

Getting from Here to There:

Maine's Elder Transportation Challenge

by Katherine Freund

Surveys and studies have repeatedly pointed out the problem of transportation for elders in Maine. Katherine Freund reviews Maine transportation studies and policy and suggests that the solution lies in developing private transportation alternatives that are supported by appropriate public policies.

INTRODUCTION

We live in revolutionary times. Not since the Industrial Revolution brought us manufactured goods, division of labor, big cities, and man-made air pollution have the economy and society undergone such profound changes. We are now in the midst of the information revolution, which has brought us the Internet, the sharing economy, and social media. In the marketplace, Craigslist has replaced newspaper classified advertising; eBay has created a giant flea market in the cloud; Amazon has overtaken Walmart as the world's largest retailer; and Google has replaced the Encyclopedia Britannica. Refrigerators and stoves have computers; thermostats can be programmed by cell phone from thousands of miles away; washing machines weigh their loads before "deciding" how much water to use; and cars stay in lane, avoid collisions, and navigate themselves. It is the world of automated vehicle technology, the Internet of Things, and it holds enormous promise for transportation in the next few years. What can it do for Maine, and what do planners and policymakers need to do to harness this potential?

HOW DO OLDER MAINE RESIDENTS TRAVEL?

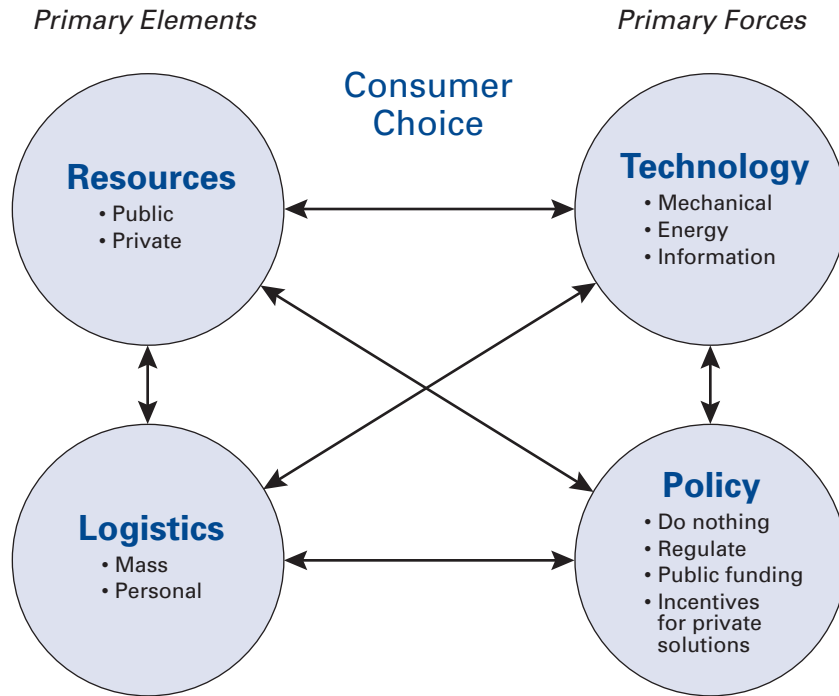
Maine is not only the nation's most rural state, with 61.3 percent of the population living in a rural area, it is also the oldest state, with a median age of 42.7.¹ This population pattern presents serious safety and mobility problems for Maine's older drivers: Maine ranks fourth in the country in traffic crashes involving drivers age 65 and older (TRIP 2012).

The private automobile is the overwhelming transportation preference for Maine citizens, of any age. The Maine Strategic Transit Plan for 2025 found in a telephone survey that 97 percent of citizens hold a driver's license, 93 percent own a vehicle, and the average household has 2.2 vehicles. The same survey found the number of Mainers who use public transit is so small it cannot be reliably reported, and 68 percent of survey respondents said that increases in the service they admittedly do not use should be funded with lottery proceeds and user fees in preference to taxpayer dollars (MDOT 2015).

