levels with public transit was even geographically similar satisfaction levels with private auto.

Figure 3.21: Satisfaction with Type of Transit Service Used Most Often

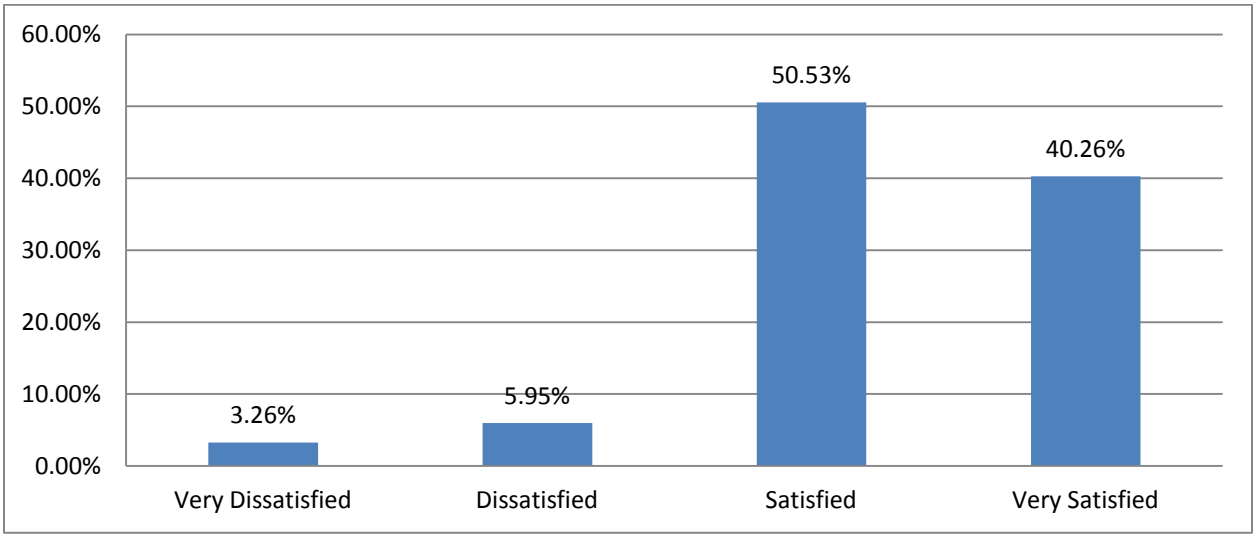
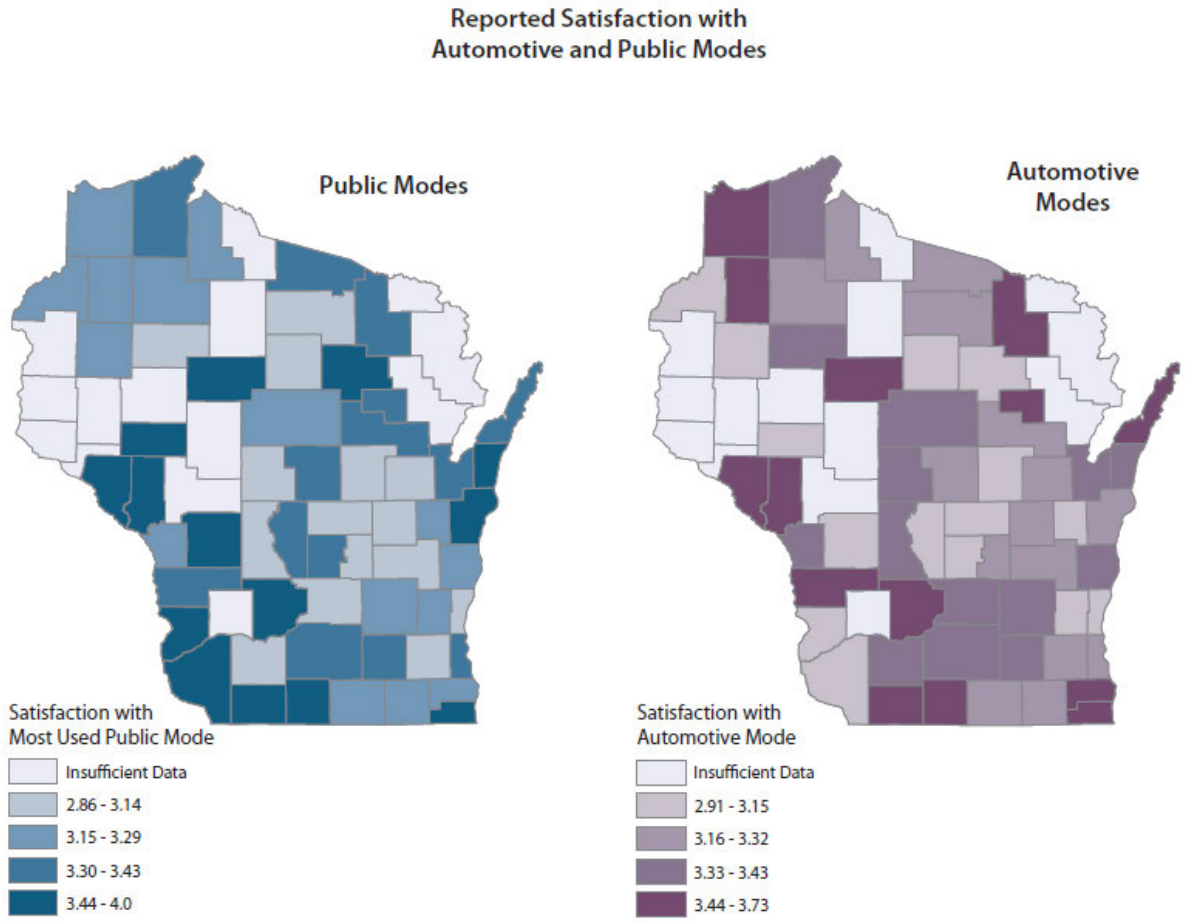


Figure 3.22: Satisfaction with Type of Transit Service Used Most Often, By Geography



3.1.7 Survey Responses—Transportation Needs

The first objective of the survey was to capture a snapshot of the transportation needs of the Wisconsin elderly population. The research team asked respondents about their time, activity, and reason for mobility difficulty.

Time of Mobility Difficulty. Nearly three-quarters of survey respondents reported no mobility difficulty at any time. The least frequent times of mobility difficulty were weekend mornings and weekday afternoon, perhaps a result of decreased demand. The most frequent time of mobility was weekend evenings, a time with many social events but lower transit availability. As shown by Figure 3.23, although the absolute percentage of respondents reporting a time of mobility difficulty was relatively even across different times, respondents reported difficulty on weekend evenings about a third more often than on weekend mornings. Figure 3.24 shows as much as 36 percent of respondents report difficulty on weekend evenings in some counties.

Figure 3.23: Time of Mobility Difficulty

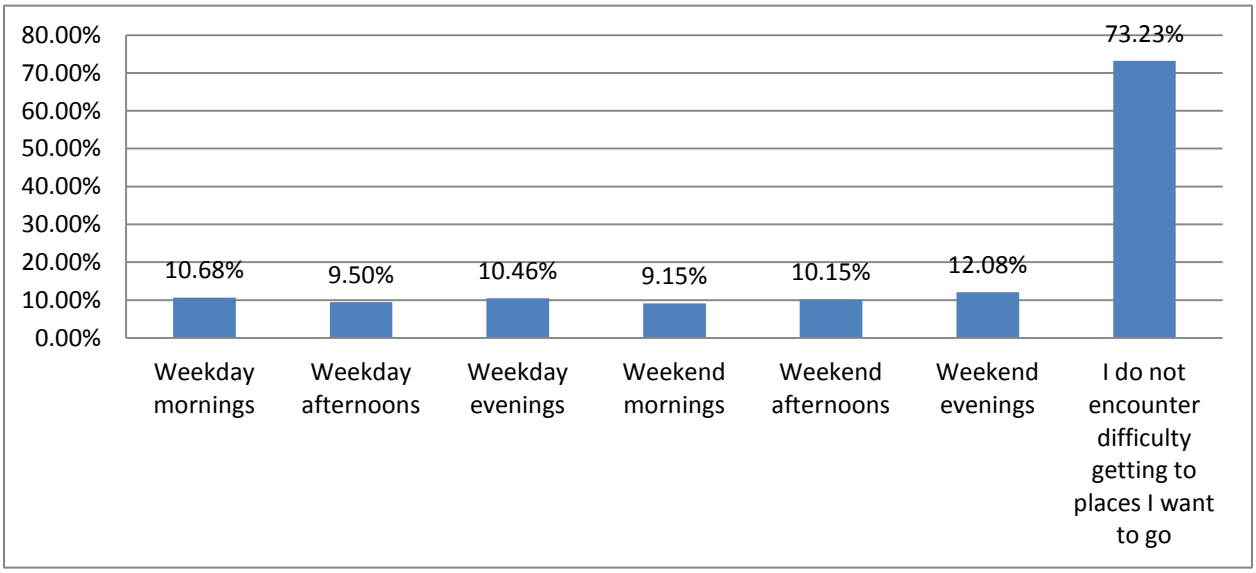
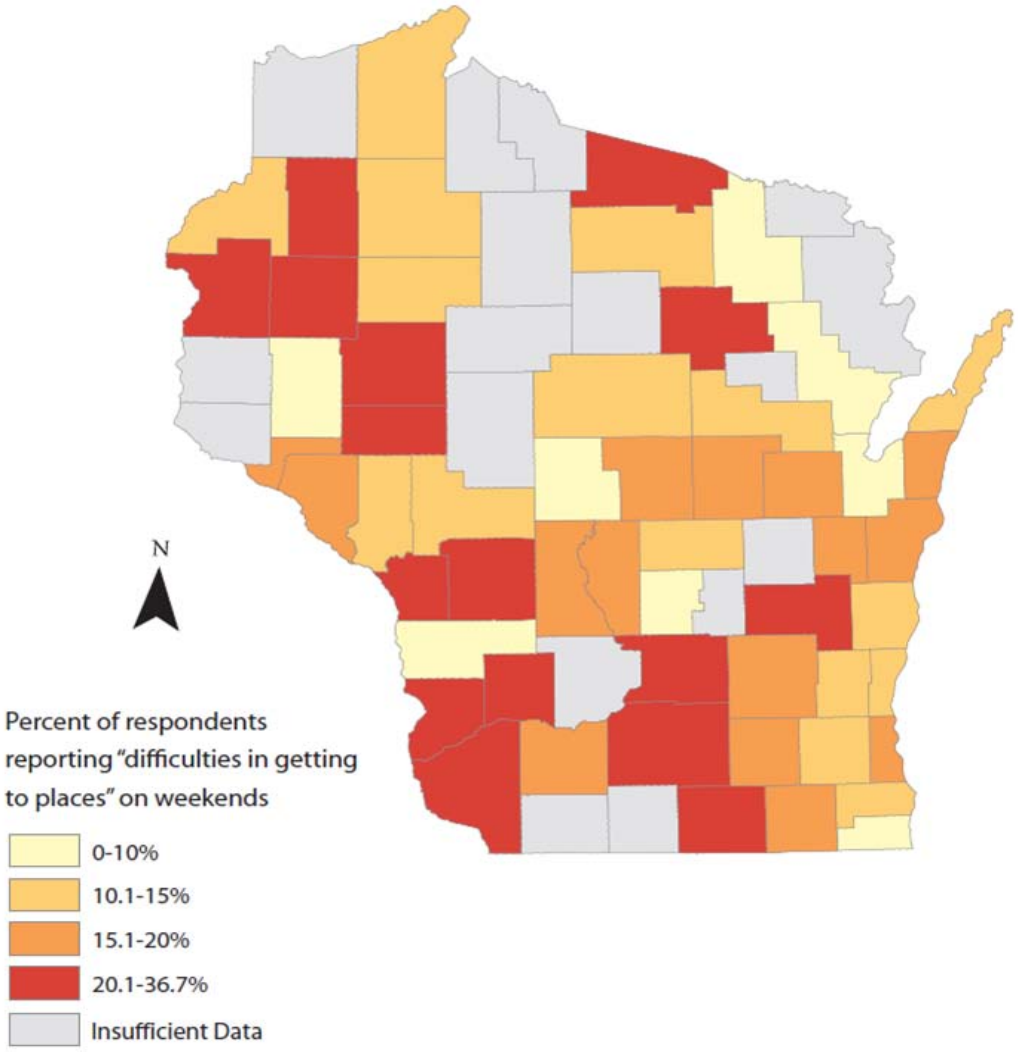


Figure 3.25: Time of Mobility Difficulty, by Geography



Activities with Mobility Difficulty. When asked specifically about activities, more respondents reported some mobility difficulty than they did when asked specifically about times. As shown by Figure 3.25, about 68 percent reported no mobility difficulty for any activity. However, alarmingly, almost 17 percent of respondents reported difficulty accessing medical appointments. Further, almost 13 percent of reported difficulty buying essentials such as food and medicine. Figure 3.26 shows many of the counties with a high percentage of seniors in "food deserts", as defined by the United States Department of Agriculture, also had a high percentage of seniors report difficulty buying essentials. About 10 percent of respondents reported difficulty attending civic, religious, or social events with friends and family.

Figure 3.25: Activities with Mobility Difficulty

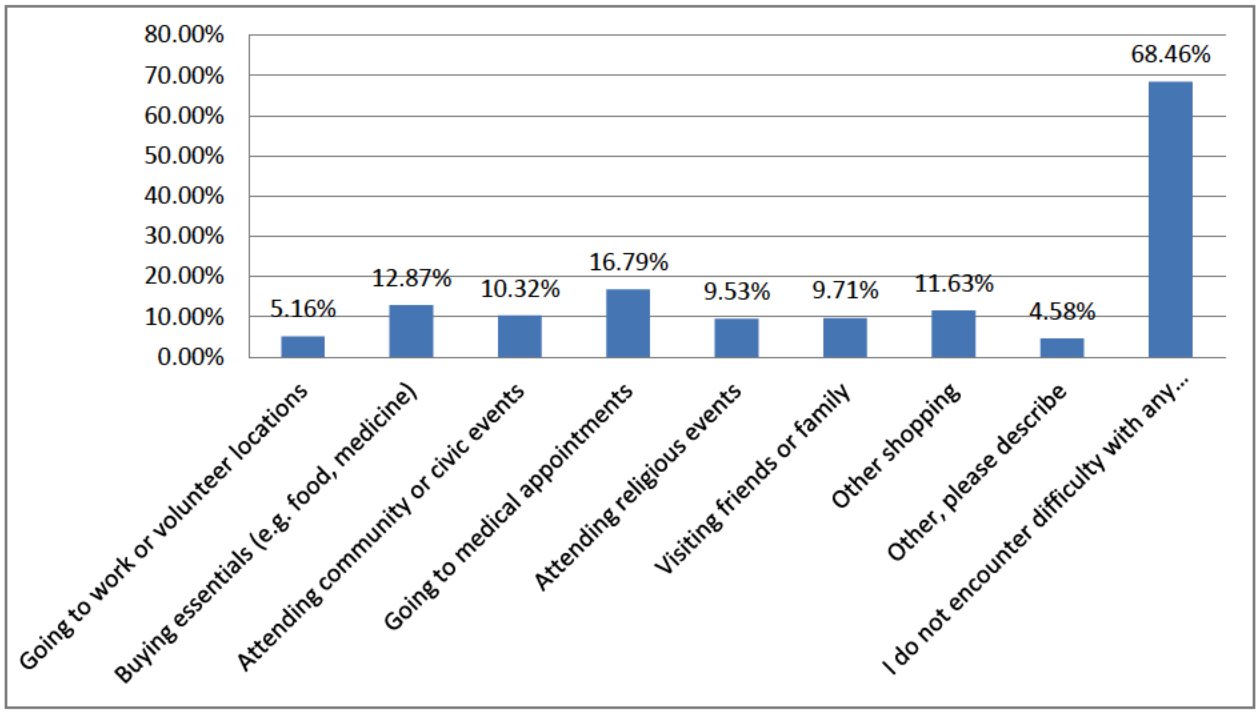
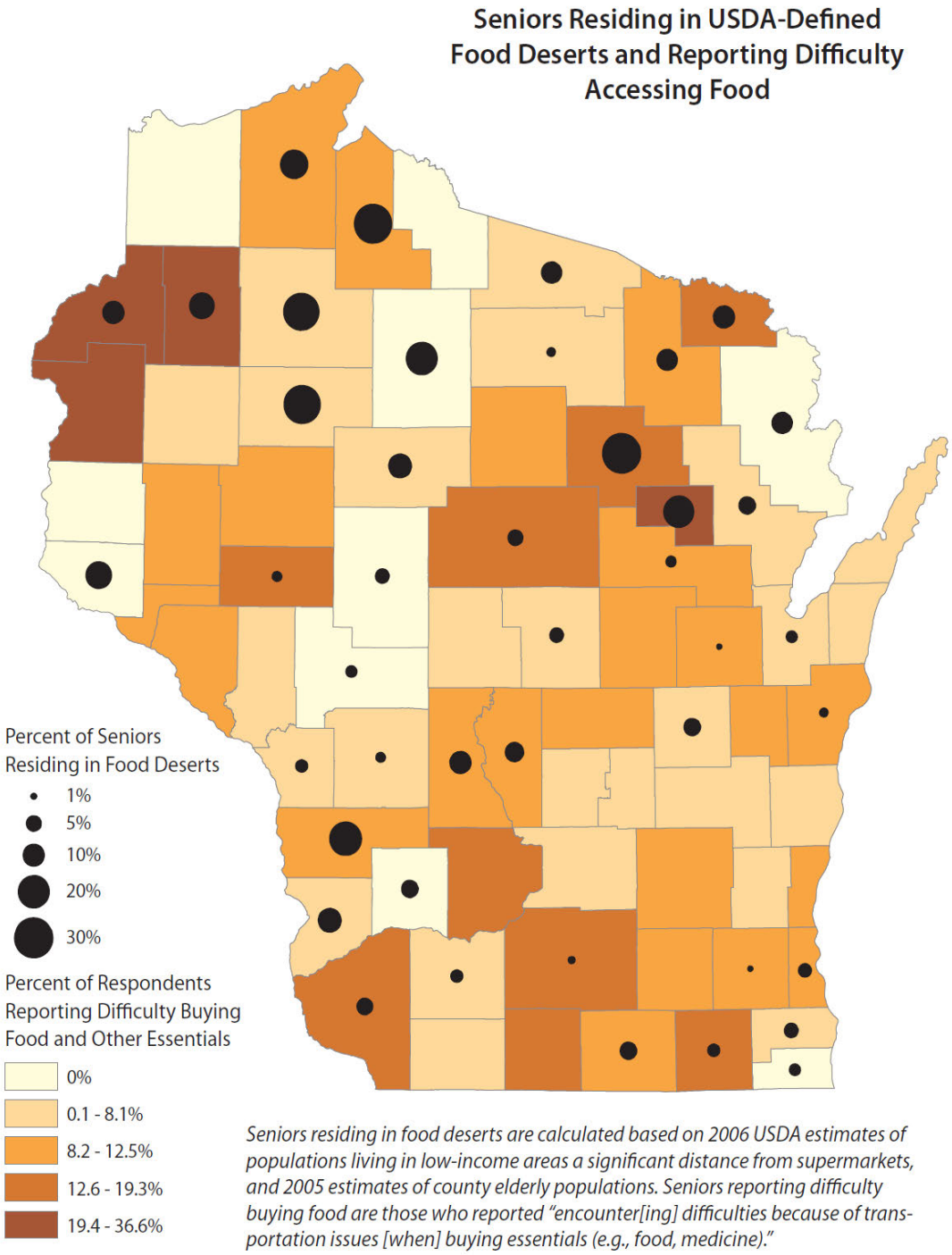


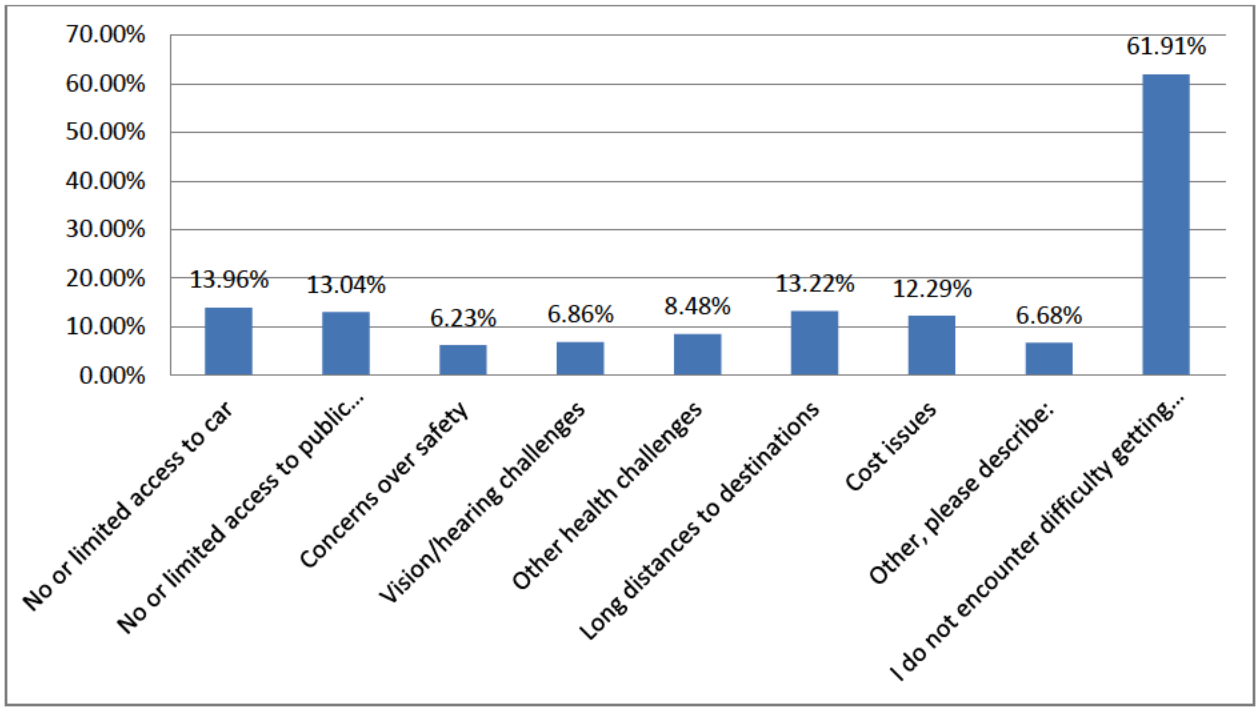
Figure 3.26: Comparison of Difficulty Buying Essentials and Availability of Essentials



Reasons for Mobility Difficulty. When asked specifically about reasons for mobility difficulty, more respondents reported some mobility difficulty than they did when asked specifically about times or activities. About 62 percent of respondents reported no mobility difficulty for any reason. The most common reasons for mobility difficulty were limited access to car or public

transportation, long distances to destinations, and cost issues. As shown by Figure 3.27 respondents reported less difficulty with health challenges and concerns about safety.

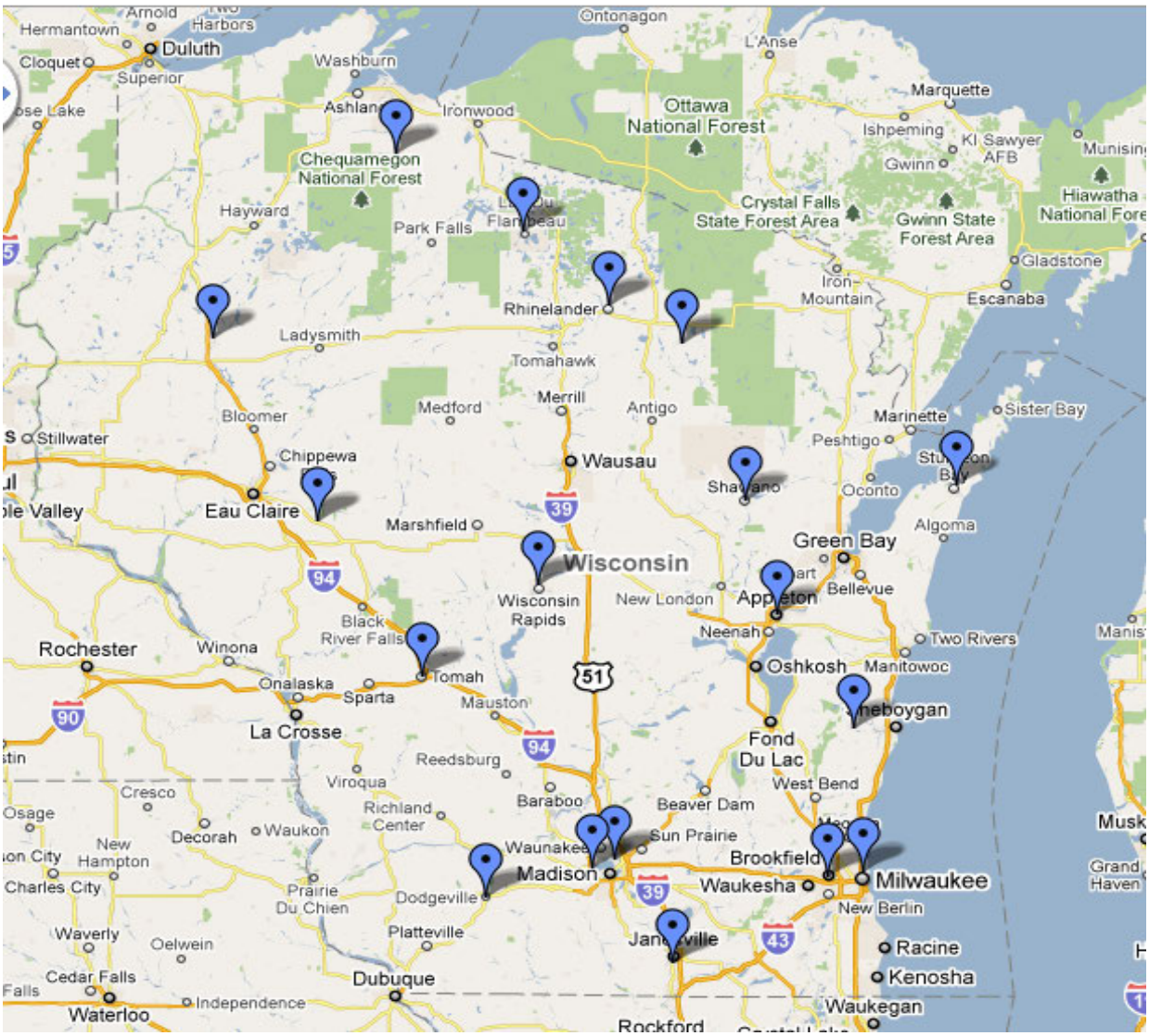
Figure 3.27: Reasons for Mobility Difficulty



3.2 Wisconsin Transportation Services Focus Groups

To collect information from elderly residents, the research team completed 18 forums in a range of locations across the state, as shown in figure 3.28. The general template used for conducting the focus group is found in Appendix I.

Figure 3.28: Focus Group Locations



3.2.1 Appleton

The Appleton Focus Group was held at the Thompson Community Center in downtown Appleton on February 15th, 2011 beginning at 9:30am. There were eight participants.

All participants indicated awareness of Valley Transit and Thompson Center programs. A concern about stigma, particularly among male riders was raised. Several participants commented that cost and convenience were major issues for them.

Most participants were drivers, citing a need for "spur of the moment" trip choices. Wait times in excess of 45 minutes were reported as common and reasons for not relying on government provided systems.

Weaknesses in the system included responses varied from convenience to handicapped accessibility. Service to rural areas, by the formal transit system and the volunteer driver programs, was presented as a weakness. Participants noted costs, including a desire to trip chain more affordably, as another challenge.

Transportation options for the morbidly obese was raised as a concern, as no programs are in place to move extremely large, and potentially less mobile, residents.

A tiered approach to paying for service was also offered as a potential solution to cost concerns – either based on income or trip purpose.

3.2.2 Augusta

The Augusta Focus Group was held at the Augusta Senior Center on March 14th, 2011 from 12:30pm until 2:00pm. There were 16 participants.

Most participants here had been active participants at Augusta Senior Center activities. Some participants used Tender Care Transportation or provided volunteer transportation for others in the past. One participant provided Veterans' related transport but indicated that more people do need to know what is available for veterans.

Most of the participants were drivers. They commonly cited convenience, independence, and no other option available as the primary reason they used their vehicles. Especially rural residents have no public transportation available. Some indicated that taxis are not always willing to service clients with assistance animals. Participants indicated that stop proximity to their homes is a critical factor for choosing to use public transit. Others reported that the city bus does not run early enough to use for work. Many respondents indicated that they simply enjoy driving, can visit family out of state

Some weaknesses observed included responses varied from fixing potholes and performing better snow removal to better signs & education. Some hoped that public transportation to rural areas could be provided at reasonable prices.

Participants requested better education on how to use roundabouts. In addition participants suggested that:

- Better city-to-city public transportation is needed
- Sunday, same day and evening service public transportation improvements is needed
- The lengthy approval process for Tender Care Transportation service could be shortened
- Marketing Tender Care Transportation to a participant's family to purchase gift certificates would be valuable

Suggestions for best and future transportation services

- Center for Independent Living for Western Wisconsin should continue to contract to provide evening and weekend services
- Wheelchair access vehicles that volunteer drivers use.
- Area churches offer wheelchair accessible vehicle for transportation to church
- DOT to recognize transportation needs
- Stable State transportation budget so programs can be planned
- Accessible taxi service similar to service available in Black River Falls

3.2.3 Brookfield

The Brookfield Focus Group, hosted by Waukesha County, was held at the Brookfield Senior Community Center on March 18th from 11:00am until 12:30pm. Three people participated at the

Brookfield event. The primary issues raised in this forum involved jurisdictional boundaries – namely service issues between counties were extremely challenging. Logisticare was raised as an emerging issue that required evaluation going forward.

No service was reported as being available on weekends and evenings, making activities scheduled in these time windows nearly impossible to attend without using regular taxi services. Other reported weaknesses included: small lettering on street signs in the Brookfield area and general traffic volumes. Stigma associated with using public services was raised as a concern among certain ridership groups.

Suggested improvements included education on using roundabouts, door through door programs, and increased funding for non-medical trips. An example was noted that in an adjoining city, service costs $9.00 for a roundtrip to grocery stores, when many users pay for the grocery items with public assistance. Trips for dialysis were noted as an emerging concern.

3.2.4 Dodgeville

Two Forums were held in Dodgeville on March 15th at the Iowa County Social Services offices. The first was focused on transit providers and the second specific to users. The user event attracted 14 residents while 8 providers participated in the first session.

Participants indicated that senior centers were the primary means by which they learned about programs. Several reported that once you get a person on the bus one time, they will likely be a repeat user. Encouraging that initial experience is the most effective tool. The social nature of shared ride services (either in private automobiles, volunteer programs, or public transit) was noted as a key benefit for older users.

Noted weaknesses included a sense of cost and inconvenience. Participants noted a concern with the impending contracting with Logisticare as a potential weakness. Weekend travel and Sunday travel in particular were included in the participant responses.

Roundabout education, programs specifically targeting male riders, and comfort were primary suggestions for improvement. Halogen headlamps were cited as a concern for nighttime driving as they "blinded" oncoming traffic. In addition, one participant added that striping and flashing lights on rural sections of highway could be improved for safety, especially in inclement weather conditions. The intersection of State Highways 61 and 133 was noted as concern due to sight lines.

3.2.5 Janesville

The Janesville Focus Group was held at the Rock County Job Center on February 23. Eleven people participated.

All participants indicated some familiarity with the publicly available options for elderly mobility in the Janesville area. The group was primarily composed of drivers, including one that has medical issues and blindness in one eye. This participant felt that other options were extremely limited.

One participant raised stigma as a primary concern, indicating that "there's something really wrong with you" if you are using public transportation services.

System weaknesses that were noted included transit stops that are not well marked, consistency of bus drivers (whether they were willing to deviate from routes or not), and shelter placements (the group expressed a desire for more shelters along heavily used routes). Personal finances prevent some from using the services available more frequently as it was viewed as costly. Rural area service was described as "non-existent."

As with other areas, a concern was raised about the increased use of roundabouts and a call for more public education in this arena specific to older drivers was cited as a useful recommendation. In addition, intercity transport options were suggested as needed. Service between Beloit and Janesville was noted as an example. A private operator does currently run the route and the session participants viewed it favorably.

3.2.6 Madison

The Madison Focus Group was held in November 2010 at the Warner Park Community Center. Twelve people participated, including the directors of several programs and case managers. Nearly all participants were drivers.

Madison participants identified word of mouth as one of the strongest opportunities for increasing program awareness. They also noted the important role that mobility managers in the aging units serve. Case officials know the clientele and can problem solve well.

Participants suggested that city street signage, particularly in Stoughton, needs to have larger lettering. Better education for roundabouts, brightness of lighting, and traffic congestion were also noted. Signal timing to allow for people with walkers to cross busy intersections and allowing for spouses to travel with service users were other suggestions. It was noted that costs can be extremely high (as much as $40) for spouses to accompany partners on medical appointments.

3.2.7 Mellen

The Mellen Focus Group was held at the Mellen Senior Center on June 22, 2011 following a snow-related cancellation in April. Seventeen people participated in Mellen.

A primary concern at this focus group was the cessation of taxi service in the area effective July 3. Without the taxi availability, there were limited mobility options for people of all ages without personal vehicles. The Logisticare contract was viewed unfavorably by participants. With respect to program awareness, the Mellen participants noted that the Bayfield area was still well served, but outside of that, there were limited options. Volunteer programs were suffering from a lack of volunteers willing to participate at limited reimbursement rates. Intercity trips were cited as a primary need for people in the area. Medical services in Duluth or Marshfield could be particularly challenging for those without means to pay for service.

This focus group added concerns about people who retire to the area without family close by. As these retirees age, they do lose their driving skills. In many places, the retirement properties are on winding roads near lakes or other natural features. Established transit routes cannot deviate efficiently to serve these areas.

Rutting on State Highways 2 and 13 was raised as a problem in the area. It was also noted that the availability of comfortable seating was something that could be addressed to encourage more ridership on area buses.

3.2.8 Milwaukee

The Milwaukee Focus Group was held at the Clinton Rose Senior Center on February 17. Twelve people participated in the Focus Group.

The Senior Center was hailed as the primary place where residents could learn about programs available to the larger community. Many reported using family and friends if they needed transport. Several participants offered complaints about existing Milwaukee County Transit plus services, principally focused on inconsistency in waiting periods.

Many reported taking advantage of existing programs, including subsidized taxi programs. The other primary theme from the Milwaukee group was that most felt a sense of despair in having to repeatedly ask for assistance from peers, relatives, or friends. A stigma of being dependent was raised by two participants in particular.

3.2.9 Plymouth

The Plymouth Focus Group, hosted by Sheboygan County, was held on April 19th at the Plymouth Senior Center. Nine people, form six different communities, participated during an intense spring snow storm. One participant was a 92 year old gentleman that still drives regularly during daylight hours.

Mobility managers were cited as the primary means by which information about alternative programs is disseminated. Other successful mechanisms included cooperation with the Salvation Army and local senior centers. Regular newsletters, especially sent from municipalities, were also noted as a potential source that has not been used consistently in the area.

Among the suggested activities included education on roundabouts targeting senior drivers, increasing mileage reimbursements to encourage volunteer driver programs, and consideration of changes to state laws allowing operation of modified neighborhood electric vehicles (i.e. golf carts). Creating a system to provide for insurance of volunteer drivers was another suggested need. Many are discouraged by the inability to gain insurance on their personal vehicle if they participate.

3.2.10 Rhinelander

The Rhinelander Focus Group was held at the Oneida County Department On Aging Office on April 14, 2011. Twenty people participated.

Successful ways that increased program awareness reported in this session included referrals through the senior center or other services, including nursing homes, advertisements in local papers, and one on one contacts.

Several of the attendees were drivers that lived in more remote parts of the county. These individuals noted that no alternative to private automobiles existed for them. Intercity transport for longer distances for shopping or other purposes also was not being met if needed. Some scheduled service (2-3 days per week) was offered in certain corridors with varying degrees of success.

Door through door services, wheelchair lift accessibility, and more frequent intercity bus services were suggested as means for ensuring future mobility. From an infrastructure perspective, participants requested consistency in sign placements alerting drivers for curves and stopping distances, middle rumble strips, and better striping as safety measures they would prefer to see in rural areas.

Another observation from the group was that families are now very scattered, so many people do not have the same security net they may have held in the past. Job opportunities in the rural areas were also reported as “becoming scarce” causing people to travel much longer distances.

3.2.11 Rice Lake

Rice Lake hosted a Focus Group at the Rice Lake Senior Center on March 22, 2011. Twenty five people participated in the focus group.

Participants expressed knowledge of several programs available in the area including bus and taxi-based programs. Service hours (9-2pm) were viewed as a challenge to making these programs more effective.

A volunteer driver program, and the impending Logisticare arrangements, were offered as opportunities for improvement. Several areas in the surrounding region are not currently served by volunteer driver programs due to "insufficient" mileage reimbursements. Some surrounding churches were reported as having Sunday service transportation options.

Participants reported high school events, grocery trips, and evening events as the primary occasions that were extremely difficult to attend. Those that drove indicated a self-imposed decision to avoid nighttime driving and one even added that he has stopped driving on routes where he knows there is a roundabout installed.

Costs were raised as a concern for residents. One participant's "perfect system" would need to include door to door service with regularly scheduled options that people could rely upon. Another noted that the insurance regulations for volunteer programs need to be changed. With the increased need for personal liability insurance, many people won't become volunteer drivers.

Generally, the participants expressed their appreciation for the existing transit service, however, noted that headways and routes need to be changed to get more use from the system. Several participants noted that coordination of transportation options would be a valuable investment for the community.

3.2.12 Shawano

Shawano County hosted a Focus Group at the Shawano Civic Center on the afternoon of February 15th. Eight people were in attendance.

The primary issues that arose in the Shawano focus group involved improving the availability of regularly scheduled services. The participants expressed their pleasure with the existing county bus service (which operates in Shawano one day per week) and the Cap Taxi program. The taxi operates within the city limits at a subsidized rate.

Other concerns that were raised included safety concerns at school dismissal times, snow storage and removal creating limited sightlines at intersections, winter driving refreshers for all drivers, and coordination of services generally.

3.2.13 Sturgeon Bay

Sturgeon Bay hosted a Focus Group on March 29 at the Municipal Offices in Sturgeon Bay. Fourteen people participated in the focus group.

Door County annual updates their inventoried collection of transportation services. This guide helps make connections for people and residents depending on differing transportation needs. It is available on the county's website as well. Program awareness is broadcast via newsletters, word of mouth, and 211 service. They also prepare posters to publicize services.

The shape of the county requires that nearly all trips end up going through Green Bay. Time, convenience, costs, and requirements of jobs were noted as reasons that people principally drove their own personal vehicles.

Participants generally agreed that taxi service in Sturgeon Bay was adequate in the mornings and that the bus service also was effective during the day. Concerns about evenings and

weekends were evident. One participant expressed a concern for needed outreach and education on what the costs of running these programs really were. He believed that people generally do not factor in all of the costs and expect service to be free.

Some concern was conveyed by representatives at the focus group from Washington Island residents about the availability of emergency transportation services in winter. The reliance on ferry service poses an interesting transportation challenge. Insurance issues related to liability, education on roundabouts, and concerns about the Bay View Bridge were raised. The participants noted that the bridge is slippery in inclement weather conditions.

3.2.14 Tomah

The Tomah focus group was held on March 1 at the Tomah Senior Center. Twenty two people participated in Tomah. This session was facilitated by Patrick Fuchs.

Participants here highlighted the importance of a network of family and friends for adequate transportation. One participant pragmatically noted "I don't need other transportation, I have a boyfriend." While humorous, this view also was evident as most of the attendees had arrived in personal vehicles.

Most of the participants, but not all, were aware of programs in place through the Senior Center. Even with a brochure readily available, several frequent users of the Senior Center reported that they were unaware of subsidized taxi or other programs. Only one company serves Tomah so wait times are often long.

Many reported that they just truly enjoyed the driving experience and would keep driving as long as they were able. Education opportunities – including roundabouts and use of lights in fog – were cited as opportunities for WisDOT to make improvements.

Cost issues were raised – a shared ride taxi fare in the city limits is $2.50/$5.00 roundtrip – as a potential barrier for some users. Service was generally requested on weekdays – but at least 5 participants expressed desire for 24 hour a day options.

3.2.15 Middleton

The Middleton Focus Group was held on April 1. Eight participants attended. The primary focus for this session was on the availability of services on the outskirts of a more major metropolitan area (Madison).

All participants were aware of several programs in the area, including the POPS (Projects for Older People) program. They cited the need to call well in advance for transportation services – regardless of program – as a challenge to their increased uses of these initiatives. In general, the participants learned of the available programs either through their retirement homes, the Senior Center, or through an assigned intake worker. While most attendees were drivers, at least two expressed concerns about driving at night or for long distances (e.g. to Milwaukee).

Wheelchair equipped services are viewed as a weakness as their availability was limited via taxi service. In addition, Saturday and Sunday events are a particular challenge. Participants expressed concern about routes and service reductions for the Madison Metro on weekends. Service to outlying areas was also noted as a concern. Specific routes between Middleton and Verona or further are not existent without many transfers or long headways.

3.2.16 Wisconsin Rapids

The Wisconsin Rapids Focus Group was held at the Centralia Center on February 28. Seventeen people participated in the focus group.

Primary issues emerging from the Wisconsin Rapids group included weekend and evening service, noting that the taxi service is often overrun on Sundays. Other concerns included intercity transportation options, coordination of services, and general concerns in rural areas.

A strong preference for "funding" improvements permeated the discussion. Volunteer drivers could not continue to participate at a low reimbursement rate. Insurance issues also emerged as a primary detractor for increased participation.

Accessibility of service, and reliability of service, also were discussed frequently.

Some participants expressed interest in tightening the testing requirements of license renewal. Four year renewal periods were suggested.

3.2.17 Mole Lake: Tribal

On February 12, the research team participated in a meeting of the Great Lakes Elders Native American Association in Mole Lake Wisconsin. At this meeting, research team members were able to administer the comprehensive survey directly to several participants and also solicit specific feedback from tribal members.

3.2.18 Wittenberg: Tribal

In November, 2010 the research team met with members of the Tribal Aging Unit Directors' Association at their meeting at the Ho-Chunk Nation facility in Wittenberg. This discussion allowed further refinement of the focus group format as well as soliciting tribal input and experiences.

Among the key observations: concern for communications among the various programs, reliance on funding from tribal operations (including gaming revenues), consistency of service across varied geographic areas, and tribal/county relationships.

4. Elderly Mobility Best Practices

A successful collection of programs and services in support of elderly mobility requires the coordinated efforts of a wide range of stakeholders crossing institutional, geographic, and professional boundaries. From program managers in state agencies to medical professionals to local service providers, a sole agency or group of individuals cannot by itself achieve a responsive, comprehensive system of transportation for aging individuals. This section features an overview of best practices, as identified by the experiences of other states, guidance from federal agencies, and the opinions of researchers and experts in private foundations and organizations.

The American Automobile Association (AAA) Foundation for Traffic Safety, for instance, convened a workshop of international experts in 2008 to review and identify best practices related to driver licensing policies. Other groups, including the Community Transportation Association and The Beverly Foundation, also provide best practices related to elderly mobility. The Federal Highway Administration's (FHWA) handbook for older drivers and pedestrians provides specific guidance for highway design practices. Reports completed by the National Highway Traffic Safety Administration (NHTSA) identify relevant practices from a federal perspective. Among other states, Michigan has a long history of engagement in the issue, and the state's Senior Mobility Action Plan serves as a helpful guide to identifying a wide range of successful practices. A study completed for the Pennsylvania Department of Transportation (PennDOT) focuses specifically upon the improvement of older driver safety. Wisconsin's efforts have already embraced a number of these policies, programs, and guidelines; however, these documents and resources provide a helpful framework for improving mobility for the state's

aging population. This section divides best practices into five areas: licensing, screening and assessment; education and training; vehicle adaptations and advanced technology; roadway design; and alternatives for mobility.

4.1 Licensing, Screening and Assessment

For many older Wisconsinites, driving represents a critical aspect of retaining one's independence. However, if health- or age-related impacts temporarily or permanently jeopardize an individual's fitness to drive safely, responsible agencies must prioritize the safety of that driver along with that of other transportation system users. Issues surrounding screening, assessment, and licensing for older drivers can be controversial, but other states and organizations have identified a number of tactics and guidelines for balancing the continued rights of safe drivers with the protection of public safety.

4.1.1 Avoid age-triggered assessment requirements for older drivers

Decisions about an individual's fitness to drive often require a specific context-based assessment. As noted above, the AAA Foundation for Traffic Safety sponsored the 2008 North American License Policies Workshop. Many experts in attendance agreed that age-based screening (such as vision tests at the time of license renewal) is appropriate; however, they cautioned against age-triggered assessment tools that could determine license retention.[106] Instead, medical guidelines can serve to inform licensing agencies. The National Highway Traffic Safety Administration (NHTSA) and the American Association of Motor Vehicle Administrators (AAMVA) collaborated to develop guidance for licensing agencies with respect to medical conditions.[107] State agencies should base license policies on these evidence-based findings from the medical community.

4.1.2 Require in-person driver license renewal for drivers of all ages

Experts convened for the 2008 North American License Policies workshop generally agreed that all drivers should renew licenses in-person.[108] This practice adds to administrative costs for the licensing agency; however, it allows trained personnel an informal opportunity to screen all drivers while minimizing accusations of discrimination that might follow in-person renewal requirements for older drivers alone. Wisconsin requires all drivers to renew licenses in-person.[109]

4.1.3 Provide educational materials, guidance, and outreach to related stakeholders

Many reports encouraged licensing agencies to develop resources for the medical and law enforcement communities, as well as licensing personnel and concerned family members regarding:

- General fitness-to-drive issues;

---

[106] AAA Foundation for Traffic Safety. 2008 North American License Policies Workshop Proceedings. p. 11. Accessed: http://www.aaafoundation.org/pdf/LPWorkshopProceedings.pdf.
[107] National Highway Traffic Safety Administration (NHTSA) and the American Association of Motor Vehicle Administrators (AAMVA). Driver Fitness Medical Guidelines. Accessed: http://www.nhtsa.gov/DOT/NHTSA/Traffic%20Injury%20Control/Articles/Associated%20Files/811210.pdf
[108] AAA Foundation for Traffic Safety. p. 11.
[109] Wisconsin Department of Transportation. Driver license renewal. Accessed: http://www.dot.wisconsin.gov/drivers/drivers/renew/license-renewal.htm

- Laws, regulations, and policies related to reporting at-risk drivers; and
- How and when to make referrals regarding at-risk drivers.

