



U.S. Department  
of Transportation  
**Federal Transit  
Administration**

**INNOVATIVE STATE AND LOCAL PLANNING FOR  
COORDINATED TRANSPORTATION**

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## Table of Contents

[Notice](#)

[Acknowledgments](#)

[Glossary of Acronyms and Abbreviations](#)

[Executive Summary](#)

Planning for Coordination Case Studies Subject Key

- I. [Introduction](#)
  - A. Legislative Background
  - B. Coordination Requirements in the ADA and TEA-21
  - C. Planning for Transportation
  - D. Approach
  - E. Scope
- II. [Partnerships](#)
  - A. State of Washington - Developing Partnerships for Coordination at the Statewide Level
  - B. Detroit, Michigan - Developing Partnerships at the Grass Roots Level
- III. [Shared Planning Resources](#)
  - A. Phoenix, Arizona - The MPO as a Forum for Sharing Planning Resources
  - B. State of Ohio - Sharing Planning Resources to Overcome Obstacles to and Provide Guidance On Transportation Coordination
- IV. [Joint Identification of Client Needs](#)
  - A. Flint, Michigan - The Transit Provider Working with Customers to Define Needs
  - B. Buncombe County, North Carolina - Developing a Community Transportation Service Plan
- V. [Identification of Transportation Services, Costs, and Revenues](#)
  - A. Miami, Florida - Identifying Transportation Services, Cost and Revenues Through a Community Transportation Coordinator
  - B. State of Kentucky - Developing a Statewide System to Provide Services and Control Costs
- VI. [Establishment of Cost-sharing Arrangements](#)
  - A. Lane County, Oregon - Sharing Costs to Ensure Higher Levels of Service and Leveraging Local Match to Increase Paratransit Funding
  - B. Madison, Wisconsin - Sharing State and Federal Resources to Support Paratransit
- VII. [Performance Measurement](#)
  - A. Sweetwater County, Wyoming - Measuring System Costs and Performance

- B. Pittsburgh, Pennsylvania - Establishing Equitable Agency Service Contracts Based on Systems Performance and Cost Data
- VIII. [Measuring Cost Savings and Benefits of Coordination](#)
  - A. State of Florida - Illustrating the Power of Coordination
  - B. Greene County, Ohio - Comparing Costs of Coordination: Before and After
- IX. [Combining the Planning Strategies into an Effective Process](#)
  - A. Buffalo, New York - Bringing Together the Techniques for Coordinated Planning

### [Conclusions](#)

### [Appendix A Transit Agency and Health and Human Service Agency Contacts](#)

## **Notice**

The contents of this report reflect the views of the authors, who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official policy of the Federal Transit Administration or the U.S. Department of Transportation.

This report does not constitute a standard, specification, or regulation.



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## **Glossary of Acronyms and Abbreviations**

AAA	Area Agency on Aging
ACCT	Agency Council on Coordinated Transportation
ADA	Americans with Disabilities Act of 1990
AHCA	Agency for Health Care Administration
APR	Annual Performance Report
ASDS	Automated Scheduling and Dispatch System
CATS	Coordinated Agency Transportation System
CAUSE	Council of Actions United for Service Efforts
CBD	Central Business District
CBMS	Community-based Mobility Strategy
CDC	Child Development Center
CIP	Community Integration Program
CMMS	Centers for Medicare and Medicaid Services
COP	Community Operations Program
CRAC	Community Resource and Assistance Center
CT	Community Transit
CTC	Community Transportation Coordinator
CTSP	Community Transportation Service Plan
DATC	Detroit Assisted Transportation Coalition
DD	Developmental Disabilities
DDOT	Detroit Department of Transportation
DES	Department of Economic Security
DHHS	Department of Health and Human Services
DHR	Department of Human Resources
DHS	Department of Human Services
DSHS	Department of Social and Health Services
EMS	Emergency Medical Service
FTA	Federal Transit Administration, U.S. Department of Transportation
GIS	Geographic Information Systems
HCFA	Health Care Financing Administration
HSA	Human Services Agency
HSTC	Human Services Transportation Council
LAC	Local Advisory Committee
LCOG	Lane Council of Governments
LTD	Lane County Transit District
MAC	Metropolitan Affairs Commission

MAG	Maricopa Association of Governments
MDTA	Miami Dade Transit Agency
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MR	Mental Retardation
MRDD	Mental Retardation and Developmental Disabilities
MTA	Mass Transportation Authority
NFTA	Niagara Frontier Transit Authority
NGA	National Governors Association
OCP	Ohio Coordination Program
ODA	Ohio Department of Aging
ODOT	Ohio Department of Transportation
PAT	Port Authority of Allegheny County
PACT	Program for Coordinated Transportation
Plan	Long Range Transportation Plan
RSC	Rehabilitation Services Commission
RTP	Regional Transportation Plan
RTPA	Regional Transit Planning Authority
SEMCOG	Southeastern Michigan Council of Governments
SMART	Suburban Mobility Authority for Regional Transit
STAR	Sweetwater County Transit Authority
TANF	Temporary Assistance to Needy Families
TD	Transportation Disadvantaged
TEA-21	Transportation Equity Act for the 21st Century
TIP	Transportation Improvement Plan
U.S. DOT	United States Department of Transportation
U.S. DHHS	U.S. Department of Health and Human Services
Volpe Center	John A. Volpe Transportation Systems Center, Research and Special Programs Administration, U.S. Department of Transportation

## Executive Summary

Congress has directed the Secretaries of the Departments of Transportation (U.S. DOT) and Health and Human Services (U.S. DHHS) to work together to develop guidelines for state and local planning agencies to achieve transportation coordination. The departments formed the U.S. DOT/U.S. DHHS Transportation Planning Workgroup to address those guidelines. In support of this process, the U.S. DOT's Volpe National Transportation Systems Center (Volpe Center), working with the Federal Transit Administration's (FTA) Office of Planning, undertook this study of "Innovative State and Local Planning for Coordinated Transportation." The study examines seven specific planning strategies that can be used as part of a flexible regional planning process for coordinating transportation services of health and human service and transit agencies. The DOT/DHHS Coordinating Council on Access and Mobility has also authored "Planning Guidelines for Coordinated State and Local Specialized Transportation Services," which complements this report and is cross-referenced.