At the same time, older people who stop driving become dependent on friends and family for their transportation needs. Nationally, women outlive their decision to stop driving by about 10 years, while men outlive their decision to stop by about six years (Foley et al. 2002). How then do planners and policymakers provide responsibly for an aging rural population where everyone drives, older drivers crash, and few wish to use or pay for public transportation?

A FRAMEWORK FOR UNDERSTANDING TRANSPORTATION

One way to penetrate this complex policy problem is to break it down into its essential elements and to look at Maine's senior transportation through this heuristic device. The "Basic Components of Transportation" (Figure 1) shows how transportation can be understood through resources, logistics, technology, and policy. The arrows among the circles indicate a dynamic relationship between the components, so a change in one creates a corresponding change in the others.

FIGURE 1: **Basic Components of Transportation**

Source: Freund (2004)

Resources

Resources are either public or private. All resources are scarce, but public resources, extracted from citizens through taxes, are especially scarce. Although the majority of survey respondents for the Maine Strategic Plan thought that public transportation should be available to the public the same way fire and emergency services are provided, they preferred to pay for any increase in transit services with voluntary fees. Private resources for transportation are expended as free consumer choices, and with the average Maine household owning more than two vehicles, private expenditures in Maine are both a clear consumer choice and a serious investment. According to Rachel Botsman, named by Fast Company as one of the “most creative people in business” for her leadership on collaboration and sharing through digital technologies, the average automobile sits idle 23 hours a day (Botsman 2015). The question for planners and policymakers can be, “How do we access this vast pool of private resources to meet the mobility needs of Maine’s aging population?”

Logistics

There was a time when the only way to create efficiency in transit was to use high-occupancy vehicles, bring the passengers to the vehicle, and move the vehicles on predetermined routes. This is traditional mass transit, which gives us bus routes, train stations, and airports. It may also be described as a linear or analogue system, and it works in high-density areas such as cities. It is frequently funded with public dollars. It does not work well in a rural state such as Maine, where distances are long, trip costs are necessarily higher, and the resources to pay for those costs are lower. Rural communities need a more networked, more modern solution, where small vehicles pick people up at their doors and take them where they need to go.

Automobiles work well in rural areas. Fortunately, there are many privately owned vehicles available. How can private vehicles be accessed for shared mobility?

Technology

Technology creates efficiency and produces mode—boats, planes, cars, sleds, bicycles, horse-drawn power, Segways. Energy technology translates to fuel—wind, hay, gasoline, electricity, human power. Until fairly recently, communication or information technology was limited to scheduling existing mechanical solutions. Reading the printed bus schedule, selecting an airline flight on the Internet, or using Google to choose a ground transportation option are all examples. Recent changes in computational speed, handheld computers (e.g., smart phones), the Internet, and global positioning satellites to triangulate ground position have catapulted information technology into a whole new realm, creating modes called transportation networks and offering cars that can drive themselves. The new vehicles are called driverless cars in the same way the

earliest automobiles were called horseless carriages. The earliest cars were not carriages, and the recent vehicles are not driverless cars, but the beginning of something quite different. According to an article by Mike Ramsey in the *Wall Street Journal* (October 25, 2015), they hold enormous promise for the transportation future. How do policymakers protect the public, regulate an emerging industry, and welcome the future?

Policy

The four classic policy paths are (1) do nothing, (2) regulate, (3) publicly fund the solution, and (4) create incentives or remove barriers to private solutions. Maine has pursued each of these paths to some extent. Today, however, the greatest opportunities within this transportation framework pertain to private resources, information technology, and the removal of barriers. Each of these is described in the sections that follow.

TRANSPORTATION PLANNING AND POLICY FOR MAINE'S AGING POPULATION

Key Legislative Actions

In 1961, the Maine Legislature began to regulate the older-driver-safety issue by passing An Act Requiring Persons Seventy-Five Years of Age to Take Examination for Motor Vehicle Driver's License (Maine Public Law 1961, Chapter 348, Section 1 RS Chapter 22, § 60), but in 1983, the legislature repealed the same law (Maine Public Law 1983, Chapter 29, Section 545. Repealed).