Further, a number of sources encouraged state agencies to reduce barriers to reporting by offering convenient computer-based reporting mechanisms (including the TraCS system for law enforcement officials).[110] As mentioned in the Current Practices section, the Wisconsin Department of Transportation has already developed brochures and guidance for the law enforcement and medical communities; additionally, Wisconsin police officers can use TraCS to report at-risk drivers to the state's Medical Review Unit.

4.1.4 Encourage or require a broad range of medical professionals to engage in proactive reporting of at-risk drivers

A report completed for the Pennsylvania Department of Transportation suggests that licensing agencies should also reach out to a wide variety of medical professionals, rather than only general practitioners. In particular, they encourage the agency to contact eye doctors, dentists, and pharmacists when distributing information about reporting potentially dangerous drivers.[111]

4.1.5 Utilize license restrictions rather than relying solely on cancellations

The National Highway Traffic Safety Administration's Older Driver Program, as part of its recently completed five-year strategic plan, identifies the use of restricted licenses as one opportunity for licensing agencies to explore.[112] Older drivers may be willing to limit their driving to geographic, temporal, or necessary adaptive technology, particularly if it means they may keep their license. The Wisconsin Department of Transportation allows a number of restrictions including daytime-only driving, limited area driving, or non-interstate/freeway driving.[113]

4.1.6 Employ low-cost screening interventions at the time of license renewal and integrate them with "second tier" assessment tools

The NHTSA suggests that agencies may support medical driving policies by training personnel at DMV facilities to screen older drivers.[114] Additionally, the PennDOT study suggests requiring older drivers to fill out a medical condition checklist when renewing a license.[115] Through this preliminary self-reporting mechanism, the checklist could help identify potentially at-risk drivers. The licensing agency may then require more detailed medical information or a reexamination, at which time the agency may appropriately make a licensing decision.[116] Many older drivers are perfectly safe—a multi-tiered system consisting of both screening and assessment interventions protects the rights of these drivers and controls administrative costs while identifying at-risk

---

[110] See, for instance, Vance & Renz, LLC. Improving Mature Driver Safety: Task 6: Final Report with Recommendations. Submitted to Pennsylvania Department of Transportation. August 2, 2010. p. 23, recommendations 3b and 3d. Accessed: ftp://ftp.dot.state.pa.us/public/pdf/BPR_PDF_FILES/Documents/Research/Complete%20Projects/Education%20and%20Training/Improving%20Mature%20Driver%20Safety.pdf

[111] Vance & Renz, LLC. p. 24.

[112] National Highway Traffic Safety Administration. Older Driver Program Five-Year Strategic Plan 2012-2017. December 2010. p. 5. Accessed: http://www.nhtsa.gov/staticfiles/nti/pdf/811432.pdf

[113] Wisconsin Department of Transportation. Driving with a medical condition. Accessed: http://www.dot.state.wi.us/drivers/drivers/aging/medical.htm

[114] National Highway Traffic Safety Administration. pp. 5, 11.

[115] Vance & Renz, LLC. p. 22.

[116] AAA Foundation for Traffic Safety. p. 8.

drivers in support of public safety goals. Wisconsin requires all drivers to take a vision test and answer medical questions at the time of license renewal.

4.1.7 Develop cognitive screening tools that are predictive of driving ability

The Michigan Senior Mobility Action Plan acknowledges and supports efforts to develop computer-based cognitive screening tools.[117] These products could supplement other activities, including vision tests, to provide a more comprehensive screening process.

4.1.8 Establish strong, well-funded medical advisory boards

Medical Advisory Boards (MABs), staffed by medical professionals, can assist agencies in making decisions on individual competency as well as policy decisions relating to licensing. Experts at the AAA workshop endorsed MABs and recommended that agencies provide incentives for physician participation on boards, along with education and training for board members.[118] Michigan's plan lists the initiation of a Board as a recommendation.[119]

4.1.9 Increase access to assessment and rehabilitation services

Another initiative noted by the participants of the AAA-sponsored workshop encourages agencies to expand the number of professionals who support older individuals in assessing or rehabilitating driving skills, such as occupational therapists. Experts noted that older drivers' demand for such services outpaces supply and that the situation is likely to continue in future years. By working closely with rehabilitation centers and professional associations to develop driving programs and encouraging training, agencies can help mitigate this future gap. On a related matter, the workshop participants also encouraged private and public insurance entities to augment reimbursement for driver assessment and rehabilitation.[120] Agencies should also explore options to expand coverage for these driving-related healthcare costs.

4.1.10 Support the development of driver assessment tools and processes

Optional self-testing systems could help provide drivers with feedback about their fitness to drive safely and could lead to better individual decisions regarding driving, including voluntary cessation. These assessment tools could be computer-based or located at senior centers and other community facilities frequented by older drivers. The Michigan plan and the PennDOT study both mention this practice.[121] Experts attending the AAA-sponsored workshop also called for agencies to develop road course tests and driver simulation measures to formally assess drivers.[122]

4.1.11 Protect individuals who report at-risk drivers

States may grant civil immunity for physicians or other individuals who report at-risk drivers. This action would mitigate the fear of lawsuits as a barrier to reporting. The original 1999 Elderly Mobility and Safety plan for the state of Michigan set passage of a physician immunity law as a

---

[117] Governor's Traffic Safety Advisory Commission. Michigan Senior Mobility Action Plan 2009-2012. January 2009. p. 12. Accessed: http://www.michigan.gov/documents/MichiganSeniorMobilityActionPlanfinal_162718_7.pdf
[118] AAA Foundation for Traffic Safety. pp. 9-12.
[119] Governor's Traffic Safety Advisory Commission. p. 12.
[120] AAA Foundation for Traffic Safety. pp. 9-10.
[121] Governor's Traffic Safety Advisory Commission. p. 12; Vance & Renz, LLC. p. 23.
[122] AAA Foundation for Traffic Safety. p. 12.

goal.[123] AAA workshop participants also prioritized civil immunity legislation.[124] Another study urges states to allow confidential reporting of at-risk drivers. Confidential reporting could reduce barriers for would-be reporters who wish to retain positive relationships with their patients, family members, or older members of their community.[125]

4.1.12 Improve data collection and systems to support licensing decisions and analyze trends

The PennDOT study and the AAA workshop participants both identify the importance of access to high-quality data with regard to licensing, driver records, crash databases, reported medical decisions, and other issues.[126] Collection of comprehensive data along with user-friendly systems help support individual licensing decisions, ease administrative tasks, and assist agencies in identifying trends and evaluating policies or practices.[127]

4.2 Education and Training

Another general area of best practice material relates to education, outreach and training. Comprehensive support for elderly mobility includes a wide range of stakeholders in the public, private, and nonprofit sectors and at the local, state, and national levels. Supporting information flows between these groups and, most importantly, to older individuals themselves, is critical in achieving any goal associated with elderly mobility.

4.2.1 Distribute informational resources in a variety of formats

The study completed for PennDOT encourages agencies to provide informational materials in a variety of formats.[128] Possible media include newspaper advertisements, mailed brochures, television and radio advertisements, and civic organization presentations. The NHTSA also recognizes that many consumer products are internet-based. Since internet usage rates tend to be lower in rural areas, older drivers and their support networks may not have reasonable access to these resources.[129]

4.2.2 Develop educational materials for older drivers, their families, and related professionals to assist in understanding implications of aging on mobility

Many reports identified the production and promotion of general educational materials as an important step.[130] Raising awareness of the impacts of aging for mobility is critical, particularly for those whose lives are most affected by it (older individuals and their families) and whose occupations may help to support it (caregivers, traffic engineers, transit providers, etc.). In addition to an agency's own materials and self-assessment tools, promote resources developed by private organizations like the AAA and AARP. Michigan's recent plan includes the development of a multi-media toolkit aimed toward adults over the age of 65, their caregivers, family, and friends.[131] Agencies should make these resources available at local or regional

---

[123] Southeast Michigan Council of Governments. Elderly Mobility and Safety—The Michigan Approach: Final Plan of Action. August 1999. pp. 55, 57.
[124] AAA Foundation for Traffic Safety. pp. 9, 11-12.
[125] Vance & Renz, LLC. p. 10.
[126] Vance & Renz, LLC. p. 30-31.
[127] AAA Foundation for Traffic Safety. p. 12.
[128] Vance & Renz, LLC. p. 26.
[129] National Highway Traffic Safety Administration. p. 3.
[130] See, for instance, Southeast Michigan Council of Governments. pp. 55, 57.
[131] Governor's Traffic Safety Advisory Commission. p. 10.

offices and places frequented by aging individuals. These locations include shopping centers, senior citizen centers, recreation centers, medical offices, places of worship, and grocery stores. Providing material for use at assisted living facilities and other senior care locations also is recommended.

4.2.3 Evaluate educational opportunities for safe driving, create incentives for participation

A number of reports urge agencies to evaluate documents and classroom-based educational opportunities for safe driving, including those developed by private organizations. The PennDOT study encourages the state to offer insurance discounts for older drivers who complete an approved driving skills course.[132] Thirty-six states currently require insurance companies operating within the state to provide discounts to individuals who complete a state-approved driver-improvement course like AARP's Driver Safety Program course.[133] Some insurance companies offer these discounts voluntarily; however, Wisconsin is not among those states that mandate cost reductions. This is one step that states can take to encourage safe practices on the part of elderly drivers.

4.2.4 Build effective messages

The NHTSA encourages agencies to carefully consider their messaging with regard to older individuals. To effectively change attitudes, perceptions, and social norms of aging drivers and their support networks, agency communications should focus on themes such as prevention, the benefits of choosing appropriate mobility transitions, the costs of unsafe driving, and self-efficacy. Testing messages and incorporating them in all resources targeted to older individuals will lead to the most effective communication.[134]

4.2.5 Establish and maintain partnerships with other interested stakeholders

Multiple observers suggest establishing and maintaining partnerships with other parties who work with aging populations.[135] Some states have embraced formal committee approaches mandated by statutes and others focus on ad hoc task forces and coalitions composed of interested groups. Communication between groups working on elderly mobility issues is critical.[136] The original Michigan plan urged the state to host periodic "mature mobility summits" to raise awareness and aid stakeholders in sharing current issues and solutions.[137]

4.2.6 Improve awareness of transportation options among aging populations

To most effectively utilize existing mobility programs, it is critical that agencies promote awareness of these options at every appropriate opportunity. The original Michigan plan suggests a statewide education campaign and regional resource centers that carry information about alternatives, among other issues.[138] The updated version urges the state to continue to provide alternative transportation contact information when a driver's license is suspended or

---

[132] Vance & Renz, LLC. p. 25.
[133] Accessed from: http://www.aarp.org/home-garden/transportation/info-05-2010/auto_insurance_discounts.html
[134] National Highway Traffic Safety Administration. pp. 6-7.
[135] ibid. pp. 9-11.
[136] Governor's Strategic Highway Safety Plan Older Driver Task Force. Rural and Human Services Transportation Coordination Final Workshop Report. (Georgia) Governor's Office of Highway Safety. August 31, 2010. Accessed: http://www.gahighwaysafety.org/2010ruralhumanworkshop/finalworkshopreportaugust2010.doc
[137] Southeast Michigan Council of Governments. p. 69.
[138] Southeast Michigan Council of Governments. p. 11, 38.

revoked.[139] The experts convened by the AAA also encouraged agencies to "have a role in assisting older adults' transition from driving to other mobility options," and to be ready with a list of alternative transportation options in the community to help mitigate the difficulty associated with giving up one's license.[140]

4.2.7 Encourage older drivers to plan for continued future mobility

Prioritization of individual planning and a proactive and preventative approach to elderly mobility also surfaced as a common theme. One study suggested that agencies provide planning tools and materials for drivers aged 45 to 64 to assist these individuals in planning for future mobility.[141] The original Michigan elderly mobility plan likened this process to the retirement financial planning process.[142] One intriguing goal advanced in the recent Michigan Senior Mobility Action Plan is the training of Mobility Resource Counselors in all parts of the state. These counselors would assist older adults in planning for continued mobility.[143] These services are similar to the concept of mobility management, which, as discussed above, adopts a more individual-based perspective in guiding transportation-related decisions.

4.3 Vehicle Adaptations and Advanced Technology

Technological advancements hold significant potential to improve mobility for older individuals. Vehicle adaptations such as smaller steering wheels can improve the ability of older drivers to safely operate vehicles; additionally, intelligent transportation systems could improve the efficiency of demand-response transportation services.

4.3.1 Partner with CarFit program

AARP, AAA, and the American Occupational Therapy Association have teamed up to sponsor CarFit, a program that helps older drivers appropriately adjust their vehicles for safe use. The program also provides information about assistive technology and community-specific resources that enhance driving safety and increase mobility in the community. CarFit events are held across the country and are staffed by trained technicians.[144] Reports compiled for Pennsylvania and Michigan encourage partnerships with CarFit.[145] A number of Wisconsin communities have hosted CarFit events in the past and several events are currently scheduled within the state.

4.3.2 Research and promote specialized equipment and resources for older drivers

State agencies should work with vendors and auto manufacturers to improve in-vehicle safety features for older drivers.[146] States should also promote existing technologies. Wisconsin's WisTech and WisLoan programs educate individuals about assistive devices and provide financing for modified vehicles and other special features.

---

[139] Governor's Traffic Safety Advisory Commission. p. 9.
[140] AAA Foundation for Traffic Safety. p. 12-13.
[141] Vance & Renz, LLC. p. 25.
[142] Southeast Michigan Council of Governments. p. 69.
[143] Governor's Traffic Safety Advisory Commission. p. 11.
[144] CarFit: Helping Mature Drivers Find Their Safest Fit. Accessed: http://www.car-fit.org/
[145] Governor's Traffic Safety Advisory Commission. pp. 10, 15; Vance & Renz, LLC. p. 25.
[146] Southeast Michigan Council of Governments. p. 13.

4.3.3 Identify intelligent transportation systems solutions

By partnering with the academic and research communities, agencies can explore and test new technologies holding wide-ranging potential for the improvement of elderly mobility. For instance, geographic information systems could aid shared-ride taxi providers in choosing ideal routes. Similarly, real-time transit information at senior centers or other locations could improve the transit experience for older riders by reducing uncertainty. Additionally, in-vehicle communication systems could aid older drivers in preparing for sudden changes in roadway or traffic conditions.[147]

4.4 Roadway Design

Road system design and engineering practices also impact elderly mobility. In 2001, the Federal Highway Administration (FHWA) developed a set of recommendations detailing ways in which physical design of highway infrastructure—such as intersections, interchanges, roadway curvature, construction zones, and rail crossings—can be enhanced to improve safety for elderly drivers. The report, "Highway Design Handbook for Older Drivers and Pedestrians," summarizes research on how age-related physical, perceptual, and cognitive declines affect driver behavior and increase risks of accidents, and suggests design considerations that can improve safety for older drivers.[148] Adoption of the techniques and countermeasures found in this document, along with related activities, provide a comprehensive set of best practices for state and local agencies.

4.4.1 Review and adopt applicable FHWA recommendations

As noted above, the FHWA handbook incorporates design recommendations enhancing elderly mobility in five key areas: intersection issues, interchange issues, roadway curvature and passing lane issues, construction zones, and rail crossings.[149] Discussion of intersections includes recommendations for 17 specific design elements including intersection angles and roundabouts. The handbook identifies four specific practices in relation to interchanges, including clarification of exit ramp signs and the design of acceleration and deceleration lanes. FHWA also lists four topics relating to roadway curvature and passing zones, including guidelines for pavement markings on curves and passing zone length. The handbook covers five construction and work zone issues including general lane closure practices and construction zone signage. Finally, the document includes recommendations regarding passive rail crossing control devices.

Documents guiding state practices in Michigan and Pennsylvania embrace this document and encourage state transportation agencies to review and adopt applicable recommendations and policies.[150] The PennDOT study encourages the department to review and consider adopting any revised or new recommendations that follow from the new version of the handbook, currently scheduled for release in 2011. Additionally, the study recommends that state and local staff attend any training associated with the revised handbook.[151]

---

[147] ibid. pp. 24, 36.
[148] Federal Highway Administration. Highway Design Handbook for Older Drivers and Pedestrians. U.S. Department of Transportation. Publication No. FHWA-RD-01-103. May, 2001. Accessed: http://safety.fhwa.dot.gov/intersection/resources/fhwasa09027/resources/Highway%20Design%20Handbook%20for%20Older%20Drivers%20and%20Pedestrians.pdf
[149] ibid.
[150] Governor's Traffic Safety Advisory Commission. p. 8.
[151] Vance & Renz, LLC. p. 29.

4.4.2 Create and distribute checklist of issues or factors to consider

The original action plan for Michigan encourages the state transportation agency to create a checklist for transportation design professionals to consider during the design or redesign process.[152] This can simplify implementation of adopted standards and policies.

4.4.3 Make presentations to local and statewide audiences on engineering enhancements

Recommendations encouraged agencies to share any adopted countermeasures with relevant state officials, business partners, and local municipalities through presentations at conferences, seminars, or other events.[153] This information sharing will help speed implementation and clarify state policies and standards.

4.4.4 Incorporate adopted design practices into state policies, manuals, and publications

To further boost implementation and consistency of application, state agencies must incorporate adopted practices in all relevant state policies, manuals, and publications.[154] For instance, state Strategic Highway Safety Plans should address older driver safety issues, including adopted design practices.[155]

4.4.5 Investigate crash data involving older drivers

Both the Michigan Action Plan and the Pennsylvania study encourage state agencies to undertake comprehensive research to learn about the nature, location, and scope of crashes involving older drivers.[156] From this information, agencies can learn about older driver crash trends and more accurately identify problematic areas where engineering countermeasures should be applied.

4.4.6 Implement design practices through both "black spot" and "systematic" methods simultaneously

The report produced for PennDOT recommended that the agency implement engineering countermeasures across the board (systematically) and also identify specific problem areas or problem design types with histories of crashes involving older drivers ("black spot").[157]

4.4.7 Convene a standing group to review older driver issues

Previous reports also recommend the formation of a group responsible for keeping track of activities pertaining to elderly mobility and investigating how they can be incorporated into the agency's everyday work.[158] The PennDOT study urges the agency to "Institutionalize a process to integrate the latest thinking from partners and external sources" into the agency's approach to achieving older driver safety.[159] The Government Accountability Office identified five states as having model programs for older driver safety. Each features a state-level coordinating group

---

[152] Southeast Michigan Council of Governments. p. 11.
[153] ibid. p. 29; Governor's Traffic Safety Advisory Commission. p. 8.
[154] Vance & Renz, LLC. pp. 28-29.
[155] Vance & Renz, LLC. pp. 10, 30.
[156] Governor's Traffic Safety Advisory Commission. p. 11; Vance & Renz, LLC. pp. 27-28.
[157] Vance & Renz, LLC. pp. 26-27.
[158] Governor's Traffic Safety Advisory Commission. p. 8.
[159] Vance & Renz, LLC. p. 30.

that guides research, development, outreach and/or implementation of new initiatives and action items.[160]

4.4.8 Fund additional traffic engineering services at local level

Another recommendation offered in the first strategic plan for Michigan was to fund additional local traffic engineering services to focus on older driver issues.[161] Wisconsin's Traffic Signing and Marking Enhancement Grants program formerly provided funds to local governments to improve visibility of highway elements.

4.5 Alternatives for Mobility

A number of observers envision elderly mobility as a spectrum with actions that promote safe practices for older drivers on one side to those that support alternative modes of transportation on the other side of the spectrum. Transportation services designed for older individuals are often known as specialized transportation or human service transportation. Many of these practices are also relevant to other transportation programs, particularly those serving people with disabilities.

Growing populations of older individuals present a central challenge for transportation providers.[162] These groups will stop or reduce their driving but still require, benefit from, and demand mobility. This population is highly diverse in social, economic, and geographical terms, but a majority is located in suburban and rural areas, where existing transportation options are limited and providing efficient transit service is more difficult.[163] Since most seniors wish to continue living in their homes and communities as they age, practitioners must find innovative solutions to meet their transportation needs.

4.5.1 Build strong conventional public transportation systems

Although seniors have some special mobility needs, the Community Transportation Association of America (CTAA) notes that "[t]he best way for transit providers to meet the transportation needs of most older Americans is to meet the transportation needs of the general adult population."[164] Elderly Americans take similar kinds of trips to similar destinations as the population at large, and can often use conventional public transportation, especially if accessibility measures are implemented. Public transportation provides access to shopping, medical care, religious services and community events, and visiting friends and family; active older people are also increasingly reliant on such transportation for employment.[165]

However, many seniors cannot access fixed-route public transportation to meet their mobility needs because their communities lack such services. Approximately 60 percent of rural residents live in areas where public transportation is either "negligible" or absent altogether,[166]

---

[160] AAA Foundation for Traffic Safety. pp. 146-154.
[161] Southeast Michigan Council of Governments. p. 24.
[162] Foley, D. J., Heimovitz, H. K., Guralnik, J. M., and Brock, D. B. (2002). "Driving Life Expectancy of Persons Aged 70 Years and Older in the United States." American Journal of Public Health, 92(8).
[163] Community Transportation Association of America (2003, May). Senior Transportation Toolkit and Best Practices. Accessed: http://www.ctaa.org/webmodules/webarticles/articlefiles/senior_toolkit_color1.pdf
[164] Ibid.
[165] Community Transportation Association of America (2003, May). Senior Transportation Toolkit and Best Practices. Accessed: http://www.ctaa.org/webmodules/webarticles/articlefiles/senior_toolkit_color1.pdf
[166] Ibid.

and the Brookings Institution notes that only 14 percent of rural seniors and 43 percent of suburban seniors "report having any kind of transit services within a half mile" of their homes.[167]

4.5.2 Provide transit services for drivers and non-drivers

Older adults who use or would benefit from transit services are not necessarily non-drivers. A Brookings Institution report notes that, contrary to common perceptions, "driving is often the easiest physical task for older people. Long before they lose the ability to drive, older people may be unable to board or ride public transit, or walk to a bus stop or rail station."[168] Many elderly drivers reduce or adjust their driving—avoiding driving at night or in heavy traffic, for example—in response to declining visual, physical, and cognitive capabilities; although they continue to drive, this response still reduces their mobility.

Similarly, the assumption that elderly drivers will not use public transit until they give up their keys for good is false: older people with mobility issues may be able to use public transportation on some days or in some seasons but not others. Experience in "Australia, Europe, and Canada [shows that] elderly car drivers make up a meaningful percentage of transit riders," indicating that a variety of accessible modal options can improve mobility for older people, whether or not they can drive. Targeting transportation programs to both audiences can increase familiarity with and use of a service, bolstering its role within a community.

4.5.3 Design public transportation services that are convenient for older riders

Where fixed-route public transportation service (buses, subways, and light and commuter rail, etc.) exists, many seniors can successfully reach some or all of their destinations. However, a number of obstacles prevent elderly riders from using these services. The routes and schedules of fixed-route bus and rail systems are often organized to prioritize the needs of morning and evening commuters. These routes and schedules fit poorly the needs of seniors, who may want to take off-peak or weekend trips and whose homes or destinations may lie far from transit stops.

While feeder routes linking bus stops to residential neighborhoods, retirement communities, senior centers, and medical facilities may be a solution to this problem, the transfer they necessitate represents both a physical obstacle (to frail seniors) and an administrative one (where program funding might cover one leg of the trip but not another).[169] Fixed-route transportation can also be made more accessible and useful to seniors by adopting a "hybrid service" strategy. "Deviated-fixed route," "point deviation," and "service route" setups all provide additional flexibility for riders by allowing a bus or van to pick up and/or drop off riders at more convenient locations than a fixed set of stops, and the CTAA notes that a hybrid approach may be more cost-effective than operating both fixed-route and demand-response systems.[170]

---

[167] Rosenbloom, S. (2003, July). The Mobility Needs of Older Americans: Implications for Transportation Reauthorization. The Brookings Institution. Accessed: http://www.aginginplaceinitiative.org/storage/aipi/documents/Articles%20and%20Reports/the%20mobility%20needs%20of%20older%20americans.pdf

[168] Rosenbloom, S. (2003, July). The Mobility Needs of Older Americans: Implications for Transportation Reauthorization. The Brookings Institution. Accessed: http://www.aginginplaceinitiative.org/storage/aipi/documents/Articles%20and%20Reports/the%20mobility%20needs%20of%20older%20americans.pdf

[169] Community Transportation Association of America (2003, May). Senior Transportation Toolkit and Best Practices. Accessed: http://www.ctaa.org/webmodules/webarticles/articlefiles/senior_toolkit_color1.pdf

[170] Community Transportation Association of America (2003, May). Senior Transportation Toolkit and Best Practices. Accessed: http://www.ctaa.org/webmodules/webarticles/articlefiles/senior_toolkit_color1.pdf

4.5.4 Make conventional public transportation accessible to older riders

Another obstacle to the use of conventional mass transit modes is the lack of accessible facilities, such as sidewalks, benches, and pedestrian-friendly street crossings near transit stops. These amenities can make a substantial difference in whether an elderly person chooses to use public transportation—the CTAA reports that 32 percent of non-driving seniors who could not access a bus stop would be able to if a place to rest was available along the way.[171]

4.5.5 Establish travel training programs

Lack of familiarity with mass transit is a related problem that can be remedied with measures like "transit mentors" (older volunteers who help new riders) or rider education programs, which may make seniors feel more comfortable navigating the transit system. Mobility managers can take a lead role in these programs.

4.5.6 Support high quality demand-response transit and special transportation programs

Agencies should support demand-response or paratransit services to meet mobility needs of older individuals, particularly in geographic areas where fixed-route services cannot be efficiently operated. Defined as services that pick up riders at their homes and transport them to their destinations, demand-response transportation programs generally serve specific populations rather than the general public. (Taxis represent a notable exception.) Human service agencies, senior centers, and community and faith-based organizations often provide demand-response transit targeted specifically towards seniors. This category of transit provides rides to senior programs, medical appointments, or for shopping. A wide degree of variation can exist between programs in terms of cost, rider eligibility, hours of service, responsiveness, types of trips provided, vehicles used, and whether drivers are paid staff or volunteers. As described earlier, demand-response services—particularly shared-ride taxi programs—are popular in many Wisconsin communities and there are a number of state and federal funding programs that support these services.

4.5.7 Support door-to-door and door-through-door special transportation programs

Some demand-response services limit rider assistance; others provide "door-to-door" or "door-through-door" assistance to their customers, giving help as needed entering and exiting the vehicle, climbing stairs, or (in the latter case) assisting the customer at their destination. These services provide rides with personal assistance while in transit and at destinations to frail seniors who "often could not make that trip without personal, intensive support because [of] their physical and mental limitations."[172] These services require more staff or volunteer time and decrease the number of rides that programs can provide; however, they are frequently an essential service for frail elderly who wish to continue living independently. Providers "indicate that many older persons served by door-through-door transportation would require assisted living or nursing home services if they did not have personal assistance with their transportation." Partnerships with local Area Agencies on Aging, human service and transportation agencies, local governments, and community organizations are an important

[171] Ibid.
[172] Burkhardt, J. E. and H. Kerschner (2005). How to Establish and Maintain Door-through-door Transportation Services for Seniors. WESTAT. Accessed: http://www.stpexchange.org/HowToGuide_DoorThroughDoorTransportation.pdf

element of successful door-through-door programs as well, and may provide significant sources of funding, as well as assistance with technical and equipment issues, volunteer coordination, and establishing legitimacy among potential clients.[173]

4.5.8 Encourage the role of volunteers in special transportation programs

To reduce operating costs, local transit service providers should explore options involving volunteer drivers. In some situations, volunteer drivers also use their own vehicles to transport users to and from their destinations, thereby decreasing capital costs to the program operator. Based on two representative programs, the Beverly Foundation reports that volunteer drivers and vehicles can cut per-ride costs from $37.94 to $7.73.[174] The CTAA characterizes volunteer-based transportation as "an example of innovative funding," but notes that unpaid volunteers are still not free, since "they require general administrative support just as paid staff do."[175] Volunteers who give rides with their own vehicles may also need to be reimbursed for mileage. Because of the time-intensive nature of the trips, volunteer drivers could play a particularly important role in door-through-door programs.[176]

Careful screening procedures are important for any operation using volunteer drivers. Potential volunteers should be carefully informed of their responsibilities, the structure of the transit organization and their place in it, and other relevant details. As the CTAA notes, communicating the details of volunteer positions not only allows volunteers to join an organization from a more informed perspective, but also requires the organization to "think through exactly what it wants a volunteer to do."[177] Screening for qualifications is as important as screening for interest; Washington State's *Volunteer Drivers Guide* advises service providers to check driver's licenses and records, state and national criminal records, insurance, and references.[178] The *Guide* also recommends periodic checks of current volunteers' conduct, especially if any moving violations or collisions occur.

Volunteers may also contribute as advocates and administrators. Case studies compiled by the CTAA show that volunteers (groups and individuals) have been effective at starting and improving transportation programs by performing surveys and needs assessments, doing outreach work, forming partnerships with other public-sector and nonprofit organizations, and fundraising.[179]

Active older people with an interest in community involvement make effective volunteers, and programs can encourage their involvement by compensating volunteers with vouchers for free rides to be used if and when they need transportation services themselves. In addition, a number of state and federal programs allow volunteer reimbursement under program rules.

---

[173] Ibid.
[174] The Beverly Foundation (2008). Volunteer Driver Programs. Accessed: http://www.beverlyfoundation.org/library/volunteertransportation/factsheet.vol.1.no.6.vol.driver.pdf
[175] Community Transportation Association of America (2003, May). Senior Transportation Toolkit and Best Practices. Accessed: http://www.ctaa.org/webmodules/webarticles/articlefiles/senior_toolkit_color1.pdf
[176] Burkhardt, J. E. and H. Kerschner (2005). How to Establish and Maintain Door-through-door Transportation Services for Seniors. WESTAT. Accessed: http://www.stpexchange.org/HowToGuide_DoorThroughDoorTransportation.pdf
[177] Ibid.
[178] Washington State Department of Transportation (2010). Volunteer Drivers Guide – A Guide to Best Practices. Accessed: http://www.wsdot.wa.gov/transit/training/vdg/default.htm#Section%201
[179] Community Transportation Association of America. Volunteers as Transportation Advocates, Planners, and Organizers. Accessed: http://web1.ctaa.org/webmodules/webarticles/articlefiles/non-driver_volunteers.pdf

4.5.9 Consider liability issues with respect to transit services

Although liability and risk management issues are more prominent for programs that use volunteer drivers and escorts, all providers must consider these issues to protect themselves and their drivers. Liability issues can also be a factor in what services—such as door-through-door assistance—an organization can permit its employees and volunteers to provide, and, as noted by the National Conference of State Legislatures, "volunteers might be deterred by liability concerns" if service providers have not adequately dealt with these questions. This is of particular importance in states like Wisconsin, where civil immunity statutes specifically exclude drivers from protections for volunteers.[180]

In general, operators require general and commercial liability, personal property, and directors insurance policies, and may also need "excess auto liability, accidental driver insurance, and volunteer liability insurance," depending on their service model.[181] Unfortunately, transportation services may be unfamiliar to insurers, who may be unwilling or uncomfortable writing a policy for providers. This means that "there is generally not much room to negotiate […] condition[s], terms or limitations."[182] In addition, more personal and involved levels of assistance (such as door-through-door transportation) will increase the program's exposure to risk. In the face of rising insurance rates, a group of transit systems in Iowa coordinated to obtain fleet insurance through an insurance consortium. More than 300 vehicles were insured through an independent broker, who negotiated with a variety of insurance companies on behalf of the consortium.[183]

If the organization owns vehicles, they must be covered by a commercial auto insurance policy and will be covered under that policy regardless of whether their drivers are employees or volunteers. If volunteers use their own cars, however, they will be covered primarily by their own personal auto insurance. According to the Non-Profit Risk Management Center, this means that volunteers driving their own vehicles be held liable for accidents, but this does not necessarily preclude the operator from exposure to risk in a catastrophic accident. To avoid such risk, transportation providers can purchase non-owned auto liability insurance, which will protect the organization from "liability for accidents caused by an employee or volunteer driving their own vehicle." This coverage can also be expanded to protect volunteers from excess liability by adding an endorsement to the policy.[184]

4.5.10 Adopt a mobility management perspective

Groups such as the CTAA and the interagency National Resource Center on Human Service Transportation have advocated the "mobility management" paradigm, which emphasizes service coordination rather than provision and focuses on finding individualized transportation solutions for specific customers.[185] As mobility managers, transportation agencies adopt a brokerage or coordination role: they assess each customer's needs, resources, and eligibility for aid, and then

---

[180] Sundeen, M and Farber, N. Volunteer Driver Liability and Immunity: A 50 State Survey. National Conference of State Legislatures. Accessed: http://ncsl.org/print/transportation/vol_driverliabl06.pdf

[181] Beverly Foundation (2007). Risk and Risk Management Strategies: Important Considerations for Volunteer Driver Programs and Volunteer Drivers. Accessed: http://www.beverlyfoundation.org/library/volunteertransportation/Risk_Management_Strategy.pdf

[182] National Resource Center for Human Service Transportation Coordination. Myths and Realities: Insurance.

[183] Minnesota Department of Transportation Office of Transit (3/2006). Minnesota Public Transit – Human Services Transportation Coordination Study. p. V-9. Accessed: http://www.coordinatemntransit.org/reports/mncoordstudy/documents/0-FullCoordinationStudy.pdf

[184] Non-Profit Risk Management Center. Risk on the Road: Managing Volunteer Driver Exposures. Accessed: http://www.nonprofitrisk.org/library/articles/auto050608.shtml

[185] National Resource Center for Human Service Transportation (2007). Mobility Management. Accessed: http://www.unitedweride.gov/Mobility_Management_Brochure.pdf

refer the customer to the most appropriate and cost-effective service provider. The payoffs can be substantial: coordinating between programs can reduce duplication of services and inefficient use of vehicles and other resources. Largely through funding provided by the New Freedom program, along with state efforts toward coordination, Wisconsin boasts a growing mobility management community dedicated to finding localized and individualized solutions to mobility needs.

4.5.11 Support coordination at state and regional levels

In some areas, legislative, programmatic, and administrative barriers hinder cross-jurisdictional or cross-purpose transit service provision, leading to duplication of efforts or underutilization of services. State agencies should work together in to remove or mitigate such barriers. State-level coordinating councils created by statute exist in twelve states; fourteen other states are home to councils formed through a governor's executive order or initiative.[186] To be effective, these councils should include a broad range of stakeholders including representatives from all state agencies involved in the implementation of transportation programs and representatives from local agencies, service providers, and interested non-governmental groups. Effective councils also have a budget, meet regularly, and have the authority to require cooperation of relevant agencies.[187] In August 2010, the Georgia Governor's Office of Highway Safety held a workshop on rural and human services transportation coordination. The workshop's national perspectives panel identified enabling legislation as the best approach to coordination, as opposed to executive order or initiative. Workshop attendees also recognized the importance of data collection and analysis in working towards coordination at the state level.[188] Comprehensive data is critical in completing inventories of services, conducting needs assessments, and developing recommendations to fill gaps in service.

Since actual coordination between transportation services occurs at the local and regional levels, transit service providers should also coordinate and collaborate with each other to promote effective service delivery and make the best use of limited funds.[189] Program requirements mandating local transportation coordination planning—such as those included in the federal Elderly and Disabled Transportation Capital Assistance, Job Access and Reverse Commute, and New Freedom programs—provide important incentives for collaboration and coordination at local levels. Active mobility managers or state-designated community coordination groups working at the local scale can also work to break down barriers between individual service providers.

4.5.12 Plan for an aging population

Agencies should understand the mobility needs of older individuals and regularly review changes in those needs. As part of existing planning requirements, local and state agencies could distribute surveys and hold focus groups. For example, municipalities should consider the mobility needs of older populations when undertaking housing and land use planning activities.[190] To accomplish this, state bodies may develop and promote materials describing best practice planning guidelines or coordinate with relevant professional associations and local

---

[186] Farber, Nicholas J. and James B. Reed (4/2010). *State Human Service Transportation Coordinating Councils: An Overview and State Profiles*. National Conference of State Legislatures. Prepared for the Federal Transit Administration. p. 4. Accessed from: http://www.ncsl.org/documents/transportation/HSTCCover.pdf
[187] ibid. p. 3.
[188] Governor's Strategic Highway Safety Plan Older Driver Task Force. pp. 2, 4.
[189] Southeast Michigan Council of Governments. pp. 37-38.
[190] Governor's Traffic Safety Advisory Commission. p. 7.

government organizations.[191] For their part, licensing agencies could hand out surveys to older drivers at the time of license renewal.[192]

4.5.13 Identify service gaps in alternative transportation needs

Another best practice identified by the Michigan Action Plan relates to the identification of existing gaps in service for alternative transportation needs.[193] Filling these gaps often depends upon the unique local and regional context; however, a state-level understanding of the extent and nature of underserved elderly communities will aid decision makers in directing resources and providing technical assistance to close existing gaps.

4.5.14 Explore innovative funding arrangements for transit

Elderly mobility advocates have identified numerous examples of innovative practices developed by transit providers. The National Center on Senior Transportation (NCST) has recognized the Human Services Council of southwestern Washington State and EZ Ride of New Jersey, which have both developed "sponsorship accounts" that allow friends, family, community members, and businesses to easily contribute to the cost of fee-based transportation services for seniors with limited incomes.[194]

United We Ride suggests that inter-agency cooperation can be assisted by cost-allocation technology, such as cost sharing, billing, and reporting software. These applications enable "human services agencies and transportation providers to calculate shared costs, and automate billing and reporting functions," and are often available as part of dispatching and transportation management software packages. The Oregon Department of Transportation, in conjunction with state human service agencies, has invested in shared call centers with such software, leading to "better access to transportation" for clients and "a significant cost reduction per client trip" for agencies.[195]

[191] Southeast Michigan Council of Governments. pp. 48-49.
[192] Vance & Renz, LLC. p. 20.
[193] Governor's Traffic Safety Advisory Commission. p. 6.
[194] National Center on Senior Transportation (2008). Rides Change Lives: Innovations in Senior Transportation. Accessed: http://seniortransportation.easterseals.com/site/DocServer/Rides_Change_Lives.pdf?docID=103983
[195] US DOT Volpe National Transportation Systems Center (2004). Using Technologies to Support Cost Allocation Among Human Services and Transportation Agencies. Accessed: http://www.unitedweride.gov/Cost_Allocation.pdf

5. Recommendations

Following analysis of survey information and information gathered in focus groups, the research team makes the following 13 recommendations, presented in no particular order. It should be noted that these recommendations are not solely limited to policies only affecting elderly citizens, in some cases these recommendations apply to older and partially disabled citizens.

1. Explore the initiation of a Medical Advisory Board to guide state policies with respect to medical fitness to drive and to provide a conduit between WisDOT and the state's medical community. Encourage broad participation from members of the medical community from across the state.
2. Review the vacant nurse practitioner position in the Medical Review Unit to improve program outreach regarding reporting requirements and state processes for license cancellation. This position could also help develop informational resources, participate in data collection and program evaluation, and expand computer-based reporting to medical professionals. With more older drivers on the road, awareness and implementation of state policies relating to reporting at-risk drivers will become more critical in future years.
3. When mailing license cancellation notices, always send contact information and resources about local transportation alternatives. Increase communication between ADRCs, mobility managers, etc. and the Medical Review Unit on this issue. Support individual mobility planning as a part of mobility manager activities. In general, support a smoother transition from driving to other alternatives.
4. Develop high-quality informational resources and self-assessment tools and make them available online and in print at regional locations such as senior centers. Include information about the impacts of the aging process upon driving, local transportation alternatives, and relevant state policies. Resources can help assist mobility managers and support awareness of existing services and guidelines.
5. Analyze crash trends involving elderly individuals and use the results to help guide installation of engineering countermeasures and state licensing policies. The state should also adopt appropriate recommendations from the forthcoming FHWA Highway Design Handbook for Older Drivers and Pedestrians and disseminate standards to local agencies and private partners.
6. Enhance roundabout education materials and activities specifically targeted towards older drivers. New design practices, and especially roundabouts, are a chief concern for elderly drivers. WisDOT should consider holding outreach sessions and developing educational materials geared towards an older audience.
7. Work with the Officer of the Commissioner of Insurance and other parties to explore requiring insurance companies operating within the state to provide discounts to individuals who complete a state-approved driver-improvement course like AARP's Driver Safety Program course. Additionally, work with insurance companies on issues related to coverage for volunteer transit drivers and research the expansion of coverage for occupational therapy services related to driving skills.
8. Utilize Rural Transit Assistance Program funds to help build technical expertise regarding budgeting, data collection, and program application processes. WisDOT program managers expressed some concerns about the level of local technical expertise

with regards to these critical elements of managing successful local transit services. RTAP courses or webinars focusing on these subjects could help inexperienced program applicants gain a clearer understanding of how best to leverage limited resources and collect data to support state-level evaluation and technical assistance activities.

9. Prioritize highway improvement or maintenance projects that will support elderly mobility in competitive application processes and include Aging Agency representatives on project selection committees. For competitive transportation programs, applications should include questions and/or award points for projects that will significantly improve elderly mobility in an area. Examples could include the creation of a channelized left-turn lane, the installation of pedestrian countdown timers at intersections, or expanding the hours of a transit service heavily used by older individuals.

10. Continue efforts toward coordination at both state and local/regional levels. At the state level, make the case for a stronger ICTC by recognizing and publicizing the potential efficiency gains associated with closely coordinated transit services. Continue supporting the mobility management perspective and nurturing the state's growing mobility management community. At the local and regional levels, explore opportunities for joint marketing and advertising, including partnerships with other transportation programs or other non-transportation services for the elderly. Explore innovative approaches to advertising and marketing; for instance, an agency could install distinctive vehicle wraps as a relatively low-cost way to utilize existing capital.

11. Work with the Department of Health Services to evaluate Medicaid non-emergency medical transportation (NEMT) broker performance based upon reimbursement levels, customer satisfaction, and coordination with existing local services. As noted, the transition to Logisticare as a statewide broker of NEMT services holds potential in terms of augmenting the state's reimbursement rate; however, the move has sparked controversy for its potential impacts upon customer satisfaction and upon existing service providers. In seeking an NEMT broker, the Department of Health Services issued a Request for Proposals that included a paragraph indicating that the Department hoped that the broker would participate in a mobility management pilot project funded through the Community Transportation Association of America. Beyond this text, there was no requirement that the broker participate in the ICTC or any other coordination activities. In any renewal or renegotiation of this contract, coordination mandates should be included. Additionally, the state should evaluate the effects of a statewide broker upon customer satisfaction and local service providers.

12. Continue to identify and respond to transit service gaps for elderly riders. In particular, consider expanding evening and weekend options for older riders. This could be accomplished via mandates or incentives to provide such service.

13. Continue gathering information about the needs of older individuals; encourage local governmental units to incorporate findings in plans for land use and housing. Demographic, social, and economic trends will continue to shape the dimensions surrounding the mobility needs of Wisconsin's older populations. The state should continue to evaluate these needs and prioritize methods to address them. State agencies should also encourage municipalities to consider elderly transportation needs when thinking about future land use and housing patterns in their communities.

Appendix A: Wisconsin Department of Transportation Web-based Resources

WisDOT provides some informational and educational resources through its website. Some of these resources are located in the ‘Safety’ section of the site, while others can be found in the 'Drivers & Vehicles' area. The Safety section offers specific tips for left turn procedures, links to driver improvement courses, information about alternatives to driving, a sample of highway design features for older drivers, general safe driving tips, information about transportation laws related to older drivers, and a page with links to other resources.[196]

The resources in the 'Drivers & Vehicles' area include pages that describe changes in the body that can compromise driver safety, information about adaptive vehicle equipment, departmental policies regarding medical fitness to drive, and the department’s process for identifying and assessing at-risk drivers. This page also includes a number of links to external resources on the topic.[197]

[196] Wisconsin Department of Transportation (2005). *Older driver safety*. Accessed: http://www.dot.wisconsin.gov/safety/motorist/olderdrivers/indexs.htm
[197] Wisconsin Department of Transportation (2008). *Aging or impaired drivers.* Accessed: http://www.dot.wisconsin.gov/drivers/drivers/aging/index.htm

Appendix B: Chart of Wisconsin Transit Programs

Program	Administering Agency or Agencies	Eligible Applicants	Eligible Expenditures	Funding Level	Funding Source(s)	Award Process
Specialized Transportation Assistance Program (s. 85.21)	WisDOT	Counties	Directly provide service; purchase transportation service from any public or private organization; directly reimburse elderly or disabled passengers for their use of transportation service; volunteer driver escort reimbursement: reimburse transportation service; perform or purchase planning or management studies on transportation; coordinate transportation services; perform or purchase in-service training relating to transportation service; purchase capital equipment for transportation service.	$13,600,000	State	Allocation set by proportion of state's elderly and disabled population in each county. No county can receive less than 1/2% of the total annual appropriation ($65,980 in 2010). Also an option to put towards capital trust fund.

Program	Administering Agency or Agencies	Eligible Applicants	Eligible Expenditures	Funding Level	Funding Source(s)	Award Process
Tribal Transportation for Elders (s. 85.215)	WisDOT	Federally recognized tribes in Wisconsin	Directly provide service; purchase transportation service from any public or private organization; directly reimburse elderly passengers for their use of transportation service; volunteer driver escort reimbursement; reimburse elderly persons for use of their personal means of transportation under certain conditions; perform or purchase planning or management studies on transportation; coordinate transportation services; perform or purchase in-service training relating to transportation service	$247,500	State	All eleven tribes receive an equal share
Elderly and Disabled Transportation Capital Assistance Program (Section 5310/s. 85.22)	WisDOT	Private non-profit organizations; local body if no available private non-profit	Capital projects (specialized transit vehicles for elderly and disabled)	$3,100,000	State/Federal	WisDOT applies for and receives funds based upon state's population of elderly and disabled individuals. Local bodies apply to WisDOT for combined state and federal funds and WisDOT distributes based upon application score, available funds.