The joint UMTA/FHWA April 1976 regulations for elderly and handicapped transportation established accessibility criteria for U.S. DOT-funded projects that specifically included coordination as a means of implementing the "special efforts" required to comply with Section 504 of the Rehabilitation Act of 1973 (ADA's predecessor). The 1979 U.S. DOT regulation implementing the Section 504 requirements for U.S. DOT grantees specifically required (among others) that grantees create a "transition plan" including "the identification of coordination activities" as one of the eight requirements of these plans. The Surface Transportation Assistance Act of 1978 established coordination as one of the requirements of Section 18 program created by that Act. ADA and TEA-21 are only the latest examples in a long line of U.S. DOT-required coordination efforts.

Coordination can substantially increase the availability of accessible transportation for people with disabilities. Although not mandated, coordination between local agencies is clearly a goal of the Americans with Disabilities Act of 1990 (ADA). ADA regulations require that public transit providers identify all other providers of transit services in their area as part of the preparation of the ADA complementary paratransit plan. The Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) also contains a number of sections that directly address planning for the coordination of U.S. DOT and other non-U.S. DOT government agency funded transportation services. Language in TEA-21 encourages all agencies to participate in and coordinate the planning, design, and delivery of transportation services.

At present, planning for transportation services is markedly different between transit operators and health and human service agencies. FTA-funded transit operators are required to meet specific transportation planning requirements as a condition of funding, including provision of detailed operational data on cost and ridership, and participation in the regional metropolitan planning process. In contrast, as multi-service agencies, U.S. DHHS-funded programs view transportation services as a secondary function in support of their main mission and do not typically conduct transportation planning or have

transportation reporting requirements. As a result, data and information to support planning for FTA and DHHS-funded transportation services are not always comparable, making planning for coordinated transportation between transit and health and human services challenging.

This report focuses on 15 case studies of transportation coordination. On a statewide level, in urban areas, and in rural communities, various organizations come together through many different forums to take advantage of the benefits of greater coordination of local transportation services. As the case studies presented illustrate, coordination can occur through many different forums including:

- Statewide task forces and coordinating councils
- Local health and human service agencies
- Local advisory boards
- A grass roots coalition
- MPO
- Transit agencies
- Local broker

Through these forums, coordinated transportation planning is occurring to improve access to transportation through inter-agency coordination resulting in more efficient uses of available resources, cost savings, and expanded services. In each of the case studies, coordination has resulted from a combination of the seven planning strategies examined in this report. Because these strategies are interdependent and often blended together, in many cases it is difficult to single out specific strategies.

### *Incorporating Planning Strategies into a Flexible Regional Transportation Planning Process*

Many of the approaches illustrated in the case studies would not be considered traditional "planning." This reflects the fact that coordination between human service and public transit agencies is not necessarily traditional. Instead, the intent of this report is to illustrate how each of these various strategies, both individually and applied together, might fit into a flexible regional transportation planning process to address the challenge of improving access.

A regional process could include a forum where agencies form *partnerships*:

- State of Washington - the legislature created a council of representatives from numerous government agencies to examine barriers to coordination.
- Detroit, Michigan - a local coalition of business, government, and labor led the way in partnership with the city's transit agency to develop a project to coordinate transportation resources of various agencies through an automated scheduling and dispatch system.

Through partnerships, agencies are *sharing planning resources*:

- Phoenix, Arizona - agencies are working through the MPO to develop Access to Jobs grant proposals which will provide a new transit link between welfare recipients and job locations and provide for a coordinated brokerage system for HHS transportation.
- State of Ohio - a statewide task force including numerous state agencies has shared planning staff to develop planning guidelines to help overcome barriers to and provide guidance on transportation coordination.

Sharing planning resources has led agencies to begin to *jointly identify the needs* of their clients:

- Flint, Michigan - the transit agency works with its four local advisory boards to identify specific client needs of the elderly, persons with disabilities, and students, and to study job access to better serve those needs through service innovations.
- Buncombe County, North Carolina - the local community transportation system works with local agencies to identify service needs and availability through the development of a community transportation services plan.

When agencies work together, they can view systems as a potentially coordinated whole and *identify available services, costs, and revenues*:

- Miami, Florida - the local community transportation coordinator works with all local transportation service providers to improve the cost-effectiveness of the coordinated system.
- State of Kentucky - examined its transportation system on a statewide level, identified deficiencies, and designed a new regional system to better serve residents in all areas, including rural areas, which formerly had no reliable source for transportation.

As systems become more coordinated, many agencies are beginning to *share the costs* of providing service in realization that they can leverage transportation dollars and enhance services:

- Lane County, Oregon - the paratransit provider is working with state health and human service agencies to leverage more federal funding

through the use of local funding as state match, enabling them to provide higher levels of service to clients who might otherwise be left out of the system.

- Madison, Wisconsin - the state approach to transportation funding and their willingness to fund transportation services as part of Medicaid services have allowed the city transit agency to work with county health and human service agencies to develop cost sharing agreements.

Prior to or upon coordinating the transportation system, participating agencies need to define *performance measures* to evaluate the system:

- Sweetwater County, Wyoming - the newly formed transit agency has shown that the coordinated system provides superior services measured in passengers served and utilization of vehicle capacity, while providing the service at the same cost as when individual agencies provided services directly almost a decade earlier.
- Pittsburgh, Pennsylvania - the contract paratransit broker uses system performance and cost information to develop detailed carrier performance measures and a detailed trip cost model based on origins and destinations as the basis for structuring contracts with health and human service agencies that accurately reflect the cost of providing the service.

When these strategies are put in place and a coordinated system is implemented, the *agencies can measure the cost savings and benefits of coordination*:

- Greene County, Ohio - the coordinated system established reporting requirements that enable participating agencies to assess the cost of transportation services before and after coordination.
- Florida - the state Commission on the Transportation Disadvantaged is able to highlight the number of trips diverted from more costly paratransit services through coordination with the local transit agency's fixed-route services. These and other features of the statewide coordinated system provide a \$150 million annual cost savings to Florida.

