Evaluating the State of Mobility Management and Human Service Transportation Coordination: Executive Summary

Jeremy Mattson, James Miller, Jay Goodwill, P.S. Sriraj, and Jill Hough

October 2014

Abstract

The Federal Transit Administration and its partners have worked to build a transportation coordination infrastructure to improve community mobility. The objective of this research is to develop and test a method for evaluating these efforts within a community. For this study, two surveys were developed and conducted at multiple sites across the country. An end-user survey was distributed to transit users, and a stakeholder survey was sent to transportation providers, human service agencies, and other organizations. The results can be used to assess the effectiveness of mobility management and coordination programs in meeting the needs of transportation-disadvantaged populations and achieving the goals of improved efficiency, ease of access, and quality of service.

Introduction

Organizations across the country have been implementing mobility management programs and attempting to coordinate human service transportation to improve quality of transportation services and ease of access while increasing efficiencies. As agencies seek additional funding for these efforts, more information is needed on the effectiveness of these programs. Therefore, the objectives of this study are as follows:

- Synthesize previous research on the effectiveness of mobility management and coordination programs.
- 2) Develop a survey instrument that could be used in different locations and across time to evaluate the impacts of mobility management and coordination programs on end users.
- Determine the impacts of mobility management and coordination programs in meeting the goals of efficiency, ease of access, and quality of service.
- 4) Assess the effectiveness of mobility management and coordination programs in meeting the needs of transportation disadvantaged populations from the perspective of the end users.
- 5) Develop and test an evaluation model that could be applied to other communities across the country.

Methodology

Two survey instruments were developed and administered at locations across the country. The first was a survey of riders, and the second was a survey of stakeholders, including transportation providers, human service agencies, and other interested organizations. Figure 1 shows the agencies that participated in the study. Some conducted both stakeholder and rider surveys, while others participated in just the stakeholder survey. These agencies were selected because of their participation in mobility management efforts.

The intent of the transit user survey was to evaluate the impacts that transit services have on the lives of users and to assess the importance and effectiveness of mobility management and coordination efforts.



Figure 1. Participating Agencies



The goal of the stakeholder survey was to learn more about the types of mobility management and coordination activities being conducted, barriers and challenges that exist, successes that have been achieved, and the degree to which the needs of users are being met. By evaluating results from both surveys, the goal was to assess the impacts of mobility management and coordination activities on quality of service, ease of access, trip creation, efficiency, and quality of life impacts on users.

The surveys were developed so that they would not be specific to any community and could be used over time to assess progress. Therefore, the survey instruments provide an evaluation model that could be applied to other communities across the country and could be repeated over time.

The stakeholder survey was conducted online and the rider survey was sent by mail to users of JAUNT in Charlottesville, VA; St. Johns County Council on Aging in Florida; Neighborhood Transportation Services (NTS) and Linn County LIFTS in Cedar Rapids, IA; Seniors' Resource Center (SRC) in the Denver, CO, metro area; and Valley Metro Dial-a-Ride service in the Phoenix, AZ, metro area. Participating agencies forwarded the stakeholder survey to organizations they partner with in their community, so responses were received from a variety of transportation providers, human service agencies, and other organizations. A total of in responses were received for the stakeholder survey and 501 responses for the rider survey.

Evaluation of Programs

Two of the objectives of this research were to assess the impacts of mobility management and coordination programs in meeting the needs of transportation-disadvantaged populations from the perspective of the enduser and to determine the impacts of these programs in meeting the goals of efficiency, ease of access, and quality of service. Results from the rider and stakeholder surveys can be used to address these questions.

Rider Responses

The respondents to the rider survey included a high percentage of women, older adults, people who cannot drive or do not have access to a vehicle, people with disabilities, and individuals from low-income households. Survey participants included a mix of frequent and infrequent users, as well as long-time and new riders. About a third of respondents have been using the service for more than five years, and more than half have been using it for at least three years, while 10% of respondents just began using the service within the previous six months. Respondents most often use the services for medical trips, but they also use transit services for work, shopping, and a variety of other purposes.

Most respondents to the rider survey were satisfied with the quality of service they are receiving from their transportation provider. For example, 72% were very satisfied with how the service serves their needs, 73% were very satisfied with ease of use, and 69% were very satisfied with available travel destinations. On the other hand, many respondents were dissatisfied with a lack of weekend service, and some expressed dissatisfaction with scheduling procedures.

An important measure of the success of mobility management and coordination efforts is the degree to which service quality is improving for the transit user. A number of respondents reported improvements in service since they have been using it (Table 1). For example, 31% reported that ease of use has improved, while only 3% answered that it is getting worse. Similarly, 28% reported that the service is doing a better job of serving their needs, while only 4% answered that the service is doing worse. These results show general improvements in quality of service, as perceived by the riders. One area where there does not appear to have been improvements is the availability of weekend service.

Table 1. Rider Perceptions on Changes in Quality of Service

	Better	Same	Worse
	(Percentage of respondents)		
Door-to-door service	33	64	3
Comfort	31	67	2
Ease of use	31	66	3
Serves your needs	28	68	4
Goes where you want to go	27	69	4
Access to information	26	71	4
Scheduling procedures	26	67	7
Cost of the service	25	68	8
Number of trips offered	20	75	5
Weekend hours	15	73	12

The results also show that these transportation programs have significant impacts on the lives of their users. Most of the riders (90%) said the service is very important to them. Many reported that they would not be able to make these trips if the service they use was not available. Survey findings showed that 29% of riders most often would not make the trip if the transportation service was not available, and most of the others would rely on family, friends, volunteer drivers, or taxi services. The results show the significant impact the services have on increasing the ability of riders to make trips.