Program	Administering Agency or Agencies	Eligible Applicants	Eligible Expenditures	Funding Level	Funding Source(s)	Award Process
New Freedom Initiative (Section 5317)	WisDOT	Private non-profit organiations; local public bodies; operators of public transportation services, including private operators	Supporting new mobility management and coordination programs among public transportation providers and other human service agencies providing transportation; purchasing vehicles to support new accessible taxi, ride sharing, and/or vanpooling programs; supporting the administration and expenses related to new voucher programs for transportation services offered by human service providers; supporting new volunteer driver and aide programs; travel training; enhancing paratransit beyond minimum requirements of the ADA; feeder services	$2,400,000	State/Federal	60% of funding for large urbanized areas (>200,000); 20% for small urbanized areas (50,000 - 200,000); 20% for non-urbanized areas (<50,000)
Medicaid (Non-Emergency Medical Transportation)	DHS	Counties; services provided by certified Medicaid carriers	Medicaid pays for transportation costs for clients traveling to/from medical treatments and appointments	$60,000,000	State/Federal	Services brokered by Logisticare, who contracts locally to provide NEMT services

Program	Administering Agency or Agencies	Eligible Applicants	Eligible Expenditures	Funding Level	Funding Source(s)	Award Process
Medicaid (Specialized Medical Vehicle)	DHS	Counties; services provided by certified Medicaid carriers	Available for medical appointment transportation services needed for clients with disabilities, such that the client requires a wheelchair, stretcher, or has other special transportation needs	$21,000,000	State/Federal	DHS reimburses Medicaid users for individual trips
Medicaid Infrastructure Grants/Pathways to Independence	DHS	Any local public body	WisTech and WisLoan technology assistance programs (Pathways) provide demonstrations and loans for assistive technologies including wheelchair lifts for vehicles, etc.	$100,000	State/Federal	Transportation component of Pathways is not separated; DHS oversees programs; Wisconsin Independent Living Centers administer programs
Older Americans Act (Title IIIB)	DHS	Counties; local aging units determine services	Programs used to remove barriers to independent living for the elderly through a variety of long-term care services in communities; client transportation is included	Approximately $200,000 (of $2 million total Title IIIB funds)	Federal	DHS allocates funds to local aging units through formula; local units determine use of funds

Program	Administering Agency or Agencies	Eligible Applicants	Eligible Expenditures	Funding Level	Funding Source(s)	Award Process
Senior Community Service Employment Program (SCSEP)/ Wisconsin Senior Employment Program (WISE)	DHS	Counties	Participants receive an assessment to determine individual needs for training, supportive services, and potential for employment; supportive services may include transportation	$300,000	State/Federal	DHS determines needs for individuals; supportive services may include transportation
County Transportation Grant (CTG)	Department of Veterans Affairs	Counties	Financial assistance to counties to provide transportation to Veterans Affairs (VA) medical appointments; may be used for capital or operating expenditures	$100,000	State	DAV distributes funds to counties without DAV van service
Disabled American Veterans	Department of Veterans Affairs	Non-profit organization	Vans around the state that stop at predetermined locations and transport veterans to various medical centers across the state	$100,000	State	Disabled American Veterans receives funds from Department of Veterans Affairs
Federal Formula Grant Program for Urbanized Areas (Section 5307/s. 85.20)	WisDOT	Public transit services	Capital expenditures	$38,000,000	State/Federal	Large communities (populations over 200,000) are eligible

Program	Administering Agency or Agencies	Eligible Applicants	Eligible Expenditures	Funding Level	Funding Source(s)	Award Process
Federal Discretionary Capital Assistance Program (Section 5309)	WisDOT	States; local public bodies; federally recognized Indian tribes	Capital expenditures	Varies	Federal	Discretionary program (funding level changes from year to year)
Rural and Small Urban Area Public Transportation Assistance Program (Section 5311)	WisDOT	Public transit services	Capital and operating expenditures	$13,400,000	Federal	Services operating in non-urbanized areas are eligible (populations between 2,500 and 50,000)
Rural Transit Assistance Program (RTAP)	WisDOT	Individuals	Development of skills and abilities for persons involved in providing transit services to rural and small urban areas	$200,000	Federal	WisDOT contracts with consultant to administer program; program develops training sessions and provides scholarships for other educational opportunities
State Urban Mass Transit Operating Assistance Program (s. 85.20)	WisDOT	Public transit services	Operating expenditures	$106,000,000	State	Services operating in areas with populations greater than 2,500 are eligible

Program	Administering Agency or Agencies	Eligible Applicants	Eligible Expenditures	Funding Level	Funding Source(s)	Award Process
Wisconsin Employment Transportation Assistance Program (WETAP); (Section 5316, s. 85.24, s. 106.26)	WisDOT	Local public bodies; public transit agencies; tribal organizations; non-profit agencies	Services supporting access to employment	$3,300,000	Local/State/Federal	Integrates Job Access Reverse Commute, Transportation Employment and Mobility, and Employment Transit Aids programs into single process

Appendix C: Other Key Survey Results, All Respondents

1. Do you currently have a valid driver's license?

Answer	%
Yes	76.05%
No	23.95%

2. In the past two years, have you had any accidents or injuries while personally driving?

Answer	%
Yes	6.02%
No	93.98%

3. Do you have any adaptive equipment on the vehicle(s) you drive?

Answer	%
Yes, please describe:	3.13%
No	96.87%

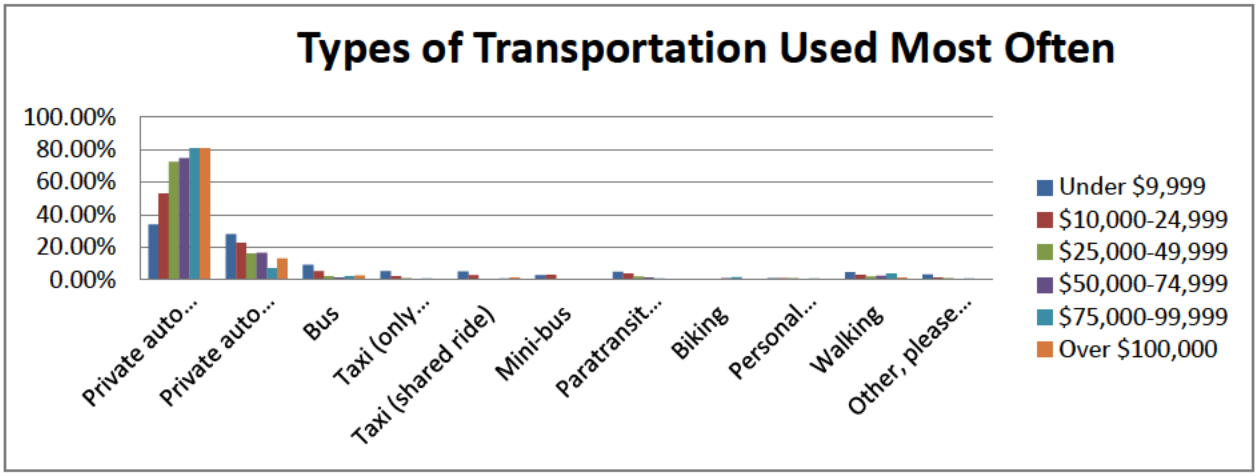
4. In the past two years, have you renewed your driver's license?

Answer	%
Yes	42.15%
No	57.85%

5. Did you have any difficulties when you last renewed your driver's license?

Answer	%
Yes, please describe:	3.81%
No	96.19%

Appendix D: Key Survey Results by Income



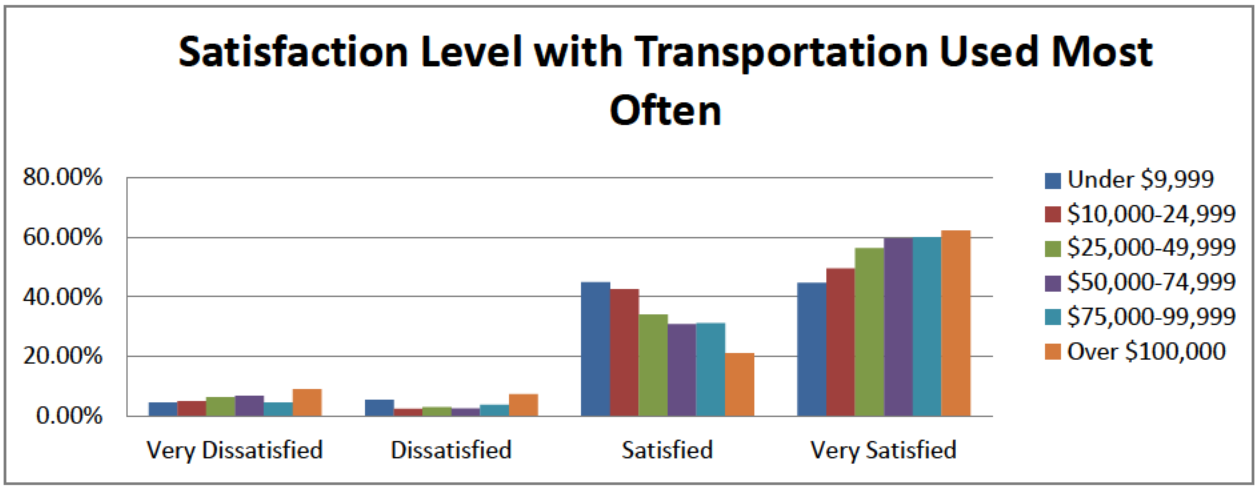
Under $9,999					
Question	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**	**N/A**
It is cheaper	12.01%	22.61%	28.62%	28.27%	8.48%
It is physically easier to board/operate	5.40%	7.91%	35.61%	40.65%	10.43%
It is more convenient	5.76%	1.69%	32.88%	57.63%	2.03%
It is faster	6.38%	12.06%	27.66%	50.35%	3.55%
It is more reliably on time	6.62%	5.57%	32.40%	51.92%	3.48%
It allows me to go to a wider variety of destinations	5.63%	9.86%	27.82%	54.93%	1.76%
It allows me go to more destinations in one trip	8.71%	6.97%	26.13%	55.40%	2.79%
It is safer	7.91%	17.99%	31.65%	35.25%	7.19%
It is the only kind of transportation available	17.61%	27.11%	16.20%	29.93%	9.15%

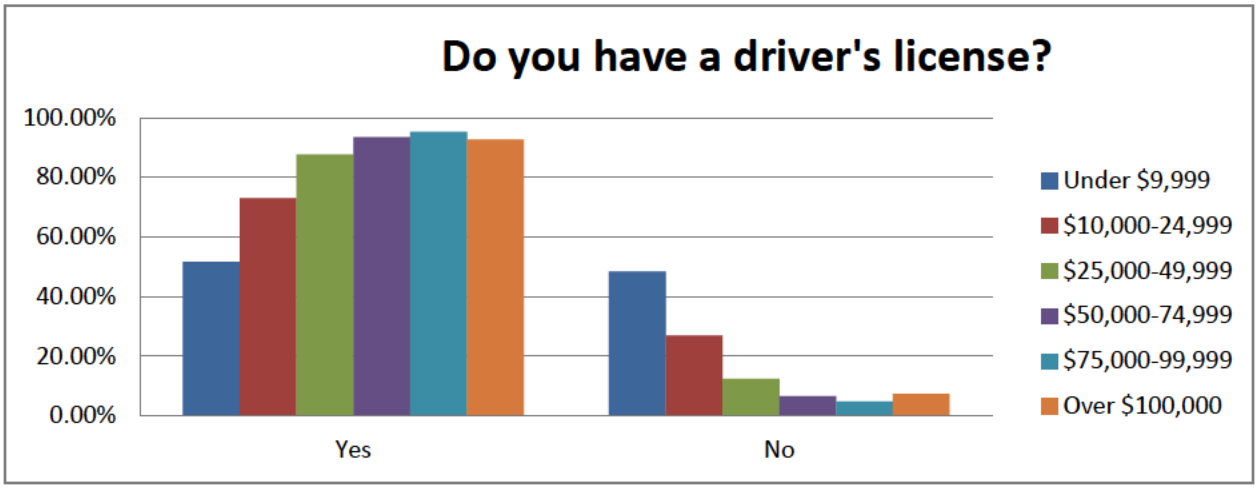
$10,000 to 24,999					
Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	10.68%	23.30%	34.30%	17.80%	13.92%
It is physically easier to board/operate	3.97%	7.95%	39.40%	32.12%	16.56%
It is more convenient	4.59%	2.45%	34.25%	54.74%	3.98%
It is faster	5.52%	5.84%	33.12%	48.70%	6.82%
It is more reliably on time	4.53%	4.53%	33.66%	49.19%	8.09%
It allows me to go to various destinations	5.00%	4.06%	28.75%	55.63%	6.56%
It allows me go to more destinations in one trip	5.33%	4.70%	30.41%	52.35%	7.21%
It is safer	5.67%	16.00%	39.00%	23.67%	15.67%
It is the only kind available	12.34%	27.60%	24.03%	20.78%	15.26%
$25,000 to $49,999					
Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	9.66%	21.89%	31.90%	21.77%	14.78%
It is physically easier to board/operate	5.29%	6.35%	39.01%	32.55%	16.80%
It is more convenient	5.63%	1.91%	32.62%	54.94%	4.89%
It is faster	5.08%	5.54%	33.11%	49.27%	7.01%
It is more reliably on time	3.70%	4.49%	33.67%	48.93%	9.20%
It allows me to go to a wider variety of destinations	5.09%	3.90%	31.31%	54.50%	5.20%
It allows me go to more destinations in one trip	6.03%	4.28%	30.92%	52.52%	6.25%
It is safer	4.64%	14.05%	38.45%	26.43%	16.43%
It is the only kind of transportation available	11.97%	23.59%	22.32%	26.70%	15.42%

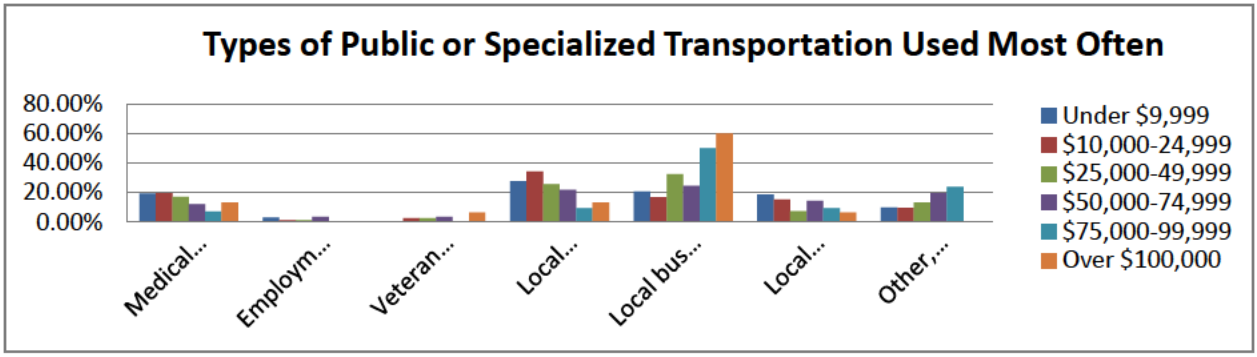
$50,000 to 74,999					
Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	10.16%	17.82%	35.88%	19.95%	16.19%
It is physically easier to board/operate	3.09%	6.57%	49.10%	26.42%	14.82%
It is more convenient	4.65%	1.52%	45.45%	43.29%	5.09%
It is faster	4.08%	4.20%	44.24%	38.61%	8.87%
It is more reliably on time	3.51%	3.14%	45.71%	38.09%	9.55%
It allows me to go to a wider variety of destinations	4.32%	3.65%	42.41%	42.97%	6.64%
It allows me go to more destinations in one trip	5.03%	4.58%	42.12%	41.34%	6.93%
It is safer	4.34%	14.03%	42.22%	22.07%	17.35%
It is the only kind of transportation available	9.73%	19.34%	30.66%	22.63%	17.64%

$75,000 to $99,999					
Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	6.70%	14.14%	39.21%	17.12%	22.83%
It is physically easier to board/operate	3.40%	2.91%	47.57%	32.77%	13.35%
It is more convenient	4.85%	0.63%	45.36%	41.77%	7.38%
It is faster	3.61%	5.29%	42.79%	35.58%	12.74%
It is more reliably on time	3.70%	3.46%	45.27%	36.03%	11.55%
It allows me to go to a wider variety of destinations	5.25%	2.84%	42.67%	39.82%	9.41%
It allows me go to more destinations in one trip	4.79%	3.49%	42.27%	39.43%	10.02%

It is safer	3.23%	11.91%	40.94%	22.33%	21.59%
It is the only kind of transportation available	8.19%	20.84%	29.78%	20.10%	21.09%







Under $9,999				
Question	**Not Important**	**Slightly Important**	**Somewhat Important**	**Very Important**
Fares are affordable	2.94%	3.53%	22.94%	70.59%
Transit stops are near or at my home	3.55%	2.96%	14.20%	79.29%
Transit stops are near or at places I want to go	3.03%	1.82%	12.73%	82.42%
I can reach my destination without a transfer	6.71%	12.20%	23.17%	57.93%
Wait times are short	3.01%	10.24%	30.72%	56.02%
Transit is available on short notice	9.15%	15.24%	28.05%	47.56%
Transit reliably arrives on time	2.41%	6.63%	29.52%	61.45%
Vehicles are easy to board	5.42%	7.23%	24.10%	63.25%
Transit is safe and secure	2.42%	7.27%	18.18%	72.12%
Transit system can work around language barriers	36.65%	21.12%	16.15%	26.09%
Someone helps me use the service	35.80%	14.20%	19.14%	30.86%

$10,000 to 24,999				
Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	6.59%	5.39%	22.75%	65.27%
Transit stops are near or at my home	7.83%	4.22%	15.66%	72.29%
Transit stops are near or at places I want to go	7.27%	1.21%	16.97%	74.55%
I can reach my destination without a transfer	11.38%	9.58%	25.75%	53.29%
Wait times are short	7.14%	6.55%	25.60%	60.71%

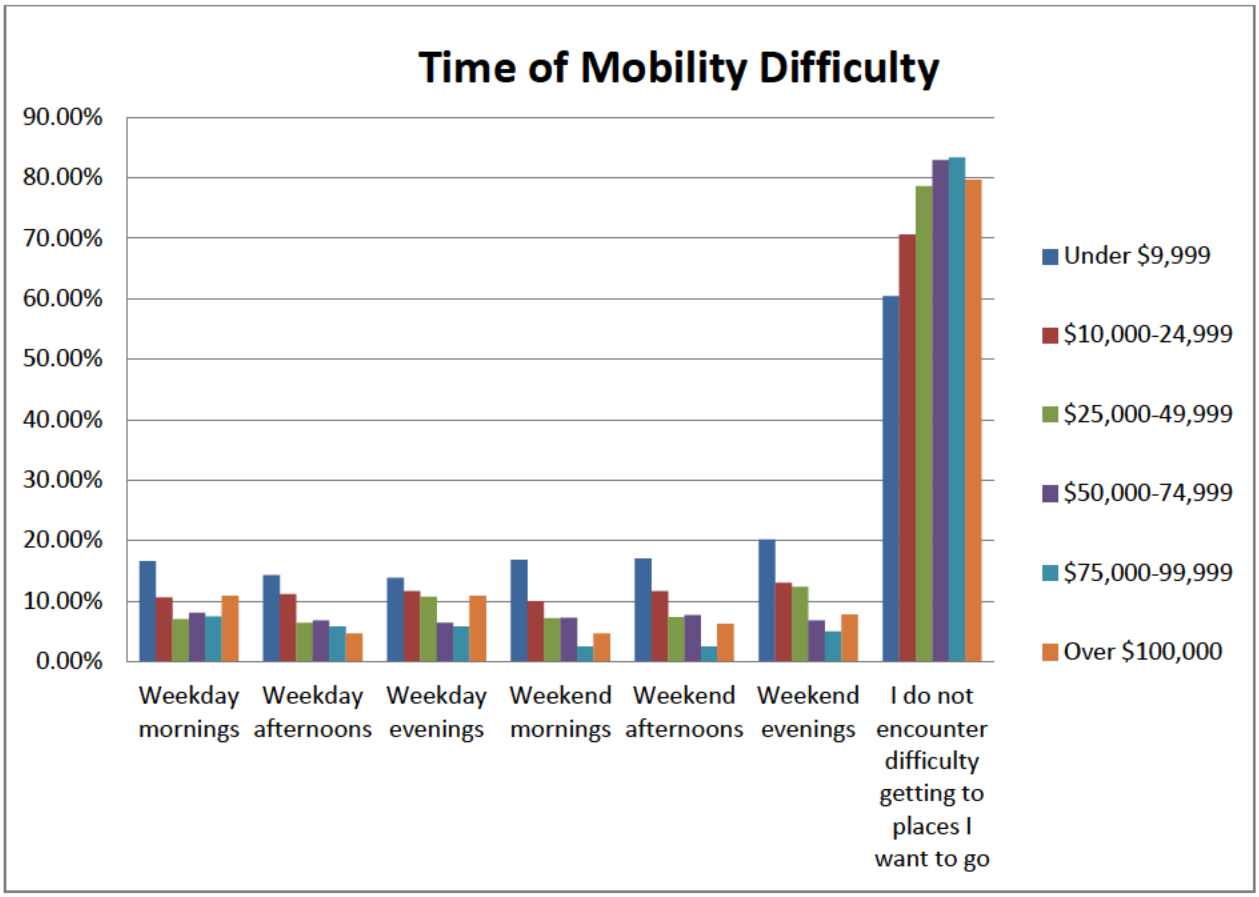
Transit is available on short notice	8.59%	14.11%	22.70%	54.60%
Transit reliably arrives on time	3.57%	1.19%	21.43%	73.81%
Vehicles are easy to board	5.92%	8.88%	19.53%	65.68%
Transit is safe and secure	2.40%	1.80%	17.96%	77.84%
Transit system can work around language barriers	39.62%	12.58%	22.01%	25.79%
Someone helps me use the service	34.13%	11.98%	18.56%	35.33%

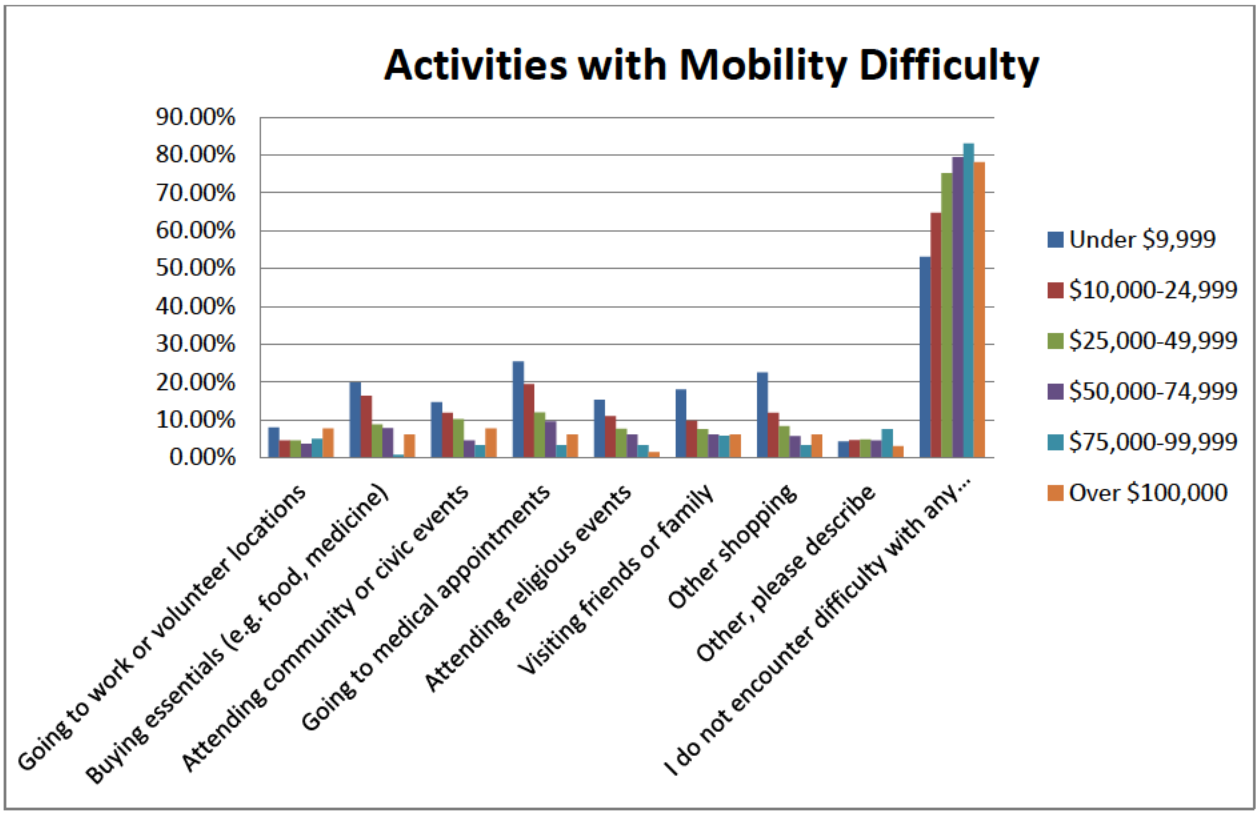
$25,000 to $49,999				
Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	6.59%	7.78%	23.95%	61.68%
Transit stops are near or at my home	9.72%	3.45%	14.73%	72.10%
Transit stops are near or at places I want to go	8.22%	2.63%	15.46%	73.68%
I can reach my destination without a transfer	12.70%	8.47%	20.85%	57.98%
Wait times are short	10.49%	5.57%	26.56%	57.38%
Transit is available on short notice	14.85%	8.91%	29.04%	47.19%
Transit reliably arrives on time	8.33%	3.85%	17.31%	70.51%
Vehicles are easy to board	7.45%	5.90%	23.60%	63.04%
Transit is safe and secure	6.83%	3.11%	17.08%	72.98%
Transit system can work around language barriers	45.92%	12.93%	16.67%	24.49%
Someone helps me use the service	35.20%	9.54%	16.78%	38.49%

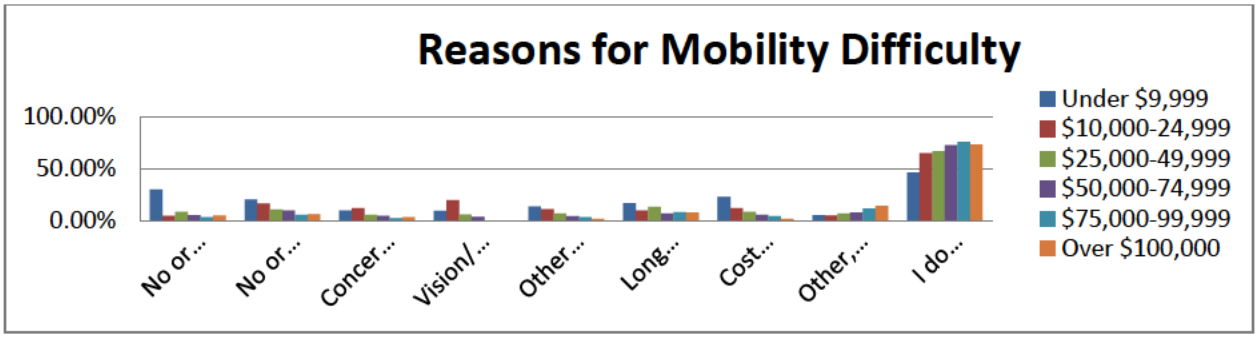
$50,000 to 74,999				
Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	8.93%	8.33%	24.70%	58.04%
Transit stops are near or at my home	11.36%	4.10%	13.88%	70.66%
Transit stops are near or at places I want to go	11.18%	4.28%	13.16%	71.38%
I can reach my destination without a transfer	15.51%	5.70%	17.09%	61.71%
Wait times are short	12.09%	5.23%	28.10%	54.58%
Transit is available on short notice	13.91%	7.95%	25.17%	52.98%
Transit reliably arrives on time	9.15%	2.74%	23.78%	64.33%
Vehicles are easy to board	8.31%	5.34%	19.58%	66.77%
Transit is safe and secure	7.21%	3.30%	17.12%	72.37%
Transit system can work around language barriers	45.36%	12.86%	14.29%	27.50%
Someone helps me use the service	26.64%	8.88%	22.04%	42.43%

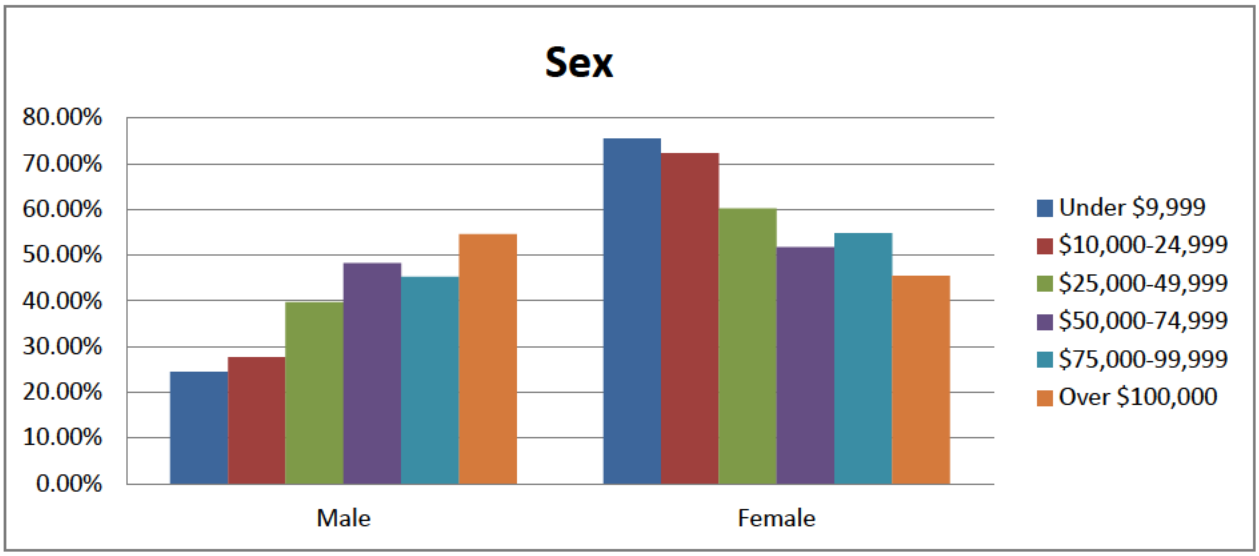
$75,000 to $99,999				
Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	10.45%	8.46%	26.37%	54.73%
Transit stops are near or at my home	10.47%	6.28%	13.61%	69.63%
Transit stops are near or at places I want to go	10.53%	3.68%	16.32%	69.47%
I can reach my destination without a transfer	15.26%	2.63%	14.21%	67.89%
Wait times are short	9.84%	6.01%	25.14%	59.02%
Transit is available on short notice	7.57%	11.35%	30.27%	50.81%

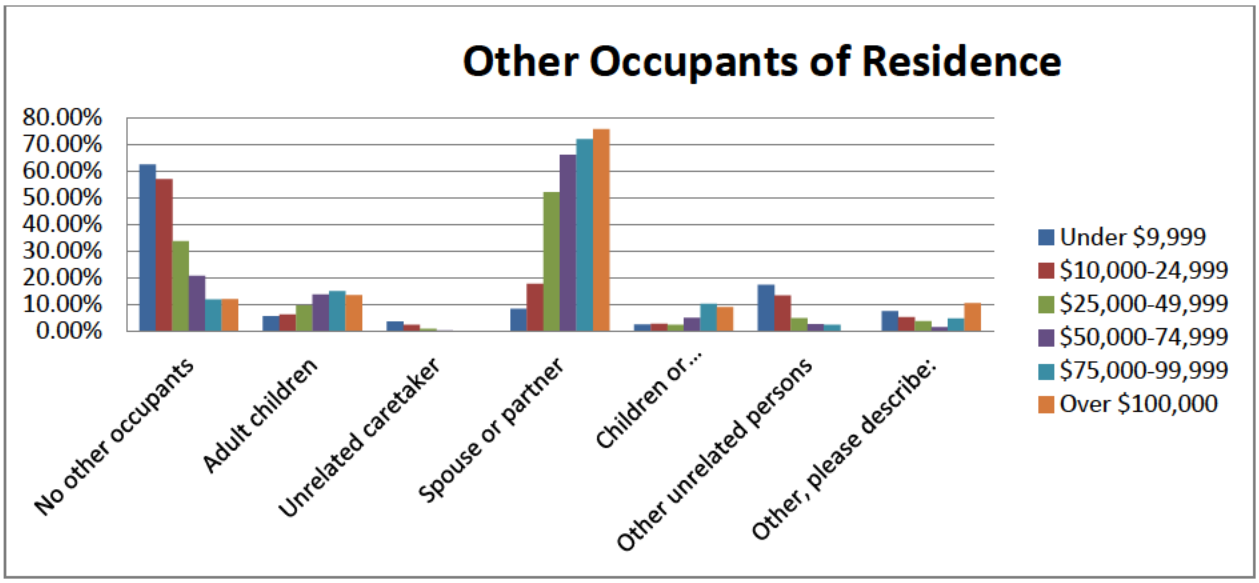
Transit reliably arrives on time	4.59%	6.12%	21.94%	67.35%
Vehicles are easy to board	5.91%	4.43%	18.23%	71.43%
Transit is safe and secure	4.04%	2.53%	17.17%	76.26%
Transit system can work around language barriers	47.50%	10.00%	18.13%	24.38%
Someone helps me use the service	12.17%	13.76%	17.99%	56.08%

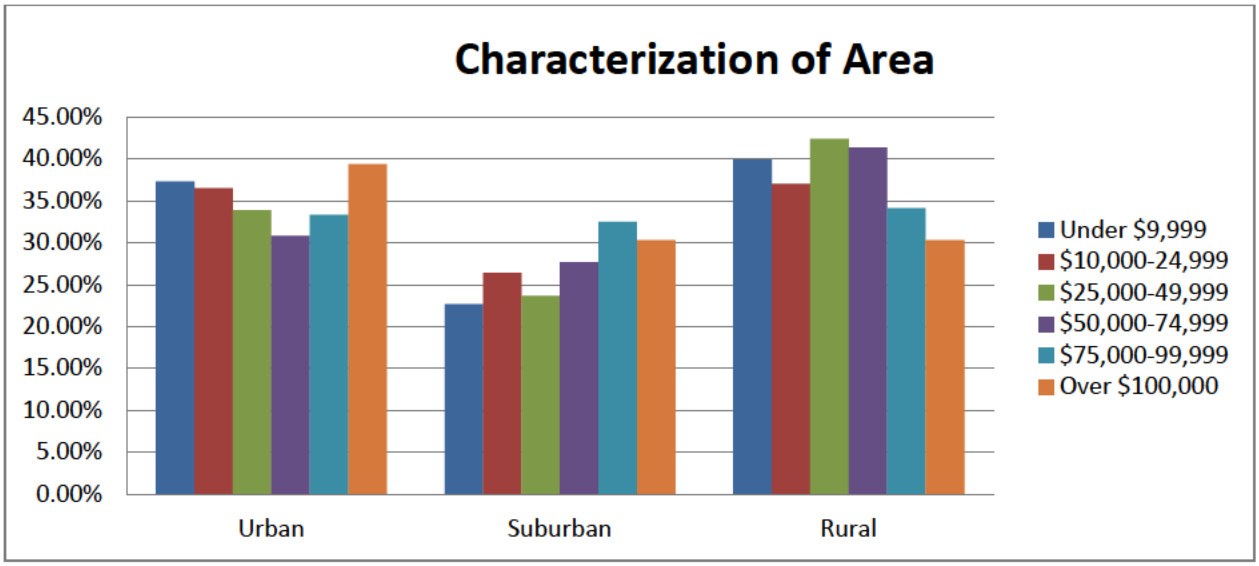

Time of Mobility Difficulty
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Weekday mornings
Weekday afternoons
Weekday evenings
Weekend mornings
Weekend afternoons
Weekend evenings
I do not encounter difficulty getting to places I want to go
Under $9,999
$10,000-24,999
$25,000-49,999
$50,000-74,999
$75,000-99,999
Over $100,000

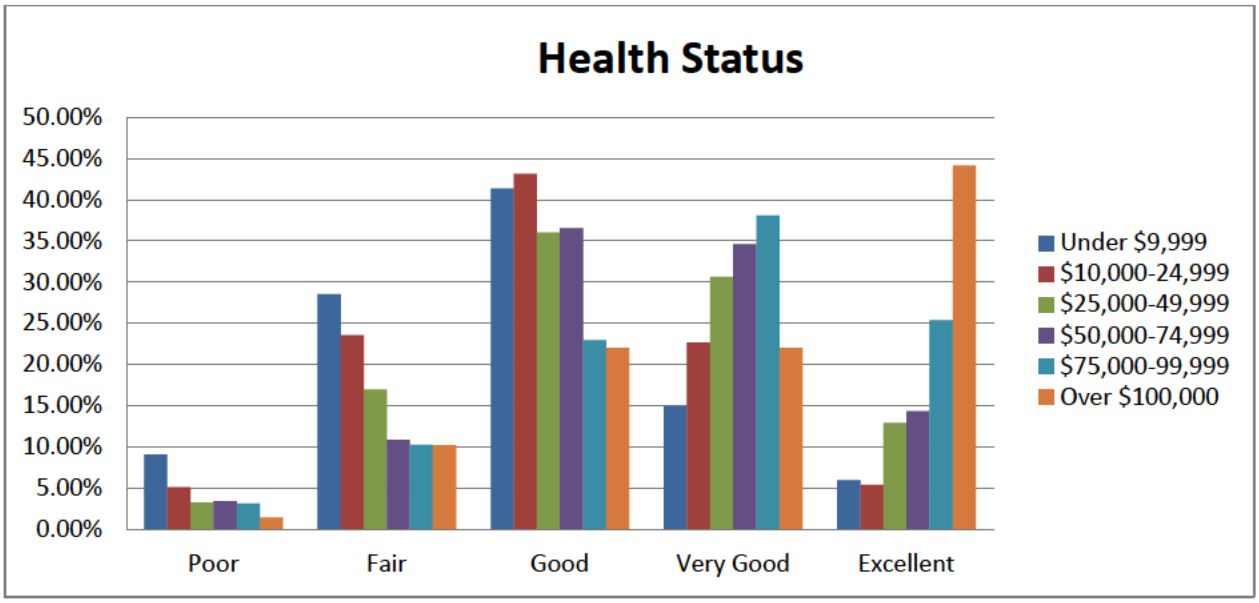

Activities with Mobility Difficulty
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Going to work or volunteer locations
Buying essentials (e.g. food, medicine)
Attending community or civic events
Going to medical appointments
Attending religious events
Visiting friends or family
Other shopping
Other, please describe
I do not encounter difficulty with any...
Under $9,999
$10,000-24,999
$25,000-49,999
$50,000-74,999
$75,000-99,999
Over $100,000


Reasons for Mobility Difficulty
100.00%
50.00%
0.00%
No or...
No or...
Concer...
Vision/...
Other...
Long...
Cost...
Other,...
I do...
Under $9,999
$10,000-24,999
$25,000-49,999
$50,000-74,999
$75,000-99,999
Over $100,000

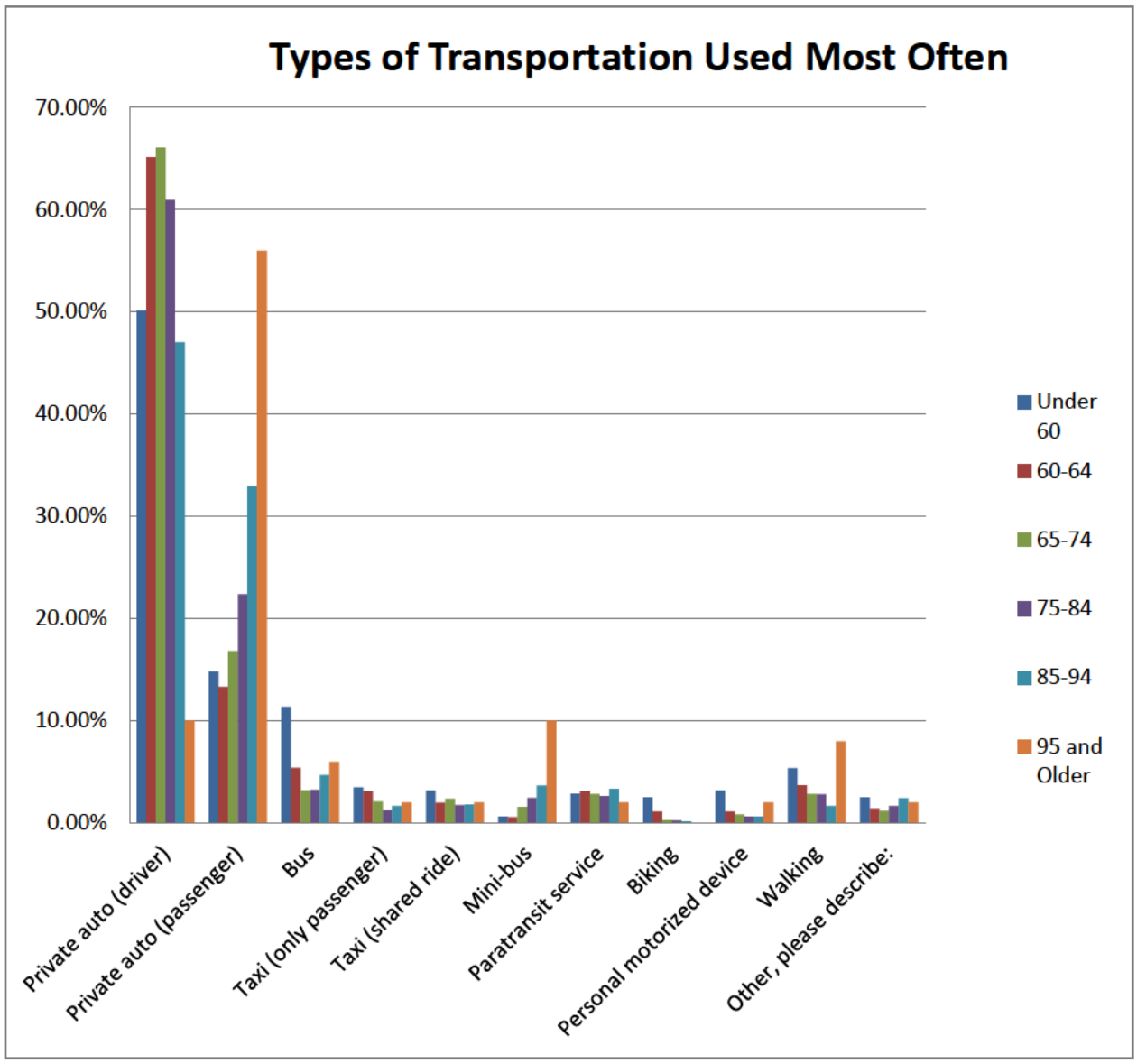

Sex
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Male
Female
Under $9,999
$10,000-24,999
$25,000-49,999
$50,000-74,999
$75,000-99,999
Over $100,000


Other Occupants of Residence
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
No other occupants
Adult children
Unrelated caretaker
Spouse or partner
Children or...
Other unrelated persons
Other, please describe:
Under $9,999
$10,000-24,999
$25,000-49,999
$50,000-74,999
$75,000-99,999
Over $100,000


Characterization of Area
45.00%
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Urban
Suburban
Rural
Under $9,999
$10,000-24,999
$25,000-49,999
$50,000-74,999
$75,000-99,999
Over $100,000


Health Status
50.00%
45.00%
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Poor
Fair
Good
Very Good
Excellent
Under $9,999
$10,000-24,999
$25,000-49,999
$50,000-74,999
$75,000-99,999
Over $100,000

Appendix E: Key Survey Results by Age



Under 60					
Question	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**	**N/A**
It is cheaper	12.01%	22.61%	28.62 %	28.27%	8.48%
It is physically easier to board/operate	5.40%	7.91%	35.61 %	40.65%	10.43%

It is more convenient	5.76%	1.69%	32.88 %	57.63%	2.03%
It is faster	6.38%	12.06%	27.66 %	50.35%	3.55%
It is more reliably on time	6.62%	5.57%	32.40 %	51.92%	3.48%
It allows me to go to a wider variety of destinations	5.63%	9.86%	27.82 %	54.93%	1.76%
It allows me go to more destinations in one trip	8.71%	6.97%	26.13 %	55.40%	2.79%
It is safer	7.91%	17.99%	31.65 %	35.25%	7.19%
It is the only kind of transportation available	17.61%	27.11%	16.20 %	29.93%	9.15%

60-64					
Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	10.68%	23.30%	34.30%	17.80%	13.92%
It is physically easier to board/operate	3.97%	7.95%	39.40%	32.12%	16.56%
It is more convenient	4.59%	2.45%	34.25%	54.74%	3.98%
It is faster	5.52%	5.84%	33.12%	48.70%	6.82%
It is more reliably on time	4.53%	4.53%	33.66%	49.19%	8.09%
It allows me to go to a wider variety of destinations	5.00%	4.06%	28.75%	55.63%	6.56%
It allows me go to more destinations in one trip	5.33%	4.70%	30.41%	52.35%	7.21%
It is safer	5.67%	16.00%	39.00%	23.67%	15.67%
It is the only kind of transportation available	12.34%	27.60%	24.03%	20.78%	15.26%

65-74					
Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	9.66%	21.89%	31.90%	21.77%	14.78%
It is physically easier to board/operate	5.29%	6.35%	39.01%	32.55%	16.80%
It is more convenient	5.63%	1.91%	32.62%	54.94%	4.89%
It is faster	5.08%	5.54%	33.11%	49.27%	7.01%
It is more reliably on time	3.70%	4.49%	33.67%	48.93%	9.20%
It allows me to go to a wider variety of destinations	5.09%	3.90%	31.31%	54.50%	5.20%
It allows me go to more destinations in one trip	6.03%	4.28%	30.92%	52.52%	6.25%
It is safer	4.64%	14.05%	38.45%	26.43%	16.43%
It is the only kind of transportation available	11.97%	23.59%	22.32%	26.70%	15.42%