All of the planning strategies can come together as part of a single process as is the case in Buffalo, New York, where the transit agency, in partnership with local health and human service agencies, has recently undertaken a redesign of their existing system and services. Using all the planning strategies discussed in this report, the participants were able to develop an idea for a re-oriented system designed to increase their ridership by

attracting a new client base, while providing a cost-effective transportation alternative to health and human service agencies.

The subject key on the following page provides a guide to the case studies contained in this report by planning strategy and key concepts for more in-depth review.

*Enhanced Services through Coordination*

Coordination is taking many shapes as agencies join one another to develop various service delivery systems. From newly created transit systems, to broker/provider systems, and through human service lead agencies, systems are being created which not only improve transportation access for ADA paratransit and health and human service agency clientele, but also for the general public in some cases. In some areas passengers are being commingled from different agencies including seniors, persons with disabilities, school children, people moving from welfare to work, and the general public. This commingling of passengers not only allows the coordinated systems to realize higher operating efficiencies, but has the tangential benefit of lowering barriers between groups that may formerly have had little exposure to one another, both individually and at an agency level.

Coordinated systems have shown that through inter-agency cooperation and partnerships, agencies can expand service to enhance access to health care, shopping, education, employment, public services and recreation for specialized transportation service clients and the general public. This has been done by substantially increasing the transit options and overall availability of accessible transportation for people with disabilities, while eliminating duplication of services, enhancing service quality, and improving the overall cost-effectiveness of the local transportation system.

A coordinated transportation system will seek to maximize the efficiency of operations by reducing such measures as the cost per ride or cost per mile of transportation provided and by increasing the passenger per vehicle hour average. To realize these efficiencies, participating agencies need to examine the passenger base of the coordinated transportation system as a whole. This examination can be achieved through the joint identification of the participating agencies' client needs. This process is an outcome of transit and health and human service agencies coming together to share planning resources.

**Planning for Coordination Case Studies  
Subject Key**

Case Study Area	Planning Strategies							Key Concepts
	Partnerships	Sharing Planning Resources	Joint ID of Client Needs	ID of Services, Costs & Revenues	Cost Sharing	Performance Measurement	Measuring Cost Savings & Benefits	

State of Washington	X							Identify barriers to coordination, demonstration projects
Detroit, MI	X							Automated schedule & dispatch, community service leads
Phoenix, AZ		X						MPOs as a catalyst for coordination, welfare to work
State of Ohio		X						Leveraging partnerships, developing statewide guidance
Flint, MI			X					Servicing user defined needs, fixing transit costs to agency
Buncombe County, NC			X					Surveying agency resources, developing regional plans
Miami, FL				X				Centralizing local coordination, cost saving programs
State of Kentucky				X				Capitated rates, broker/providers
Lane County, OR					X			Leveraging local funding as match, cost allocation
Madison, WI					X			Commingling of funds, Medicaid

								waivers
Sweetwater County, WI						X		Forming a transit agency, controlling costs
Pittsburgh, PA						X		Annual service contracts, capturing operating costs
State of Florida							X	Calculating benefits, requiring statewide coordination
Greene County, OH							X	Brokering rides between agencies, developing cost data
Buffalo, NY	X	X	X	X	X	X	X	Hublink, lowering agency per trip costs



## **I. Introduction**

### **A. Legislative Background**

In its supplemental report to accompany the U.S. Department of Transportation's (U.S. DOT) fiscal year 1997 and 1998 appropriations bill, Congress directed "the Secretary of Transportation, working with the Secretary of Health and Human Services through the DOT/DHHS Coordinating Council, to develop *guidelines* for state and local planning (agencies) to achieve specific transportation coordination objectives." These include but are not limited to:

- joint identification of client transportation needs;
- identification of the appropriate mix of services to meet these needs;
- the expanded use of public transportation to deliver human service transportation; and
- Cost-sharing arrangements for program clients transported by paratransit systems.

Similar language in the U.S. Department of Health and Human Services' (U.S. DHHS) appropriations legislation encouraged U.S. DHHS to work with the U.S. DOT on those guidelines. In the spring of 1997, the two departments formed the DOT/DHHS Transportation Planning Workgroup to address the development of the guidelines. Subsequent to this directive, welfare reform has focused renewed attention on the use of social service and "non-traditional" transportation systems to complement existing public transportation to provide adequate access to jobs for temporary aid to needy families (TANF)/welfare recipients. More than ever before, U.S. DOT and U.S. DHHS need to cooperatively develop strategies to facilitate the coordinated planning and delivery of specialized and public transportation services.

### **B. Coordination Requirements in the ADA and TEA-21**

Coordination can substantially increase the availability of accessible transportation for people with disabilities. Although not mandated, coordination between local agencies is clearly a goal of the Americans with Disabilities Act of 1990 (ADA). The ADA does mandate that persons with disabilities cannot be denied access to public transportation facilities and services and that those services must be comparable to those provided to the general public. ADA provisions require that all newly acquired and modified vehicles operated by public and private transportation providers be accessible and mandates that public transit agencies provide ADA paratransit services that complement their fixed-route services for people who cannot use those fixed-route services. ADA paratransit services must be comparable in terms of response times, fares, geographic service area, and hours and days of service and may not restrict the number of trips an individual can make or prioritize service based on the rider's trip purpose.

With regard to coordinated planning, ADA regulations require that public providers identify all other providers of transit services in their area as part of the preparation of the complementary paratransit plan. However, other providers, such as health and human

service agencies, are not necessarily required to work with the public provider in putting together the paratransit plan, or to coordinate their services. When the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) was passed in June 1998, it contained a number of sections that directly address planning for the coordination of government funded transportation services.

Under Section 3022(d): Health and Human Service/Participation of Governmental Agencies in Design and Delivery of Transportation Services, the Act provides that "to the extent feasible, governmental agencies and nonprofit organizations that receive assistance from Government sources (other than the Department of Transportation) for non-emergency services:

1. shall participate and coordinate with recipients of assistance under this chapter in the design and delivery of transportation services; and
2. shall be included in the planning for those services."