Ten years later, in 1993, the Maine Legislature created the Task Force to Study the Safe Mobility of Maine's Aging Population (Public Law 1993, Chapter 297, Section C-6). Charged to evaluate (1) transportation alternatives for an aging population, (2) licensing provisions for a driving population, and (3) educational programs to improve driving performance and highway travel considerations for an aging population, the task force met for more than a year, conducted public hearings across the state in conjunction with the White House Conference on Aging, and published a final report in 1995. The task force's work resulted in minor regulatory changes to the Bureau of Motor Vehicles vision requirements for older drivers. There was also an agreement to provide Maine Department of Transportation (MDOT) staff support for a grant from the National Academies of Science for the Southern Maine Area Agency on Aging to conduct the research

and development for the Independent Transportation Network (ITN) in the greater Portland area (Freund and McNight 1997).

At about the same time, but working independently, task force member John Clark helped pass PL1995, Chapter 132, Section 1, a law to protect volunteer drivers. Clark, executive vice president of the Independent Insurance Agents of Maine, was also a former Maine state police officer. John's parents lived in a rural community and needed transportation, but it was his experience with fatalities involving older drivers, as a state police officer that motivated him to support a law that protects volunteer drivers. This simple law protecting Maine volunteers is an excellent example of a policy that removes a barrier to the use of private resources for community mobility and public safety. It relieves volunteer drivers of the worry that their insurance premiums will increase if they help others with rides, but at the same time, it allows insurance companies to terminate policies or increase premiums for valid business reasons. It states:

An insurer may not refuse to issue motor vehicle liability insurance to an applicant solely because the applicant is a volunteer driver. An insurer may not impose a surcharge or otherwise increase the rate for a motor vehicle policy solely on the basis that the named insured, a member of the insured's household or a person who customarily operates the insured's vehicle is a volunteer driver.... This section does not prohibit an insurer from refusing to renew, imposing a surcharge or otherwise raising the rate for a motor vehicle liability insurance policy based upon factors other than the volunteer status of the insured driver.

Another Maine law that removes a barrier to the use of private resources to support senior transportation passed in 2005 as an amendment to car dealership laws (PL 2005, Chapter 437, Section 24). This policy change is similar to an exemption from car dealership laws for nonprofit organizations that improve mobility and encourage economic development by repairing used vehicles and reselling them to low-income people. The policy change for senior transportation became necessary when ITN developed an innovative payment program for older people that allowed them to trade vehicles they no longer used to pay for their rides with the transportation service. The *CarTrade* program was

so successful that the nonprofit was at risk of being classified as a used car dealer. The policy revision removes this regulatory barrier so older people may use their own resources to fund their own transportation needs. The bill states:

Any public or nonprofit organization whose sole or primary purpose is to provide transportation for persons 65 years of age or older that accepts donated vehicles for the purpose of providing that transportation or accepts in trade for transportation services the vehicles belonging to persons 65 years of age or older who use those transportation services is exempt from the requirements of this section.

More recent legislation has attempted to extend innovative efforts. Senator Sharon Treat, canvassing door-to-door for re-election in 2012, learned from her older constituents that transportation was an enormous unmet need. Her grasp of the problem produced LD 1365, An Act to Promote New Models of Mobility and Access to Transportation. The bill amends MDOT's operations plan for transit to promote new models for mobility and service, and it eliminates the Transportation Coordinating Committee, replacing it with a larger, more comprehensive Maine Public Transit Advisory Council. LD1365 was amended in committee, then vetoed by Governor Paul LePage. In the 127th legislative session, Transportation Committee Chair Andrew McClain of Gorham introduced a similar bill, LD 844, An Act to Improve Transit Services Statewide. This effort was also amended in committee and vetoed by the governor, but the veto was overridden, and it became PL2015, Chapter 182.