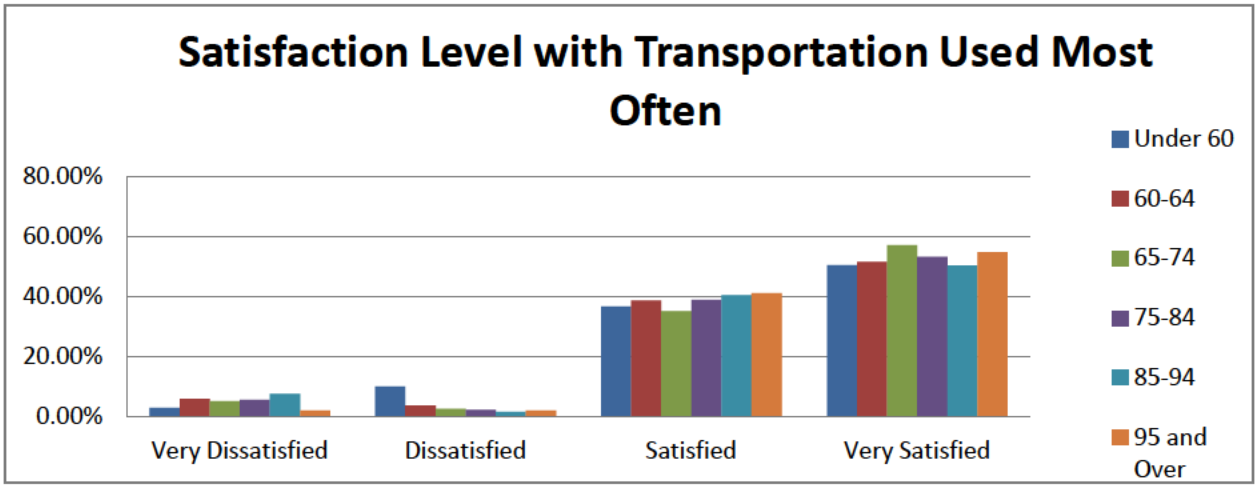
75-84					
Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	10.16%	17.82%	35.88%	19.95%	16.19%
It is physically easier to board/operate	3.09%	6.57%	49.10%	26.42%	14.82%
It is more convenient	4.65%	1.52%	45.45%	43.29%	5.09%
It is faster	4.08%	4.20%	44.24%	38.61%	8.87%
It is more reliably on time	3.51%	3.14%	45.71%	38.09%	9.55%
It allows me to go to a wider variety of destinations	4.32%	3.65%	42.41%	42.97%	6.64%
It allows me go to more destinations in one trip	5.03%	4.58%	42.12%	41.34%	6.93%
It is safer	4.34%	14.03%	42.22%	22.07%	17.35%

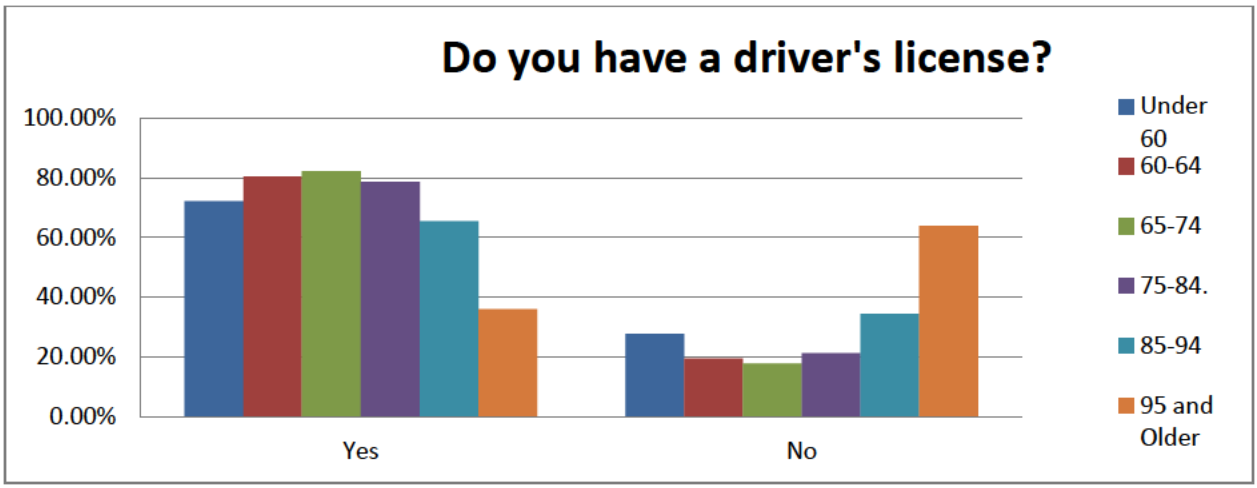
It is the only kind of transportation available	9.73%	19.34%	30.66%	22.63%	17.64%

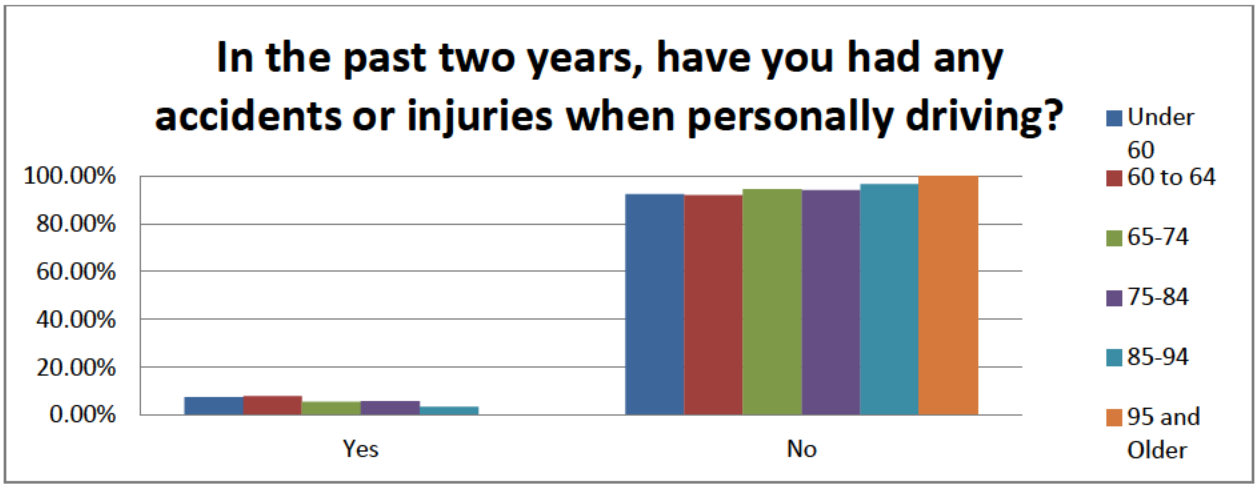
85-94					
Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	6.70%	14.14%	39.21%	17.12%	22.83%
It is physically easier to board/operate	3.40%	2.91%	47.57%	32.77%	13.35%
It is more convenient	4.85%	0.63%	45.36%	41.77%	7.38%
It is faster	3.61%	5.29%	42.79%	35.58%	12.74%
It is more reliably on time	3.70%	3.46%	45.27%	36.03%	11.55%
It allows me to go to a wider variety of destinations	5.25%	2.84%	42.67%	39.82%	9.41%
It allows me go to more destinations in one trip	4.79%	3.49%	42.27%	39.43%	10.02%
It is safer	3.23%	11.91%	40.94%	22.33%	21.59%
It is the only kind of transportation available	8.19%	20.84%	29.78%	20.10%	21.09%

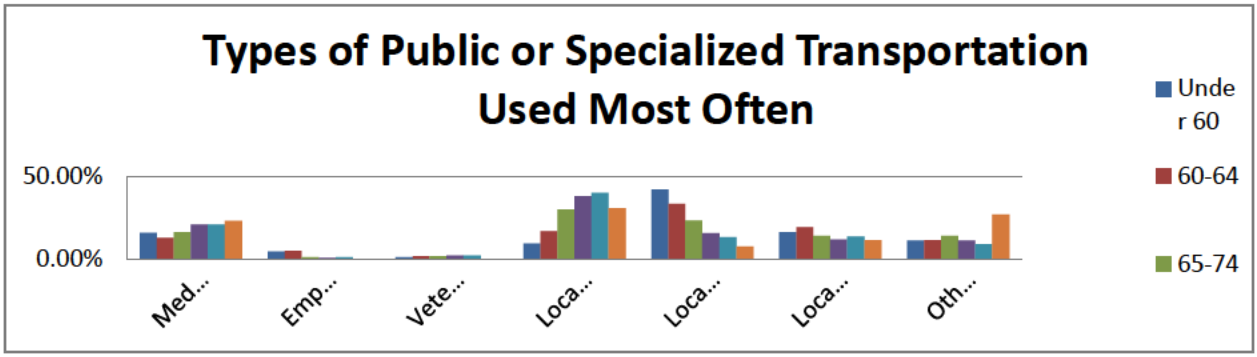
95 and Older					
Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	6.06%	15.15%	39.39%	15.15%	24.24%
It is physically easier to board/operate	3.23%	6.45%	38.71%	29.03%	22.58%
It is more convenient	2.86%	2.86%	34.29%	45.71%	14.29%
It is faster	0.00%	13.33%	40.00%	20.00%	26.67%
It is more reliably on time	2.86%	5.71%	51.43%	25.71%	14.29%
It allows me to go to a wider variety of destinations	3.03%	12.12%	42.42%	30.30%	12.12%

It allows me go to more destinations in one trip	2.86%	11.43%	40.00%	28.57%	17.14%
It is safer	0.00%	5.88%	35.29%	32.35%	26.47%
It is the only kind of transportation available	5.71%	20.00%	37.14%	25.71%	11.43%









Under 60				
Question	**Not Important**	**Slightly Important**	**Somewhat Important**	**Very Important**
Fares are affordable	2.94%	3.53%	22.94%	70.59%
Transit stops are near or at my home	3.55%	2.96%	14.20%	79.29%
Transit stops are near or at places I want to go	3.03%	1.82%	12.73%	82.42%
I can reach my destination without a transfer	6.71%	12.20%	23.17%	57.93%
Wait times are short	3.01%	10.24%	30.72%	56.02%
Transit is available on short notice	9.15%	15.24%	28.05%	47.56%
Transit reliably arrives on time	2.41%	6.63%	29.52%	61.45%
Vehicles are easy to board	5.42%	7.23%	24.10%	63.25%

Transit is safe and secure	2.42%	7.27%	18.18%	72.12%
Transit system can work around language barriers	36.65%	21.12%	16.15%	26.09%
Someone helps me use the service	35.80%	14.20%	19.14%	30.86%

60-64				
Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	6.59%	5.39%	22.75%	65.27%
Transit stops are near or at my home	7.83%	4.22%	15.66%	72.29%
Transit stops are near or at places I want to go	7.27%	1.21%	16.97%	74.55%
I can reach my destination without a transfer	11.38%	9.58%	25.75%	53.29%
Wait times are short	7.14%	6.55%	25.60%	60.71%
Transit is available on short notice	8.59%	14.11%	22.70%	54.60%
Transit reliably arrives on time	3.57%	1.19%	21.43%	73.81%
Vehicles are easy to board	5.92%	8.88%	19.53%	65.68%
Transit is safe and secure	2.40%	1.80%	17.96%	77.84%
Transit system can work around language barriers	39.62%	12.58%	22.01%	25.79%
Someone helps me use the service	34.13%	11.98%	18.56%	35.33%

65-74				
Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	6.59%	7.78%	23.95%	61.68%
Transit stops are near or at my home	9.72%	3.45%	14.73%	72.10%

Transit stops are near or at places I want to go	8.22%	2.63%	15.46%	73.68%
I can reach my destination without a transfer	12.70%	8.47%	20.85%	57.98%
Wait times are short	10.49%	5.57%	26.56%	57.38%
Transit is available on short notice	14.85%	8.91%	29.04%	47.19%
Transit reliably arrives on time	8.33%	3.85%	17.31%	70.51%
Vehicles are easy to board	7.45%	5.90%	23.60%	63.04%
Transit is safe and secure	6.83%	3.11%	17.08%	72.98%
Transit system can work around language barriers	45.92%	12.93%	16.67%	24.49%
Someone helps me use the service	35.20%	9.54%	16.78%	38.49%

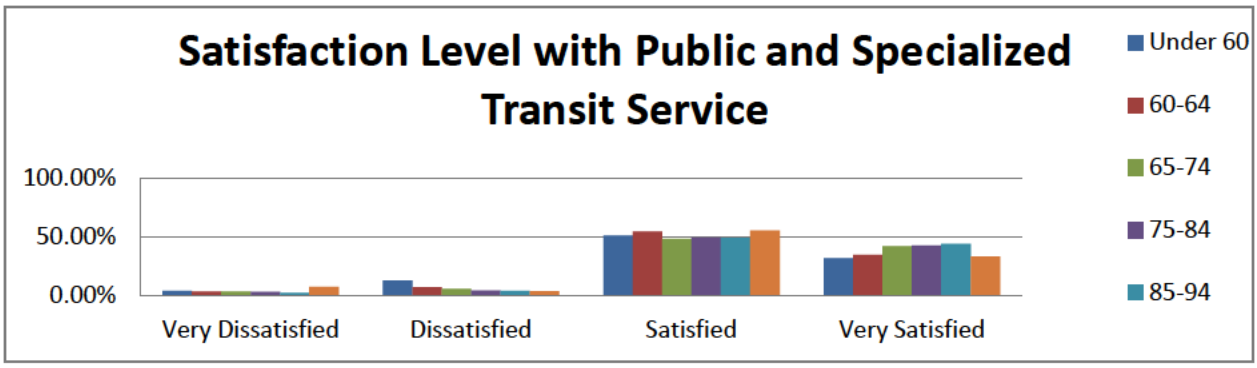
75-84				
Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	8.93%	8.33%	24.70%	58.04%
Transit stops are near or at my home	11.36%	4.10%	13.88%	70.66%
Transit stops are near or at places I want to go	11.18%	4.28%	13.16%	71.38%
I can reach my destination without a transfer	15.51%	5.70%	17.09%	61.71%
Wait times are short	12.09%	5.23%	28.10%	54.58%
Transit is available on short notice	13.91%	7.95%	25.17%	52.98%
Transit reliably arrives on time	9.15%	2.74%	23.78%	64.33%
Vehicles are easy to board	8.31%	5.34%	19.58%	66.77%
Transit is safe and secure	7.21%	3.30%	17.12%	72.37%
Transit system can work around language barriers	45.36%	12.86%	14.29%	27.50%

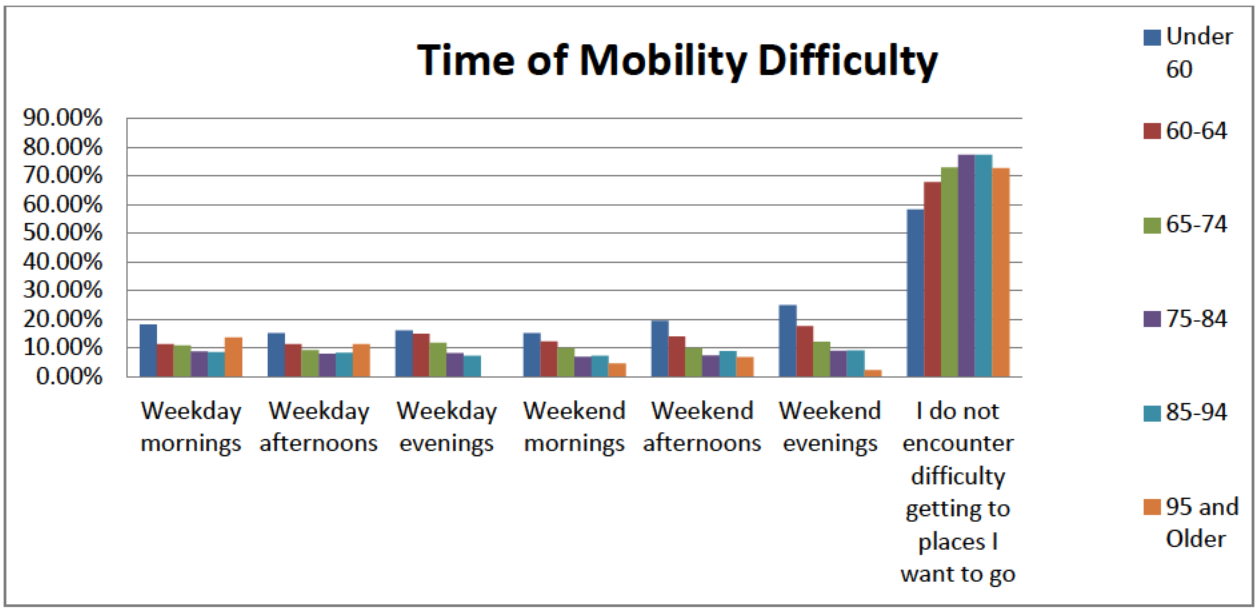
Someone helps me use the service	26.64%	8.88%	22.04%	42.43%

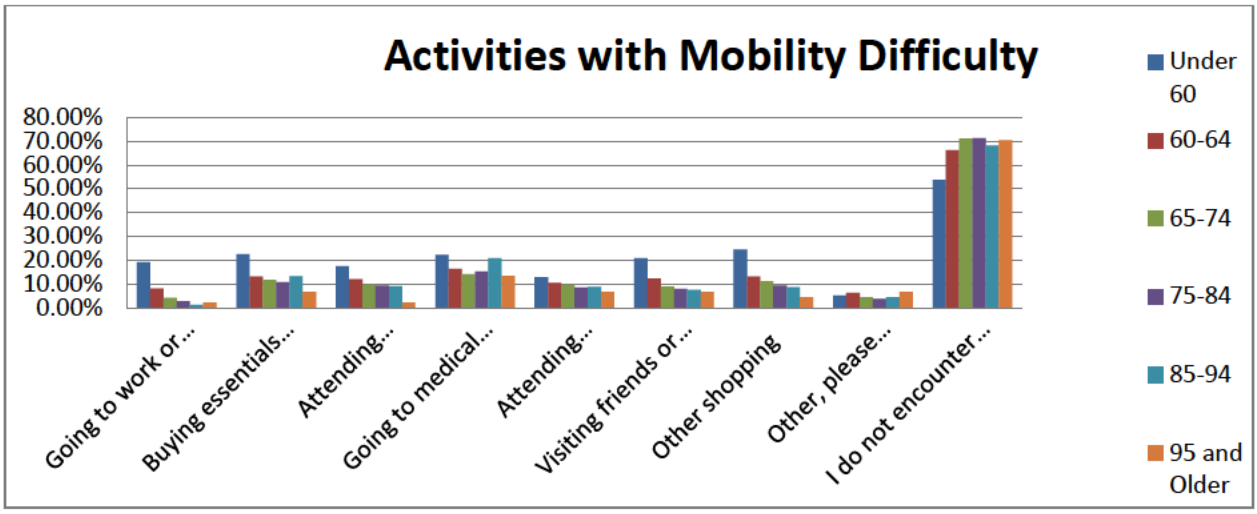
85-94				
Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	10.45%	8.46%	26.37%	54.73%
Transit stops are near or at my home	10.47%	6.28%	13.61%	69.63%
Transit stops are near or at places I want to go	10.53%	3.68%	16.32%	69.47%
I can reach my destination without a transfer	15.26%	2.63%	14.21%	67.89%
Wait times are short	9.84%	6.01%	25.14%	59.02%
Transit is available on short notice	7.57%	11.35%	30.27%	50.81%
Transit reliably arrives on time	4.59%	6.12%	21.94%	67.35%
Vehicles are easy to board	5.91%	4.43%	18.23%	71.43%
Transit is safe and secure	4.04%	2.53%	17.17%	76.26%
Transit system can work around language barriers	47.50%	10.00%	18.13%	24.38%
Someone helps me use the service	12.17%	13.76%	17.99%	56.08%

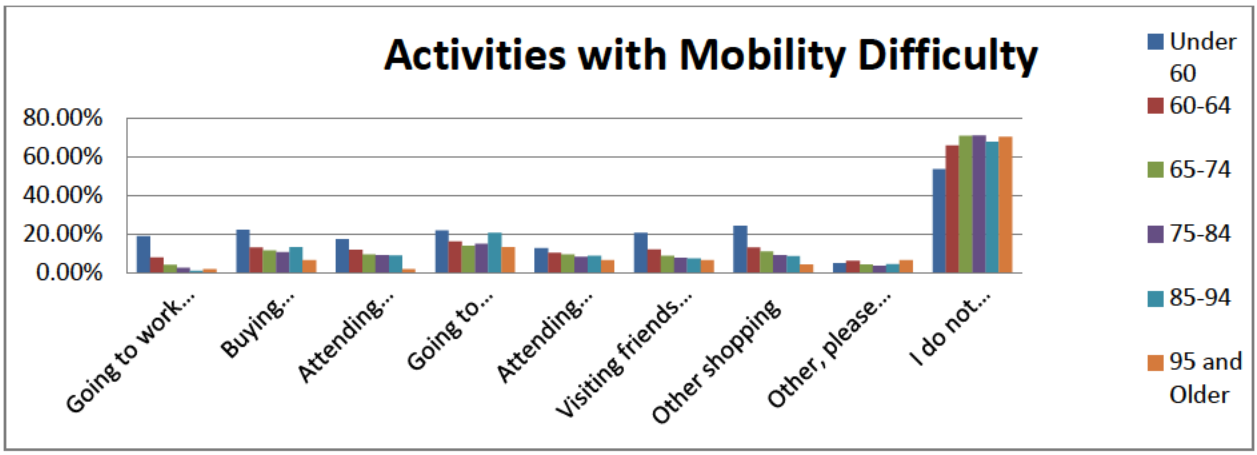
95 and Older				
Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	23.53%	11.76%	29.41%	35.29%
Transit stops are near or at my home	12.50%	6.25%	6.25%	75.00%
Transit stops are near or at places I want to go	11.76%	11.76%	5.88%	70.59%
I can reach my destination without a transfer	16.67%	0.00%	11.11%	72.22%

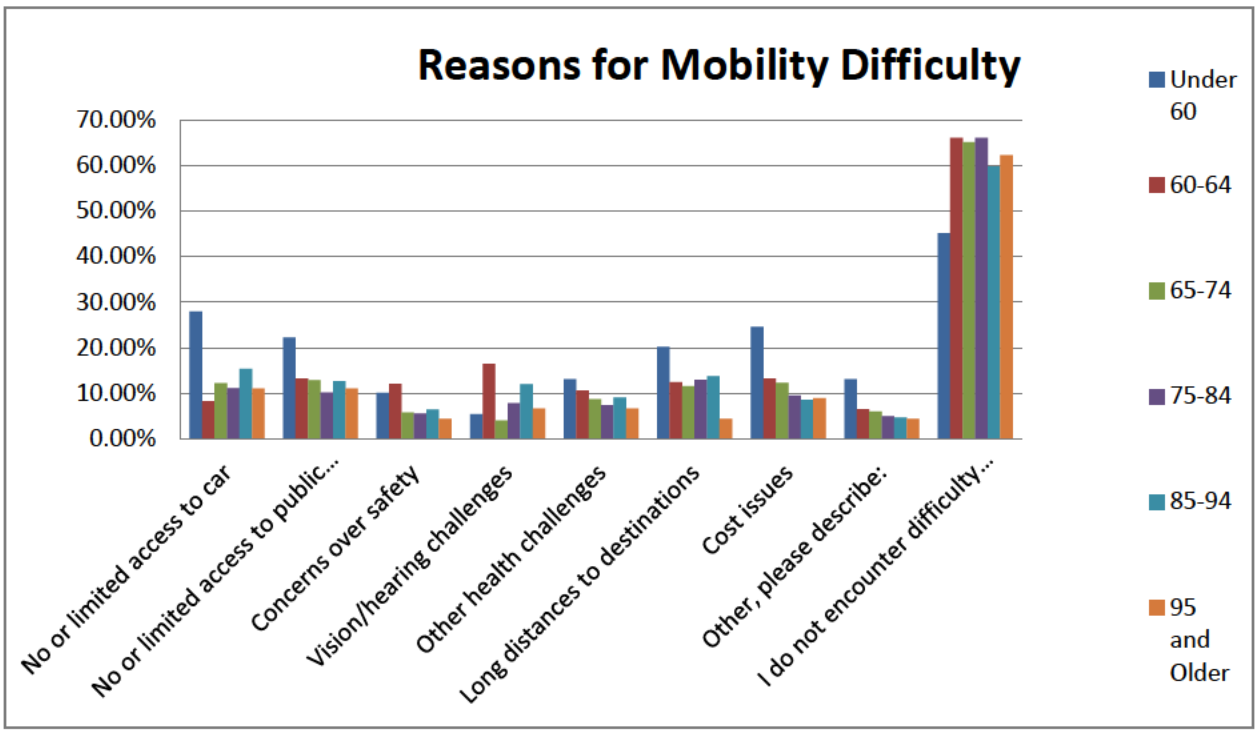
Wait times are short	18.75%	6.25%	18.75%	56.25%
Transit is available on short notice	25.00%	6.25%	37.50%	31.25%
Transit reliably arrives on time	11.11%	0.00%	22.22%	66.67%
Vehicles are easy to board	10.53%	0.00%	21.05%	68.42%
Transit is safe and secure	10.53%	0.00%	15.79%	73.68%
Transit system can work around language barriers	66.67%	13.33%	13.33%	6.67%
Someone helps me use the service	21.05%	15.79%	10.53%	52.63%

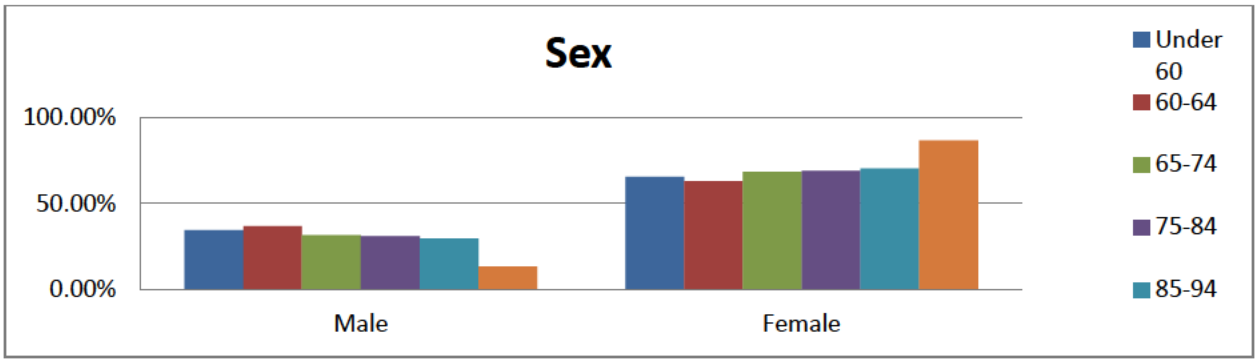


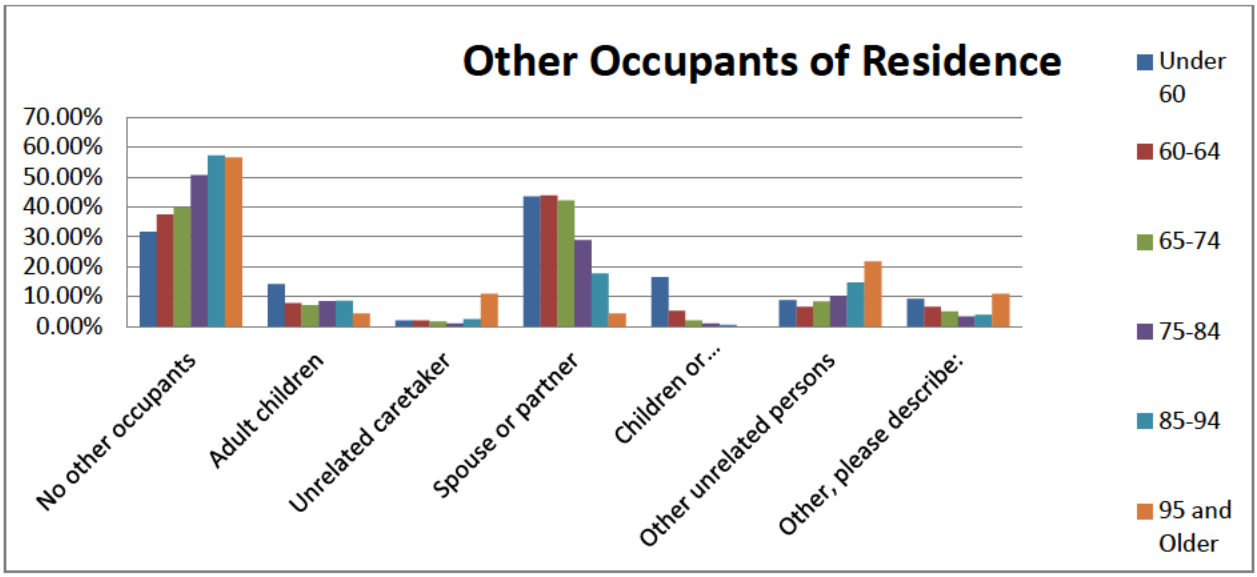


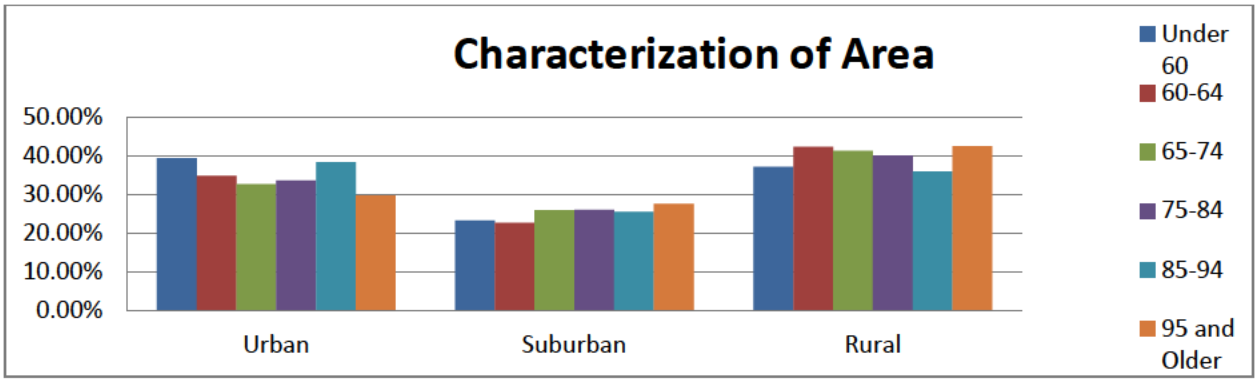

Activities with Mobility Difficulty
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Going to work or...
Buying essentials...
Attending...
Going to medical...
Attending...
Visiting friends or...
Other shopping
Other, please...
I do not encounter...
Under 60
60-64
65-74
75-84
85-94
95 and Older

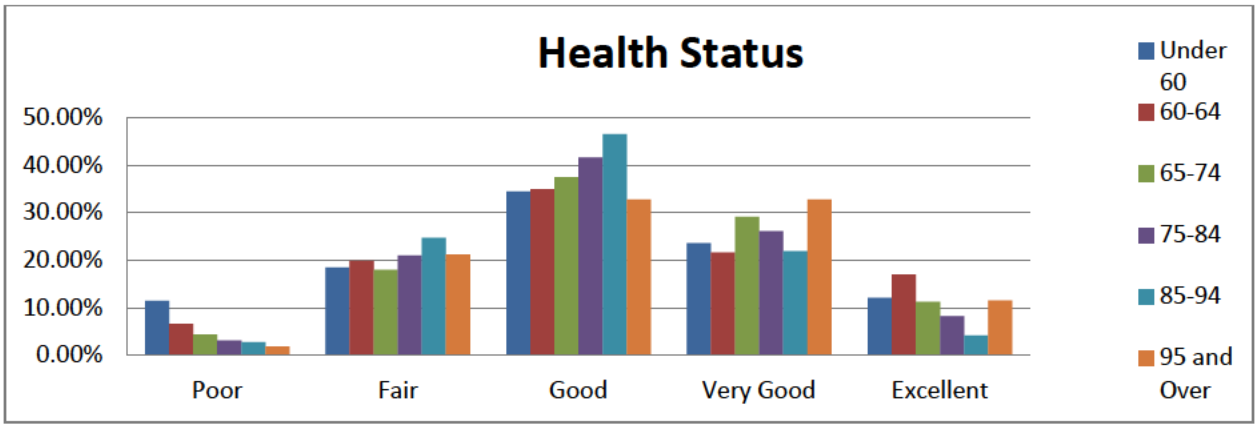

Activities with Mobility Difficulty
80.00%
60.00%
40.00%
20.00%
0.00%
Going to work...
Buying...
Attending...
Going to...
Attending...
Visiting friends...
Other shopping
Other, please...
I do not...
Under 60
60-64
65-74
75-84
85-94
95 and Older

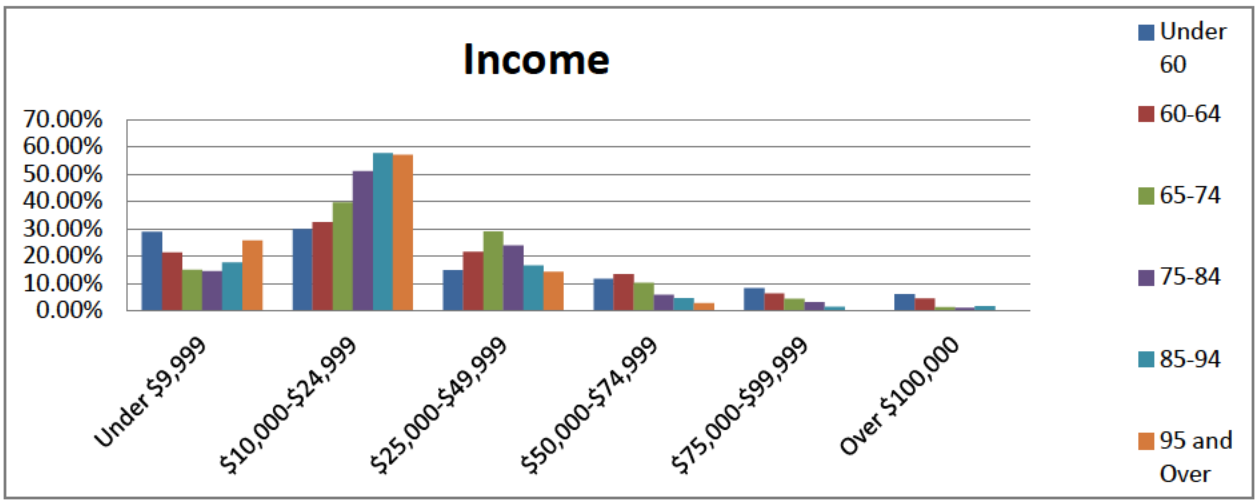

Reasons for Mobility Difficulty
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
No or limited access to car
No or limited access to public...
Concerns over safety
Vision/hearing challenges
Other health challenges
Long distances to destinations
Cost issues
Other, please describe:
I do not encounter difficulty...
Under 60
60-64
65-74
75-84
85-94
95 and Older


Sex
100.00%
50.00%
0.00%
Male
Female
Under 60
60-64
65-74
75-84
85-94


Other Occupants of Residence
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
No other occupants
Adult children
Unrelated caretaker
Spouse or partner
Children or...
Other unrelated persons
Other, please describe:
Under 60
60-64
65-74
75-84
85-94
95 and Older


Characterization of Area
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Urban
Suburban
Rural
Under 60
60-64
65-74
75-84
85-94
95 and Older


Health Status
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Poor
Fair
Good
Very Good
Excellent
Under 60
60-64
65-74
75-84
85-94
95 and Over


Income
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Under $9,999
$10,000-$24,999
$25,000-$49,999
$50,000-$74,999
$75,000-$99,999
Over $100,000
Under 60
60-64
65-74
75-84
85-94
95 and Over

Appendix F: Key Survey Results, American Indians and Alaska Natives

1. Do you want to participate in this survey?

Answer	%	Response
Yes	1	214
No	0	0
Total		214

2. How often do you use each of the following types of transportation? (Please select one answer for each type of transportation.)

Question	Rarely or Never	A Few Times Per Month	A Few Times Per Week	Every Day
Private auto (you are the driver)	14.14%	4.19%	15.71%	65.97%
Private auto (you are the passenger)	31.88%	16.88%	35.00%	16.25%
Bus	70.29%	14.49%	8.70%	6.52%
Taxi (you are the only passenger)	93.53%	4.32%	0.72%	1.44%
Taxi (shared ride with other passenger)	95.52%	2.24%	0.75%	1.49%
Mini-bus	75.56%	18.52%	4.44%	1.48%
Paratransit service	92.37%	3.82%	2.29%	1.53%
Biking	87.59%	5.11%	5.11%	2.19%
Personal motorized device	91.11%	3.70%	2.96%	2.22%
Walking	29.09%	23.03%	20.00%	27.88%

3. Which type of transportation do you use most often? (Please select one answer.)

Answer	%
Private auto (driver)	72.73%
Private auto (passenger)	15.79%
Bus	5.74%
Taxi (only passenger)	0.48%
Taxi (shared ride)	0.48%
Mini-bus	1.44%
Paratransit service	0.00%
Biking	0.00%
Personal motorized device	0.00%
Walking	1.91%
Other, please describe:	1.44%

4. Thinking of the type of transportation you use most often, why do you prefer it to other transportation options? (Please select one answer for each reason.)

Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	17.22%	15.23%	33.77%	17.88%	15.89%
It is physically easier to board/operate	7.19%	3.92%	44.44%	32.03%	12.42%
It is more convenient	7.78%	1.11%	44.44%	41.11%	5.56%
It is faster	8.54%	4.88%	43.29%	34.76%	8.54%
It is more reliably on time	9.32%	3.11%	42.86%	37.27%	7.45%
It allows me to go to a wider variety of destinations	7.91%	3.39%	39.55%	41.81%	7.34%
It allows me go to more destinations in one trip	7.43%	5.14%	38.29%	42.86%	6.29%

It is safer	7.79%	9.09%	47.40%	24.03%	11.69%
It is the only kind of transportation available	10.32%	29.03%	22.58%	19.35%	18.71%

5. Do you have another reason other than those that are listed in the previous question?

Answer	%
Yes, please describe:	9.72%
No	90.28%

6. In general, how satisfied are you with the type transportation you use most often?

Answer	%
Very Dissatisfied	7.84%
Dissatisfied	3.43%
Satisfied	40.20%
Very Satisfied	48.53%

7. Do you currently have a valid driver's license?

Answer	%
Yes	87.62%
No	12.38%

8. In the past two years, have you had any accidents or injuries while personally driving?

Answer	%
Yes	7.26%
No	92.74%

9. Do you have any adaptive equipment on the vehicle(s) you drive?

Answer	%
Yes, please describe:	3.98%
No	96.02%

10. In the past two years, have you renewed your driver's license?

Answer	%
Yes	38.86%
No	61.14%

11. Did you have any difficulties when you last renewed your driver's license?

Answer	%
Yes, please describe:	1.41%
No	98.59%

12. In the past two years, have you used public or specialized transportation services?

Answer	%
Yes	46.63%
No	53.37%

13. How often do you use the following types of public or specialized transportation? (Please select one answer for each type of transportation.)

Question	Never Heard of These Services	Never Use These Services	Sometimes Use These Services	Frequently Use These Services
Medical transportation services	11.36%	40.91%	38.64%	9.09%
Employment transportation services	22.97%	59.46%	13.51%	4.05%
Veteran transportation services	28.77%	64.38%	5.48%	1.37%
Local aging office or senior center transportation services	11.24%	30.34%	35.96%	22.47%
Local bus services	8.97%	41.03%	38.46%	11.54%
Local shared taxi services	12.16%	66.22%	18.92%	2.70%
Other public transportation services	18.42%	42.11%	30.26%	9.21%

14. Which type of public or specialized transportation service do you use most often?

Answer	%
Medical transportation services	13.98%
Employment transportation services	6.45%
Veteran transportation services	2.15%
Local aging office or senior center services	41.94%
Local bus services	20.43%
Local shared taxi services	4.30%
Other, please describe	10.75%

15. Thinking of the public or specialized transportation service you use most often, what aspects of this service are most important to you? (Please select one answer for each aspect.)

Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	9.64%	8.43%	21.69%	60.24%
Transit stops are near or at my home	10.00%	6.25%	20.00%	63.75%
Transit stops are near or at places I want to go	11.25%	3.75%	25.00%	60.00%
I can reach my destination without a transfer	10.98%	7.32%	31.71%	50.00%
Wait times are short	10.81%	8.11%	22.97%	58.11%
Transit is available on short notice	10.67%	8.00%	32.00%	49.33%
Transit reliably arrives on time	7.69%	3.85%	28.21%	60.26%
Vehicles are easy to board	4.88%	8.54%	28.05%	58.54%
Transit is safe and secure	6.41%	2.56%	21.79%	69.23%
Transit system can work around language barriers	23.68%	11.84%	21.05%	43.42%
Someone helps me use the service	26.58%	5.06%	24.05%	44.30%

16. Is there another important aspect other than those that are listed in the previous question?

Answer	%
Yes, please describe:	4.69%
No	95.31%

17. In general, how satisfied are you with the type of public or specialized transportation service you use most often?

Answer	%
Very Dissatisfied	2.11%
Dissatisfied	8.42%
Satisfied	50.53%
Very Satisfied	38.95%

18. During which times of the week do you encounter difficulties in getting to places you want to go? (Please select all answers that apply.)

Answer	%
Weekday mornings	13.68%
Weekday afternoons	9.47%
Weekday evenings	15.79%
Weekend mornings	10.53%
Weekend afternoons	15.79%
Weekend evenings	17.89%
I do not encounter difficulty getting to places I want to go	60.53%

19. For which of the following activities do you encounter difficulties because of transportation issues? (Please select all answers that apply.)

Answer	%
Going to work or volunteer locations	7.57%
Buying essentials (e.g. food, medicine)	16.22%
Attending community or civic events	18.92%
Going to medical appointments	22.70%

Attending religious events	8.65%
Visiting friends or family	18.38%
Other shopping	21.08%
Other, please describe	4.32%
I do not encounter difficulty with any activities because of transportation issues	60.00%

20. For which of the following reasons do you encounter difficulties in getting to places you want to go? (Please select all features or conditions that apply.)

Answer	%
No or limited access to car	12.00%
No or limited access to public transportation	10.00%
Concerns over safety	3.50%
Vision/hearing challenges	5.50%
Other health challenges	3.00%
Long distances to destinations	17.00%
Cost issues	17.50%
Other, please describe:	6.50%
I do not encounter difficulty getting to places I want to go	61.00%

21. What features or conditions would you need to consider using public or specialized transportation more? (Please select one answer for each feature or condition.)

Question	Not Important	Slightly Important	Somewhat Important	Very Important
Cheaper fares	16.77%	10.32%	13.55%	59.35%
Pick-up points closer to my home	14.29%	10.39%	14.94%	60.39%
Drop-off points closer to the places I want to go	15.48%	5.81%	16.13%	62.58%

Fewer transfers	18.49%	7.53%	12.33%	61.64%
Shorter wait times	13.84%	5.66%	14.47%	66.04%
More polite/helpful drivers or operators	14.84%	9.03%	14.19%	61.94%
More reliably on-time service	14.10%	5.77%	13.46%	66.67%
Vehicles that are easier to board or disembark	14.74%	7.69%	13.46%	64.10%
Safer and more secure transit experiences	16.34%	9.15%	9.80%	64.71%
Transit system that can better work around language barriers	35.63%	11.88%	16.25%	36.25%
More help using the service	24.68%	11.04%	16.88%	47.40%

22. Is there another important feature or condition other than those that are listed in the previous question?

Answer	%
Yes, please describe:	3.38%
No	96.62%

23. What is your sex?

Answer	%
Male	27.70%
Female	72.30%

24. What is your age?

Answer	%
Under 60 years	17.84%
60-64 years	15.96%

65-74 years	31.46%
75-84 years	29.11%
85-94 years	5.16%
95 years or older	0.47%

25. What is your marital status?

Answer	%
Never married	9.86%
Separated or divorced	27.23%
Widowed	28.17%
Married	34.74%

26. Which of the following best describes your residence?

Answer	%
Home I own	54.72%
Home I rent	34.91%
Home of adult children or other family	2.36%
Assisted living facility	0.00%
Nursing home	0.00%
Other, please describe:	8.02%

27. Which of the following best describes other occupants of your residence, if any? (Please select all answers that apply.)

Answer	%
No other occupants	35.82%
Adult children	19.90%

Unrelated caretaker	0.50%
Spouse or partner	30.35%
Children or grandchildren under age 18	11.44%
Other unrelated persons	5.47%
Other, please describe:	9.95%

29. Which of the following best describes your neighborhood?

Answer	%
Urban	18.36%
Suburban	10.14%
Rural	71.50%

30. Are you Spanish/Latino/Hispanic?

Answer	%
Yes	0.48%
No	99.52%

31. Which of the following best describes your race?

Answer	%
White	0.00%
American Indian or Alaska Native	100.00%
Black or African American	0.00%
Asian or Pacific Islander	0.00%
Other, please describe:	0.00%

32. Do you speak English as a second language?

Answer	%
Yes	29.56%
No	70.44%

33. In general, compared to other people your age, how would you describe your health?

Answer	%
Poor	1.94%
Fair	24.27%
Good	37.38%
Very Good	29.13%
Excellent	7.28%

34. How much difficulty, an average, do you have with he following activities? (Please select one answer per activity.)

Question	Unable to Do	A Lot of Difficulty	Some Difficulty	A Little Difficulty	No Difficulty
Reading ordinary print in newspapers	3.55%	1.02%	15.74%	20.30%	59.39%
Reading street signs or the names of stores	1.03%	2.56%	8.72%	14.36%	73.33%
Hearing things people tell you	2.04%	3.06%	14.29%	30.10%	50.51%
Walking a quarter of a mile	11.50%	12.00%	16.50%	19.00%	41.00%
Lifting, or carrying objects as heavy as 10 pounds	6.90%	12.81%	18.72%	15.76%	45.81%
Handling or grasping small objects	3.54%	5.05%	12.12%	16.16%	63.13%
Losing control of your	1.57%	0.00%	7.85%	14.66%	75.92%

body					
Losing consciousness	2.67%	1.07%	0.53%	4.81%	90.91%
Making plans or decisions	1.55%	1.03%	5.15%	15.98%	76.29%
Remembering things people tell you	1.51%	5.03%	15.58%	34.17%	43.72%
Concentrating on one thing at a time	1.02%	3.57%	9.18%	22.45%	63.78%
Losing interest in things you usually enjoy	1.55%	3.09%	6.19%	21.13%	68.04%
Feeling sad, empty, or depressed	2.08%	5.73%	8.33%	18.75%	65.10%

35. Are you retired?

Answer	%
Yes	75.36%
No	24.64%

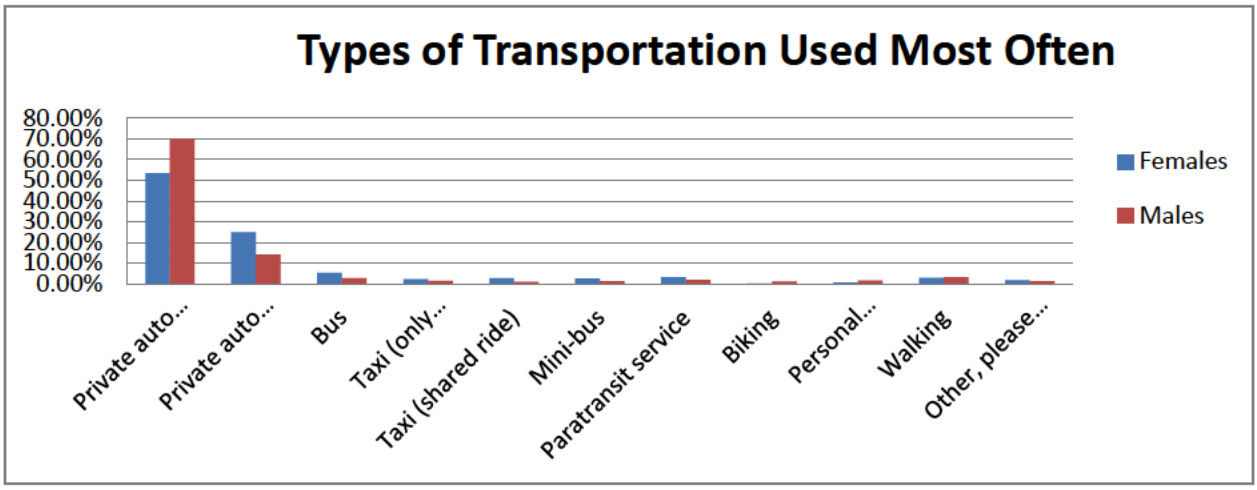
36. How many hours per week, on average, do you do paid or volunteer work outside your home?