Under Section 3004: Metropolitan Planning, the Act calls for the Secretary of the U.S. DOT to encourage each metropolitan planning organization (MPO) to coordinate the design and delivery of transportation services with all recipients of U.S. DOT funding and all agencies funded by other government agencies. The Act also calls for the Comptroller General to conduct a study of Federal departments and agencies (other than U.S. DOT) that receive or provide Federal financial assistance for non-emergency transportation to assess the level of transportation spending under Section 3034. The Act also creates a new Federal Transit Administration (FTA) grant program under Section 3037: Access to Jobs and Reverse Commute Grants. Under this program, grant evaluation criteria include the extent to which applicants demonstrate coordination with, the financial commitment of, and the maximum utilization of existing transportation providers in the area.

The joint UMTA/FHWA April 1976 regulations for elderly and handicapped transportation established accessibility criteria for U.S. DOT-funded projects that specifically included coordination as a means of implementing the "special efforts" required to comply with Section 504 of the Rehabilitation Act of 1973 (ADA's predecessor). The 1979 U.S. DOT regulation implementing the Section 504 requirements for U.S. DOT grantees specifically required (among others) that grantees create a "transition plan" including "the identification of coordination activities" as one of the eight requirements of these plans. The Surface Transportation Assistance Act of 1978 established coordination as one of the requirements of Section 18 program created by that Act. ADA and TEA-21 are only the latest examples in a long line of U.S. DOT-required coordination efforts.

### **C. Planning for Transportation**

Transit operators funded by FTA are required to meet specific transportation planning requirements as a condition of funding. Transit operators are required to provide detailed operational data on cost and ridership to FTA on an annual basis. In urbanized areas,

transit operators are key players in developing regional transportation plans through the metropolitan planning process, as called for in TEA-21. As transit agencies, their single focus is on transportation. In contrast, U.S. DHHS-funded programs are multi-service organizations focused on their individual agency missions and view transportation services as a secondary function in support of servicing their clientele. While state agencies administering certain programs such as Medicaid are required to submit plans that describe how local agencies will ensure necessary transportation for clients to and from medical providers, U.S. DHHS programs do not typically conduct transportation planning or have transportation reporting requirements related to the transportation components of their programs.

As a result, data and information to support planning for FTA and U.S. DHHS-funded transportation services are not always comparable, making planning for coordinated transportation between transit and health and human services challenging. For many years, health and human service agencies have contracted for or provided their own transportation services, which in many cases were not coordinated with local public transportation agencies (where they existed). Many transit agencies were also involved in providing paratransit and dial-a-ride services, prior to the passage of the ADA, using FTA's Section 5310 Elderly and Persons with Disabilities Program and Section 5311 Non-urbanized Area Formula Program funds. The passage of the ADA brought the lack of coordination between the various providers into focus. As transit agencies were required to provide accessible ADA paratransit services comparable to their fixed-route services, many health and human service agencies continued to provide their own transportation services. As a result, areas were often left with a confusing, uncoordinated maze of transportation services with duplication of services and other system inefficiencies.

This situation has been exacerbated by concerns over who should pay for specialized transportation services. In some cases, health and human service agencies saw the ADA as an opportunity to have paratransit services provided by the public transit agency, rather than in-house, with the possibility of considerable cost savings. Conversely, transit agencies feared an overwhelming demand for their ADA paratransit services with few sources of funding to support those services. Both FTA and U.S. DHHS have traditionally spent considerable funding on transportation services. FTA's overall expenditures for transportation services are estimated to exceed \$4 billion for fiscal year 1998, while transportation spending by U.S. DHHS programs was estimated at \$2.6 billion for fiscal year 1998<sup>1</sup>. In the face of constant budgetary pressure and possible cuts in funding faced by both U.S. DHHS and U.S. DOT, the potential is apparent for cost savings and more cost-effective delivery of transportation services to communities as a whole through coordination.

Measures in both the ADA and TEA-21 clearly support greater strides toward coordination. The guidelines being developed through the DOT/DHHS Coordinating Council on Access and Mobility (Coordinating Council) for state and local planning agencies to achieve specific transportation coordination objectives are a first step in realizing that goal. The Coordinating Council has also authored a study entitled "Planning

Guidelines for Coordinated State and Local Specialized Transportation Services." It is a complementary report to this one and is referenced throughout this document.<sup>2</sup>

#### **D. Approach**

The DOT/U.S. DHHS Transportation Planning Workgroup determined that the identification and description of successful, existing state and local coordinated planning initiatives would inform the development of final guidelines, as well as provide agency customers with potential models upon which to base their own planning efforts. Ultimately, the workgroup expects the guidelines to incorporate best practices and models with recommendations that will assist transportation service providers to develop effective and successful planning partnerships.

In undertaking this study, the workgroup decided to take advantage of FTA's general working agreement with the U.S. DOT's Volpe National Transportation Systems Center (Volpe Center) to conduct this analysis.

#### **E. Scope**

The workgroup developed a list of planning "strategies" and activities that may facilitate coordinated planning for transportation between health and human service and public transit agencies. These activities can be categorized under four headings:

##### ***Institutional/Organizational Coordination***

- Formation of coordinating councils or groups
- Institutional MOUs, or inter-agency agreements defining roles and responsibilities
- Consolidation of administration/finance under one agency
- Mutual definition of "coordination"
- Joint identification of client transportation needs
- Development of joint results/products of coordination
- Public involvement

##### ***Technical Tools***

- Uniform definitions and standards
- Establishment of uniform accounting systems
- Improved data collection
- Identification/quantification of the need/performance
- Identification/quantification of transportation costs and revenues
- Identification and measurement of non-monetary costs and benefits
- Use of analytical tools (GIS, analytical packages/software, modeling)

##### **Coordinating Procedures**

- Co-location of human services ("one stop shop" to reduce the number of trips)