There was no financial impact to the state budget for LD 1365 or its successor, PL2015, Chapter 182, and since neither legislative effort looked beyond public support for transportation, the policy change was an effort to do a better job with existing resources, "to think more broadly about transportation needs and planning, and to correct the fragmented system we have to create the system we need" (Sharon Treat personal communication). Representative McClain also acknowledged that the new law "only addresses part of the problem," but that it is a start (personal communication). In terms of the transportation framework and a policy approach, both Representative Treat's and Representative McClain's efforts attempt to make the use of public resources more efficient and effective; they do not fundamentally

change the current senior transportation-delivery system that uses public resources to meet the safety and mobility needs of the aging population.

Another bill that passed by overriding the governor's veto was LD1379, An Act to Establish Transportation Network Company Insurance. Sponsored by Representative Henry Beck of Waterville, chair of the Joint Standing Committee on Insurance and Financial Affairs, the bill became law on June 30, 2015, as PL 2015, Chapter 279. The law is an entirely different approach to public policy because it removes a barrier to the use of private resources. When asked why he sponsored the bill, Representative Beck replied that as committee chair, he was asked to be the sponsor by a representative of a transportation network company (TNC). He saw the bill as useful and noncontroversial (Beck personal communication). When told that TNCs use private resources to create shared community mobility, he modestly declined to take credit for such forward thinking.

Public Law 2015, Chapter 279, however, belongs with policies enacted 20 years earlier, PL1995, Chapter 132, Section 1, a law to protect volunteer drivers and PL 2005, Chapter 436, Section 24, the law that allows people to trade their cars to pay for their rides. The primary difference between the laws is that the latter two apply only to nonprofit organizations. All three policies, however, increase the availability of community-based transportation services without using taxpayer dollars, and they foster free consumer choice for people who do not drive. In a rural state such as Maine, such policies hold great promise for the future (Maine DOT 2015).

Transportation Planning

Maine planning efforts have explored the transportation problem for quite some time. With funding from the Maine Health Access Foundation, the University of Maine Center on Aging (CoA) in collaboration with members of the Eastern Maine Transportation Collaborative conducted a 12-month needs assessment in 2004–2005, focusing on the challenges and barriers that older adults face in accessing chronic-care medical services such as diabetes care, cancer care, dialysis, cardiac rehabilitation, and physical therapy in Hancock, Washington, and Penobscot counties (EMTC 2005). The report described the unmet need for transportation to access health care, but the resources and technology to address the needs were not forthcoming.

A decade later, the Eastern Maine Development Corporation (EMDC) tried again, this time with funding from the U.S. Department of Transportation (USDOT) and the Federal Transit Administration (FTA). Titled “Linking the Rural Regions of Four Counties in Maine to Enhance Transportation Opportunities and Improve Quality of Life,” this planning effort moves beyond publicly funded transportation solutions to community-based efforts and recognizes the importance of transportation networks and Internet communication. It acknowledges the public’s frustration with previous planning efforts, distrust of government solutions, and the need for coordinated management of communication and service (EMDC 2012). “The principal recommendation that arose from this project is that a Rural Transportation Management Association (TMA) should be created to increase mobility options for people in Eastern Maine with limited ability or desire to drive by themselves” (EMDC 2012: Executive Summary). In 2015, three years after publication of this final report, the TMA remains a program at EMDC, staffed by Americorps volunteers and striving mightily to fulfill its innovative, grassroots vision for community mobility. Like ITN*Everywhere*, discussed below, the implementation of which also remains unfunded, the EMDC effort leans toward a future solution that uses communication technology to access private resources, but that is beyond its grasp.

The Maine Strategic Transit Plan for 2025 (Maine DOT 2015) realistically attempts to cope with the awareness that taxpayer dollars to support public transit are and will continue to be scarce in Maine. The steering committee for the 10-Year Strategic Plan for Maine, therefore, set three goals:

Goal 1—Manage the Existing System.

Effectively manage Maine’s existing transportation system for safety and effectiveness within reliable funding levels.

Goal 2—Support Economic Opportunity.

Wisely invest available resources to support economic opportunity for our customers.

Goal 3—Build Trust. Demonstrate our core values of integrity, competence, and service, both individually and organizationally.