Answer	%
Do not do paid or volunteer work	47.24%
1 to 9 hours	18.59%
10 to 19 hours	6.03%
20 to 29 hours	11.06%
30 to 39 hours	6.53%
Greater than 40 hours	10.55%

37. For the past year, what was the total combined income of all members of your household? (Please include money from jobs, net income from business, farm or rent, pensions, dividends, welfare, social security payments and any other money income received.)

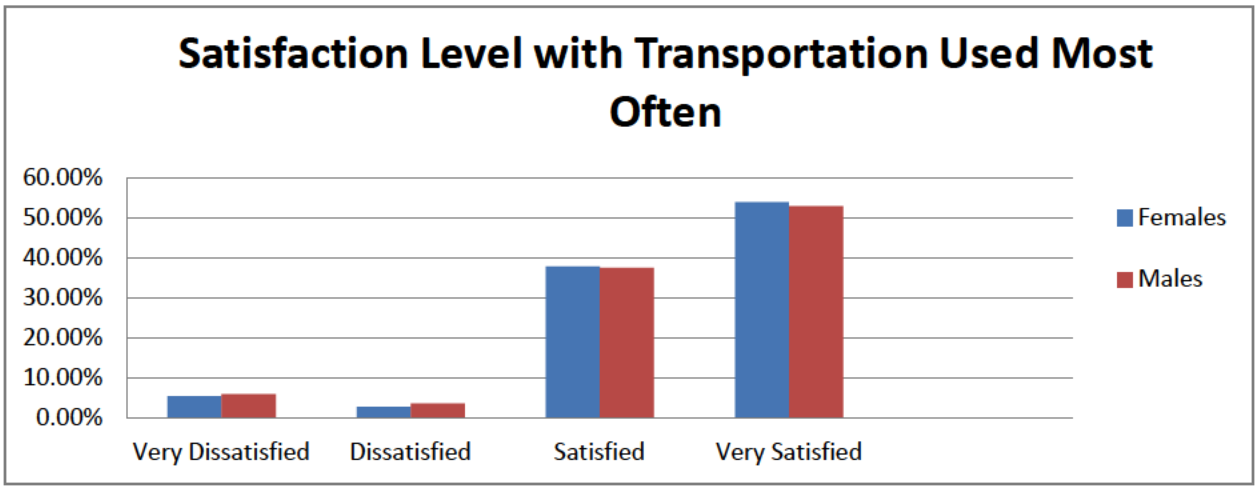
Answer	%
Under $9,999	17.68%
$10,000-$24,999	42.42%
$25,000-$49,999	28.79%
$50,000-$74,999	5.56%
$75,000-$99,999	5.56%
Over $100,000	0.00%

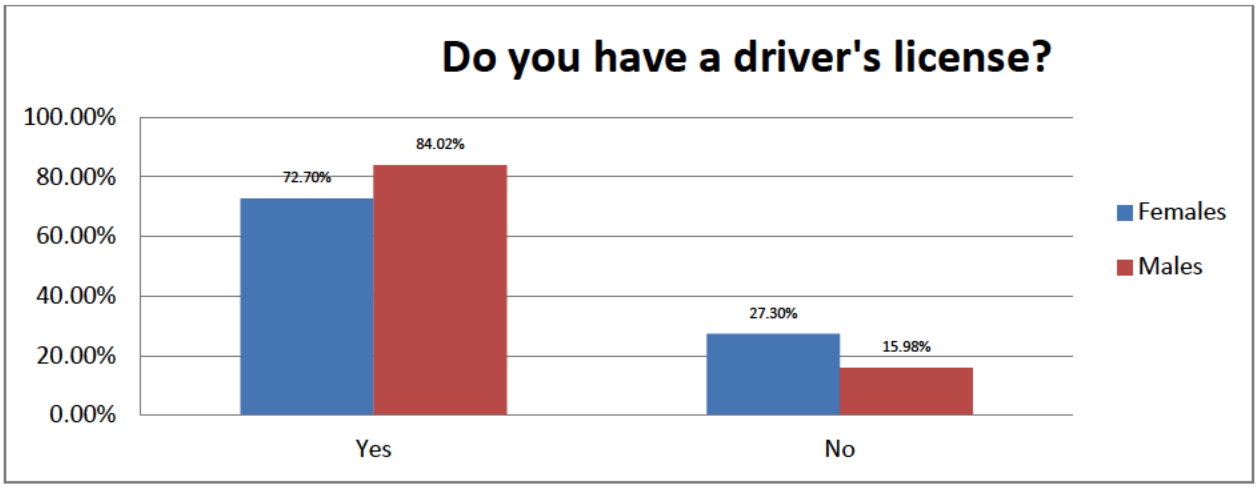
Appendix G: Key Survey Results by Sex

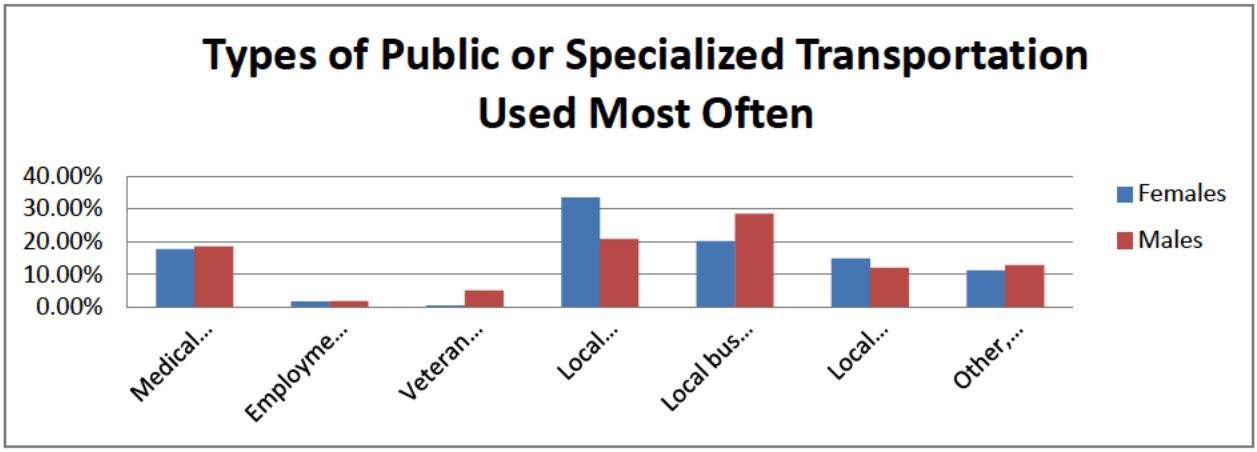


Females					
Question	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**	**N/A**
It is cheaper	9.12%	18.41%	33.72 %	21.73%	17.03%
It is physically easier to board/operate	4.08%	5.23%	41.87 %	32.97%	15.85%
It is more convenient	5.64%	1.75%	38.55 %	49.23%	4.84%
It is faster	5.22%	5.72%	37.65 %	42.75%	8.66%
It is more reliably on time	4.44%	4.17%	39.13 %	43.20%	9.05%
It allows me to go to a wider variety of destinations	5.43%	4.50%	35.97 %	48.11%	5.99%
It allows me go to more destinations in one trip	6.32%	5.39%	35.20 %	46.19%	6.89%
It is safer	4.01%	12.91%	38.63 %	26.76%	17.68%
It is the only kind of transportation available	10.76%	22.70%	25.43 %	23.76%	17.35%

Males					
Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	10.48%	22.14%	34.88%	18.90%	13.61%
It is physically easier to board/operate	4.37%	8.29%	44.68%	29.00%	13.66%
It is more convenient	3.99%	1.43%	39.47%	49.49%	5.62%
It is faster	3.92%	6.04%	37.12%	45.39%	7.53%
It is more reliably on time	3.34%	3.88%	39.01%	44.83%	8.94%
It allows me to go to a wider variety of destinations	3.81%	4.01%	36.32%	49.18%	6.69%
It allows me go to more destinations in one trip	4.85%	3.10%	36.53%	48.30%	7.22%
It is safer	6.02%	16.85%	40.37%	22.10%	14.66%
It is the only kind of transportation available	11.85%	22.72%	26.30%	24.89%	14.24%



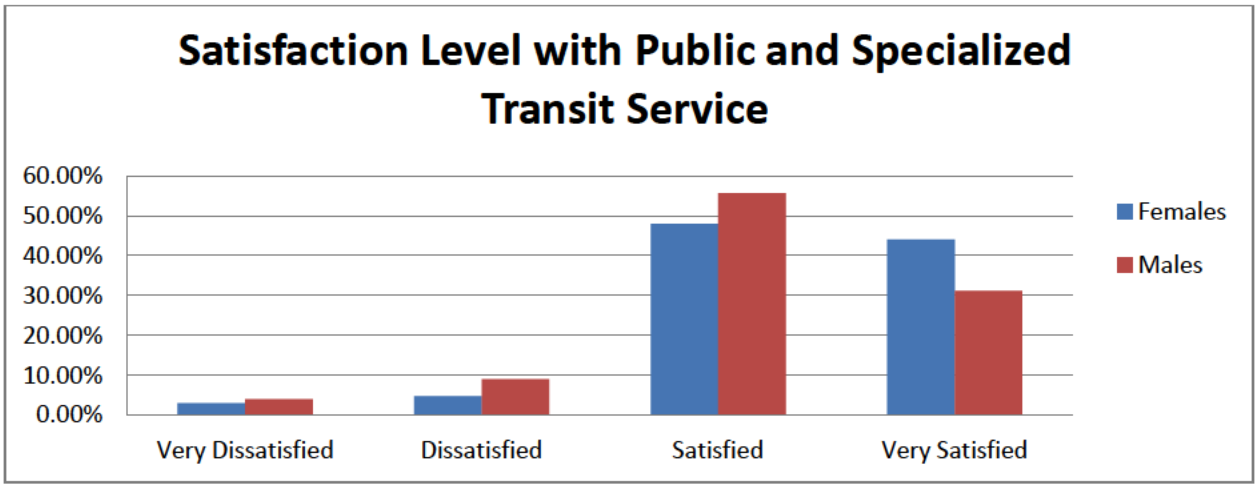


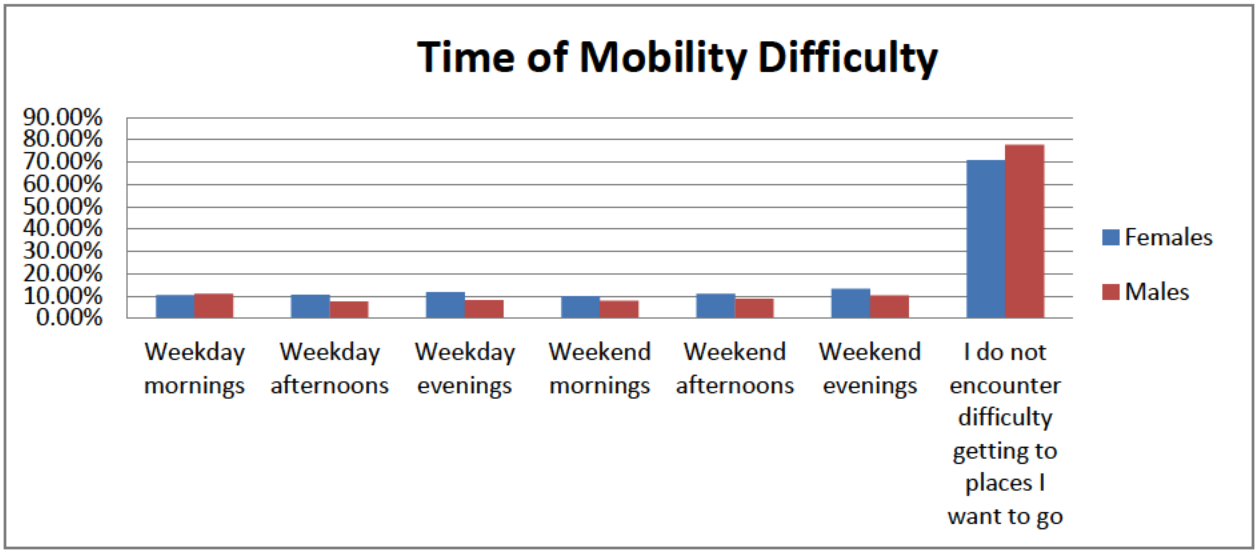


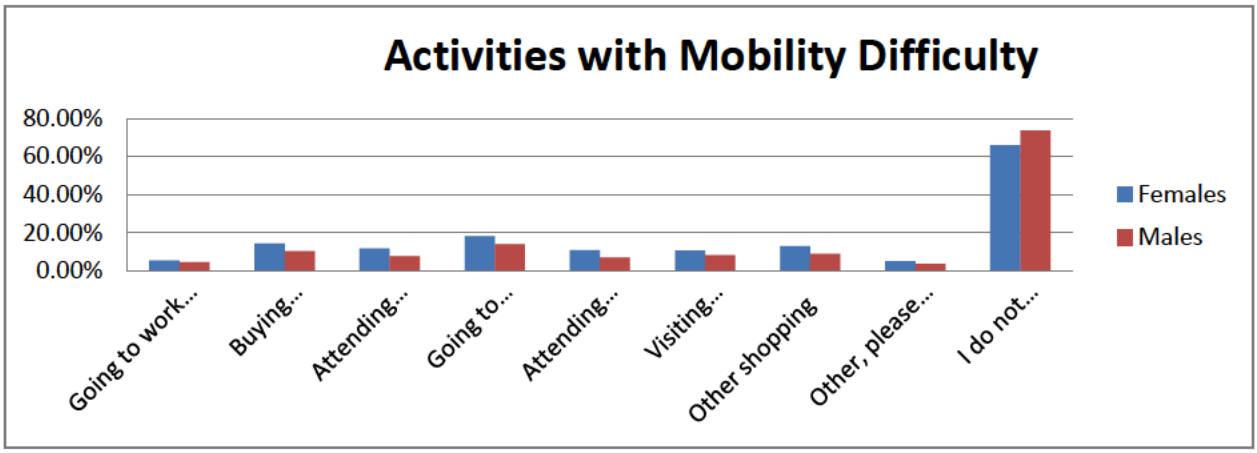
Females				
Question	**Not Important**	**Slightly Important**	**Somewhat Important**	**Very Important**
Fares are affordable	6.05%	6.05%	21.54%	66.36%
Transit stops are near or at my home	7.06%	3.41%	11.44%	78.10%
Transit stops are near or at places I want to go	6.85%	2.24%	12.33%	78.58%
I can reach my destination without a transfer	10.62%	6.54%	17.16%	65.68%
Wait times are short	7.46%	5.94%	25.66%	60.94%
Transit is available on short notice	9.95%	9.69%	25.89%	54.46%
Transit reliably arrives on time	4.93%	3.25%	19.98%	71.84%

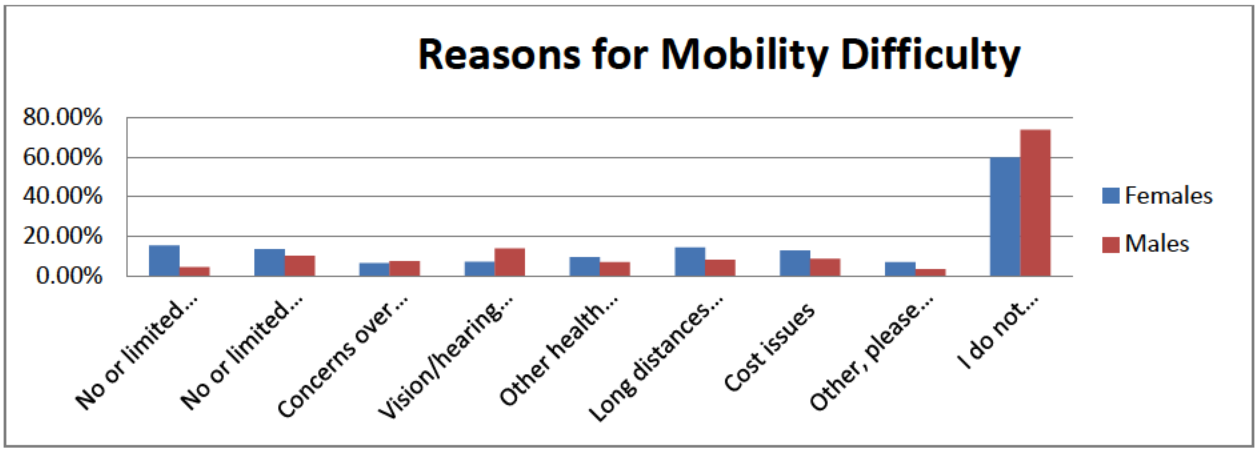
Vehicles are easy to board	5.02%	4.20%	19.72%	71.06%
Transit is safe and secure	3.90%	2.13%	15.84%	78.13%
Transit system can work around language barriers	42.50%	13.76%	16.51%	27.24%
Someone helps me use the service	24.94%	10.81%	18.70%	45.55%

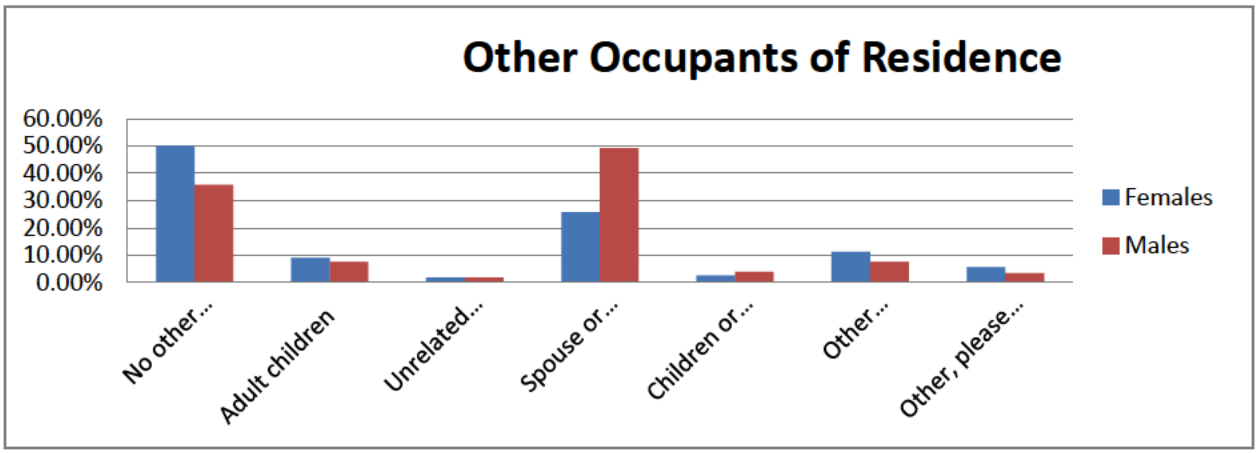
Males				
Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	11.45%	9.78%	30.17%	48.60%
Transit stops are near or at my home	14.29%	6.00%	20.00%	59.71%
Transit stops are near or at places I want to go	12.84%	5.07%	19.70%	62.39%
I can reach my destination without a transfer	18.21%	9.25%	25.14%	47.40%
Wait times are short	13.66%	7.56%	29.94%	48.84%
Transit is available on short notice	16.18%	12.65%	30.00%	41.18%
Transit reliably arrives on time	10.32%	5.44%	26.07%	58.17%
Vehicles are easy to board	11.97%	10.26%	23.65%	54.13%
Transit is safe and secure	8.83%	6.27%	20.23%	64.67%
Transit system can work around language barriers	47.31%	13.77%	17.66%	21.26%
Someone helps me use the service	37.89%	12.25%	18.52%	31.34%


Satisfaction Level with Public and Specialized Transit Service
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Very Dissatisfied
Dissatisfied
Satisfied
Very Satisfied
Females
Males

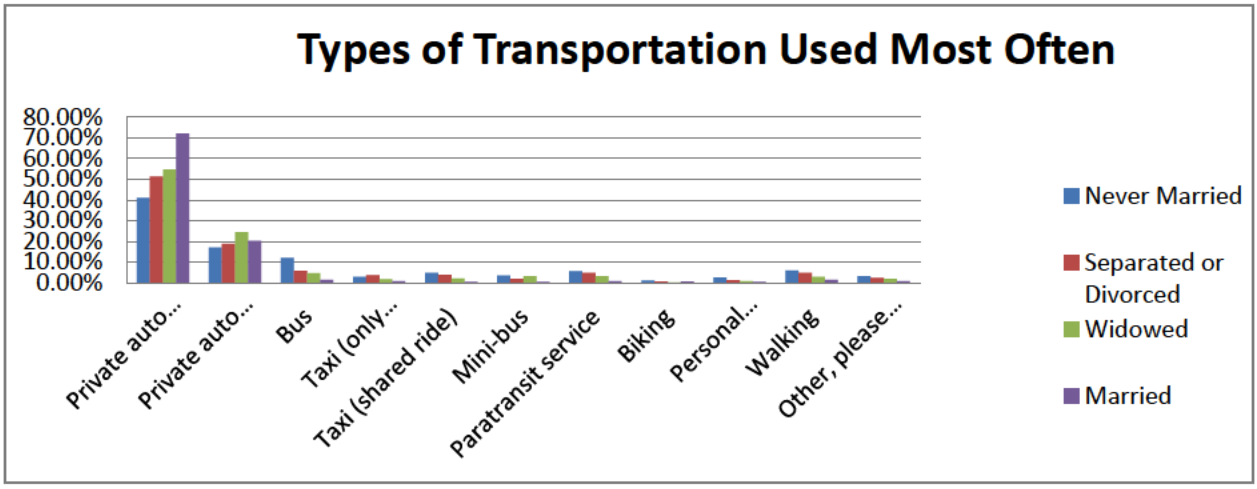

Time of Mobility Difficulty
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Weekday mornings
Weekday afternoons
Weekday evenings
Weekend mornings
Weekend afternoons
Weekend evenings
I do not encounter difficulty getting to places I want to go
Females
Males


Activities with Mobility Difficulty
80.00%
60.00%
40.00%
20.00%
0.00%
Going to work...
Buying...
Attending...
Going to...
Attending...
Visiting...
Other shopping
Other, please...
I do not...
Females
Males


Reasons for Mobility Difficulty
80.00%
60.00%
40.00%
20.00%
0.00%
No or limited...
No or limited...
Concerns over...
Vision/hearing...
Other health...
Long distances...
Cost issues
Other, please...
I do not...
Females
Males


Other Occupants of Residence
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
No other...
Adult children
Unrelated...
Spouse or...
Children or...
Other...
Other, please...
Females
Males

Appendix H: Key Survey Results by Marital Status



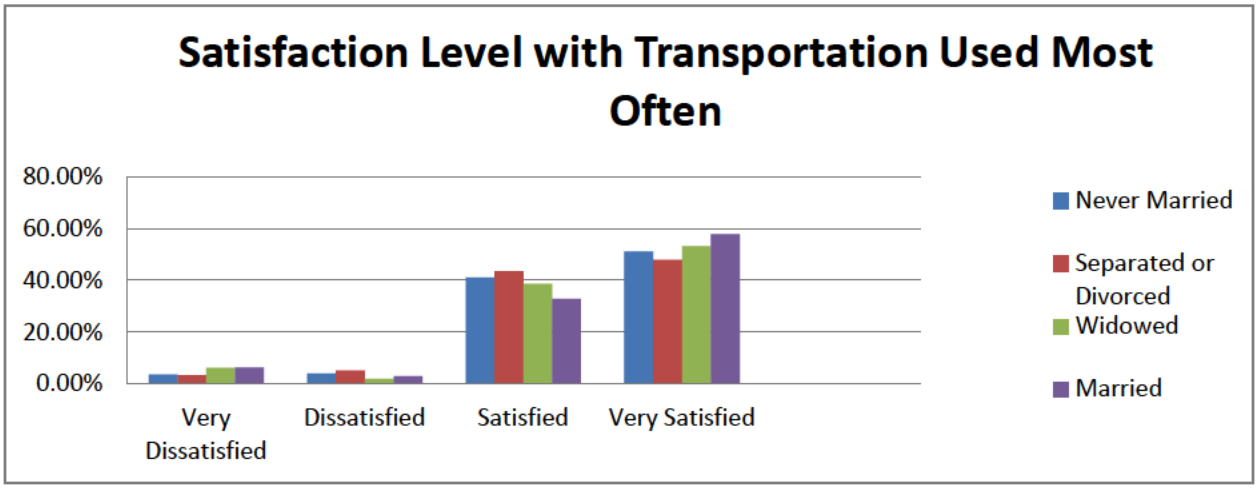
Never Married					
Question	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**	**N/A**
It is cheaper	12.03%	13.40%	33.68 %	27.84%	13.06%
It is physically easier to board/operate	6.10%	5.08%	36.61 %	37.63%	14.58%
It is more convenient	5.10%	2.23%	35.35 %	51.91%	5.41%
It is faster	5.44%	8.84%	32.31 %	45.58%	7.82%
It is more reliably on time	4.78%	5.80%	38.23 %	42.32%	8.87%
It allows me to go to a wider variety of destinations	5.67%	7.67%	35.67 %	44.67%	6.33%
It allows me go to more destinations in one trip	8.20%	8.20%	31.48 %	44.26%	7.87%
It is safer	6.74%	12.77%	41.84 %	25.18%	13.48%
It is the only kind of transportation available	11.03%	23.10%	22.07 %	28.62%	15.17%

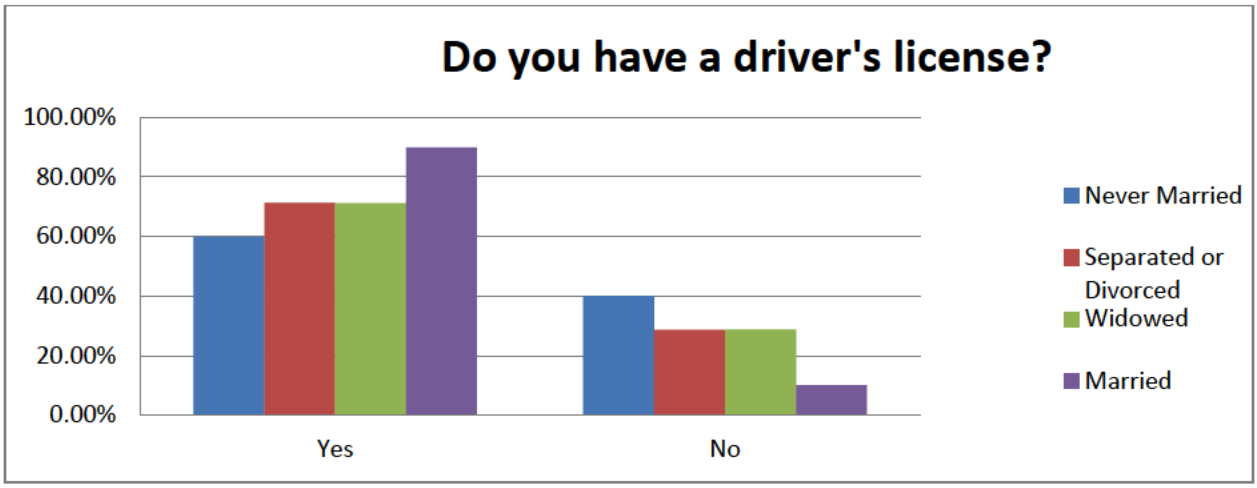
Separated or Divorced					
Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	11.14%	16.59%	34.93%	26.20%	11.14%
It is physically easier to board/operate	3.90%	5.05%	43.35%	33.72%	13.99%
It is more convenient	4.77%	2.90%	39.21%	50.21%	2.90%
It is faster	4.52%	9.28%	36.65%	43.21%	6.33%
It is more reliably on time	4.17%	4.82%	37.72%	45.61%	7.68%
It allows me to go to a wider variety of destinations	5.23%	6.07%	35.36%	48.74%	4.60%
It allows me go to more destinations in one trip	6.77%	7.64%	32.53%	47.38%	5.68%
It is safer	4.61%	10.83%	41.01%	28.11%	15.44%
It is the only kind of transportation available	12.70%	23.13%	22.90%	26.30%	14.97%

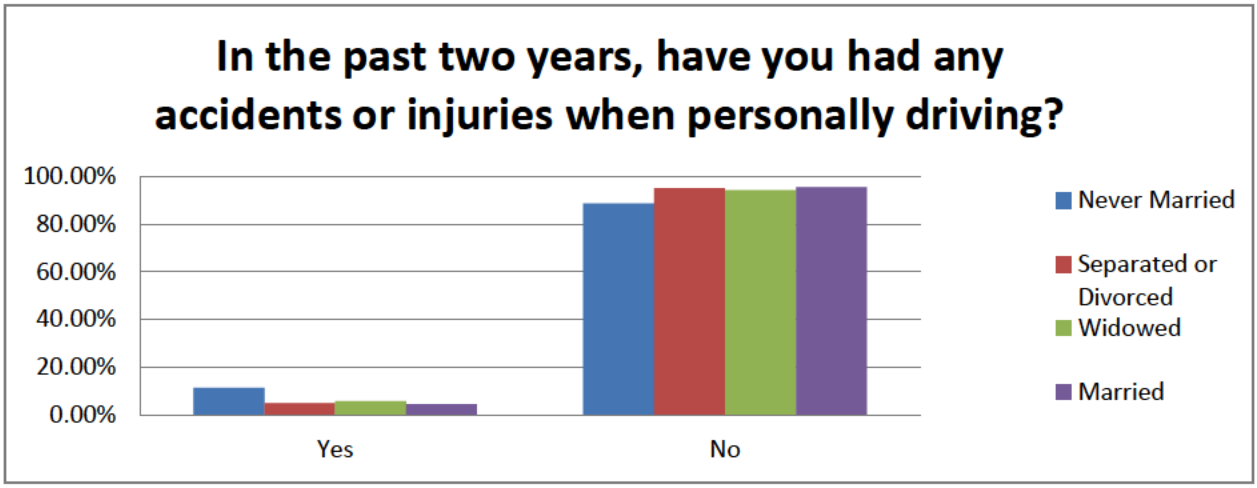
Widowed					
Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	8.36%	16.92%	36.53%	19.40%	18.78%
It is physically easier to board/operate	4.50%	4.39%	47.38%	29.92%	13.81%
It is more convenient	5.57%	1.33%	44.30%	42.88%	5.92%
It is faster	5.67%	4.58%	43.08%	36.22%	10.45%
It is more reliably on time	4.91%	4.05%	44.99%	36.51%	9.54%
It allows me to go to a wider variety of destinations	5.63%	4.34%	40.50%	42.53%	7.01%
It allows me go to more destinations in one trip	6.60%	5.13%	40.15%	40.05%	8.07%
It is safer	5.10%	10.31%	42.71%	24.48%	17.40%

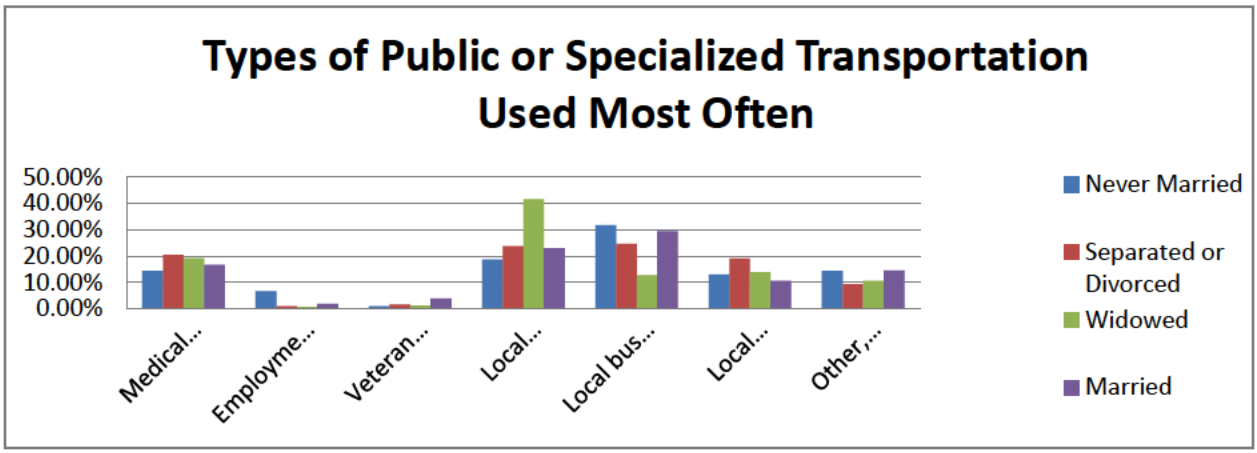
It is the only kind of transportation available	10.19%	21.59%	29.57%	19.98%	18.67%

Married					
Question	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
It is cheaper	9.48%	25.92%	31.51%	17.07%	16.02%
It is physically easier to board/operate	3.50%	8.81%	40.34%	30.25%	17.09%
It is more convenient	4.27%	1.14%	33.97%	55.50%	5.12%
It is faster	3.40%	4.80%	33.80%	50.90%	7.10%
It is more reliably on time	2.86%	3.06%	34.39%	50.51%	9.18%
It allows me to go to a wider variety of destinations	3.84%	2.68%	32.12%	55.13%	6.23%
It allows me go to more destinations in one trip	3.76%	1.83%	33.75%	54.39%	6.27%
It is safer	3.89%	20.06%	34.66%	24.26%	17.12%
It is the only kind of transportation available	11.52%	23.34%	24.36%	25.99%	14.78%









Never Married				
Question	**Not Important**	**Slightly Important**	**Somewhat Important**	**Very Important**
Fares are affordable	6.05%	6.05%	21.54%	66.36%

Transit stops are near or at my home	7.06%	3.41%	11.44%	78.10%
Transit stops are near or at places I want to go	6.85%	2.24%	12.33%	78.58%
I can reach my destination without a transfer	10.62%	6.54%	17.16%	65.68%
Wait times are short	7.46%	5.94%	25.66%	60.94%
Transit is available on short notice	9.95%	9.69%	25.89%	54.46%
Transit reliably arrives on time	4.93%	3.25%	19.98%	71.84%
Vehicles are easy to board	5.02%	4.20%	19.72%	71.06%
Transit is safe and secure	3.90%	2.13%	15.84%	78.13%
Transit system can work around language barriers	42.50%	13.76%	16.51%	27.24%
Someone helps me use the service	24.94%	10.81%	18.70%	45.55%

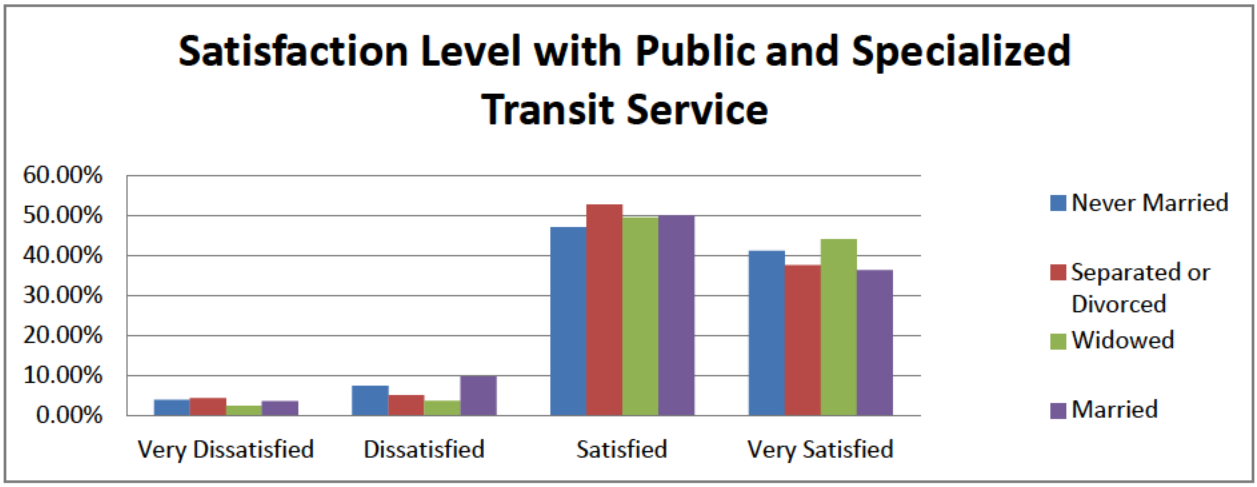
Separated or Divorced				
Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	11.45%	9.78%	30.17%	48.60%
Transit stops are near or at my home	14.29%	6.00%	20.00%	59.71%
Transit stops are near or at places I want to go	12.84%	5.07%	19.70%	62.39%
I can reach my destination without a transfer	18.21%	9.25%	25.14%	47.40%
Wait times are short	13.66%	7.56%	29.94%	48.84%
Transit is available on short notice	16.18%	12.65%	30.00%	41.18%
Transit reliably arrives on time	10.32%	5.44%	26.07%	58.17%
Vehicles are easy to board	11.97%	10.26%	23.65%	54.13%

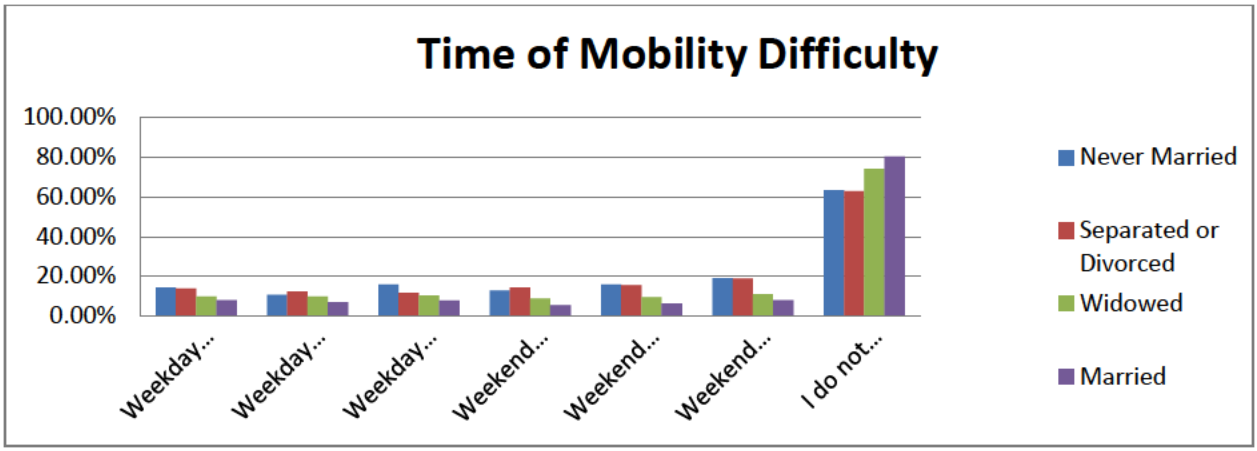
Transit is safe and secure	8.83%	6.27%	20.23%	64.67%
Transit system can work around language barriers	47.31%	13.77%	17.66%	21.26%
Someone helps me use the service	37.89%	12.25%	18.52%	31.34%

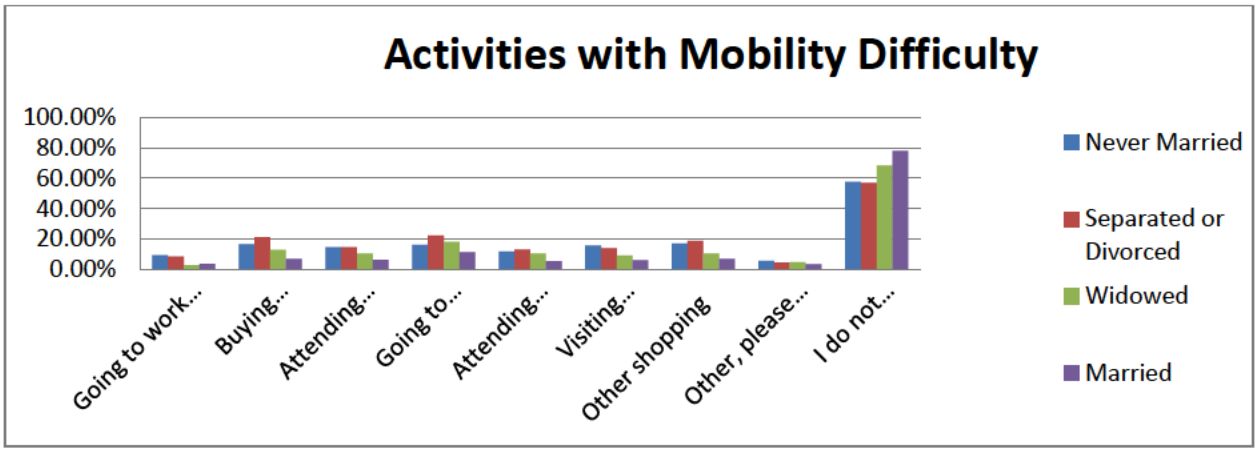
Widowed				
Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	9.75%	6.36%	26.06%	57.84%
Transit stops are near or at my home	10.41%	5.43%	13.12%	71.04%
Transit stops are near or at places I want to go	11.01%	4.45%	14.52%	70.02%
I can reach my destination without a transfer	12.84%	6.31%	16.67%	64.19%
Wait times are short	9.30%	4.88%	29.07%	56.74%
Transit is available on short notice	10.54%	7.96%	29.51%	51.99%
Transit reliably arrives on time	6.28%	3.90%	21.43%	68.40%
Vehicles are easy to board	5.27%	4.43%	20.68%	69.62%
Transit is safe and secure	5.42%	2.39%	17.35%	74.84%
Transit system can work around language barriers	45.71%	11.43%	17.40%	25.45%
Someone helps me use the service	20.84%	10.54%	20.37%	48.24%

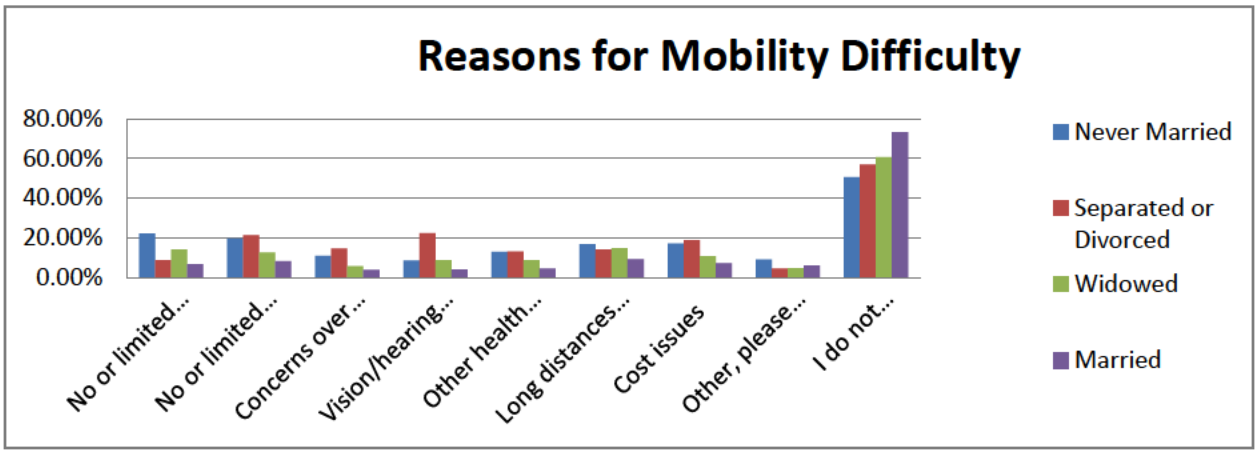
Married				
Question	Not Important	Slightly Important	Somewhat Important	Very Important
Fares are affordable	8.33%	9.72%	31.25%	50.69%
Transit stops are near or at my home	12.10%	4.98%	20.28%	62.63%

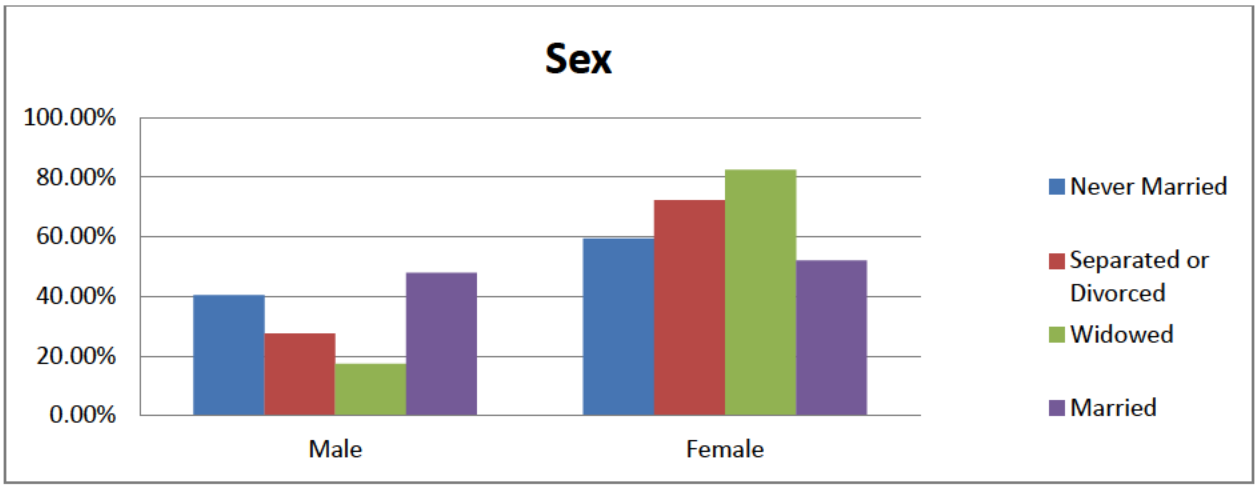
Transit stops are near or at places I want to go	10.70%	3.32%	18.08%	67.90%
I can reach my destination without a transfer	16.19%	8.99%	28.42%	46.40%
Wait times are short	11.68%	9.49%	28.47%	50.36%
Transit is available on short notice	13.50%	16.42%	28.47%	41.61%
Transit reliably arrives on time	9.25%	4.27%	27.76%	58.72%
Vehicles are easy to board	9.86%	10.92%	23.94%	55.28%
Transit is safe and secure	7.09%	5.32%	21.63%	65.96%
Transit system can work around language barriers	46.72%	17.76%	17.76%	17.76%
Someone helps me use the service	39.42%	13.14%	17.15%	30.29%