- Consolidation of scheduling and dispatch ("one call" for customers)
- Consolidation of capital equipment
- Resource allocation based on transportation need/performance
- Establishment of cost sharing arrangements
- Lending/sharing of planning, technical resources among agencies
- Data sharing
- Joint sign-off/certification of plans/grant applications

### ***Evaluating Cost Savings and Benefits of Coordination***

- Establishment of oversight bodies
- Measuring system performance and costs
- Measuring cost/cost savings and benefits of coordination

To assess whether these strategies are currently being implemented, the workgroup developed a list of candidate states and urban and rural areas believed to have experience in coordinating transportation services. The list was based on historical knowledge and experience of the workgroup members, supplemented by recommendations from FTA regional offices, and the input of other stakeholders. Staff from the U.S. DOT's Volpe Center conducted telephone interviews with representatives from the candidate areas to gather information on the history and background of transportation coordination efforts in their areas. From these initial interviews, an Interim Report was prepared that summarized the transportation coordinating activities being conducted in the targeted areas. Based on these findings, the list of coordinating strategies was condensed to include seven broad strategies of coordination, including:

- Partnerships
- Shared planning resources
- Joint identification of planning needs
- Identification of transportation services, costs and revenues
- Establishment of cost sharing arrangements
- Performance measurement
- Measuring cost savings and benefits of coordination

Volpe Center staff then conducted a second round of interviews with specific areas, depending upon the given topic of coordination to develop detailed summaries of their experiences in implementing and accomplishing the strategy. Interviewees were asked to describe how the strategy contributes to a coordinated approach to transportation service delivery, how it fits into the local planning process, and to identify issues associated with each strategy and potential obstacles.

This draft Final Report summarizes the results of these efforts. Each chapter that follows addresses one of the seven coordinating strategies. The chapters begin with a general discussion of the strategy and its potential for producing beneficial results in transportation coordination. Each chapter then provides examples of how the strategy is being implemented in two of the case study sites. In each of the case studies, a number of

the approaches illustrated might not be considered traditional "planning." This reflects that coordination between human service and public transit agencies is not necessarily traditional. While this report discusses each of the seven coordinating strategies separately, it is important to note that these strategies are interdependent and often blend together. It is the intent of this report to illustrate how each strategy, individually and applied together, might fit in to a coordinated regional transportation planning process. Appendix A provides information on transit and health and human service officials contacted as part of this study.

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<sup>1</sup>Jon E. Burkhardt, "Recommended Framework for Developing State and Local Human Services Transportation Planning Guidance," prepared by Ecosometrics, Incorporated for the Coordinating Council on Access and Mobility and the US Department of Health and Human Services, September 22, 1998.

<sup>2</sup>Coordinating Council on Access and Mobility, The Office of the Secretary, U.S. Department of Health and Human Services and the Federal Transit Administration, U.S. Department of Transportation, "Planning Guidelines for Coordinated State and Local Specialized Transportation Services," July 26, 2000.

## II. Partnerships

The first step in coordinating transportation service delivery is to bring the various providers of transportation services together and establish open lines of communication. While this may seem all too obvious, many transportation providers related that this first step was the most critical. In fact, prior to efforts at coordination, many transit and health and human service agency officials had never had contact with one another. Consequently, they lacked a complete understanding of the current transportation services provided by their counterparts and the opportunities to enhance services to their clients and realize possible operating efficiencies through collaboration.

The impetus for forming partnerships varies widely from place to place. In a number of areas, state legislatures commissioned studies that identified the need for coordination to provide enhanced transportation for seniors and other human service clientele. Governors in some states have pushed through initiatives and executive orders requiring coordination between agencies. In other areas, states passed laws that require all agencies and operators who are recipients of Federal, state, or local transportation funding to coordinate their activities. Individual staff have also served as catalysts for coordination - informal relationships between staff of state DOTs and state DHHS agencies have led to the exchange of information and realization that a coordinated partnership approach could benefit all agencies involved. It is also common for individuals to take the initiative in seeking solutions to their agencies' transportation delivery challenges and funding shortfalls by reaching out to other agencies for help. Regardless of the impetus, legislatures, politicians, agencies, and individuals have recognized the benefits derived from forming partnerships to coordinate transportation services.

Partnerships contribute to a coordinated approach to transportation service delivery in a number of ways. Without the establishment of working partnerships, none of the planning strategies discussed would be possible, because all depend on staff working together, sharing information and resources, and developing cooperative agreements. Partnership is the first step to that cooperative relationship, bringing together agencies with very different missions, constituencies, clientele, staff and resources, to create a free flow of information. Key to these new partnerships is establishment of a Memorandum of Understanding (MOU) or similar agreement among participating agencies to address any obstacles to coordination. MOUs help to define the roles and responsibilities of each participating agency.

Establishment of permanent coordinating councils or transportation advisory committees, including a state or local DOT, state and local health and human service agencies, transit agencies, MPOs, and others often strengthens the newly formed partnerships. While these partnerships have the potential to bring staff with technical expertise together, the partnerships thrive only if they have the political support from their organizations that will be required to implement a coordinated system. In some cases, political support provides the original impetus for the establishment of coordinating councils and committees. In other cases, coordinating councils have first had to develop information to

illustrate the potential benefit of coordination before political support is generated. In either case, political support is essential to make a coordinated system a reality.

The two examples that follow illustrate how the formation of partnerships occurred, what provided the impetus, the agencies involved, the challenges faced, and the benefits realized. For additional information about forming partnerships, please see "Planning Guidelines for Coordinated State and Local Specialized Transportation Services," Checklist of Transportation Planning Steps, Steps 1 and 2.<sup>3</sup>

#### **A. State of Washington - *Developing Partnerships for Coordination at the Statewide Level***

**Issue:** Identify barriers to coordination between agencies.

**Aim:** Create local community forum planning processes to further coordination of county transportation resources.

**Benefits:** Provision of more rides with the same amount of resources through agency coordination.

**Costs/Cost Savings:** Not yet available.

**Lead Agency:** Agency Council on Coordinated Transportation (ACCT).

In Washington, transportation coordination has had some notable successes, including the collaboration between the Washington State DOT and the State Department of Social and Health Services (DSHS) to establish a brokerage model for the delivery of transportation in the 1980s. Originally, a number of DSHS agencies were considering participating, but when the brokerage system was put in place, only the Medicaid agency decided to participate. Other DSHS agencies did not participate because of concern over losing control of their program's transportation element. The brokerage system has been successful by any measure, but the State DOT, with a long tradition of using coordination as a primary component in evaluating grant applications for transit funding, believed that coordination could be achieved on a larger scale.