Results from a model developed from the survey results also show how improving mobility and increasing the number of trips an individual can make improves quality of life. Those who had reported missing a trip during the previous week because of lack of transportation and those who reported greater difficulty in making trips gave significantly lower life satisfaction ratings. These results demonstrate the impacts that mobility management programs can have on the lives of the users. When these efforts result in new transportation options, new trips that can be made, and simplified access to service, quality of life for the users of these services is shown to improve.

While there is some dissatisfaction with lack of weekend hours, and a minority of respondents was dissatisfied with scheduling procedures and some of the other service qualities, the results overall from the rider survey were positive and showed improvement. Of those who had participated in travel training services, most found it to be helpful.

Stakeholder Responses

Results from the stakeholder survey also suggest these programs have provided benefits. Among those agencies involved with coordination or mobility management, most reported benefits that have been realized, including 65% who reported simplified access to transportation services for riders, 63% who reported an increase in the range of transportation options available to riders, 63% who reported increased awareness of transportation services, and 57% who noted an increase in ridership (Figure 2). Regarding the goal for improved efficiency, 35% reported a reduction in service duplication or overlap, and 30% said that cost per ride has decreased.

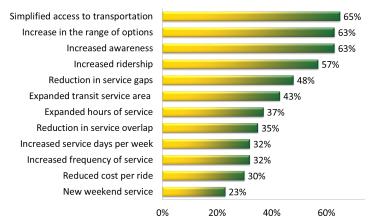


Figure 2. Percentage of Agencies Involved with Coordination or Mobility Management that have Realized Specific Benefits (n=60)

The general perspective of the stakeholders is that 1) there are a number of challenges to implementing coordination and mobility management, such as lack of funding, lack of communication, unique needs of various client populations, and many other issues; 2) there is a need for more coordination of existing human service transportation programs; and 3) the programs that have been implemented have had a positive impact on quality of service, ease of access, and, to a lesser extent, efficiency.

Results from the stakeholder survey were somewhat mixed regarding how well services are meeting the needs of endusers. Most indicated some need for more service, such as longer hours, weekend service, or an increase in the scale of services currently available. Forty-four percent of the stakeholders agreed that the transportation needs of their clients are being met, while 42% disagreed (Figure 3). Similarly, 46% agreed that transportation services are easy for their clients to access, and 41% disagreed.

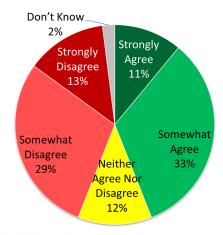


Figure 3. Stakeholders who Agree that the Transportation Needs of their Clients are being Met (n=100)

SMALL URBAN AND RURAL TRANSIT CENTER

UPPER GREAT PLAINS
TRANSPORTATION
INSTITUTE

NORTH DAKOTA STATE UNIVERSITY

NDSU Dept 2880 PO Box 6050 Fargo, ND 58108-6050

To view full reports of SURTC research projects, go to www.surtc.org/research

The funds for this study were provided by the U.S. Department of Transportation through the National Center for Transportation Research at the University of South Florida. The Small Urban and Rural Transit Center within the Upper Great Plains Transportation Institute at North Dakota State University conducted the research in collaboration with the University of South Florida and the University of Illinois, Chicago.

For more details about this study, contact Jeremy Mattson at jeremy.w.mattson@ndsu.edu

www.surtc.org

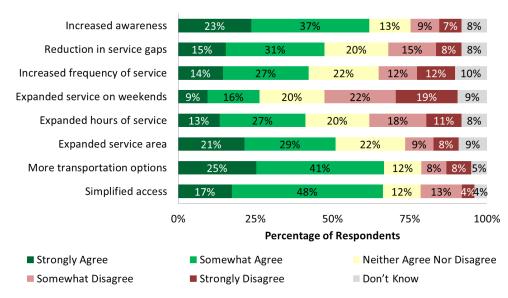


Figure 4. Percentage of Stakeholders who Agree that Transportation Services have Improved (n=99)

Results were also somewhat mixed regarding the impact that mobility management and coordination programs have had on quality of service, but stakeholders were more likely to indicate there have been improvements. For example, 66% agreed that these efforts have resulted in more transportation options available to their clients, 65% agreed it has resulted in simplified access to transportation services, and a majority also agreed that there has been increased awareness of transportation services and expanded service areas (Figure 4).

Of particular interest is whether or not funds dedicated specifically for mobility management have yielded positive results. Among the agencies surveyed, 29% receive funding specifically for mobility management. These agencies were more likely to report positive results. Sixty percent of those agencies receiving such funding agreed that the transportation needs of their clients are being met, compared to 38% of agencies not receiving funding for mobility management. These organizations were also more likely to note

improvements. For example, 43% of organizations receiving funding strongly agreed that there are more transportation options available to their clients, while only 19% of those not receiving funding strongly agreed with this statement.

Assessment of Evaluation Method

Results from the research show that this survey method is effective in different geographic locations. The surveys collected enough information to allow for an effective evaluation of mobility management and coordination activities. Key for such an evaluation is to collect information from a variety of perspectives, including the end-users, transportation providers, human service agencies, and other stakeholders.

The survey method can also be useful for tracking progress over time. Results from end-user responses on ability to make trips and satisfaction with transportation service, as well as stakeholder responses on benefits, needs of end-users, and quality of service could be used to track progress in individual communities.

North Dakota State University does not discriminate on the basis of age, color, disability, gender expression/identity, genetic information, marital status, national origin, public assistance status, sex, sexual orientation, status as a U.S. veteran, race or religion. Direct inquiries to the Vice President for Equity, Diversity and Global Outreach, 205 Old Main, (701)231-7708.