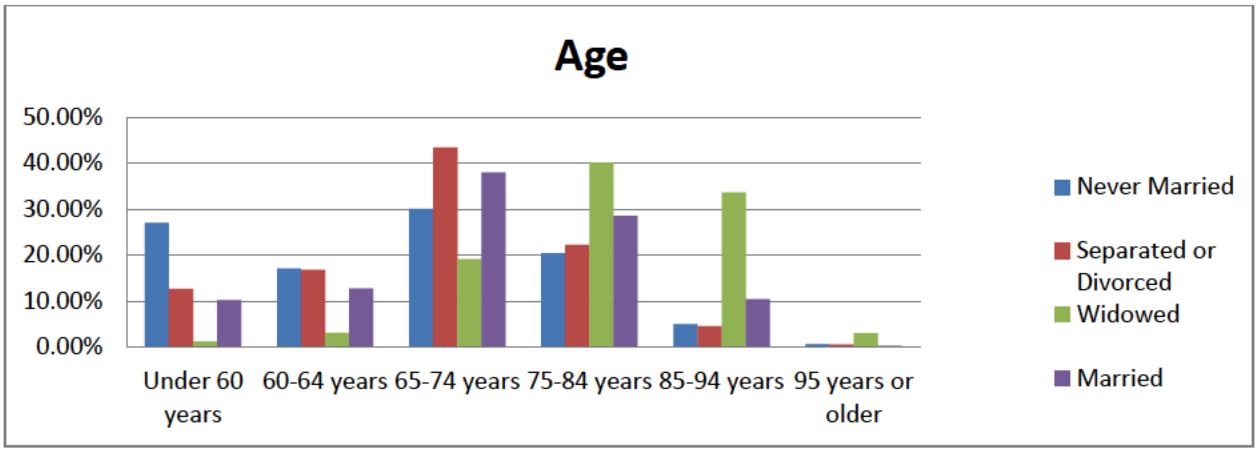


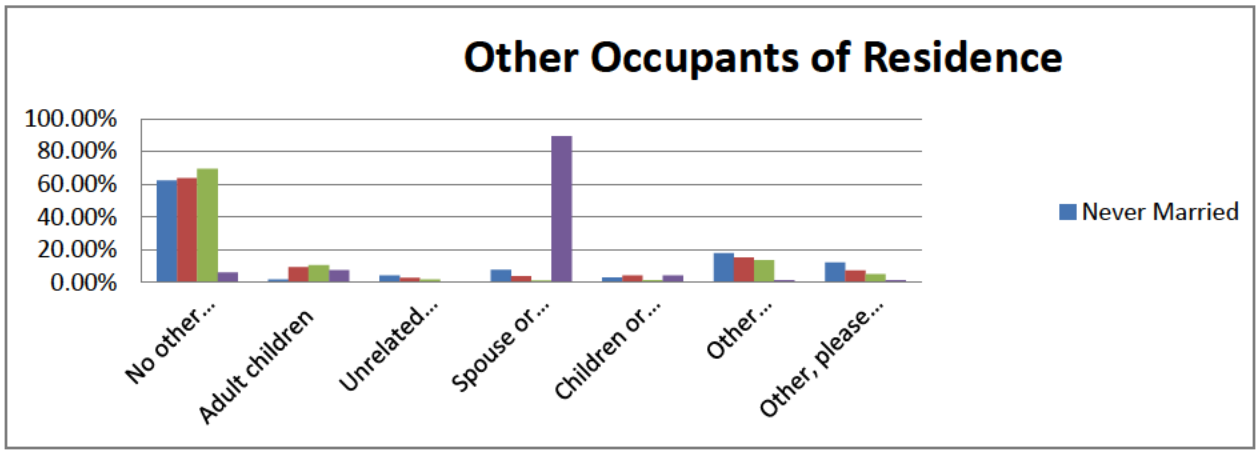


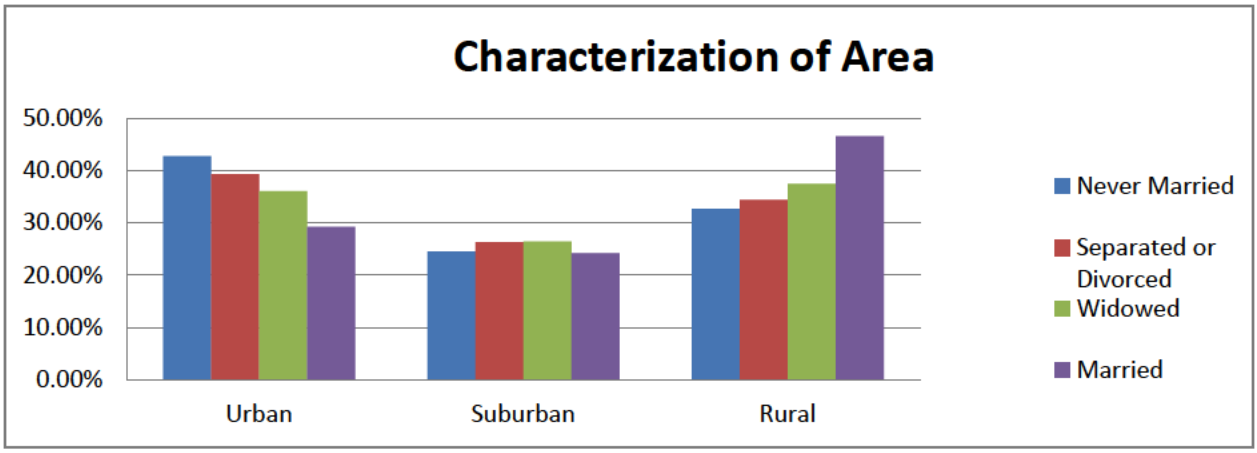

Activities with Mobility Difficulty
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
Going to work...
Buying...
Attending...
Going to...
Attending...
Visiting...
Other shopping
Other, please...
I do not...
Never Married
Separated or Divorced
Widowed
Married

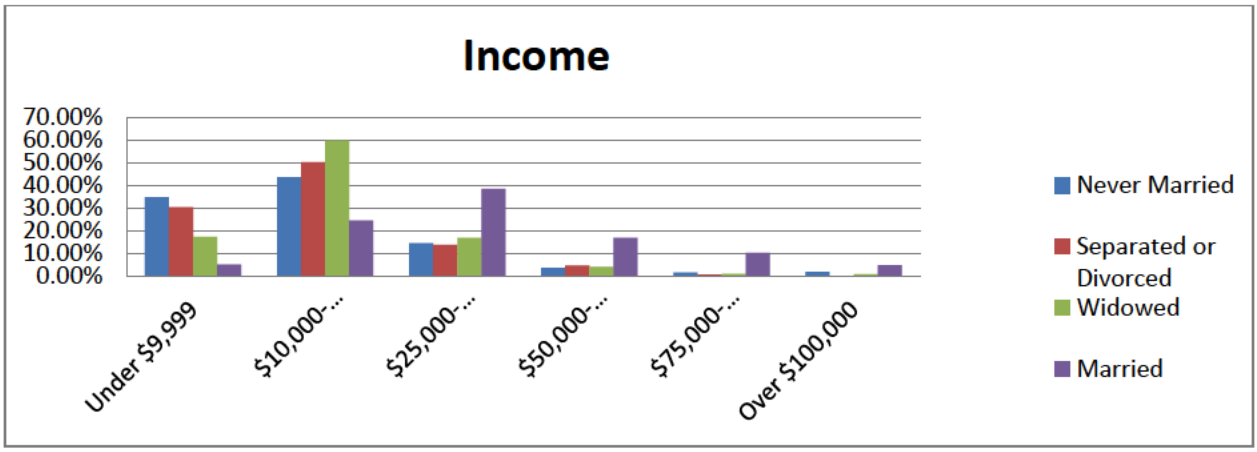

Reasons for Mobility Difficulty
80.00%
60.00%
40.00%
20.00%
0.00%
No or limited...
No or limited...
Concerns over...
Vision/hearing...
Other health...
Long distances...
Cost issues
Other, please...
I do not...
Never Married
Separated or Divorced
Widowed
Married


Sex
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
Male
Female
Never Married
Separated or Divorced
Widowed
Married


Age
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Under 60 years
60-64 years
65-74 years
75-84 years
85-94 years
95 years or older
Never Married
Separated or Divorced
Widowed
Married


Other Occupants of Residence
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
No other...
Adult children
Unrelated...
Spouse or...
Children or...
Other...
Other, please...
Never Married


Characterization of Area
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Urban
Suburban
Rural
Never Married
Separated or Divorced
Widowed
Married


Income
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Under $9,999
$10,000-...
$25,000-...
$50,000-...
$75,000-...
Over $100,000
Never Married
Separated or Divorced
Widowed
Married

Appendix I: Focus Group Information Sheet and Standard Sequence

Ensuring Mobility for Wisconsin's Older Citizens

Overview

The National Center for Freight and Infrastructure Research and Education (CFIRE), led by the University of Wisconsin–Madison, is conducting research on the transportation and infrastructure issues that will arise from Wisconsin's projected elderly population growth. This research will culminate in recommendations aimed at helping the state's transportation network better meet the mobility needs of older residents. The project is funded by the Wisconsin Department of Transportation (WisDOT).

Project Objectives

This project endeavors to meet the following objectives:

1. Identify the strengths and weaknesses of current state programs aiding elderly mobility;
2. Analyze demographic data and projections to ascertain the areas of the state with the greatest programmatic needs;
3. Obtain input from older residents to identify transportation habits, needs, concerns, and suggestions;
4. Examine national and international best practices for transportation alternatives, education, screening, and infrastructure design;
5. Issue recommendations designed to improve the effectiveness and efficiency of senior transportation services.

Elderly Mobility Forums and Surveys

This project is particularly focused on objective 3—obtaining input from older residents. To do so, the research team plans to host forums and distribute surveys throughout the state. The forums will consist of interactive discussions with focus groups composed of 10 to 15 local older residents with diverse transportation needs. The surveys are 10 to 15 minute questionnaires (about 30 questions) concentrating on older residents' transportation habits, priorities, and concerns.

Topics of Discussion for Focus Groups

Advice and assistance from Wisconsin's residents is critical to this project's success. The research team hopes to hear your observations and opinions on the following topics:

Program Awareness

The Wisconsin DOT administers several programs to help local governments, non-profit organizations, and private businesses provide transportation services in your area. These include bus, mini-bus, para-transit, and taxi services, amongst others.

What programs are you aware of in your county?
How did you find out about these programs?

Transportation Habits

Senior residents in Wisconsin have diverse transportation habits. These may include driving, biking, walking, or using public transportation, amongst others.

How do you get around the area?
Why do you prefer the types of transportation you typically use?

Transportation System Weaknesses

The Wisconsin DOT is interested in identifying the weaknesses in the state's transportation network.

What difficulties do you encounter in getting around the area?
For what activities and during what times of the week do you encounter these difficulties?
Does anybody you know encounter difficulties getting around the area?

Suggestions for Improvement

The best suggestions for policy improvement often come from users and customers.

What improvements can be made to the transportation services in your area?
What would the perfect transportation system for seniors in your county look like?

Ensuring Mobility for Wisconsin's Older Citizens

The Elderly Mobility Challenge

In the next 25 years, the number of elderly residents in Wisconsin is projected to grow by 90 percent or nearly three quarters of a million people. The 2003 US DOT National Household Travel Survey found that personal vehicles accounted for more than 90 percent of trips taken by elderly citizens. As such, the overwhelming majority of Wisconsin's older residents will be accustomed to driving. When older drivers stop driving or self-regulate in response to declining abilities or safety concerns, they face increased isolation from social, family, and civic activities and decreased access to medical services.

As shown by Figures 1 and 2, the percentage of residents 65 and over is projected to increase in every county in Wisconsin over the next 25 years. Further, according to the recently published AASHTO report "Connecting Rural and Urban America," the rural elderly population continues to grow and is increasingly electing to "age in place." The transportation network of Wisconsin, specifically its public and specialized transit services, must meet the challenges presented by this demographic shift.

About CFIRE

The National Center for Freight and Infrastructure Research and Education (CFIRE) at the University of Wisconsin–Madison is one of ten National University Transportation Centers. The CFIRE consortium includes the University of Wisconsin–Milwaukee, University of Illinois–Chicago, University of Toledo, and University of Wisconsin–Superior.

CFIRE's mission is to advance technology, knowledge, and expertise in the planning, design, construction and operation of sustainable freight transportation infrastructure through education, research, outreach, training, and technology transfer.

If you have questions or comments regarding this project, please contact:

Jason Bittner
Principal Investigator
UW Madison – CFIRE
(608) 262-7246
jjbittner@wisc.edu

Patrick Fuchs
Research Assistant
UW Madison – CFIRE
(608) 263-1761
pjfuchs@wisc.edu

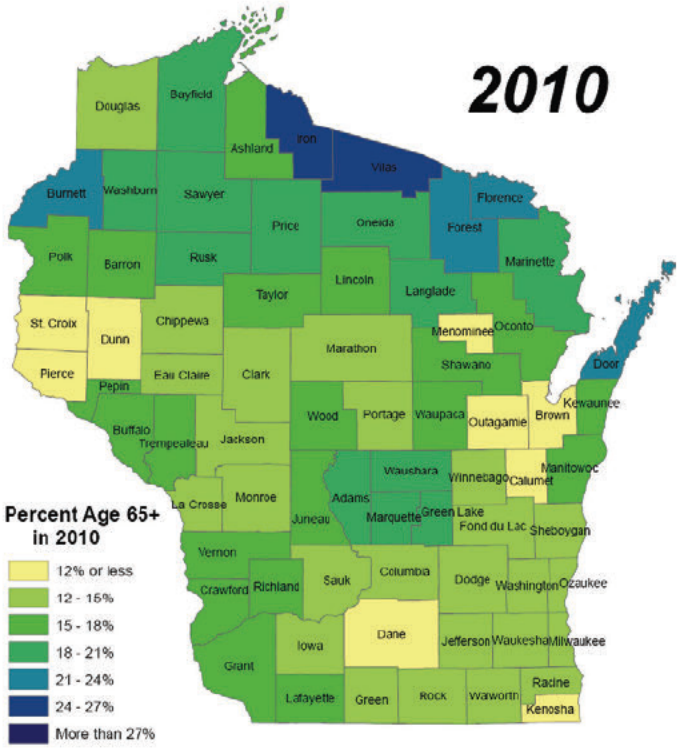


Figure 1: Elderly Population Share in 2010

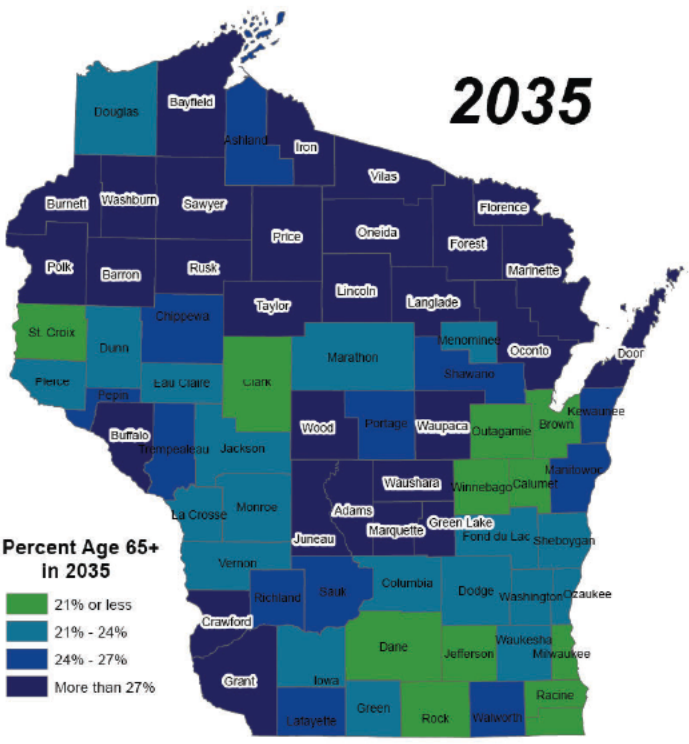


Figure 2: Elderly Population Share in 2035

CFIRE

University of Wisconsin-Madison
Department of Civil and Environmental Engineering
1410 Engineering Drive, Room 270
Madison, WI 53706
Phone: 608-263-3175
Fax: 608-263-2512
cfire.wistrans.org

City of Milwaukee:
The Collection of Municipal Fees

Prepared for the City of Milwaukee
Budget and Management Division

By
Melissa Berger
Stephen Collins
Patrick Fuchs
Emily Ley
Lara Rosen

Workshop in Public Affairs
Spring 2011

ROBERT M. LA FOLLETTE
SCHOOL OF PUBLIC AFFAIRS
University of Wisconsin-Madison

For additional copies:
Publications Office
La Follette School of Public Affairs
1225 Observatory Drive, Madison, WI 53706
www.lafollette.wisc.edu/publications/workshops.html
publications@lafollette.wisc.edu

Table of Contents

List of Tables

List of Figures

Foreword

This report is the result of collaboration between the Robert M. La Follette School of Public Affairs at the University of Wisconsin–Madison, and the Budget and Management Division of the City of Milwaukee's Department of Administration. Our objective is to provide graduate students at La Follette the opportunity to improve their policy analysis skills while contributing to the capacity of the city government to provide public services to the residents of Milwaukee.

The La Follette School offers a two-year graduate program leading to a master's degree in public affairs. Students study policy analysis and public management, and they can choose to pursue a concentration in a policy focus area. They spend the first year and a half of the program taking courses in which they develop the expertise needed to analyze public policies.

The authors of this report are all in their last semester of their degree program and are enrolled in Public Affairs 869 Workshop in Public Affairs. Although acquiring a set of policy analysis skills is important, there is no substitute for doing policy analysis as a means of learning policy analysis. Public Affairs 869 gives graduate students that opportunity.

This year the students in the workshop were divided into six teams, three under my supervision and three supervised by my La Follette School colleague Professor Karen Holden. The Milwaukee-related research topics were solicited from various city government departments by Eric Pearson, Budget and Policy Manager in the Division of Budget and Management. The authors of this report were assigned to work on a research project on municipal service charges for the Division of Budget and Management.

In recent years there has been a marked increase in the number of property-related user fees that were not paid in a timely fashion and hence ended up on the property tax bills of property owners. The authors of this report conducted detailed statistical analyses of the payment and non-payment of user fees and, based on their results, suggest policies to improve the user fee collection rates.

This report would not have been possible without the support and encouragement of city Budget Director Mark Nicolini and project coordinator Eric Pearson. A number of other people throughout city government contributed to the success of the report. Their names are listed in the acknowledgements section of the report.

The report also benefited greatly from the support of the staff of the La Follette School. Cindy Manthe contributed logistic support, and Karen Faster, the La Follette Publications Director, edited the report and managed production of the final bound document.

By involving La Follette students in the tough issues confronting city government in Milwaukee, I hope they not only have learned a great deal about doing policy analysis but have also gained an appreciation of the complexities and challenges facing city governments in Wisconsin and elsewhere. I also hope that this report will contribute to decisions about improving the administration of user fees and charges in Milwaukee.

Andrew Reschovsky
May 2011
Madison, Wisconsin

Acknowledgments

We owe sincere gratitude to the many people within City of Milwaukee government who contributed to the successful completion of this report. In particular, we would like to thank Lynne Steffen, Carrie Lewis, Desirae Bellawood, Doug Forbush, Paul Klajbor, Jim Klajbor, Craig Kammholz, and David Fortney for their insight and patience, and Eric Pearson and Dennis Yaccarino for their direction and feedback.

We also extend our deepest appreciation to our colleagues and professors at the La Follette School of Public Affairs, especially Dr. Andrew Reschovsky. Professor Reschovsky provided us with valuable guidance every step of the way. Additional thanks go out to our peers for their thoughtful commentary on earlier drafts, and to Karen Faster, Publications Director for the La Follette School, for her critical editorial support.

Executive Summary

Recent evidence suggests that an increasing share of Milwaukee's property-related municipal fees is not being paid in a timely fashion. If unpaid, certain property-related fees can be placed on property tax bills and collected as special charges on property owners' tax bills. While the majority of fees are eventually collected, any delay in municipal charge payment is costly. The city government must devote scarce resources to the process of tracking and collecting fees, undertake borrowing to cover the short-term delayed payments, and forgo interest revenue on uncollected funds. Given the challenging fiscal environment in the city, the City of Milwaukee Budget and Management Division would like to explore policies to enhance initial municipal fee collection and avoid the costs associated with placing fees on property tax bills as special charges.

In this report, we use information gathered from interviews with City of Milwaukee staff and data files from city departments to analyze fee collection over time and the factors that may affect payment. First, we examine the current collection process across city departments and fees. Second, we look at factors that may influence fee collection, including characteristics of fees, characteristics of properties, and characteristics of collection practices. Third, we use regression analysis to identify the effects of the above sets of characteristics on payment rates. Finally, we craft policy options and offer suggestions for further analysis.

This report offers several important findings regarding the municipal fee process in Milwaukee. First, Milwaukee's system for billing and collecting municipal fees is decentralized; practices and outcomes vary significantly by department and by fee. Second, nonpayment of municipal fees is associated with characteristics of fees, characteristics of properties, and characteristics of collection practices. Our analysis suggests that certain collection practices—particularly penalties for late payment—are associated with higher collection rates. Increasing payment options for consumers may also result in increased initial collection rates. We therefore propose that the City consider mailing invoices with due dates, issuing late penalties, and/or increasing payment options for all fees. Each alternative imposes administrative costs, but if the policy change reduces the number and value of special charges, the City will benefit from substantial savings that may outweigh the associated costs.

Finally, we recommend that the City undertake a more comprehensive evaluation of its fee collection system before it decides to implement any collection policy option. A comprehensive analysis would require improved data maintenance across departments to track charges from initial billing to final payment. It would also require that the City gather data on costs associated with fee collection under the current system and policy alternatives. Once the City achieves these goals, it will be able to identify the most cost-effective way to enhance municipal fee collection.

Introduction

In 2011, the City of Milwaukee, like many of America's central cities, faces a challenging fiscal environment. While the weak economy, characterized by a persistently high unemployment rate, results in increased demand for city services, the City is facing the prospect of declining revenues. The federal budget for fiscal year 2011 includes substantial reduction in federal funding of city-operated programs, and the prospects of further reduction in the fiscal year 2012 federal budget are high. Governor Scott Walker's proposed budget for the 2011-13 biennium not only calls for sharp cuts in state aid to the City, it would also limit any increase in the City's property tax levy to the tax on the increase in property values due solely to new construction. With the weak economy, this increase is likely to be less than 1 percent.

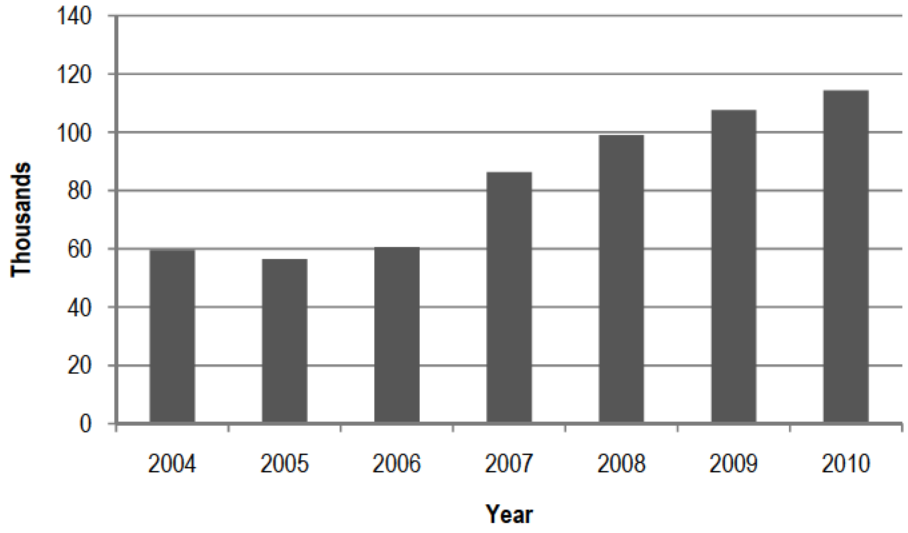
Given these revenue constraints, the City must work hard to maximize the revenue it collects from other existing revenue sources. Since around the mid 1990s, the City has turned increasingly to user fees and charges as a way of compensating for reductions in intergovernmental revenues and preventing rapid increases in the rate of property taxation. There are two major types of fees and charges. The first is fees issued to individuals or businesses in conjunction with pursuing a particular activity, such as parking a car or utilizing a recreational facility. The second is related to the ownership of real property located within the city. Although the individual type of fee is generally collected prior to the utilization of city facilities, property-related fees are usually billed to the property owner after the delivery of city services.

Recent evidence suggests that an increasing share of property-related fees is not being paid in a timely fashion. Any delay in payment is costly to the City, which must devote scarce resources to the process of collecting fees. To the extent that delinquencies are not budgeted, the City may have to undertake additional short-term borrowing. The city incurs the real costs of debt service, foregone revenue and outsourced collections, as well as costs associated with the time and resources of city staff dedicated to tracking and monitoring unpaid charges.

In most cases, the City eventually collects delinquent property-based fees and charges. Collection occurs because state statutes allow the City to add many of these fees to the property tax roll as "special charges." If a property owner neglects to pay the special charges on his or her property tax bill, the City can place a lien on the property. This process can eventually end in the City foreclosing on the property and selling it as a means of recouping unpaid charges.

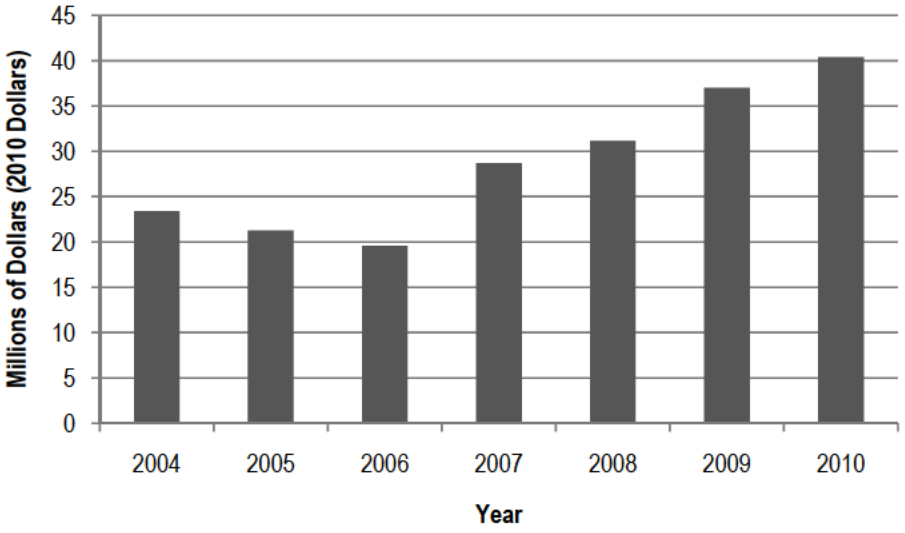
As shown in Figures 1 and 2, both the number and the value of fees that have been added to the property tax roll as special charges have grown dramatically from 2004 to 2010. There were 60,000 unpaid fees in 2004 with a total value of $23 million were converted to special charges. By 2010, that number had grown to 115,000 with a value of $40 million, an increase in value of 74 percent.

Figure 1. City of Milwaukee Special Charges: Number of Charges 2004-2010



Source: Calculated with data from the City of Milwaukee Assessor's Office.

Figure 2. City of Milwaukee Special Charges: Total Dollar Value 2004-2010



Source: Calculated with data from the City of Milwaukee Assessor's Office.

Of greater concern is that the proportion of property-related fees and charges that become delinquent and are added to the property tax roll has been growing in recent years, from 17.3 percent in 2007 to 20.3 percent in 2010.[1] Approximately 30 percent of properties in the City of Milwaukee incurred special charges on their 2010 tax bills, and 7 percent of properties had special charges outstanding from their 2009 tax bills.[2]

We have been asked by the City of Milwaukee Budget and Management Division to determine why an increasing number of property-related user fees are not being collected in a timely fashion and are ending up on the property tax roll. Our goal in this report is to understand the process and procedures being used to administer user fees and charges, and to recommend policies that would address the growing number of special charges.

[1] Calculated using data from Milwaukee Water Works and the departments of Public Works and Neighborhood Services. Note that these figures include only charges from these three departments labeled paid and assessed (placed on tax roll). The data exclude charges with a status of bankrupt, foreclosed, and cancelled/closed. See Appendix A for more information on our dataset.

[2] Calculated using data from the City of Milwaukee Treasurer's Office merged with data from the City's Master Property Record (MPROP) database.

Statement of Problem

Nonpayment of property-related municipal fees has been an increasing problem for Milwaukee. We estimate that about $70 million of all municipal fees that went onto property tax bills as special charges between 2007 and 2010 are still outstanding—a figure that represents 4.7 percent of the City's budget for 2011.[3]

The majority of special charges are collected within three years – in fact, only 0.02 percent of special charges assessed in 2007 remain unpaid in 2011.[4] However, delayed collection of fees imposes costs on the City in terms of lost interest revenue, debt, and administrative expenditures. The City of Milwaukee forgoes an estimated $10,000 in annual interest revenue on uncollected municipal fees.[5] Moreover, to balance the budget the Treasurer borrows between $30 million and $45 million each year to cover unpaid special charges. Finally, the City faces administrative costs associated with pursuing collection of special charges, and as the charges become more delinquent, the costs of collection increase.

One of the reasons that so many user fees remain unpaid and end up on the property rolls is that some fee-issuing city departments appear to have little incentive to ensure fees are collected. For departments such as Neighborhood Services and Public Works, which receive funding primarily through appropriations, the City pays for services provided even if property owners initially do not. Additionally, anecdotal evidence suggests that the costs of efforts to aggressively collect fees have exceeded the benefits in the past. For example, one Neighborhood Services employee reported that the department once sent multiple invoices for some fees but stopped after failing to observe a noticeable effect on collection rates.

The City of Milwaukee Management and Budget Division would like to explore policies to enhance initial municipal fee collection and avoid the costs associated with placing fees on property tax bills as special charges. This report analyzes fee collection over time and the factors that may affect payment to help the City identify cost-effective ways to maximize collection.

[3] Calculated using data from the City of Milwaukee's Treasurer's Office and the Department of Administration's *2011 Plan and Budget Summary* (see City of Milwaukee Department of Administration, 2010).
[4] Calculated using data from the City of Milwaukee's Treasurer's Office.
[5] Calculated using the nationwide money market average interest rate of 0.22 percent for an average of six months on the 21 percent of municipal fees that do not have late penalties.

Project Goals and Methodology

To help Milwaukee understand the factors affecting fee collection rates and evaluate the current collection system, we examine the municipal fee collection process in detail. In our analysis we make three sets of comparisons. We compare the different types of municipal fees' characteristics. We contrast characteristics of properties that receive special charges with those that do not. We also compare characteristics of the different collection practices. We identify key variables that influence collection rates and make recommendations to improve the municipal fee collection process in Milwaukee.

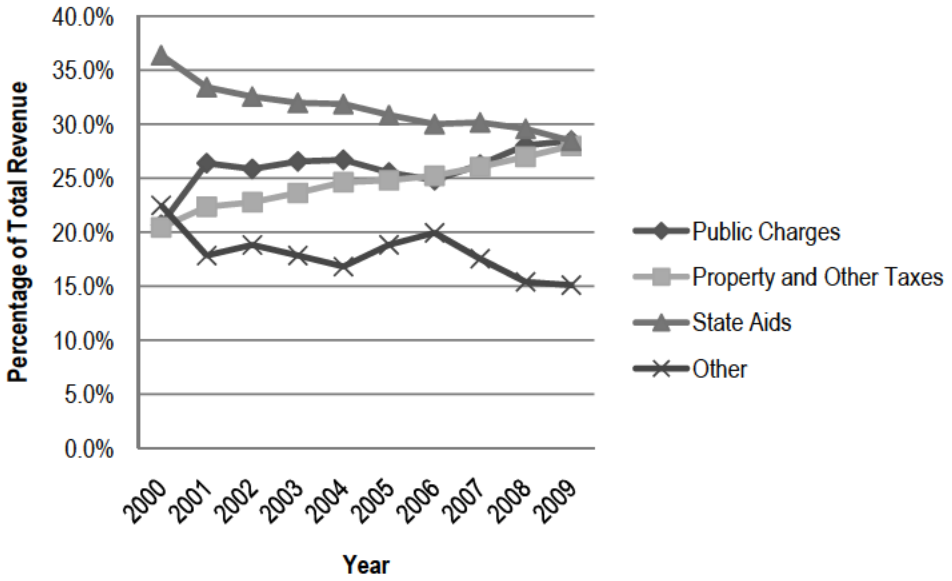
We use a variety of data sources. We rely on in-person and telephone interviews with City of Milwaukee staff, annual and longitudinal records of the Treasurer and Assessor, and accounts receivable files from city departments. Because the vast majority of special charges—more than 99 percent—originate in Milwaukee Water Works and the departments of Neighborhood Services and Public Works, we focus our analysis on fees originating in these three departments. By linking department data with individual tax key information from Milwaukee's Master Property Record, we created a dataset with hundreds of thousands of individual fees issued from 2007 to 2010 with the charge code, fee amount, and the fee status (paid or assessed onto the property tax bill), as well as characteristics of properties that incurred the fees. Specifically, these were the assessment class, median property value, owner occupancy status, and aldermanic district. Our dataset allowed us to look at fee issuance and collection across charges and departments as well as descriptive characteristics of properties with special charges. See Appendix A for more information on our data collection and limitations.

Our report proceeds as follows. First, we examine the number and value of municipal fees and special charges in Milwaukee, the current collection process, and departmental use of invoices, late fees, and payment options. Second, we look at factors that may influence fee collection, including characteristics of fees, characteristics of properties, and collection practices. Third, we use regression analysis to identify the effects of the above sets of characteristics on payment rates. Finally, we craft policy options and offer suggestions to further analyze the collection system and improve initial collection of municipal fees.

Municipal Fees and Special Charges in Milwaukee

Milwaukee has increased its reliance on municipal fees over the past decade. From 2000 to 2009, municipal fees—referred to in Wisconsin Department of Revenue data as "public charges"—went from 20.7 to 28.5 percent of total city revenue, an increase in share of nearly 40 percent. Figure 3 illustrates the share of each of the City's major revenue sources for years 2000 through 2009. See Appendix B for information on Milwaukee's revenue sources.

Figure 3. Percentage of Total Revenues by Source: City of Milwaukee 2000-2009



Source: Calculated using data from the Wisconsin Department of Revenue.

When certain property-related public charges go unpaid, they are placed on property tax bills as special charges. We use the term "municipal fees" to refer to property-related fees that are authorized to be placed on property tax bills as special charges before the fees actually become special charges. We use the term "special charges" to refer to municipal fees that have been placed on property tax bills due to nonpayment. State statutes give municipalities the legal authority to place fees on a property tax bill as special charges and establish a lien against the property (*Wis. Stat.* §66.0627 [2010]). However, the Milwaukee Common Council must enact an ordinance before a municipal fee can be placed on the tax roll as a special charge. The Common Council may also authorize new municipal fees, which it may then authorize to become special charges. Since 1995, Milwaukee has more than doubled the number of authorized special charges and enacted more than 50 city ordinances related to municipal fees and special charges (City of Milwaukee Clerk's Office, 2011). The complexity of legal issues surrounding recent municipal fee additions is the subject of an ongoing Milwaukee Legislative Reference Bureau investigation.

Milwaukee has 26 types of municipal fees that can become special charges if they go unpaid.[6] Twenty of these types of fees are active; 19 of them originate in the departments of Neighborhood Services, Public Works and Water Works and are active. Table 1 describes each of the 19 active fees originating in these three departments and includes the issuing department and information about the number and value of charges issued in 2010.

Water Works issued 75 percent of the total dollar value of special charges in 2010, the average charge ranging from $360 to $450. Neighborhood Services issued nearly 21 percent of the total dollar value of special charges, but its average charges ranged from $100 to almost $2,000. Public Works had the smallest percentage of special charges in 2010—roughly 4 percent. The average charge ranged from $50 for bulky waste removal to more than $850 for apartment garbage collection services.

Milwaukee's System for Municipal Fee Collection

Milwaukee's system for billing and collecting municipal fees is decentralized until the unpaid fees go onto the property tax roll, after which point the Treasurer collects these special charges with property taxes.[7] Except for public utilities, which have statutorily set penalties for late payment (*Wis. Stat.* §66.0809(3) [2010]), city departments have considerable discretion in establishing billing and collection procedures. Our investigation of Milwaukee Water Works and the departments of Public Works and Neighborhood Services has shown that practices vary widely across departments and across individual fees administered within the same department.

Specifically, Water Works, Public Works, and Neighborhood Services diverge in their bill notification practices, late penalty issuance, and payment option practices. Bill notification refers to the type and frequency of notification departments send to people owing municipal fees. Late penalty issuance concerns the use of penalties for delayed payment and the use of administrative fees for special charges added to the property tax roll. Finally, payment option practices concern the availability of electronic or online payment methods. Table 2 shows the current collection practices by fee. For more detailed information about collection of municipal fees, see Appendix D.

[6] These numbers exclude special charges for business and neighborhood improvement districts and for Wisconsin Department of Revenue charges and penalties, as these special charges do not derive from municipal fees.

[7] Our analysis focuses on initial collection policies and rates. Please see Appendix C for information regarding the special charges collection process.

Table 1. Description of Special Charges

Department	Category	Description of Service	2010 Special Charges Statistics			
			Number of Charges	Value of Charges	Average Charge	Percentage of Total Special Charges
Neighborhood Services	Building Nuisance Abatement	Board-ups and fire cleanups	733	$336,153	$459	0.83%
	Special Privilege	Intrusions into city right-of-way (signs, sidewalk seating)	121	$61,197	$506	0.15%
	Covered Openings	Inspections of grates/trap doors	196	$7,915	$40	0.02%
	Condemned Building Razing	Demolition costs	59	$112,365	$1,904	0.28%
	Miscellaneous	Inspections, selected permit and registration fees	4,593	$1,294,669	$282	3.20%
	Fire Prevention Inspection*	For properties with three or more units	15,076	$1,457,050	$97	3.61%
	Health Abatement	Litter cleanup, some nuisance vehicle removal	2,968	$1,050,636	$354	2.6%
	Building Re-Inspection	Complaint-driven code violations	4,862	$4,038,073	$831	10.0%
Public Works	Tree Removal/ Landscaping Encroachment		336	$102,157	$304	0.3%
	Snow Removal		1,394	$160,010	$115	0.4%
	Weed Removal	Lawn care	3,683	$453,569	$123	1.1%
	Garbage Cart Return	Five solid waste or recycling fines/fees	876	$41,788	$48	0.1%
	Sanitation	Skid referrals or bulk waste more than 1 cubic yard	572	$30,440	$53	0.1%
	Police Board-Ups	Securing buildings after forced police entry	1,344	$398,857	$297	1.0%
	Apartment Garbage Collection	For five-plus unit residential properties without private service	307	$266,099	$867	0.7%
Water Works	Delinquent Water Account		14,227	$6,451,194	$453	16.0%
	Delinquent Municipal Services Account	Solid waste, snow and ice removal, additional garbage cart	26,950	$9,732,899	$361	24.1%
	Delinquent Storm Water Account		19,224	$7,800,776	$406	19.3%
	Delinquent Sewer Account		16,813	$6,584,703	$392	16.3%

Source: Based on interviews with staff and calculated with data from Milwaukee Water Works and the Departments of Public Works and Neighborhood Services.

Bill Notification

Departments differ in bill notification practices. For example, Neighborhood Services sends a single invoice for three types of fees, a single letter for three other types of fees, and a mix of single invoices and letters for fees in its miscellaneous category. It does not send invoices or letters for its fire prevention inspection fee. To help understand the difference between Neighborhood Services letters and invoices, see examples in Appendix E. As shown, the letter does not request fee remittance or list a due date. In contrast, the invoice clearly lists a due date and requests that payment be returned in an enclosed envelope.

Public Works and Water Works are more uniform in their bill notification methods. Public Works sends invoices with due dates for all seven of its municipal fees, and it sends each invoice once except for apartment garbage collection fees, for which it sends invoices quarterly. After property owners receive Public Works bills, they are given 30 days in which to pay to avoid a penalty. Water Works sends quarterly invoices with due dates for the fees incurred by most of its customers, although large customers receive bills monthly.

Late Penalties

When property owners do not pay, departments take different approaches. Neighborhood Services does not issue late penalties for any of its fees, while Public Works issues one-time $10 late penalties on all of its fees except police board-up and apartment garbage collection (neither of which receive penalties). Water Works issues quarterly 5 percent penalties on delinquent water accounts greater than $100 and quarterly 3 percent penalties on unpaid sewer, storm water, and municipal services accounts greater than $100. Only Water Works late penalties are recurring and compounding. The department places accounts more than six months and $150 in arrears on the property tax roll and issues a 10 percent administrative fee for doing so. Only Water Works charges this administrative fee.

Table 2. Summary of Current Municipal Fee Collection Practices

Code	Fee	Department	Letter or Invoice?	Frequency of Notices	Late Penalty?	Admin. Fee?	Online Payment?
90	Building Nuisance Abatement	DNS	Letter	Once	No	No	No
91	Special Privilege	DNS	Invoice	Once	No	No	No
92	Covered Openings	DNS	Invoice	Once	No	No	No
94	Condemned Building Razing	DNS	Invoice	Once	No	No	No
96	DNS-Miscellaneous	DNS	Letter/ Invoice	Once	No	No	No
9B	Fire Prevention Inspection	DNS	None*	N/A	N/A	No	No
9C	DNS-Health Abatement	DNS	Letter	Once	No	No	No
9I	Building Re-Inspection	DNS	Letter	Once	No	No	No
95	DPW-Miscellaneous	DPW	Invoice	Once	$10	No	No
97	Snow Removal	DPW	Invoice	Once	$10	No	No
99	Weed Removal	DPW	Invoice	Once	$10	No	No
8F	Garbage Cart Return	DPW	Invoice	Once	$10	No	No
8V	Bulky Waste	DPW	Invoice	Once	$10	No	No
9M	Police Board-Ups	DPW	Invoice	Once	No	No	No
9P	Apartment Garbage Collection	DPW	Invoice	Quarterly	No	No	No
93	Delinquent Water Account	MWW	Invoice	Quarterly/ Monthly	5%	10%	Yes
8S	Delinquent Municipal Services	MWW	Invoice	Quarterly/ Monthly	3%	10%	Yes
8T	Delinquent Storm Water Account	MWW	Invoice	Quarterly/ Monthly	3%	10%	Yes
9D	Delinquent Sewer Account	MWW	Invoice	Quarterly/ Monthly	3%	10%	Yes

Source: Based on interviews with staff from Milwaukee Water Works and the departments of Neighborhood Services and Public Works, and from the Milwaukee Water Works web site (see Milwaukee Water Works, 2011a).

Note: Water Works charges interest only on accounts with more than $100 in unpaid charges. Water Works monthly invoices are only for large customers.

*Neighborhood Services does not notify property owners of the fire prevention inspection fee because the City allows the fee to be placed directly onto property tax bills (Administration and Enforcement ordinance [2010]).

Payment Options

Departments also differ in the payment options they offer. Water Works accepts online credit via its contractor, U.S. Bank (Milwaukee Water Works, 2011b). Public Works contracts with Caledon Card to offers online credit card payment options for parking tickets, but it does not offer the same service for municipal fees (City of Milwaukee Department of Public Works, 2011). DNS does not offer online payment for municipal fees.

The variation in billing, late penalty, and payment option methods across departments and fees creates considerable complexity in administration. One can imagine a situation in which a property owner, charged three different municipal fees receives three different notifications, is subject to three potential penalties, and has three payment options. Later in the report we will explore the effect of administrative processes on fee collection rates.

Factors Associated with Collection Rates

This section examines characteristics that may influence fee collection rates. We define collection rates as the number of fees paid in full prior to being placed on property tax bills, divided by the total number of fees issued. First, we look at characteristics of municipal fees based on the cause of the fee and property owner expectations. Second, we look at the characteristics of properties with special charges by assessment class, median property value, owner occupancy status, and aldermanic district. Third, we look at department processes and collection rates, specifically departmental use of invoices and late fees. For discussion of collection trends after fees become special charges, see Appendix F.

Characteristics of Fees

Property owners incur municipal fees for a variety of code violations, utility services, city inspections, special privileges, and miscellaneous reasons. The 19 fees we analyzed can be characterized by the basis for the fee—that is, the cause or grounds for the fee—and property owners' expectations of the fee, namely whether he or she anticipates the fee. As the list below demonstrates, municipal fees can stem from city utilities, city services, minor violations, or blighted property conditions. These fees can be further characterized as expected or unexpected. Property owners can reasonably expect fees for utilities and city services, while fees for minor violations and blighted properties are typically unexpected.[8]

[8] We exclude fees originating in departments other than Milwaukee Water Works and the Departments of Public Works and Neighborhood Services because these three departments account for more than 99 percent of special charges. We also exclude the Department of Neighborhood Services' fire prevention inspection fee because it goes directly onto the property tax bill without prior notification.