In 1997, the State Legislature undertook a transportation study that recommended a statewide forum on coordination. Although a bill was introduced in the Washington legislature to create ACCT, the bill did not pass out of the legislature during the session. The legislature did allocate \$1 million to the State DOT to fund coordination demonstration projects, however. The DOT established a multi-agency advisory council that mirrored the proposed membership of the ACCT and went forward with the selection and awarding of demonstration projects in January 1998.

In March 1998, the bill to form ACCT was re-introduced in the legislature and passed. The ACCT membership includes the State Secretaries from DOT, DSHS, and the Superintendent of Public Instruction, the State Transit Association, the State Association for Pupil Transportation, the Community Transportation Association of the Northwest, and members of the user community. This included a senior lobby representative, a person with disabilities, and an at-large appointee of the governor. ACCT also has eight state legislators who are non-voting and the DOT provides staff support. The underlying

mission for ACCT is to identify barriers to coordinated transportation between agencies. ACCT undertook a statewide survey of health and human service and community agencies and transit providers and held 13 public hearings to get input regarding barriers to coordination. That effort resulted in identification of barriers grouped under the six headings below:

- organizational and structural
- policy and regulatory
- operations
- funding
- communication
- information and data.

To address these barriers, ACCT formed three workgroups in the summer of 1998. The first group was formed to address the organizational/structural and policy/regulatory issues. Their focus was on what a coordinated system should look like. The second group was created to address data planning and information clearinghouse issues. The group assessed what types of data are needed, the availability of data from transit, education, and health and human service agencies, and how data could be used to evaluate the cost of current transportation services and the benefits of coordination. The third work group was formed to address operational and funding issues, and to make recommendations for future demonstration projects. The group focused on how agencies could share the costs of rides, coordinate dispatch, and increase capacity of available paratransit services.

In early 1999, the task of the three workgroups was completed. Their efforts resulted in the introduction and passage of legislation that created a Program for Coordinated Transportation (PACT) at the state level. PACT defines coordination and establishes a two-tiered program for implementing coordination. At the state level, an advisory group consisting of representatives from all state agencies whose programs involve transportation was formed to provide input and recommendations to ACCT. At the local level, PACT provides for the creation of local community forums including all local transportation stakeholders. ACCT appointed a local planning workgroup to develop local coordination planning guidelines that would provide community forums with a roadmap to approaching coordination. The local community forums will be responsible for the development of a transportation coordination plan developed in response to ACCT's coordination guidelines. The plans will identify the lead agency for funding purposes and provide information on proposed operational implementation of coordinated services.

The original data planning and information clearinghouse workgroup also proposed recommendations regarding the need for and collection of data from various agencies. The group proposed changes over time to DSHS reporting codes and classifications that, while not capturing the full cost of transportation, would provide some information about the level and cost of transportation services being provided by DSHS agencies. This was in recognition of the lack of historical ridership and cost data available from health and human service agencies. However, the legislature was not convinced that the benefits of

collecting the data were worth the cost to obtain those data and the recommendations were not implemented.

The demonstration projects originally funded by the legislature in 1997 have moved forward under the oversight of ACCT staff. A preliminary report on the results of the projects was due to be issued at a later date in 1999. The demonstration projects are addressing a number of different elements of coordination:

- In King County, the demonstration project has three components under the direction of the Metro Transit Agency. The first looks at coordinated transportation planning for welfare-to-work, and involves developing working relationships between Metro, county human service agencies, the local private industry council, employers, and local child care centers. The project will provide transit passes and other incentives to help transition new employees into jobs. The goal of the second component is to develop a single broker system for all ADA-eligible individuals and Medicaid transportation to replace the current shared brokerage system. The third component involves providing used vehicles to several community-based organizations to assist them with their transportation needs. The expected benefits of the projects are: to increase the available capacity for trips; to reduce the overall cost of trips; to provide more travel choices for people in the community, and; helping people make a successful transition from welfare to work. The total cost of the combined projects is projected at \$628,000.
- In Mason County, the Transportation Authority will create an Interagency Joint Transportation Coalition to develop working agreements between county agencies. Under the project, a Mobility Coordinator was hired to coordinate contracted dial-a-ride services, develop compensation rates for providers, and to develop a volunteer ride services program. The expected benefits of the project are: to reduce costs to individual agencies through coordination by better utilization of available funding and resources; to provide improved services for out-of-county trips for medical and other purposes, and; distributing trips to more providers, including volunteers. The total project cost is projected at \$91,000.
- In Snohomish County, the County Senior Services Agency will contract with up to five senior centers in the rural part of the county to serve as transfer sites. This will bring people who are outside the service area of Community Transit (CT), the regional transit agency, to senior centers to be transferred onto CT's system. The expected benefits of the project are: to connect rural residents to the transit system; to reduce agency costs by shortening trip lengths and sharing rides through coordinated dispatch, and; increase agency vehicle capacities by reducing trip lengths and freeing vehicles for more trips. The total project cost is projected at \$319,000.
- In Yakima County, People for People, a community-based non-profit organization, is exploring ways to serve outlying areas beyond the city-bounded service area by assessing resources available for coordination with local agencies. A coordination center will be created to serve as a central clearinghouse. People for People will create an inventory of routes, schedules, vehicle capacities, and program resources and will work with participants to unify scheduling of trips.

The keys to the system will be a common rate structure and the participation of all local providers within the system. The expected benefits of the project are: to reduce the cost of trips per agency by sharing expenses; increase capacity and decrease trip denials; and expand the availability of services within the community. The total project cost is projected at \$243,000.