Within these goals, the recommendations for Goal 2 are especially noteworthy because they include

recommendations to “encourage volunteer networks and alternatives to traditional transit services” and to “provide incentives for local communities and transit providers to leverage new sources of private funding for transit services” (Maine DOT 2015: xx). While the strategic plan unnecessarily limits volunteer networks to rural areas and reserves higher-density areas for more traditional transit services, it is a step in the right direction.

Public transit planners and funders are accustomed to holding the purse strings, living by the golden rule: the one who has the gold makes the rules. This holds true at all levels of government, from the Federal Transit Administration and the Federal Highway Administration of the USDOT, to the Maine DOT and local governments. To a certain extent, this is a necessary characteristic of all public funding. Public dollars are scarce, so policymakers must decide who pays and who benefits. There will never be sufficient taxpayer dollars to meet the mobility needs of the aging population. Private dollars, on the other hand, are always spent as a free consumer choice, whether those dollars are corporate or personal, and whether they are charitable or expended on goods and services for the consumer.

USE OF PRIVATE RESOURCES: THE INDEPENDENT TRANSPORTATION NETWORK

The Independent Transportation Network (ITN) is a community-based nonprofit transportation service for older people and people with visual impairments. It uses private automobiles and a combination of paid and volunteer drivers to create an economically sustainable transportation service that delivers rides 24 hours a day, seven days a week, through user fees and voluntary local community support rather than taxpayer dollars. In Maine, ITN*Portland* was made possible by several pieces of legislation, previously discussed, which protect volunteer drivers and remove barriers to older adults trading their own cars to fund their transportation needs.

During the late 1990s and early 2000s, ITN explored the efficiencies possible with information technology. With support from the Transportation Research Board’s Transit IDEA program, ITN conducted research into innovative payment plans that integrated revenue from membership dues, ride payments from health care providers and merchants, computerized routing, ride-sharing, and transportation credits for volunteer driving (Freund 2002). This led to a decision to build ITN*Rides*,

enterprise software to support a community-based volunteer-transportation service for the greater Portland area. The Federal Transit Administration subsequently funded a three-year deployment grant to develop ITN as a model suitable for replication across the country. By 2003, the FTA provided a planning grant for ITNAmerica, a national organization to support replication of the ITN model, and in 2006 the Atlantic Philanthropies funded the national rollout.

Many Maine communities asked to start an ITN affiliate, but like so many transportation services, the ITN model needed a population base at least as large as the greater Portland area. To address the needs of rural and small communities, ITNAmerica began the research for ITNEverywhere. A comprehensive approach to shared mobility that brings together into one integrated information system rideshare, carshare, volunteer transport, ITN, and community transport, ITNEverywhere research and development was conducted in Maine in Boothbay Harbor and Brunswick, and in Massachusetts, New York, Florida, and Pennsylvania between 2008 and 2014.

The core business innovations of ITN, transportation service for seniors and people with visual impairment, are the Personal Transportation Account and a flexible approach to resources. The Personal Transportation Account is a mobility portfolio that holds transportation assets in various forms—cash, credits from trading a car or volunteering to drive, and co-payments from health care providers, pharmaceutical companies, merchants, or family members.

ITNEverywhere takes this business model and offers it to the entire population, so anyone can have the Personal Transportation Account. For example, people who wish to share rides to work, together with those who wish to volunteer to drive others, and those who wish to ride may all have Personal Transportation Accounts and participate in shared community mobility. ITNEverywhere is managed through one information system; it not only connects people across communities, it connects them across the state and across the country. A person who lives in Calais and needs a ride for health care may pay for her ride with credits earned by her son or daughter who is sharing a trip to work each day in Orono, Maine, or Orlando, Florida. A nonprofit virtual marketplace for the exchange of community mobility, ITNEverywhere is an example of a new kind of shared community transportation possible through the innovative use of information technology.