Expected Fees by Category

Utilities
- Municipal services
- Storm water
- Water
- Sewer

City Services
- Apartment garbage
- Bulky waste
- DNS miscellaneous
  - Sprinkler invoice
  - Elevator invoice
  - Fire prevention permits
  - Projecting sign invoice
  - Billboard invoice
  - Boiler inspection invoice
- Covered opening
- Special privilege

Unexpected Fees by Category

Minor Violations
- Garbage cart
- Tree removal/encroachment
- DNS Miscellaneous
  - Code complaint–city initiated
  - Miscellaneous
  - Fire inspection
  - Residential rental inspection
  - Residential rental inspection no-entry
  - Vacant building registration
  - Recording enforcement
  - Boiler posting
  - Graffiti abatement
- Snow removal (sidewalk)
- Weed removal
- Health abatement (litter)
- Building re-inspection

Blighted Property
- Police board-ups
- Building nuisance abatement
- Condemned building razing

In general, property owners expect to receive bills for utilities, for services they request, and for required periodic inspections. Utility fees originate within Milwaukee Water Works and are billed to property owners on a quarterly basis. Utility fees include municipal services originating in Public Works, as well as storm water, water, and sewer accounts. City services fees are for services the property owner requests or mandatory safety inspections the City provides. Examples of these fees for city services include special garbage collection, permission for restaurants to put tables on public sidewalks, and elevator inspections. Property owners have some level of expectation that they will receive regular invoices and have to pay these fees, although fees for city services are generally invoiced with less frequency than utility fees.

In contrast, minor violation and blighted property fees are one-time or sporadic fees incurred for failure to comply with city ordinances. Property owners may incur minor violation fees if the City has to perform services that are the property owners' responsibility—for example, removing overgrown weeds or shoveling sidewalks—or if they violate ordinances or building codes. Blighted properties are a public safety hazard, and the City fines owners for having to board up or bulldoze these properties. Additionally, the City must charge for police board-ups, which occur under emergency conditions when police must forcibly enter a property and the City has to board up the entry. We include police board-ups

with blighted property charges because, although police board-ups do not pertain solely to blighted properties, the City handles them like other board-ups on abandoned or blighted properties. By and large, these fees are unexpected by property owners and irregularly issued by departments.

Characterizing fees by cause and expectation allows us to compare similar fees across departments and collection practices. We also use these characteristics to examine differences in collection rates and differences between properties with special charges and all other Milwaukee properties.

Collection rates vary widely by department, fee characteristics, and fee type.[9] In 2010, just 8 percent of property owners receiving Water Works invoices had fees transferred to their property tax bills. Water Works makes up the greatest percentage of total municipal fees (75 percent) and thus collects a very high proportion of initial fees. In the same year, the departments of Neighborhood Services and Public Works combined made up roughly 25 percent of total fees and yet transferred special charges to the tax roll of more than 71 percent of the property owners they billed.

Collection rates can differ within departments. From 2007 to 2010, Public Works transferred only 7 percent of its fees for apartment garbage collection to the tax roll, 83 percent of weed removal fees, 94 percent of tree removal/encroachment fees, and more than 99 percent of police board-up fees. Water Works, technically a public-private enterprise, collected more than 80 percent of its fees. As an enterprise it is subject to revenue requirements that don't apply to Neighborhood Services or Public Works.

Collection rates also vary among similar fees. Table 3 shows the average collection rates for municipal fees by the cause of fee issuance. On average, 33 percent of snow removal fees are collected without becoming special charges, but 6.3 percent of tree removal/encroachment fees are initially collected. Similarly, 80 percent of special privilege fees are initially collected, but covered openings, a similar kind of fee, has only a 55 percent initial collection rate.

[9] Our calculations do not take into account fees listed as having a status other than paid or assessed (placed on the property tax roll). We also exclude Neighborhood Services' fire prevention inspection fees. For more information, see Appendix A.

Table 3. Average Collection Rates
by Fee Characteristic and Type, 2007-2010

	Collection Rate
Delinquent Utilities	88.2%
8S Delinquent municipal service	82.8%
8T Delinquent storm water	88.8%
93 Delinquent water	90.9%
9D Delinquent sewer	90.0%
Minor Violations	15.4%
8F Garbage cart	33.6%
9I Building re-inspection	11.2%
95 Tree removal / encroachments	6.3%
96 DNS miscellaneous	28.3%
97 Snow removal	33.3%
99 Weed removal	17.4%
9C Health abatement (litter)	14.0%
City Services	57.6%
8V Bulky waste	28.2%
91 Special privilege	80.4%
92 Covered opening	55.0%
96 Miscellaneous	48.7%
9B Fire prevention inspection	0.0%
9P Apartment Garbage	93.0%
Blight	5.5%
90 Building nuisance abatement	19.9%
94 Condemned building razing*	49.2%
9M Police board-ups	0.05%

Source: Calculated using data from Milwaukee Water Works and the City's Departments of Public Works and Neighborhood Services.

* Razing collection rate is unique because DNS contracts with the private Kohn Collection Law Firm to collect of some of the fees in this category. Since some accounts are referred to Kohn, fewer may be assessed on property tax bills in a given year.

Characteristics of Properties

Distinctions also exist among properties whose owners allow their municipal fees to become special charges and between these properties and Milwaukee as a whole. We examine properties that incur different special charges according to assessment class, average assessed property values, owner occupancy status, and aldermanic district.[10]

[10] We calculated these results by merging fee-level data from individual departments with property-level data from the Master Property Record.

Assessment class

As shown in Table 4, different classes of properties incur different types of special charges. Seventy-nine percent of properties in Milwaukee are residential, but on average, a higher percentage of residential properties incur special charges. (The exception to this finding is properties with fees for city services that become special charges; only 23 percent of these properties are residential.) And while 7 percent of the properties in the City of Milwaukee are assessed as commercial and mercantile apartments (four or more units), these properties make up 8 to 15 percent of properties with unpaid minor violation, delinquent utility, and blight charges. Moreover, 19 percent of properties that have special charges due to unpaid city services fees are mercantile while almost 40 percent are commercial. This finding is not surprising given the nature of these fees for city services, which are often related to commercial-type activity like covered openings and special privileges.

Table 4. Percentage of Properties per Assessment Class: City of Milwaukee versus Properties with Special Charges 2007-2010

	Residential	Commercial	Mercantile Apartments (4+ units)	Other*
All Milwaukee Properties	79%	4%	3%	13%
Properties with Minor Violation Charges	80%	9%	7%	3%
Properties with Blight Charges	81%	7%	7%	5%
Properties with Delinquent Utility Charges	89%	4%	4%	2%
Properties with City Service Charges	23%	40%	19%	18%**

Source: Calculated with data from Milwaukee Water Works and the departments of Neighborhood Services and Public Works merged with Master Property Record (MPROP) data.

*Other assessment classes include condominiums, manufacturing, special commercial, and tax-exempt properties. Percentages may not sum to 100 percent due to rounding.

**Ten percent of city service charges are classified as special commercial.

Table 4 demonstrates that properties with special charges (except those for delinquent utility fees) are more likely to be classified as commercial and mercantile apartments than Milwaukee properties on average. Additionally, it shows that properties with special charges stemming from unpaid fees for city services are much more likely to be commercial properties.

Median property values

Table 5 shows the average median property values from 2007-2010 for all Milwaukee properties and for properties with special charges, broken down by charge characteristic. The average median property value of properties with special charges stemming from fees for city services is more than $300,000, which is significantly higher than properties with other special charges and Milwaukee properties in general. This finding reflects the nature of the original fee, namely that owners requested or were required to receive city services.

If fees for city services are excluded, we find that properties with special charges have lower assessed property values than the city average, which suggests that lower valued properties are more likely to incur special charges. In fact, Milwaukee properties with assessed values among the lowest 30 percent owe more than 50 percent of the City's special charges.

Table 5. Median Assessed Property Values: City of Milwaukee versus Properties with Special Charges, 2007-2010

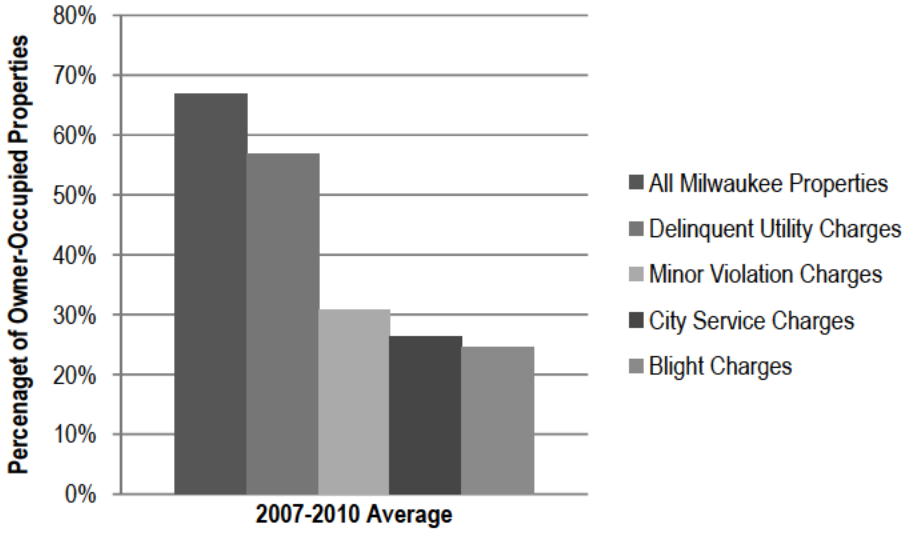
	Median Property Values
All Milwaukee Properties	$115,375
Properties with Minor Violation Charges	$88,125
Properties with Blight Charges	$77,225
Properties with Delinquent Utility Charges	$98,125
Properties with City Service Charges	$314,450

Source: Calculated using data from Milwaukee Water Works, Public Works and Neighborhood Services merged with MPROP data.

Owner occupancy

As shown in Figure 4, on average, more than 66 percent of Milwaukee properties are owner-occupied. In contrast, properties with special charges have much lower rates of owner occupancy. With the exception of properties with delinquent utility charges, properties with special charges (minor violation, city service, and blight charges) are less than half as likely to be owner-occupied as the rest of Milwaukee properties. Properties with blight charges, which are more than 80 percent residential (Table 4), have 25 percent owner occupancy; this finding may be attributable to small-unit absentee landlords.

Figure 4. Average Percentage of Properties Classified as Owner-Occupied City of Milwaukee versus Properties with Special Charges 2007-2010



Source: Calculated using data from Milwaukee Water Works and the departments of Public Works and Neighborhood Services merged with MPROP data.

Aldermanic district

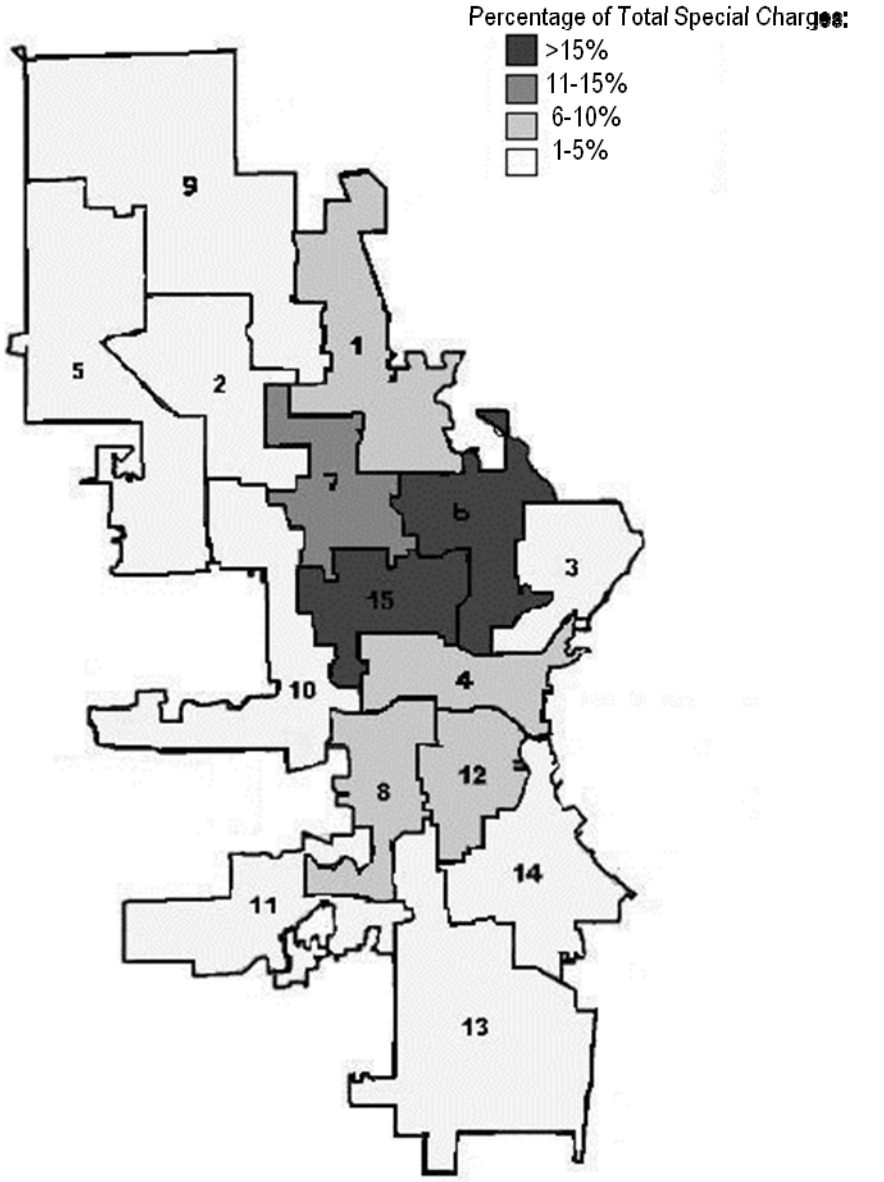
Finally, special charges vary by aldermanic district. As illustrated in Table 6 and Figure 5, districts 6, 7, and 15 contain more than 43 percent of all properties with special charges. Properties with special charges are concentrated in central Milwaukee, and the lowest incidence of special charges occurs in the outlying aldermanic districts.

Table 6. Properties with Special Charges and Value of Special Charges by Aldermanic District

Aldermanic District	Number of Properties with Special Charges	Percentage of Total Value of Special Charges
1	1,781	8%
2	1,046	3%
3	1,700	4%
4	1,594	6%
5	592	2%
6	3,753	16%
7	2,677	12%
8	1,431	7%
9	818	3%
10	857	3%
11	267	1%
12	2,336	9%
13	615	2%
14	881	4%
15	4,418	20%

Source: Calculated using data from the Treasurer's Office merged with MPROP data.

Figure 5. Total Value of Special Charges by Aldermanic District



Source: Map downloaded from City of Milwaukee website and filled using data from the Milwaukee Treasurer's Office.

Characteristics of Collection Practices

Different collection practices appear to influence collection rates. For example, multiple invoices are associated with higher collection rates than single invoices. For Public Works, the only type of fee with a multiple invoice—apartment garbage collection—has the highest departmental collection rate by a significant margin; only 7 percent of apartment garbage collection fees were added to tax bills as special charges, compared to the next best rate of 66 percent for garbage cart return fees and the 59 percent average Department of Public Works rate.

Late penalties also appear to affect collection rates. From 2007 to 2010 Water Works collected from more than 87 percent of its fees, all of which have a 5 percent late penalty for non-payment. Meanwhile, in the same time period Public Works initially collected on just more than 24 percent of fees with one-time $10 late fees. From 2007 to 2010 Neighborhood Services and Public Works collected about 32 percent of fees without late fees.

Regression Analysis: Which Variables Explain Collection Rates?

The summary statistics laid out above indicate that fee, property, and collection variables may affect fee payment rates. For the purposes of actionable policy recommendations, the most important characteristics are the ones the City can control—collection practices such as billing type, late penalties issuance, and payment options. As shown by Table 7 below, these practices vary widely across and within departments, as do the corresponding collection rates.[11]

Table 7. Collection Practices and Average Collection Rates, 2007-2010

Expected Fees					
Code	Fee	Dept.	Billing Type	Late Penalty?	Average Collection Rate
8V	DPW Bulky Waste	DPW	Invoice	$10	28%
9P	Apartment Garbage Collection	DPW	Invoice[1]	No	93%
91	Special Privilege	DNS	Invoice	No	80%
92	Covered Openings	DNS	Invoice	No	55%
96	DNS-Miscellaneous[2]	DNS	Some letter, some Invoice	No	36%
Unexpected Fees					
Code	Fee	Dept.	Billing Type	Late Penalty?	Average Collection Rate
8F	Garbage Cart Return	DPW	Invoice	$10	34%
9C	DNS-Health Abatement	DNS	Letter	No	14%
9I	Building Re-Inspection	DNS	Letter	No	11%
9M	Police Board-Ups	DPW	Invoice	No	0.05%
90	Building Nuisance (DNS Board-Ups)	DNS	Letter	No	20%
94	Condemned Building Razing	DNS	Invoice	No	49%
95	Tree Removal / Encroachments	DPW	Invoice	$10	6%
96	DNS-Miscellaneous[3]	DNS	Invoice	No	36%
97	Snow Removal (Sidewalk)	DPW	Invoice	$10	33%
99	Weed Removal	DPW	Invoice	$10	17%

Source: Based on City of Milwaukee Assessor data and interviews with staff from the Departments of Neighborhood Services and Public Works.

[1] Quarterly invoice system[2] Includes sprinkler inspection, elevator inspection, fire prevention permits, projecting signs inspection, billboard inspection, boiler inspection

[3] Includes code compliance, misc, fire inspection fee, residential rental fees, vacant building registration, recording enforcement, boiler posting, and graffiti abatement

[11] Public Works and Neighborhood Services have variability across charges, unlike Water Works. If there is no variability across charges within a department, we cannot separate the effects of any one practice from the aggregate effects of all departmental practices. Thus, we omit Water Works charges from the regression analysis.

To ascertain the effects of these characteristics, we examine property-level data for each fee from the departments of Neighborhood Services and Public Works. We obtained data on collection practices and individual fee amounts from the departments, drawing upon personal interviews and two departmental datasets. We gathered data on property characteristics from the Master Property Record (MPROP), maintained by the City of Milwaukee's Information Technology Management Division. We merged Neighborhood Services, Public Works, and MPROP datasets to create a single database with each fee constituting a separate observation (thus some properties had multiple observations for each year). As a result, each observation includes a variable indicating whether the fee was paid before it was added to the property tax roll.

Regression Model Design

We attempt to explain the factors affecting whether a fee is added to the property tax roll—that is, we estimate the probability that a property owner pays a municipal fee before it becomes a special charge. We use a multivariate probit regression model to estimate this probability.[12] The dependent variable assumes a value of 0 if the fee was placed on the property tax roll and a value of 1 if it was paid in full and not placed on the property tax roll. The explanatory variables are characteristics of fees, properties, and collection practices.

Characteristics of collection

As our summary statistics indicate, the manner in which a fee is collected may have a highly statistically and economically significant effect on fee payment rates. Further, the City can control collection practices, whereas it cannot as easily control fee and property characteristics. We expect invoices to increase payment rates relative to letters, late penalties to increase payment rates relative to no late penalties, and a high variety of payment options to increase collection rates relative to low variety of payment options.

Characteristics of fees

Three fee characteristics may affect collection rates by affecting property owners' ability to pay: 1) assessment year, (2) fee amount, and (3) frequency of correspondence. First, differences in year-to-year economic conditions may improve or diminish property owners' abilities to pay municipal fees. The recent economic slowdown, for instance, could have caused lower fee payment rates. Second, the fee amount could affect a property owner's ability to pay. We would expect that property owners would be less likely to pay larger fees. Third, the frequency of correspondence can affect collection rates by setting property owner expectations. As the City bills a property owner more frequently, that property owner develops routines for paying that fee. These routines—the expectations

[12] The model estimates: probability(payment = 1 | $\mathbf{X}$) = $\Phi(\mathbf{X}'\boldsymbol{\beta})$; where Φ is the cumulative distribution function of the standard normal distribution and $\mathbf{X}$ is a vector of explanatory variables. The coefficients of the explanatory variables, $\boldsymbol{\beta}$, are estimated using maximum likelihood.

of payment—could make a fee more likely to be paid. In an interview, one city manager told us that some property owners accustomed to certain fees send checks *before* the expected fees are assessed.

Characteristics of properties

Property characteristics include the assessed property value, assessment class, land use, owner occupancy, owner in-state residency, aldermanic district, and history of tax delinquency. We predict that properties with higher property values generally have wealthier owners and fees issued against higher-value properties have higher fee payment rates. Among the other property characteristics, we hypothesize that owners will be more likely to pay on time and in full if they live in state, a rough proxy for absentee landlords. Further, we expect that if a property owner has a history of tax delinquency, he or she will be more likely to have delinquencies in the future.

We list the explanatory variables included in our regression in Table 8, which also defines the variables and summarizes our expectations for their effects on fee payment rates.

Table 8. Variable Definitions, Expected Marginal Effects on Probability of Payment, and Sources

Variable	Definition	Expected Marginal Effect	Source
Late penalty dummy	Dummy variable = 1 if late payments for fee entail a $10 late penalty = 0 otherwise	+	DNS & DPW
Expected invoice dummy	Dummy variable = 1 if fee was expected and collected with an invoice = 0 otherwise; effect measured relative to an unexpected fee collected with a letter	+	Authors
Expected fee dummy	Dummy variable = 1 if fee was expected = 0 otherwise	+	Authors
Condemned building razing dummy	Dummy variable = 1 if condemned building razing fee (only unexpected DNS fee collected with an invoice) = 0 otherwise; effect measured relative to an unexpected fee collected with a letter	+/−	DNS & DPW
Fire prevention permit dummy	Dummy variable = 1 if fire prevention permit fee (only expected DNS fee collected with a letter) = 0 otherwise; effect measured relative to an unexpected fee collected with a letter	+	DNS & DPW
Apartment garbage collection dummy	Dummy variable = 1 if apartment garbage collection fee (only fee assessed multiple times per year) = 0 otherwise; effect measured relative to other fee types	+	DNS & DPW
Tax delinquency	"The number of years for which [the property has] delinquent taxes due."[2]	−	MPROP
Fee amount	Total amount of fee (nominal U.S. dollars)	−	DNS & DPW
Assessed property value	Current assessed property value per number of units (nominal U.S. dollars)	+	MPROP
Duplex dummy	Dummy variable = 1 if property's land use categorized as "duplex" in MPROP = 0 otherwise; effect estimated relative to single-family properties	+/−	MPROP
Multifamily dummy	Dummy variable = 1 if property's land use categorized as "multifamily" in MPROP = 0 otherwise; effect estimated relative to single-family properties	+/−	MPROP
Manufacturing dummy	Dummy variable = 1 if property classified as "manufacturing" in MPROP = 0 otherwise; effect estimated relative to "mercantile" properties	+/−	MPROP
Special mercantile dummy	Dummy variable = 1 if property classified as "special mercantile" in MPROP = 0 otherwise; effect measured relative to "mercantile" properties	+/−	MPROP
Owner occupancy dummy	Dummy variable = 1 if property occupied by owner = 0 otherwise	+	MPROP
Owner Wisconsin resident dummy	Dummy variable = 1 if property owner lives in Wisconsin = 0 otherwise	+	MPROP
Aldermanic district #X dummy	Dummy variable = 1 if property located in Aldermanic District #X = 0 otherwise; effect estimated relative to Ald. District #15	+/−	MPROP
Year 20## dummy	Dummy variable = 1 if fee issued in 20## = 0 otherwise; effect measured relative to assessment year 2007	+/−	DNS & DPW

[2] Quoted from the 2010 MPROP variable key, http://itmdapps.milwaukee.gov/gis/oldmprop/MPROP2010DEC.zip

Samples

The effects of our explanatory variables on payment rates may differ according to property class. Thus, we divide the 138,200 observations in our dataset into three distinct sample categories:

1. residential properties (89,238) ;
2. mercantile apartments (23,628); and
3. commercial properties (25,334).[13]

Residential properties are those with a "residential" assessment class, while mercantile apartments are properties with a "mercantile apartment" assessment class (four or more units). We define "commercial" as all non-residential property classified for assessment purposes as "mercantile," "manufacturing," or "special mercantile." We form the categories above on the basis of grouping properties with similar incentive structures. For example, we believe residential property owners, consisting mostly of single-family homes, respond differently to fees than do owners of mercantile apartments.

In our three samples we only include fees issued from 2007 to 2010. The samples include all fees except for fire prevention inspection fees.

For each of the three samples, we estimate the effects of the two main collection practices—billing type (invoices and letters) and late penalty issuance—while controlling for the other explanatory variables listed in Table 8. Billing type and late penalty issuance are highly correlated across charges with a 0.76 correlation coefficient. Including both variables in the model would cause multicollinearity and prohibit us from obtaining accurate estimates of the effects of the two collection practices. Thus, we perform two separate sets of regressions, one estimating the effect of invoices and the other estimating the effect of late penalties. We discuss the results of these regressions below.

Results: Invoices

In examining the effect of a fee billed with an invoice instead of a letter, we analyze Neighborhood Services fees only. This allows us to better isolate the effects of invoices, because the only significant difference in Neighborhood Services collection practices was the use of letters or invoices. By comparison, *all* Public Works fees were invoiced. DNS is the only department that used two different billing types.

[13] We do not analyze charges assessed to condominiums. Condominiums have highly variable ownership structures that do not facilitate categorical grouping. There are only 462 condominium observations.

Within Neighborhood Services fees, the expectedness of fees—defined as the fees property owners anticipate receiving prior to issuance—and the use of invoices are highly correlated. The correlation coefficient between these two variables is 0.93. Of the expected Neighborhood Services fees, more than 92 percent were billed via letters. Hence our inclusion of both the "invoice" variable and the "expected" variable in the same regression would generate multicollinearity and jeopardize the accuracy of our coefficient estimates. We attempt to avoid multicollinearity by estimating separate regressions for expected and unexpected Neighborhood Services fees. However, only two of the 259 expected residential Neighborhood Services fees used letters, although only 0.3 percent of 57,302 unexpected residential Neighborhood Services fees used invoices. This correlation is similarly high for mercantile apartments and commercial properties. Thus, there is not enough variability between these two sub-samples to generate reliable estimates.

We solve this problem by creating four interaction variables: an expected-invoice dummy, an unexpected-invoice dummy, an expected-letter dummy, and an unexpected-letter dummy (see Table 8 for variable definitions). Note that within DNS, the unexpected-invoice dummy only assumes a value of 1 for condemned building razing fees; and the expected-letter dummy only assumes a value of 1 for fire prevention permit fees. The other two interaction variables—expected invoices and unexpected letters—take on a value of 1 for multiple fees. In evaluating the effect of these dummy variables, we use unexpected-letter fees as the base category, as the majority of DNS fees are unexpected and the department uses letters for billing. Because the categories created by these interactions variables are mutually exclusive, we avoid multicollinearity.

We display in Table 9 the results of our analysis in which we control for invoices. For all samples, we are able to estimate the expected-invoice dummy's marginal effect on probability of payment. We find that when the City sends expected invoices to owners of residential properties as opposed to unexpected letters, the estimated probability of payment increases by 25 percent. For commercial properties, the estimated effect of expected invoices also is noticeably higher, at 41 percent, and for mercantile apartments the estimated effect was lower, at 6 percent. All estimates are statistically significant.

Table 9. Regression Results: Invoices

Explanatory Variable	Residential Properties			Mercantile Apartments			Commercial Properties		
	Estimated Marginal Effect on Prob. of Payment[1]		Robust Standard Error	Estimated Marginal Effect on Prob. of Payment[1]		Robust Standard Error	Estimated Marginal Effect on Prob. of Payment[1]		Robust Standard Error
Expected invoice	0.252	***	0.0322	0.062	***	0.0149	0.410	***	0.0072
Condemned building razing dummy	-0.096	***	0.0204						
Fire prevention permit dummy				0.453		0.3121	0.516	***	0.0142
Tax delinquency (years)	-0.159	***	0.0048	-0.072	***	0.0093	-0.219	***	0.0093
ln(fee amount)	-0.010	***	0.0014	0.011	**	0.0045	-0.031	***	0.0041
ln(assessed property value)	0.034	***	0.0035	0.008		0.0053	0.007	**	0.0035
Duplex dummy	-0.024	***	0.0032						
Multifamily dummy	-0.050	***	0.0072						
Manufacturing dummy							0.130	***	0.0189
Special mercantile dummy							0.030	***	0.0112
Owner occupancy dummy	-0.053	***	0.0030						
Owner Wisconsin resident dummy				-0.005		0.0156	0.078	***	0.0126
Aldermanic district 1 dummy	0.017	**	0.0068	-0.013		0.0243	0.012		0.0191
Aldermanic district 2 dummy	0.076	***	0.0096	-0.001		0.0229	0.020		0.0222
Aldermanic district 3 dummy	-0.012		0.0086	0.101	***	0.0308	0.142	***	0.0197
Aldermanic district 4 dummy	-0.023	***	0.0080	0.002		0.0212	0.114	***	0.0186
Aldermanic district 5 dummy	0.008		0.0115	-0.049	*	0.0225	0.022		0.0241
Aldermanic district 6 dummy	-0.004		0.0049	0.055	**	0.0276	-0.049	***	0.0159
Aldermanic district 7 dummy	0.012	**	0.0053	0.059	**	0.0310	0.021		0.0204
Aldermanic district 8 dummy	-0.006		0.0067	0.008		0.0251	0.033	*	0.0185
Aldermanic district 9 dummy	0.024	**	0.0106	-0.057	**	0.0212	-0.051	*	0.0221
Aldermanic district 10 dummy	0.040	***	0.0100	0.032		0.0329	0.059	***	0.0207
Aldermanic district 11 dummy	-0.003		0.0160	-0.052		0.0299	0.023		0.0300
Aldermanic district 12 dummy	-0.011	*	0.0060	-0.008		0.0214	0.042	***	0.0160
Aldermanic district 13 dummy	0.050	***	0.0134	0.001		0.0361	0.035		0.0224
Aldermanic district 14 dummy	0.001		0.0093	0.066	*	0.0398	0.038	**	0.0187
Year 2008 dummy	0.057	***	0.0051	0.046	***	0.0155	0.012		0.0102
Year 2009 dummy	0.089	***	0.0052	0.063	***	0.0154	0.007		0.0104
Year 2010 dummy	0.024	***	0.0049	0.087	***	0.0157	0.024	**	0.0103
Number of observations:	57,559			5,919			20,304		
Pseudo R-squared	0.090			0.045			0.263		
Observed collection rate:	18.0%			15.6%			38.2%		

*** coefficient estimate significant at 1% level
** coefficient estimate significant at 5% level
* coefficient estimate significant at 10% level

[1] For non-binary variables, marginal effects were evaluated at sample means.
Note: Samples only included DNS and DPW fees assessed from 2007-2010.

Characteristics of fees and collection

For all samples, our model estimates that the use of expected invoices increases the probability of payment. Residential property owners are 25 percent more likely to pay fees issued by invoices than they are fees issued by letter. Similarly, the estimated probability of payment for expected invoices billed to commercial properties increases by 41 percent, and the estimated probability of payment for expected invoices billed to mercantile apartments increases by 6 percent. All of these estimates are statistically significant.

Our model estimates that property owners are 10 percent less likely to pay a condemned building razing fee—the only unexpected fee billed by invoice within Neighborhood Services—than any unexpected fee billed by letter. For condemned building razing fees, the total estimated effect combines two characteristics: the fee type and the collection procedure. Because we can only estimate the total effect, however, the coefficient estimate for the condemned building razing dummy variable does not allow us to deduce the impact of expectedness.

Our model estimates that fire prevention permits, the only expected fee billed by letters, have a statistically significant effect on fee payment rates for commercial properties only. The magnitude of this effect is high—a more than 50 percent increase in the probability of payment. Because fire prevention permits are granted to properties that store hazardous or flammable materials, this high estimated effect may result from the importance of these permits to commercial operations.

Controlling for the effects of invoices and letters, our model generates statistically significant effects for two other fee characteristics—fee amount and assessment year. A 1 percent increase in the fee amount slightly increases the probability of payment for residential and commercial properties and slightly decreases the probability of payment for mercantile apartments. Fee amounts, therefore, do not have uniform effects across our samples. Relative to the 2007 assessment year, our model estimates that fees assessed in 2008 through 2010 have a higher probability of payment—a surprising inference given the economic downturn that occurred during those years.

Characteristics of properties

Our model estimates that assessed property value generally has a small but positive effect on the probability of payment. For residential properties, our regression estimates that a 1 percent increase in the assessed property value increased the probability of payment by 3.4 percent; whereas for commercial properties, a 1 percent increase in the assessed property value increased the probability of payment by 0.7 percent. Estimates of this variable are statistically significant only for residential and commercial properties.

Our model estimates owners of duplexes and multifamily (non-mercantile apartment) dwellings—both contained within the residential properties sample—are slightly less likely to pay user fees than owners of single-family properties. Within the commercial properties sample, owners of properties characterized as manufacturing and special mercantile are significantly more likely to pay their fees in a timely fashion than owners of mercantile properties.

Our model estimates that owners who occupy their residential properties are 5.3 percent less likely to pay than owners who do not live in the residential properties they own. Controlling for property values, perhaps the owners of non-owner-occupied residential properties may have had less financial stress than the

owners of the equivalently valued owner-occupied residential properties. Owners of owner-occupied properties may have been more likely to over-extend themselves in securing financing for their property purchase.

Also of note, commercial properties with owners living in Wisconsin are 7.8 percent more likely to pay than owners of commercial properties who live outside Wisconsin. Perhaps this finding captures the effects of owners who leave the state and allow the City foreclose on their property.

Across property classes, about half of the aldermanic district variables are found to be significant. For both statistically significant negative and positive effects, an examination of demographic characteristics across aldermanic districts did not indicate a relationship between payment rates and income, education, or race characteristics of the aldermanic districts (City of Milwaukee Information Technology Management Division, 2011). However, further study is needed to gauge the relationship of specific demographic characteristics of aldermanic districts and payment rates.

Last, our model finds that having an additional year of delinquent taxes decreased the probability of fee payment by a fee-weighted average of 17 percent. Clearly, owners with a history of tax delinquencies are less likely to pay municipal fees than those without a history of tax delinquencies.

Results: Late Penalties

To better isolate the effects of late penalty issuance on fee payment rates, we limit our analysis to fees that the department tries to collect via invoice. From 2007 to 2010, Neighborhood Services invoiced some of its fees, and Public Works invoiced all of its fees. By eliminating fees billed by letter, we control for billing type, which we showed in the previous section affects payment rates. Meanwhile, Public Works used late penalties for the majority of its fees, and Neighborhood Services did not use late penalties for any of its fees. We combine Neighborhood Services and Public Works data to analyze the effects of these differences late penalties.

Additionally, we control for the effect of one particular fee: apartment garbage collection. Apartment garbage collection fees are unique because users receive these fees quarterly, instead of just once per year. Including a dummy variable indicating whether a fee is apartment garbage collection allows us to avoid conflating our results with differences in frequency of correspondence.

As with our analysis of invoices, the use of late penalties is overall significantly correlated with fee expectedness. However, this multicollinearity does not affect fees in all three samples. For fees against residential properties, the correlation coefficient between a fee being expected and using a late penalty was only 0.15. Thus, for residential properties we are able to include both the expected and late

penalty variables in our regression. For mercantile apartments and commercial properties, the correlation between late penalties and expectedness is high, with correlation coefficients of -0.74 and -0.76, respectively. Therefore, for these properties we run separate regressions on expected and unexpected fees. Unlike in our attempt to run separate regressions on expected and unexpected fees in the analysis of invoices, there is sufficient variability with expectedness of fees with and without late penalties to permit regression analysis within these two sample categories. Table 10 illustrates the results for our analysis of late penalties.

Our regression model generates several statistically significant results for fee, property, and collection characteristics. Importantly, the effects of using late penalties have statistically significant effects on payment rates for residential, mercantile, and commercial properties. The explanatory power of the models is overall significantly better than the models we use to analyze invoices, perhaps because late penalties have a stronger impact on collection rates than invoices. Explanatory power is highest for mercantile and commercial properties with unexpected charges; the pseudo r-squared estimates range from 0.13 to 0.25. The sample of Neighborhood Services fees issued to residential properties is the largest with 31,805 observations; while Neighborhood Services fees against commercial properties total about 16,000, and Neighborhood Services fees against mercantile apartments total about 3,300.

Characteristics of collection

For four of the five samples examined, our regressions estimate that late penalties have a large positive effect on the probability of fee payment, ranging from 17 to 29 percent. These effects are statistically significant for nearly all samples; only for expected fees issued against commercial properties do late penalties fail to have a statistically significant effect. By comparison, for expected fees issued against mercantile apartments, late fees do appear to encourage payment of municipal fees—although to a slightly lesser extent than for unexpected fees. At the same time, the only expected fee with a late penalty was the bulky waste fee, meaning we cannot completely separate the effects of fee characteristics from late penalties for this particular fee.

Table 10. Regression Results: Late Penalties

	Residential Properties		Mercantile Apartments				Commercial Properties			
			Expected Charges		Unexpected Charges		Expected Charges		Unexpected Charges	
Explanatory Variable	Est. Marginal Effect on Prob. of Payment[1]	Robust Standard Error	Est. Marginal Effect on Prob. of Payment[1]	Robust Standard Error	Est. Marginal Effect on Prob. of Payment[1]	Robust Standard Error	Est. Marginal Effect on Prob. of Payment[1]	Robust Standard Error	Est. Marginal Effect on Prob. of Payment[1]	Robust Standard Error
Late penalty dummy	0.171 ***	0.0043	0.183 ***	0.0500	0.212 ***	0.0162	0.019	0.0906	0.291 ***	0.012
Expected charge dummy	0.051 ***	0.0071								
Apt. garbage collection dummy	0.806 ***	0.0349					0.391 ***	0.0075		
Tax delinquency (years)	0.003	0.0027	-0.119 ***	0.0292	-0.060 ***	0.0148	-0.248 ***	0.0227	-0.017 ***	0.003
ln(fee amount)	-0.070 ***	0.0028	-0.032	0.0218	-0.066 ***	0.0091	-0.066 ***	0.0058	-0.019 ***	0.007
ln(assessed property value)	0.018 ***	0.0040	0.053 ***	0.0123	-0.020 ***	0.0088	0.014 ***	0.0048	0.001	0.005
Duplex dummy	-0.023 ***	0.0044								
Multifamily dummy	-0.0308 ***	0.0098								
Manufacturing dummy							0.156 ***	0.0186	0.042	0.053
Special mercantile dummy							0.046 ***	0.0148	0.085 ***	0.021
Owner occupancy dummy	-0.050 ***	0.0041								
Owner Wisconsin resident dummy			0.136 ***	0.0270	-0.031	0.0263	0.135 ***	0.0210	0.028 *	0.015
Aldermanic district 1 dummy	0.006	0.0099	0.094	0.1035	0.063	0.0561	0.030	0.0249	0.029	0.038
Aldermanic district 2 dummy	0.068 ***	0.0130	-0.014	0.0859	0.038	0.0428	0.080 ***	0.0269	0.014	0.030
Aldermanic district 3 dummy	0.105 ***	0.0153	0.029	0.0767	0.121 **	0.0641	0.189 ***	0.0170	0.190 ***	0.050
Aldermanic district 4 dummy	-0.003	0.0126	0.111	0.0818	0.102 **	0.0542	0.169 ***	0.0185	0.016	0.031
Aldermanic district 5 dummy	0.052 ***	0.0155	-0.158 **	0.0365	0.073	0.0684	0.055 *	0.0278	0.041	0.044
Aldermanic district 6 dummy	0.012	0.0080	0.105	0.0973	-0.031	0.0369	-0.042 *	0.0225	0.028	0.029
Aldermanic district 7 dummy	0.017 **	0.0083	0.164	0.1309	0.025	0.0470	0.055 **	0.0251	0.013	0.034
Aldermanic district 8 dummy	0.070 ***	0.0107	0.265 ***	0.1179	-0.026	0.0305	0.095 ***	0.0206	0.035	0.033
Aldermanic district 9 dummy	0.026 **	0.0128	-0.201 ***	0.0280	0.033	0.0519	-0.218 ***	0.0433	0.135 ***	0.052
Aldermanic district 10 dummy	0.081 ***	0.0134	-0.037	0.0845	0.191 ***	0.0736	0.114 ***	0.0212	0.073 **	0.040
Aldermanic district 11 dummy	0.165 ***	0.0214	-0.035	0.0837	0.139 ***	0.0673	0.071 *	0.0349	0.111 **	0.057
Aldermanic district 12 dummy	0.052 ***	0.0105	0.148 *	0.0985	0.036	0.0425	0.082 ***	0.0184	0.020	0.025
Aldermanic district 13 dummy	0.081 ***	0.0163	-0.103	0.0643	0.060	0.0559	0.038	0.0281	0.038	0.032
Aldermanic district 14 dummy	0.105 ***	0.0143	0.142	0.1192	0.063	0.0605	0.109 ***	0.0202	0.040	0.033
Year 2008 dummy	0.001	0.0068	0.038	0.0352	-0.013	0.0186	0.019	0.0126	-0.006	0.018
Year 2009 dummy	0.044 ***	0.0071	0.042	0.0363	-0.011	0.0189	0.014	0.0128	0.020	0.019
Year 2010 dummy	0.045 ***	0.0068	0.145 ***	0.0424	0.017	0.0212	0.031 **	0.0126	0.065 ***	0.021
Number of observations:	31,805		1,156		2,151		12,894		3,036	
Pseudo R-squared	0.150		0.132		0.249		0.160		0.233	
Observed collection rate:	19.3%		23.4%		19.9%		61.9%		21.2%	

* coefficient estimate significant at 10-percent level ** coefficient estimate significant at 5-percent level *** coefficient estimate significant at 1-percent level

[1] For non-binary variables, marginal effects were evaluated at sample means. Note: Samples only included DNS and DPW fees assessed from 2007-2010.

Characteristics of fees

Similar to our invoices regression, our late penalty model estimates that higher fees generally decrease probability of payment. A 1 percent increase in the fee amount decreases the probability of payment by *7 percent* for residential fees, unexpected mercantile-apartment fees, and expected commercial-property fees—which together formed 92 percent of the total fees examined in the five samples. Seven percent is a rather large effect on payment probability for a mere 1 percent increase in the fee amount. While our invoice regression does not return estimates of the same magnitude, both models confirm that fee amount is an important variable in explaining payment rates of municipal fees.

The assessment year also has a strong estimated effect in the late penalty regression. However, the estimates indicated that fees assessed in 2008 through 2010 are more likely to be paid than fees assessed in 2007, a result also seen in the invoices regression. Thus, we cannot attribute temporal effects to broad macroeconomic indicators, but we caution that our 2007 observations may capture the beginnings of the property market collapse.

While we have to separate expected and unexpected fees for commercial and mercantile properties, our late penalties model can estimate the effect of a fee being expected for residential properties—by far the largest of our samples. Our model finds that, for residential properties, expected fees are 5 percent more likely to be paid. While an overall 5 percent increase is not trivial, it is small in comparison to the marginal effects of the fee amount.

Finally, our model estimates that residential properties and commercial properties receiving expected fees are, respectively, 81 and 39 percent more likely to pay an apartment garbage fee than other fees. These estimated effects are unsurprisingly the highest of all explanatory variables, confirming our expectation that property owners are more likely to pay fees assessed quarterly (rather than non-routinely). For fees assessed against mercantile apartments, we are unable to estimate the effect of the apartment garbage fee dummy as a result of its high correlation with late penalties. Nonetheless, frequency of correspondence appears to affect payment probability.

Characteristics of properties

As with the regressions analysis for invoices, our models analyzing late penalties estimate that assessed property value generally has a positive effect on the probability of fee payment. For fees against residential properties and expected fees against commercial properties, our model finds that 1 percent higher property values equated to about a 1.5 percent greater likelihood of payment. Within mercantile apartments, the estimated effect varies—5 percent increase in payment probability for expected fees and 2 percent decrease in payment probability for unexpected fees. Given these estimated effects are for a *1 percent* increase in assessed property value, the estimates are very large.

Generally, owners of higher-value properties appear more likely to pay municipal fees, and these estimated effects are overall higher in the late penalty regressions than in the invoice regressions.

Controlling for late penalties, the effects of property ownership on probability of payment are similar to the invoice regressions. Owners of duplex and multifamily properties are 3 and 5 percent less likely to pay fees, respectively, than single-family property owners. Within commercial properties, owners of manufacturing and special mercantile are 16 and 5 percent more likely to pay fees, respectively, than are owners of mercantile properties. Additionally, our model estimates that of owners of mercantile apartments and commercial properties, those living in Wisconsin are 14 percent more likely to pay expected municipal fees. This result may capture the effects of properties owners who leave the state and allow the City to foreclose on neglected property.

Of particular note, owner-occupied properties are associated with a payment probability 5 percent less than non-owner-occupied properties—approximately the same estimated effect as in the regression controlling for invoices. This repeated estimate leads us to believe owner-occupied residential properties are generally less likely to pay municipal fees. As mentioned, we hypothesize that this may be related to the financial stress of owner-occupied properties relative to similarly valued non-owner-occupied properties.

In the late fee regression, the aldermanic district dummy variables are most significant for residential properties and expected fees for commercial properties. Some estimates for particular districts significantly differ across our invoice and late penalty regressions, and our examination of demographic characteristics across aldermanic districts does not indicate a relationship between payment rates and the income, education, or race characteristics of the aldermanic districts. We again recommend further study to gauge the relationship of specific demographic characteristics of aldermanic districts and payment rates.

Unlike in the regression controlling for invoices, for the late penalties regression, a history of tax delinquency is not estimated to have a significant effect on the probability of payment of fees issued against residential properties. However, for fees issued against non-residential properties, our model estimates that properties with a history of tax delinquency are significantly less likely to pay fees. This corroborates our hypothesis that non-payment may be a recurring problem for some property owners.

Policy Options for Increasing Collection Rates

The City of Milwaukee possesses several tools for addressing problems associated with unpaid municipal fees. Drawing upon our data analysis, interviews with city managers in and outside Milwaukee, and local and national best practices reports, we present three policy options that may improve the City's initial collection procedures. Although an evaluation of cost-effectiveness is beyond the scope of this report, we can broadly predict relative administrative costs across the options we propose. For relatively low anticipated administrative costs, Milwaukee could mail invoices with due dates for all fees. For somewhat higher administrative costs, Milwaukee could issue late penalties for all unpaid fees and/or offer online payment options for all fees. Although each alternative imposes administrative costs, the City would benefit from substantial savings that might outweigh the associated costs, if the change proved effective in reducing the number and value of special charges,

Mail invoices with due dates for all fees. Only the Department of Neighborhood Services sends letters of notification without payment due dates, but it sends these letters for 31 of the 41 fees it issues. Because of the strong relationship between invoice issuance and charge characteristics—in particular, whether or not a charge is expected—in the Department of Neighborhood Services, our regression analysis is inconclusive regarding the precise effect of invoices on on-time fee payment. Nonetheless, invoices are associated with higher collection rates than letters, indicating that due dates may have a positive effect on payment of municipal fees prior to placement on the property tax bill. It makes sense that property owners would be more likely to pay a fee in a timely manner with a due date than without, and the City could likely implement this change for a small administrative cost. Adding due dates to the Neighborhood Services letter template would take minimal time and resources and would set the stage for late penalties if property owners failed to pay by the due date.