- In Clallam and Jefferson, located on the Olympic peninsula, the Olympic Area Agency on Aging is undertaking a planning exercise to determine community needs and assess service alternatives within the two counties for coordinated transportation. A coordinator will be hired to implement a "Bus Buddy" system to move trips from paratransit to the transit system and will implement a marketing plan to educate consumers about their transportation options. The expected benefits of the project are: to minimize trip duplications; reduce costs by shifting trips to less expensive transit and thereby make resources available for more trips, and; expand the availability of services through coordination between agencies. The total project cost is projected at \$165,000.

Working cooperatively through their partnership on the council, ACCT members hope to generate support for further funding of the Council to support staff, fund additional demonstration projects, and provide sufficient funding to support the formation of community forums at the county level. Staff from the ACCT acknowledges that generating sufficient funds to support coordination will continue to be a challenge. They will need to persuade the legislature that it will cost money to ultimately save money through coordination.

#### **B. Detroit, Michigan - *Developing Partnerships at the Grass Roots Level***

**Issue:** Lack of access to adequate transportation for residents of Empowerment Zone.

**Aim:** Increase the availability of transportation within the Empowerment Zone by maximizing the use of existing vehicle capacity of participating agencies, while providing travelers with a one-stop resource for reserving rides.

**Benefits:** Estimated 50% to 70% increase in the number of rides provided by DATC member agencies.

**Costs/Cost Savings:** Approximately \$4 million for two-year trial period including costs for personnel, operational expenses and implementation of Centralized Automated Scheduling Dispatch System (ASDS).

**Lead Agencies:** Metropolitan Affairs Coalition (MAC), Detroit Assisted Transportation Coalition (DATC), and the Detroit Department of Transportation (DDOT).

While the Greater Detroit metropolitan area ranks fifth in the nation in terms of population, it ranks next to last among the top 20 areas in transit services available. The lack of adequate transportation over the years led many health and human service agencies, churches, and health care providers to develop and operate their own specialized transportation services. In 1990, a study by the Southeastern Michigan Council of Governments (SEMCOG)<sup>4</sup>, the local MPO, identified problems with the

coordination of specialized transportation services in the Detroit metropolitan area. SEMCOG identified over 300 specialized transportation providers in the area, including the two large transit agencies, DDOT and the Suburban Mobility Authority for Regional Transit (SMART), and numerous community and health and human service agencies. When Detroit was designated as one of six Federal Empowerment Zones in 1995, the Community-based Mobility Strategy (CBMS) Task Force was formed with the goal of coordinating local specialized transportation resources.

The CBMS is a partnership of more than 50 community-based and health and human service organizations and transportation providers from throughout the Empowerment Zone. MAC, a regional coalition of business, labor and government leaders associated with the MPO, is guiding this planning effort to coordinate transportation services in a cost-effective manner to provide Empowerment Zone residents with access to transportation. The Task Force developed an idea for EZ Ride, a system based on a centralized Automated Scheduling Dispatch System (ASDS) to coordinate transportation resources. The closest and most logical provider would provide transportation in an efficient manner. EZ Ride would encourage agencies to cooperate in meeting transportation needs of the community as a whole and not only their agency's clientele. From the passengers' standpoint, EZ Ride would also make transportation more accessible by providing a single number to call to reserve a ride.

The involvement of grass roots organizations has been vital to developing local coordination. The CBMS identified the DATC, through its fiduciary agent the Community Resource and Assistance Center (CRAC), as the lead agency to implement the EZ Ride system. The DATC is a coalition of five community-based organizations that provide transportation within the Empowerment Zone:

- CRAC
- Brightmoor Community Center
- Delray United Action Council
- Latino Family Services
- Council of Actions United for Service Efforts (CAUSE)

CRAC has been providing demand response transportation services to its low-income and mobility-impaired clients since 1979, and is the largest service provider in DATC with eight vehicles. CAUSE operates four vehicles on the Empowerment Zone's west side for seniors and persons with disabilities, while the remaining three DATC members each operate a single vehicle. CRAC provides approximately 135 trips per day, and the other DATC members collectively provide approximately 265 trips per day.

The CBMS Task Force realized that centralization would be key to the success of EZ Ride. The ASDS system would enable participating agencies to increase available transportation within the Empowerment Zone by maximizing the use of existing vehicle capacity, while providing travelers with a one-stop resource for reserving rides. It is anticipated that EZ Ride will provide 125,000 one-way trips annually, an increase of 50% to 70% over the number of rides provided by the DATC member agencies at present.

Furthermore, through MAC and their partnership with local private industries, Ford Motor Company has provided additional vehicles (alternative fuel) to DATC for use in the EZ Ride system. This brings the number of available vehicles up to 32 for the coordinated system, increasing the coordinated system trip capacity beyond projections.

It is anticipated that EZ Ride will also facilitate the coordination of the DATC services with the paratransit operations of SMART and DDOT and, by linking Empowerment Zone transportation providers together, agencies will be encouraged to cooperate and coordinate to a greater degree in the future. After the two-year pilot period, EZ Ride would be expanded to include other paratransit providers with the goal of developing a network of coordinated community-based transportation providers, closely aligned and linked with the paratransit service provided by DDOT and SMART. In an effort to make greater coordination possible, MAC is also working with SEMCOG, DDOT, and SMART on a Transit Choice proposal. Transit Choice recommends a phased approach to merging DDOT and SMART services into a more unified and coordinated regional transportation system. The EZ Ride system would coordinate access by empowerment zone residents to a more integrated regional transportation system.

More than \$3 million of the \$4 million in funding needed to support personnel, operating expenses, vehicle maintenance, and the implementation of the ASDS for a two-year pilot of EZ Ride has already been raised. MAC and DDOT have worked with local hospital systems, the Area Agency on Aging, the local foundation community, the Department of Labor (through Welfare to Work grants), Michigan DOT, and the FHWA/ITS Office to identify and secure funding for the pilot. Final funding has been secured as part of a Federal Transit Administration grant to Detroit for Access to Jobs and Reverse Commute.