THE FUTURE: HARNESSING THE POWER OF INFORMATION TECHNOLOGY AND PRIVATE RESOURCES

Victor Hugo once said, “Greater than the tread of mighty armies is an idea whose time has come.” Automated vehicles are here. What may have seemed like science fiction even a few years ago is now predicted as soon as 2019 and 2020. The marketplace will make it happen because so many global corporations are investing in the race for market share. Among those investing are Apple, Google, Intel, Uber, Amazon, Ford, and General Motors, and the reason is the profit to be made. Traffic crashes are predicted to decline by 25 percent. According to a Wonkblog by Brad Plumer on the *Washington Post’s* website (March 30, 2013), fuel will be economized, wear and tear on the country’s highways will be reduced, the insurance industry will save money, and the automobile industry will sell new cars. If so-called driverless vehicles become a widespread reality, the transit industry would no longer need to hire and train drivers, and older people would be able to travel more freely than they have in years.

In this race for the marketplace, the federal government needs to set standards, and states need to think ahead to the policies that will create an environment where this and other transit technologies are welcome, in both the public and private sectors. Representative Beck’s transportation network company bill is one small step. Does Maine need to look at livery laws, traffic laws, and insurance laws? How can transportation organizations in Maine connect through one information system, and how will that system connect to other states? How can we think beyond public transit to community mobility, and how will private resources and public resources come together for the common good and a better economy? What does the Internet of Things mean for transportation and community mobility, and what should policymakers consider as they plan for the changes of the information revolution? 🐙

ENDNOTES

1. http://www.census.gov/newsroom/releases/archives/2010_census/cb12-50.html;
https://www.census.gov/newsroom/releases/archives/2010_census/cb11-cn147.html

REFERENCES

- Botsman, Rachel. 2015. "The End of Ownership?" *Connected Worlds* (Oct./Nov.): 108–113.
- Eastern Maine Development Corporation (EMDC). 2014. *Linking the Rural Regions of Four Counties in Maine to Enhance Transportation Opportunities and Improve Quality of Life. Tiger2 Planning Grant, Final Report.* EMDC, Bangor. http://www.emdc.org/image_upload/Final%20EMDC%20TIGER2%20corrected%208%2027%2014.pdf
- Eastern Maine Transportation Collaborative (EMTC). 2005. *The Eastern Maine Transportation Collaborative's Health Services Initiative Needs Assessment Research Final Report.* http://umcoa.siteturbine.com/uploaded_files/mainecenteronaging.umaine.edu/files/FinalTransReport_001.pdf
- Foley, Daniel J., Harley K. Heimovitz, Jack M. Guralnik, and Dwight B. Brock. 2002. "Driving Life Expectancy of Persons Aged 70 Years and Older in the United States." *American Journal of Public Health* 92(8): 1284–1289.
- Freund, Katherine. 2002. *Pilot Testing Innovative Payment Operations for Independent Transportation for the Elderly. Final Report for Transit IDEA Project 18.* Transportation Research Board of the National Academies. http://onlinepubs.trb.org/onlinepubs/archive/studies/idea/finalreports/transit/Transit18_Final_Report.pdf
- Freund, Katherine. 2004. "Surviving Without Driving: Policy Options for Safe and Sustainable Senior Mobility." *Transportation in an Aging Society: A Decade of Experience.* Transportation Research Board of the National Academies, Special Report 218:114–121.
- Freund, Katherine, and James MacNight. 1997. *Independent Transportation Network: Alternative Transportation for the Elderly. Final Report for Transit IDEA Project 9,* Transportation Research Board, the National Academies, Washington, DC. http://onlinepubs.trb.org/onlinepubs/archive/studies/idea/finalreports/transit/Transit9_Final_Report.pdf
- Maine Department of Transportation (MDOT). 2015. *Maine Strategic Transit Plan 2025: Transforming Public Transit Meeting Future Needs,* Maine DOT, Augusta. <http://www.maine.gov/mdot/planningstudies/mstp/documents/2015/MEFinalAprilStrategicPlan04-19-2015.pdf>
- TRIP. 2012. *Keeping Baby Boomers Mobile: Preserving the Mobility and Safety of Older Americans.* TRIP, Washington, DC. http://www.tripnet.org/docs/Older_Drivers_TRIP_Report_Feb_2012.pdf



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Freund has received awards from numerous organizations and has participated in more than 150 national and international panels and conference sessions on alternative transportation for older people.