Issue late penalties for all unpaid fees. Neighborhood Services does not issue late penalties for any of its fees. Public Works issues $10 penalties for all but two fees. Water Works issues 3 percent penalties for three fees and 5 percent penalties for one fee. Our regression model estimates a strong relationship between late penalties and fee payment. While our regression model does not allow us to definitively infer causality, it suggests that issuing late penalties for unpaid fees would significantly increase collection rates. At the same time, costs are likely to be higher than for the invoice option, as late penalties would likely require changes to department accounting systems and higher printing and mailing costs. The City should also consider potential effects of new penalties on city revenues and on low-income property owners.

Offer credit card payment options for all fees. Because only Water Works offers credit card payment options for municipal fees, we were unable to include payment options as variables in our regression. Nonetheless, anecdotal evidence

suggests that offering credit card payment options may increase collection rates. According to a survey of municipalities from the Wisconsin Legislative Audit Bureau (2004), “offering a variety of payment options provides flexibility and convenience to payers of user fees and may increase a local government’s ability to collect revenue…in some communities, the availability of on-line payment capability resulted in payments the community did not expect to receive.” Further, credit card convenience fees can be passed on to property owners, and vendors manage most of the additional processing. Because the Department of Public Works already offers credit card options for parking tickets, expansion within the department should be feasible. However, the costs associated with contracting out to a vendor may be higher than the costs associated with issuing invoices or late penalties within departments.

Suggestions for Further Analysis

A comprehensive analysis of municipal fees and special charges in Milwaukee would involve conducting a trend analysis and cost-effectiveness study. The trend analysis would provide the basis for predicting fee issuance and collection rates over time, helping Milwaukee to make well-informed budgeting decisions. The cost-effectiveness study would allow the City to weigh the predicted effects of different collection practices against the costs of implementation. Both the trend analysis and cost-effectiveness study would require improved data maintenance across departments in order to track individual fees through their entire life cycle. The cost-effectiveness study would also require detailed information on actual and predicted costs.

For both a trend analysis and the cost-effectiveness study, we would need to be able to track a fee from its initial billing to its final payment, regardless of whether the fee goes onto the property tax bill. Currently, not all departments document initial billing dates, making it difficult to determine the beginning of the fee life cycle. Additionally, once fees are placed onto property tax bills as special charges, their payment is difficult to track; current data provide only a snapshot of unpaid special charges that were issued in a specific year and are still outstanding today. To remedy this problem, the City of Milwaukee should require departments to register each billing and payment event for each fee issued.

A complete analysis would also evaluate fees that are removed from the system for reasons other than payment. Currently, many fees are dropped from the Neighborhood Services and Public Works collection systems and recorded as "cancelled," "closed," "bankrupt," "foreclosed," and "hardship" without clear coding definitions. Staff members entering the data sometimes use the terms "closed" and "cancelled" for fees that are mistakenly charged and other times to indicate that the owner has fixed the problem independently. Additionally, departments that give fee exemptions or reductions for owners deemed to have financial "hardship" record this information ambiguously. It is often unclear whether owners whose fees have a status of "hardship" have received city services at all and whether these fees have been forgiven or reduced. Moreover, if "hardship" property owners do have to pay fees, there is no documentation indicating whether they pay. To address these concerns, the City of Milwaukee should implement a uniform coding protocol.

A cost-effectiveness study would weigh predicted policy effects against the costs of policy adoption and implementation. While data maintenance improvements would help the City better predict policy effects, extensive data gathering may be necessary to evaluate actual and predicted costs. Costs include work hours spent by staff in fee-issuing departments to issue, collect, and track fees, as well as financial costs associated with printing, mailing, and updating accounting systems. They also include work hours and financial

costs for the Comptroller's Office, which certifies special charges; the Assessor's Office, which transfers special charges to tax bills; and the Treasurer's Office, which collects special charges along with property taxes and any other assessments on the property tax bill. Before the City decides to implement any collection policy option, it should evaluate these and any other associated costs.

Conclusion

In the City of Milwaukee, unpaid municipal fees that end up on property tax bills as special charges have been increasing in number and dollar value in recent years. This report finds that nonpayment is associated with characteristics of fees, characteristics of properties, and characteristics of collection practices. Because the City can affect collection practices with policy decisions, we try to identify the collection practices that have the greatest impact on collection rates. Our regression analysis indicates that late penalties in particular may have a positive impact on collection rates. We recommend that the City of Milwaukee undertake a more comprehensive evaluation of its fee collection system and find the most cost-effective way to maximize collection rates. It is our hope that our data and process analysis helps the City position itself for the improvement of its municipal fee collection policies.

References

Administration and Enforcement ordinance, Milwaukee Code of Ordinances, §200-33-17. (2010). Retrieved from http://cctv25.milwaukee.gov/netit-code81/volume2_/ch200sub5/CH200-sub5.pdf.

City of Milwaukee Comptroller. (2007, August). *City of Milwaukee comparative revenue and expenditure report.* Retrieved from http://www.springsgov .com/units/boardscomm/MilwaukeeExpendRpt07Final.pdf.

City of Milwaukee Clerk's Office. (2011). *Code of ordinances.* Retrieved from http://city.milwaukee.gov/TableofContents1179.htm.

City of Milwaukee Department of Administration. (2010). *2011 Plan and Budget Summary.* Retrieved from http://city.milwaukee.gov/ImageLibrary/User/crystali/2010budget/2011budget/2011adopted/2011adoptedbudgetbook.pdf

City of Milwaukee Department of Public Works. (2011). Parking citation information for the City of Milwaukee. Retrieved from https://step1.caledoncard.com/citations/milwaukee.html.

City of Milwaukee Information Technology Management Division. (2011). Milwaukee aldermanic district statistics. Retrieved from http://itmdapps. ci.mil.wi.us/publicApplication_SR/aldermanicDistrict/ aldermanicDistrictfm.faces.

Milwaukee Water Works. (2011a). The Milwaukee municipal services bill. Retrieved from http://city.milwaukee.gov/ImageLibrary/Groups/ WaterWorks/files/TheMunicipalSvcsBill_110225.pdf.

—.(2011b). How to pay your bill. Retrieved from http://city.milwaukee.gov/ water/customer.

Wisconsin Legislative Audit Bureau. (2004). *Best practices report: local government user fees.* Retrieved from http://legis.wisconsin.gov/lab/ reports/04-0UserFeesFull.pdf.

Wisconsin Statute §66.0627. (2010). Retrieved from http://nxt.legis.state.wi.us/nxt/gateway.dll?f=templates&fn=default.htm&=stats&jd=%A766.0627.

Wisconsin Statute §66.0809(3). (2010). Retrieved from http://nxt.legis.state.wi.us/ nxt/gateway.dll?f=templates&fn= default.htm&d=stats&jd=%A766.0809.

Appendix A. Data Collection and Limitations

To complete the data analysis in this report, we used accounts receivable data from the Departments of Neighborhood Services (DNS) and Public Works (DPW), and Milwaukee Water Works (MWW) for years 2007 through 2010. We merged this with Milwaukee Master Property Record (MPROP) data for the same years to examine property owner characteristics of those who incurred municipal fees and special charges. We also used aggregate data from the Assessor's Office on special charges and current Office of the Treasurer data to examine trends of property owners who had special charges on their tax bills. Table A1 illustrates the data sources we used for different phases in the municipal fee process—that is, before, during, and after placement on property tax bills.

Table A1. Data Sources Arranged by Phase in Collection Process

Municipal Fees Initial departmental billing	• DNS & DPW accounts receivable data (individual charge level) 2007-2010 • MWW data (charge category aggregate level) 2007-2010 • MPROP data (property tax key level) 2007-2010
Placement on Tax Roll Transition from departments to Treasurer via Assessor	• DNS, DPW, & MWW accounts receivable data (individual charge level) 2007-2010 • MPROP data (property tax key level) 2007-2010 • Assessor's data for all special charges (charge category aggregate level) 2004-2010 • Treasurer's data for properties with outstanding special charges (property tax key level) 2010
Special Charges Treasurer collection of special charges with property taxes	• Treasurer's data for properties with outstanding special charges (property tax key level) 2007-2009

Source: Authors.

Creating Our Dataset

We narrow our dataset in two ways. First, we limit our analysis to 2007 through 2010 because our data are most complete and consistent over those four years. Second, we limit our analysis to fees labeled "paid" and "assessed" because other statuses are used inconsistently and are often poorly defined.

Years

We limit our analysis to tax years 2007 through 2010 to analyze the municipal fee process and to 2004 to 2010 to understand general special charge trends. We limit our specific analysis to 2007 to 2010 for the following three reasons. First, Milwaukee's Common Council authorized many municipal charges to be placed on the tax roll as special charges from 1995 to 2007, but it has not approved any new authorizations since. Second, Water Works divided the sewer fee into two fees in 2004 and added a third fee category in 2006. Third, DPW-Sanitation special charges were authorized in 2007. We limit our general special charge trend analysis to 2004 to 2010 because we lack data on the number of sewer and water special charges for tax years 2001 through 2003.

Status

We limit our analysis to fees with status labels of "paid" (paid in full) and "assessed" (placed on the property tax roll as special charges). However, we found 14 labels indicating a fee's status. Our understanding is that some of these labels indicate that a fee record has been closed and some of these labels indicate that the record is still open. However, departments do not always use these labels in a uniform or specified way. Below is a list of these status labels.

Open	**Closed**
Issued	Paid
Pending	Assessed
Active	Closed
Dispute	Cancelled
Noticed	Released
Billed	Bankrupt
	Foreclosed
	Hardship

Open Status. We exclude all fees with open status labels from our analysis. There is little information regarding why a department would leave a municipal fee that is still outstanding after a year in the accounting system when it could be placed on the property tax roll. Additionally, the distinctions between "active," "noticed," and "billed" fees are unclear.

Closed Status. We exclude all closed status labels other than "paid" and "assessed" from our analysis. A large portion of fees is labeled as "closed," "cancelled," or "released," though the distinctions among these labels is unknown. In two Public Works fee categories, more than 40 percent of the records were listed as "closed." Public Works uses the label "hardship" for fees received by property owners registered as eligible for reduced penalties and fees due to financial hardship. However, the database typically does not specify whether property owners actually receive fees and, if so, whether the fees are paid or assessed. A much smaller proportion of fees in both the Public Works and Neighborhood Services datasets are labeled as "bankrupt" or "foreclosed." Though the definition of these labels is clear, we exclude them from our analysis because we assume that these financially distressed property owners are different from other property owners incurring fees.

Treasurer Data Limitations

There are two important limitations with tracking and analyzing the special charges once placed on the property tax roll. First, the Milwaukee Treasurer's Office only tracks outstanding charges and removes paid or dropped charges from its records. Because we cannot disentangle paid charges from dropped charges, we cannot track special charge payments over time. We can, however, look at characteristics of nonpayment. Second, the Treasurer's Office database does not merge outstanding special charges over time—that is, unpaid municipal fees in

2007 are listed as special charges for 2007, and unpaid municipal fees in 2008 are listed as special charges for 2008. The 2007 special charges are not merged with special charges for 2008; thus, we can't directly compare unpaid charges across years. This arrangement prohibits us from describing trends in special charges over time or making predictions of special charges.

Assessor Data Limitations

Other than for the year 2010, data from the Assessor's Office is only available to in aggregate form, not at the individual charge level. Therefore, while we used Assessor data to generate aggregate statistics on special charges, we employed department-level accounts receivable data for our regression analysis on collection rates—a task that required a refined level of detail.

Water Works Data Limitations

In 2010, Water Works billed more than $180 million in property-related municipal fees to around 150,000 accounts. While we received abundant, micro-level information on four years of special charges (those unpaid charges sent to the tax roll), we received only aggregate information for overall Water Works municipal fees, due to the massive size of Water Works' client population. This meant that we were unable to identify trends among property owners who paid their Water Works fees in advance of the property tax bill. However, we were able to evaluate property owner characteristics for those Water Works clients who had been assessed special charges.

Public Works and Neighborhood Services Data Limitations

Municipal fee data collection practices vary among and within departments. Departments use different software packages for data management and billing, which results in datasets being structured differently. Also, department staff members collect different transactional information for different types of fees, define fields differently, and use different terminology for common procedures without documentation. For example, Neighborhood Services does not use a unique field to record payment date, and, although Water Works likely collects payment date information, our Water Works data did not include it. In some Public Works data files, personal check dates are used as proxies for payment dates, and in others, payment date information is unavailable. These inconsistencies make it difficult to track individual fees over their life cycle.

Appendix B. Revenue Sources for the City of Milwaukee

Like many other U.S. municipalities, Milwaukee has been trying to decrease its reliance on the property tax while facing severe fiscal challenges. Unlike municipalities in many other states, however, Milwaukee faces a statutory prohibition against imposing significant local taxes other than the property tax (City of Milwaukee Comptroller, 2007).

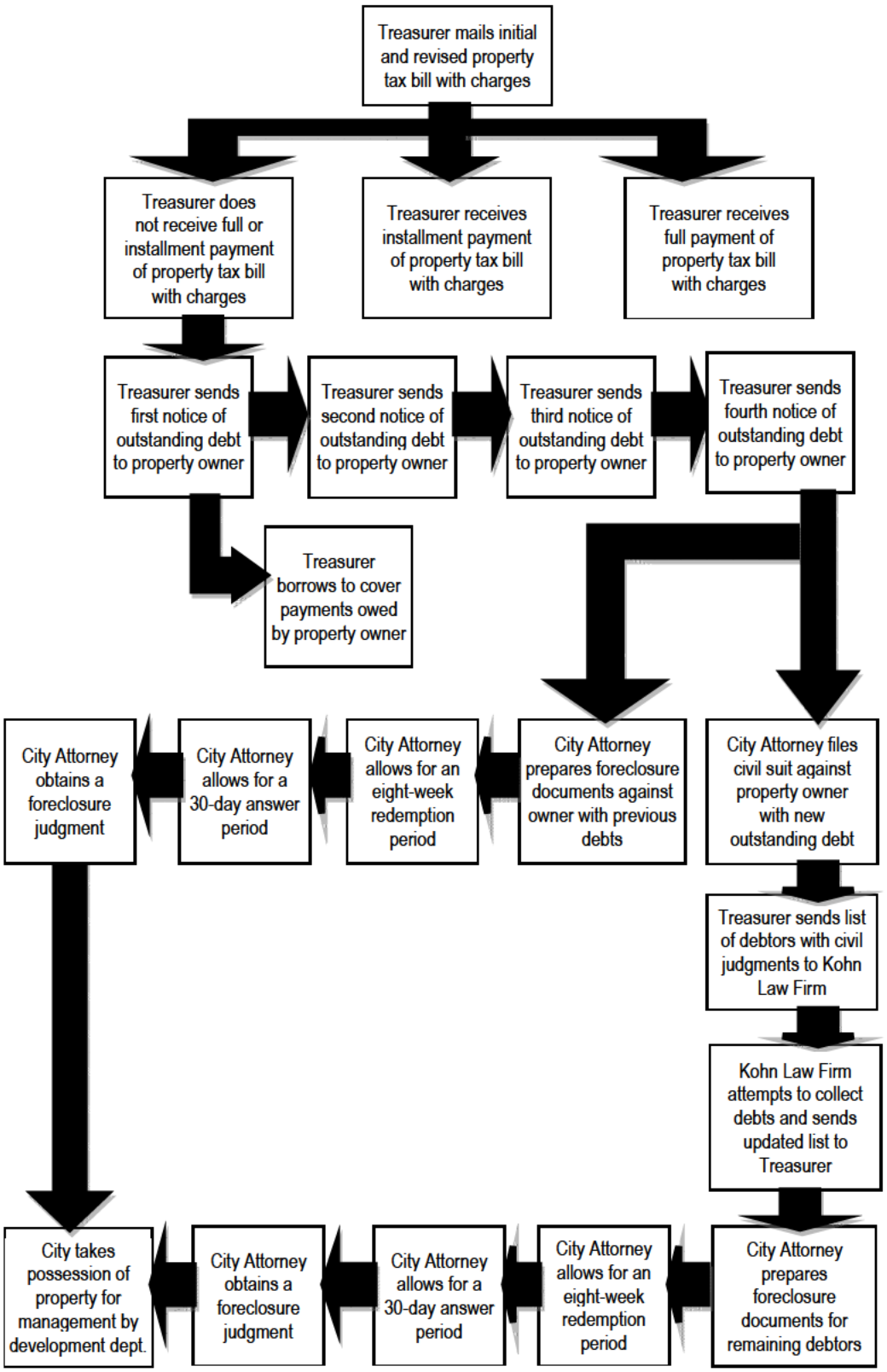
These limitations leave the City with only two major sources of revenue outside of the property tax: state aids and service charges. State aids come primarily from shared revenue, which the State allocates by formula to municipalities for general governmental use. Service charges can be applied to anything from tree removal to pool fees to sewer service, and must adequately correspond to the service provided (Jim Klajbor, Special Deputy City Treasurer's Office, personal communication, April 12, 2011). The City has little control over state aids, which are allocated primarily by formula, but the Common Council has the flexibility to increase fee rates and establish new fees.

Appendix C. Collection of Special Charges

Departments add municipal fees—except for Water Works fees totaling less than $150—that remain unpaid at the end of the year to the property tax roll. Most departments send their unpaid fees to the Comptroller for review and submission to the Assessor's database, but some independently review and upload their unpaid fees that become special charges into the database. The Treasurer handles the collection of special charges placed on property tax bills.

The Treasurer collects special charges over a period of two and half years. For the first year, the Treasurer imposes interest rates on unpaid special charges, borrows money to cover the unpaid amount, and sends a series non-payment notification letters to property owners. For the second year, the Treasurer continues to charge interest and turns to the City Attorney for civil suit judgments, and the Treasurer then enlists the help of Kohn Law Firm, a contracted private collections law firm, to collect on those judgments. During the third year, the City Attorney forecloses on nearly all properties with unpaid charges and property taxes exceeding $250. Figure C1 illustrates the collection process once fees are placed onto property tax bills as special charges.

Figure C1. Special Charge Collection Process



Source: Based on interviews with city staff from the Milwaukee Treasurer's Office.

Appendix D. Municipal Fee Collection

This appendix gives a detailed overview of how the municipal fee collection process varies by fee.

Table D1. Municipal Fee Collection Practices by Fee Type

Code	Charge	Dept	Billing Type	Frequency of Correspondence	Payment Forms Accepted	Late Fee?	Conditions under which Charge Goes on Tax Roll	Average Collection Rate 2007-2010[1]
90	Bldg Nuisance Abatement (DNS Board-Ups)	DNS	Letter	once	check or cash	No	any balance at least 30 days past due	19.9%
91	Special Privilege	DNS	Invoice	once	check or cash	No	any balance at least 30 days past due	80.4%
92	Covered Openings	DNS	Invoice	once	check or cash	No	any balance at least 30 days past due	55.0%
94	Condemned Building Razing	DNS	Invoice	once	check or cash	No	any balance at least 30 days past due	49.2%
96	DNS-Miscellaneous	DNS	Some letter, some invoice	once	check or cash	No	any balance at least 30 days past due	36.2%
9B	Fire Prevention Inspection	DNS	None	N/A	check or cash	N/A	N/A -- goes directly to tax roll	0.0%
9C	DNS-Health Abatement	DNS	Letter	once	check or cash	No	any balance at least 30 days past due	14.0%
9I	Building Re-Inspection	DNS	Letter	once	check or cash	No	any balance at least 30 days past due	11.2%
95	DPW Misc: Tree Removal and Encroachments	DPW	Invoice	once	check or cash	$10	any balance at least 30 days past due	6.3%
97	Snow Removal (Sidewalk)	DPW	Invoice	once	check or cash	$10	any balance at least 30 days past due	33.3%
99	Weed Removal	DPW	Invoice	once	check or cash	$10	any balance at least 30 days past due	17.4%
8F	Garbage Cart Return	DPW	Invoice	once	check or cash	$10	any balance at least 30 days past due	33.6%
8V	DPW- Bulky Waste	DPW	Invoice	once	check or cash	$10	any balance at least 30 days past due	28.2%

Code	Charge	Dept	Billing Type	Frequency of Correspondence	Payment Forms Accepted	Late Fee?	Conditions under which Charge Goes on Tax Roll	Average Collection Rate 2007-2010[1]
9M	Police Board-Ups	DPW	Invoice	once	check or cash	No	any balance at least 30 days past due	0.05%
9P	Apartment Garbage Collection	DPW	Invoice	quarterly	check or cash	No	any balance at least 30 days past due	93.0%
93	Water	MWW	Invoice	quarterly; large customers monthly	check, cash, MasterCard, Discover, E-Check/AutoPay[2]	5%	MWW Tax Roll Policy[3]	90.9%
8S	Municipal Services (Solid Waste and Snow & Ice)	MWW	Invoice	quarterly; large customers monthly	check, cash, MasterCard, Discover, E-Check/AutoPay[2]	3%	MWW Tax Roll Policy[3]	82.8%
8T	Storm Water	MWW	Invoice	quarterly; large customers monthly	check, cash, MasterCard, Discover, E-Check/AutoPay[2]	3%	MWW Tax Roll Policy[3]	88.8%
9D	Sewer	MWW	Invoice	quarterly; large customers monthly	check, cash, MasterCard, Discover, E-Check/AutoPay[2]	3%	MWW Tax Roll Policy[3]	90.0%

[1] Data source: Milwaukee Water Works and the Departments of Public Works and Neighborhood Services.

[2] E-Check is a one-time electronic check payment, AutoPay is a regular automatic payment option offered through www.directpaymentplan.com

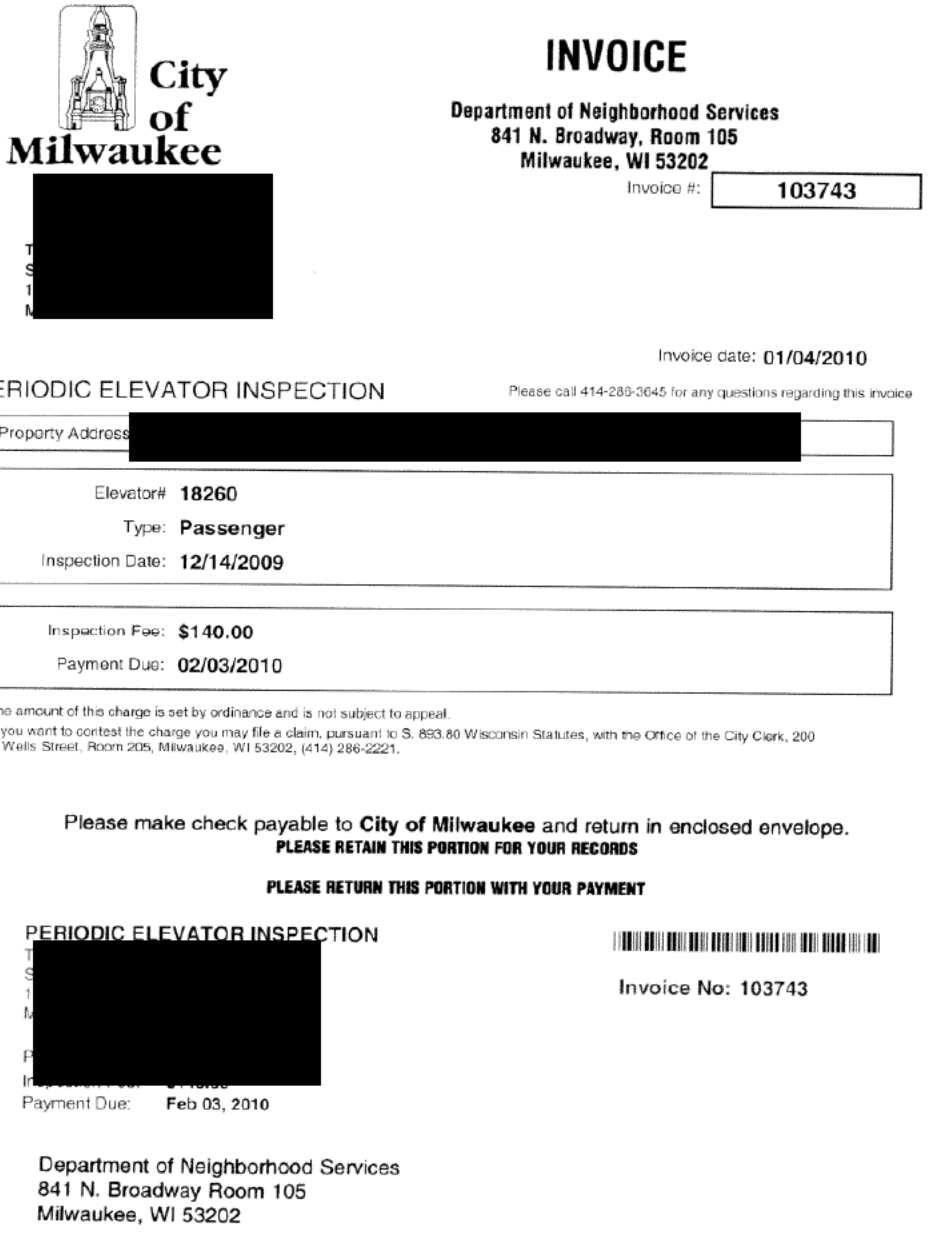
[3] MWW tax roll policy: Water Works accounts are eligible for transfer to tax roll if they are in arrears for six months or more and have unpaid balances of $150 or more in one of the its four categories of services. Only the service with the balance more than $150 will be transferred. All transfers incur a 10 percent administrative charge.

Note: Charge 8Y "Non-City Water" is not included because from 2007 to 2010 there was only one such charge, $447 (in 2009). Similarly, 8J, Health Department's Lead Abatement charge, is omitted because it is the only special charge outside of DPW, DNS, and MWW.

Appendix E. Sample Notifications

Shown below are a sample invoice and letter from the Department of Neighborhood Services. The invoice (Figure E1) has a short description of the fee and a due date, while the letter (Figure E2) has an explanation of the fee schedule and no due date.

Figure E1. Department of Neighborhood Services Sample Invoice



City of Milwaukee

[redacted]

INVOICE

Department of Neighborhood Services
841 N. Broadway, Room 105
Milwaukee, WI 53202

Invoice #: 103743

Invoice date: 01/04/2010

PERIODIC ELEVATOR INSPECTION

Please call 414-286-3645 for any questions regarding this invoice

Property Address [redacted]

Elevator# 18260
Type: Passenger
Inspection Date: 12/14/2009

Inspection Fee: $140.00
Payment Due: 02/03/2010

The amount of this charge is set by ordinance and is not subject to appeal.
If you want to contest the charge you may file a claim, pursuant to S. 893.80 Wisconsin Statutes, with the Office of the City Clerk, 200 E Wells Street, Room 205, Milwaukee, WI 53202, (414) 286-2221.

Please make check payable to **City of Milwaukee** and return in enclosed envelope.

PLEASE RETAIN THIS PORTION FOR YOUR RECORDS

PLEASE RETURN THIS PORTION WITH YOUR PAYMENT

PERIODIC ELEVATOR INSPECTION

[redacted]

Payment Due: Feb 03, 2010

Invoice No: 103743

Department of Neighborhood Services
841 N. Broadway Room 105
Milwaukee, WI 53202

Figure E2. Department of Neighborhood Services Sample Letter

CITY OF MILWAUKEE
DEPARTMENT OF NEIGHBORHOOD SERVICES
Residential Section
4001 S. 6th St.
Milwaukee, WI 53221
July 27 , 2010

[redacted]

RE: [redacted] Order #: 7729101

When a property is reinspected and violations remain uncorrected, the Milwaukee Code of Ordinances provides for these reinspection fees:

First reinspection $50
Second reinspection $75
Third reinspection $200
All subsequent reinspections $350

There is no charge for the reinspection that shows compliance with all violations.

All reinspections which show noncompliance with the order will be charged at the above rate. These fees will be assessed against the property as a special charge and will appear on the tax bill for this property. **On 07/13/10, we imposed a $50 reinspection fee.**

As you can see, the cost of noncompliance with the code can add up quickly. The Department would prefer to see you put the money into correcting the violations and not into paying reinspection fees. Please contact me as soon as the violations have been corrected. If I do not hear from you, I will continue to reinspect until the property has been brought into compliance with the code. Please do not put us in that situation.

If you wish to appeal this $50 charge you must file that appeal within 30 days of the date of this letter. It must be filed with the: Administrative Review and Appeals Board, Office of the City Clerk, Room 205 City Hall, 200 E Wells Street, Milwaukee Wisconsin 53202, 414-286-2221. Please contact them to obtain the proper application form. There is a $25 fee required when filing this appeal.

Please be advised that if you have filed for bankruptcy, this letter is for informational purposes and is not intended to be construed as an attempt to collect a debt during the pendency of your bankruptcy as other conditions may apply.

Please call me at **(414) 286-3433** during the hours of **7-9am 2-3pm Monday through Friday** for information on which violations remain uncorrected or if you have any questions.

Michael Mazmanian
Inspector

[redacted]

Appendix F. Special Charge Nonpayment Trends

We can think about the Treasurer's data as a compilation of single years to provide snapshots in time as property owners with unpaid special charges make their way through the City's collection process. We have a snapshot of newly issued special charges (2010), a snapshot of special charges unpaid after one year on the property tax roll (2009), after two years (2008), and after three years (2007). We can look at special charges and provide summary statistics about uncollected charges, the total and average value of those charges, and certain characteristics of properties with outstanding special charges, namely: assessment class, owner occupancy status, median property value, and aldermanic district.

Characteristics of Charges

According to data from Milwaukee Treasurer's Office, 30 percent of properties in Milwaukee had special charges on their tax bills in 2010 (see Table F1). These unpaid charges are worth almost $50 million. There are roughly 12,000 properties (7.3 percent of all properties) with special charges outstanding after one year on the property tax roll , 3,400 properties (2.1 percent) with charges unpaid after two years, and 995 properties (0.6 percent) with special charges after three years on the property tax roll. All together, there is more than $70 million of uncollected charge revenue in Milwaukee.

Table F1. Unpaid Special Charges by Years on Tax Roll

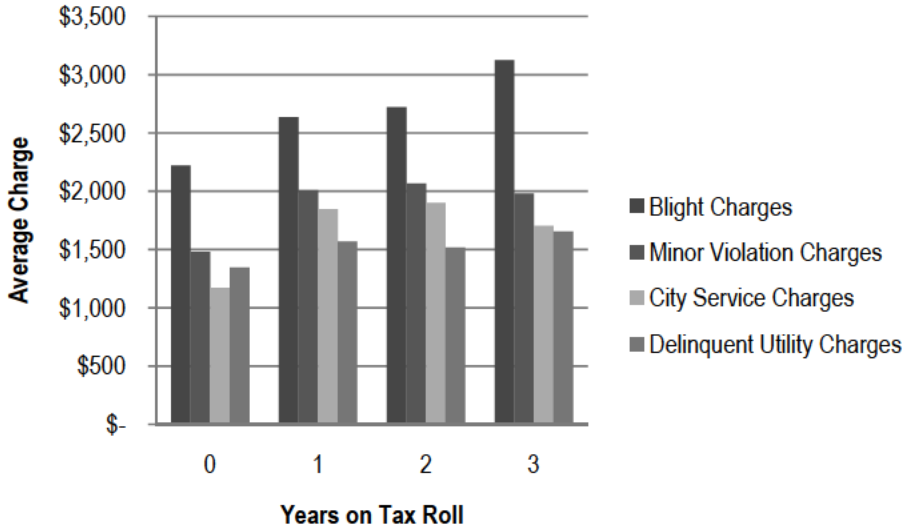
Years on Tax Roll	Number of properties with special charges	As a share of all Milwaukee properties	Average uncollected special charge	Total outstanding special charges
0	48,868	30.1%	$1,005	$49,103,972
1	11,838	7.3%	$1,310	$15,502,639
2	3,443	2.1%	$1,336	$4,600,294
3	995	0.6%	$1,432	$1,424,704
Total				$70,631,608

Source: Calculated using City of Milwaukee Treasurer's Office data.

The significant reduction in the number of properties with special charges, and the total value of outstanding charges between initial placement on property tax bills (year 0) and subsequent years, demonstrates that most charges are eventually collected. However, the City is forced to forgo revenues for multiple budget years until the charges are collected.

Figure F1 breaks down the average uncollected special charge by year and charge category. As you can see, average blight-related charges are considerably more expensive than other charge categories, and within each year, the variation of non-blight charges is roughly only $500. The average value of a special charge does not change dramatically between one-year delinquent (2009) and three years delinquent (2007). One might expect smaller charges to be paid off more quickly, driving up the average longer-term charge, but that does not appear to be the case after initial placement on the tax bill. However this might explain the increasing value of outstanding blight charges over time.

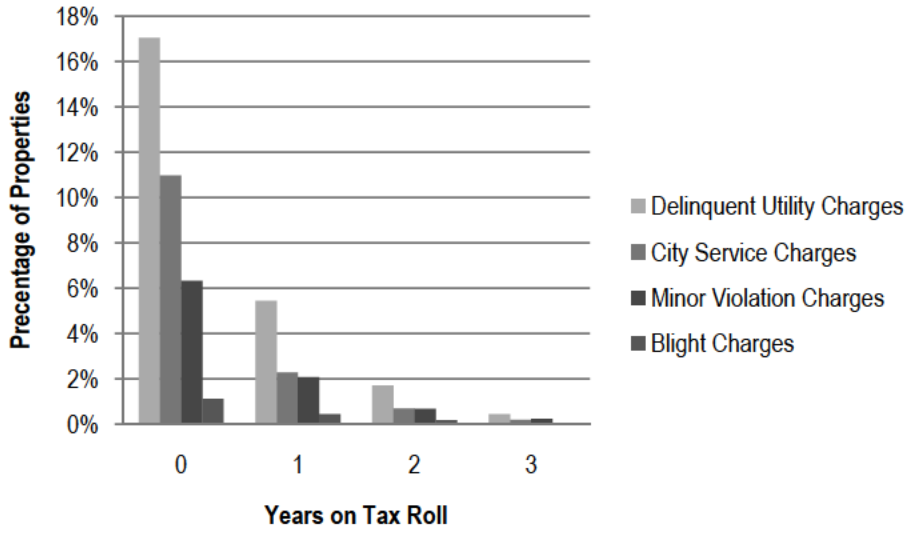
Figure F1. Average Unpaid Special Charge



Source: Calculated using data from City of Milwaukee Treasurer's Office.

Figure F2 shows the number of properties with unpaid special charges as a percentage of all Milwaukee properties. This figure demonstrates that properties with delinquent utility charges make up the largest percentage of unpaid charges, followed by city service charges, minor violation charges, and blight charges. Although average blight charges are the most expensive of the charges (Figure F1), they represent the smallest percentage of unpaid charges each year. Average delinquent utility charges are often the least expensive average charge, and yet they represent the greatest percentage of properties with special charges.

Figure F2. Percentage of Milwaukee Properties with Special Charges



Source: Calculated using data from the City of Milwaukee Treasurer's Office merged with MPROP data.

Characteristics of Properties

In Milwaukee, 83 percent of all properties are classified as residential or commercial properties. All remaining property classes, manufacturing, special mercantile, condominiums, mercantile apartments or tax exempt, make up 17 percent of total properties in Milwaukee (see Table F2). These percentages are similar for properties with special charges that are zero, one, two, and three years outstanding (issued from 2010 to 2007, respectively). In general, properties with special charges have a higher percentage of commercially assessed properties relative to all Milwaukee properties. With the exception of fees for city services, the same is true for residential properties with special charges. Interestingly, there is a smaller percentage of non-residential or commercial assessment classes relative to the rest of the City. One might expect to see a high number of tax-exempt properties with special charges, but that does not appear to be true.

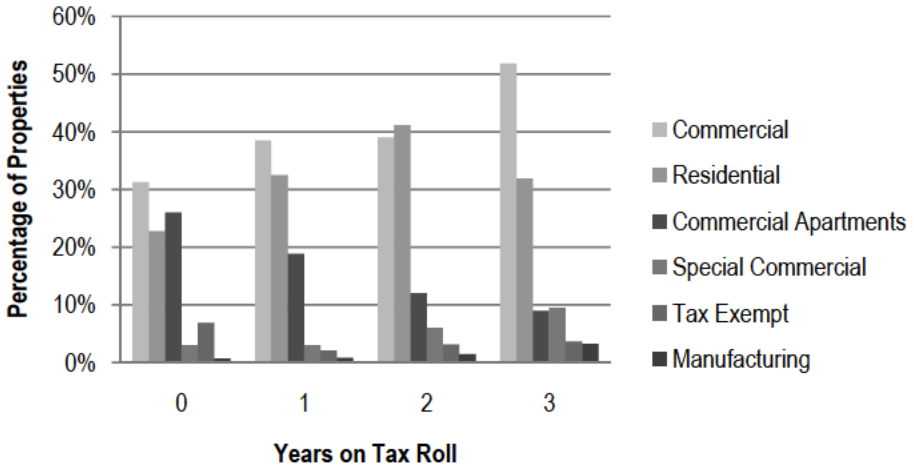
Table F2. Residential and Commercial Properties with Special Charges

Years on Tax Roll	Assessment Class	All Milwaukee Properties	Properties with Special Charges			
			Minor violations	City services	Delinquent utility	Blight
0	Residential	79%	83%	23%	90%	86%
	Commercial	4%	8%	31%	5%	6%
	Other	17%	9%	46%	6%	8%
1	Residential	79%	81%	32%	84%	87%
	Commercial	4%	10%	38%	8%	6%
	Other	16%	9%	29%	8%	7%
2	Residential	80%	80%	41%	82%	88%
	Commercial	4%	14%	39%	10%	8%
	Other	16%	6%	20%	8%	4%
3	Residential	83%	72%	32%	80%	85%
	Commercial	4%	24%	52%	13%	11%
	Other	12%	4%	16%	7%	4%

Source: Calculated using data from Treasurer's Office merged with MPROP data.

That so many commercial property owners owe fees is not surprising because fees for city services relate to commercial inspections and requested services. What is surprising is that such a high proportion of non-residential and commercial properties owe special charges for fees for city services. A closer examination shows that mercantile apartments made up about a quarter of properties with new city services special charges, but this portion drops to less than 10 percent of properties with city services special charges that are three-years delinquent. Special mercantile properties, on the other hand, comprise a greater portion of properties with city services special charges that are three-years delinquent than of properties with newly issued city services special charges (see Figure F3).

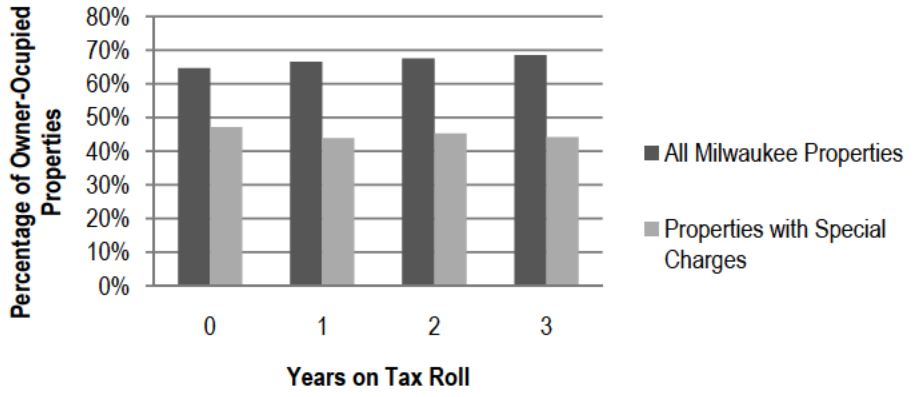
Figure F3. Percentage of Properties with Special Charges for Fees for City Services



Source: Calculated using data from the City of Milwaukee Treasurer's Office merged with MPROP data.

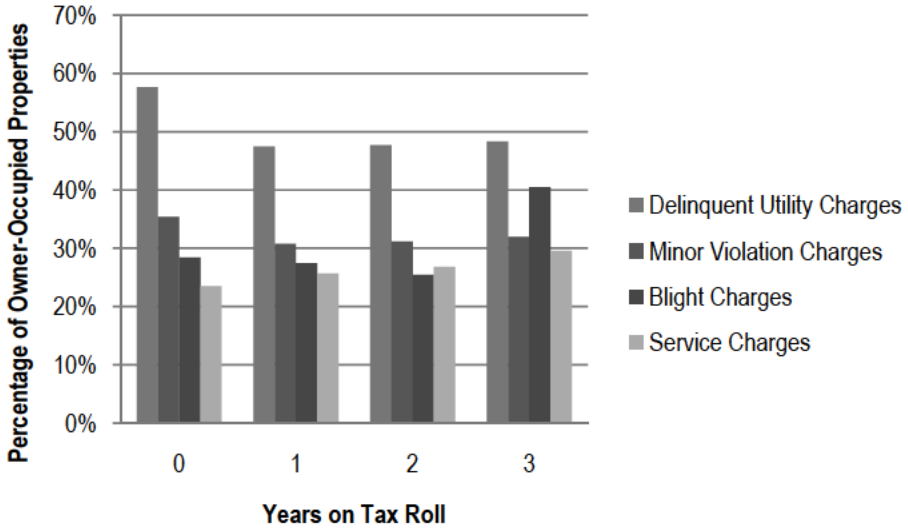
More than 65 percent of properties in the City of Milwaukee are owner-occupied (see Figure F4). In contrast, only 45 percent of properties with special charges are owner-occupied. When broken down by charge category, properties with delinquent utility charges have the highest rates of owner occupancy, followed by minor violations and blight charges (see Figure F5). It is reasonable that property owners who owe fees for city services, typical of commercial properties, would have low rates of owner occupancy, while minor violation charges, which relate to homeowner responsibilities, correlate to higher rates of owner occupancy. The percentage of owner-occupied properties with special charges and the percentage of owner-occupied properties in Milwaukee are constant even as charges become one-, two-, and three-years delinquent.

Figure F4. Percentage of Owner-Occupied Properties



Source: Calculated using data from the City of Milwaukee Treasurer's Office merged with MPROP data.

Figure F5. Percentage of Owner-Occupied Properties with Special Charges



Source: Calculated using data from the City of Milwaukee Treasurer's Office merged with MPROP data.

The median property value in the City of Milwaukee (all assessment classes) is around $115,000 and has fallen slightly since 2007 (see Table F3). The median property value for properties with special charges is in general much lower than the rest of Milwaukee. The one large exception is properties whose owners owe special charges for fees for city services. These properties have much higher values than city average, likely because the fees pertain to commercial property. As charges become more delinquent, the value of properties with special charges falls even farther from the city median value.

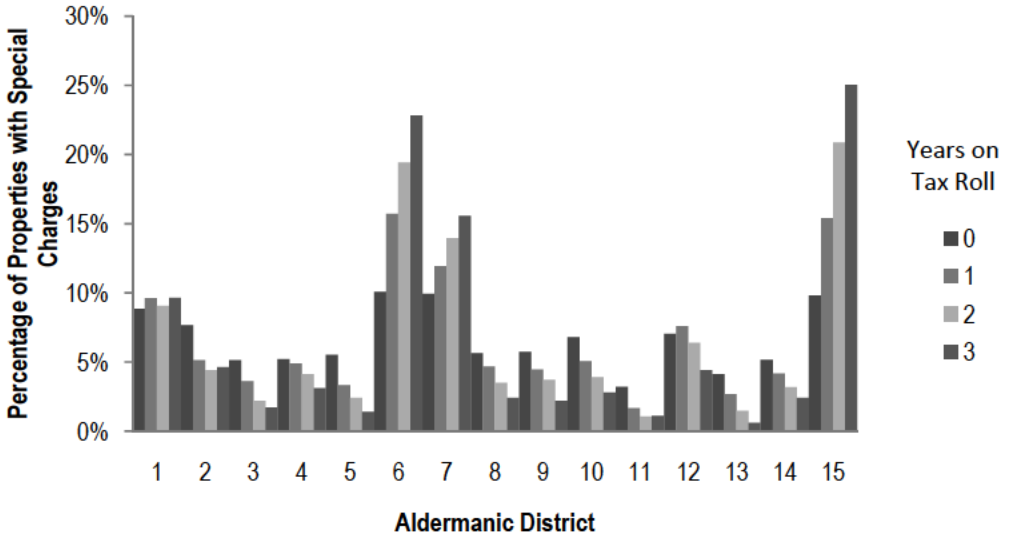
Table F3. Median Property Values

	2010	2009	2008	2007
All Milwaukee Properties	$110,900	$116,100	$127,700	$126,300
	Years on Tax Roll			
	0	1	2	3
Minor Violation Special Charges	$79,900	$70,300	$74,000	$58,800
City Service Special Charges	$177,500	$126,000	$99,300	$79,300
Delinquent Utility Special Charges	$87,700	$80,700	$83,600	$70,450
Blight Special Charges	$63,700	$60,500	$69,700	$56,600

Source: Calculated using data from the City of Milwaukee Treasurer's Office merged with MPROP data.

Another interesting descriptor of properties with special charges is their geographic location, as analyzed through aldermanic district. Milwaukee has 15 aldermanic districts, and the majority of properties with special charges are located in three districts: District 6, 7, and 15 (see Figure F6). This trend is especially true as properties become more and more delinquent. Of the one-year delinquent charges (2009), 43 percent of properties with special charge were located in district 6, 7, and 15. For properties with three-year delinquent charges, 63 percent are located in districts 6, 7, and 15.

Figure F6. Properties with Special Charges by Aldermanic District



Source: Calculated using data from the City of Milwaukee Treasurer's Office merged with MPROP data.

In summary, special charges represent just more than $70 million in uncollected city revenue. The majority of special charges will be collected or dropped after three years on the property tax roll. The average outstanding charge ranges in value between $1,500 and $2,000 and depends on the type of charge. Properties with special charges are less likely to be owner-occupied, more likely to have lower assessed property values, and more likely to be residential and commercial properties than the rest of Milwaukee properties. Moreover, properties with special charges are likely to be located in three districts in central Milwaukee.