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<sup>3</sup> Coordinating Council on Access and Mobility, op cit, pp.23-25.

<sup>4</sup> Jon E. Burkhardt, et. al., "Specialized Services Coordination Plan for Southeast Michigan," Ecosometrics, Inc. for SEMCOG, July 1990.



### **III. Shared Planning Resources**

The planning requirements for public transit operators and health and human service agencies are markedly different. While FTA-funded public transit agencies are required to provide operational and financial data to FTA on an annual basis, and to participate in the state and metropolitan transportation planning processes, health and human service agencies do not have the same Federal requirements for the transportation they provide. As a result, transit agencies typically have more transportation planning resources, namely staff, devoted to transportation planning and analysis than their health and human service agency counterparts. Transit agency staff also have greater access to sophisticated transportation expertise and analytical tools through their own agencies and, in urban areas, through their local MPOs.

The mechanisms for sharing planning resources can take any number of approaches -- sharing staff, analytical tools, technical abilities, hardware and software, or facilities. In areas where transportation coordinating councils have been established, member agencies typically make technical staff available to work together on the council or at a more detailed sub-group level. Each staff person's knowledge of their own organization, its existing transportation services, and the clientele they serve is brought to the table. This allows the first and most vital step to occur: information exchange. A number of staff from transit and health and human service agencies reported that once they were brought together with other agency staff, solutions to individual transportation problems were often rapidly addressed when staff from one agency discovered that another agency had a service in place to meet their needs.

In many urban areas, the MPO serves as a forum where numerous state and local transportation agencies come together to share planning resources. The MPO provides transportation agencies with enhanced planning capabilities through their staff and the use of their transportation demand and land use models. These models can be used to compare existing transit and highway facilities against projected residential locations, job centers, or any number of other facilities, including health and human service facilities and to forecast travel demand. While health and human service agencies are not required to participate in the metropolitan planning process through the MPO, their future involvement could serve to further enhance coordination with local transit agencies. Other forums, including local transportation coordination advisory boards, could also serve as a place where agency staff shares information and resources.

The sharing of planning resources can contribute to a coordinated approach to transportation service delivery in a number of ways. The primary planning resources available to coordinate are planning staff, tools, and data from participating agencies. Through sharing expertise, individual agency planners can leverage another agency's insight, data, and experience in solving transportation challenges. Working with shared information, planners can develop more responsive yet less redundant transportation systems, identify and fill service gaps, and maximize the number of constituents served in a cost-effective manner. Coordinated planning can also lead to implementation of standardized dispatch and other technologies used in delivering transportation services

that could enable agencies to integrate and expand services through enhanced communications.

The two following examples illustrate how local agencies have established arrangements to share planning resources, the agencies involved, what resources are provided by each agency, the challenges faced, and the benefits realized. For additional information shared planning resources, please see "Planning Guidelines for Coordinated State and Local Specialized Transportation Services," Checklist of Transportation Planning Steps, Step 5.<sup>5</sup>

#### **A. Phoenix, Arizona - *The MPO as a Forum for Sharing Planning Resources***

**Issue:** Address the mismatch between where welfare recipients reside and where jobs are located and development of links between local dial-a-ride systems.

**Aim:** Establish a new fixed-route service to provide job access; broker existing transportation services; enhance a 70-vehicle volunteer fleet with paid drivers to provide valley-wide transportation 24 hours per day, 7 days per week; and to develop a small circulator system in a more rural area of the county to transport cash assistance clients and low income workers.

**Benefits:** Provide access to jobs for welfare clients and linkage of human services trips between communities.

**Costs/Cost Savings:** Cost of Access to Jobs grant from FTA.

**Lead Agency:** Maricopa Association of Governments (MAG).

In Phoenix, Arizona, explosive population growth, urban sprawl, and the growth of sizable cities on the outskirts create a significant challenge to providing coordinated transit service to the general public and paratransit riders in Maricopa County. Not unlike other growing cities in the Western U.S., Phoenix is attempting to enhance transit services against a backdrop where transit is not well established, and often times not well funded or supported. One of the key elements to future enhancement of the transit system in general and the paratransit system, in particular, is the sharing of planning resources through the MAG, which serves as the local MPO for the region. The area of the region is over 9,000 square miles, roughly the size of New Jersey. The county includes both rural and urban areas and is one of the fastest-growing regions in the country.

In Arizona, the State Department of Economic Security (DES) has established a unique 20-year partnership with local governments, that allows local elected officials to develop recommendations on human services needs in their communities. In the 1970s, the local recommendations were developed by individual human service planners located in the major cities and in the county. Because of obvious common needs across the region and the need to address those needs at a county wide level, a consolidated planning process was developed in 1981 between the local governments and DES which uses the councils of governments and Indian communities to develop these recommendations to DES on the use of a portion of the Federal Social Services Block Grant. Cities agreed to allocate their city-based human service planning resources to MAG in order to enable planners to coordinate human service planning for the region as a whole. Currently, the human

service planners at MAG are MAG employees, supported in part by local government contributions and, through the contract, the DES.

The MAG staff also includes transportation and air quality planners. The combination of these planners and human service planners within the same organization enables different expertise to be brought together to provide more comprehensive human service transportation planning. The recent consolidation of MAG offices has brought these staff together into the same physical location, which has accelerated cooperative planning and the exchange of information. Through the MPO and its Human Services Planning Committee, the human service planners have begun to address transportation coordination issues.

Most recently, the impetus for coordination has been to address the welfare-to-work challenge in the county. The mismatch between where welfare recipients reside and where jobs are located is currently exacerbated by the inadequacy of transit service between these locations. The human services and transportation staff have spearheaded an effort to develop an Access to Jobs application for FTA funding, working with members of the following organizations:

- City of Phoenix
- Regional Transit Planning Authority (RTPA)
- Arizona DOT
- Valley Metro (operator of the bus system)
- County Social Services Department

MAG human service and transportation planners are sharing databases on transit services, client location (including Temporary Aid to Needy Families [TANF] recipients), employment location, and human service facilities locations, to develop the underlying analysis for the Access to Jobs application. The planners have employed Geographic Information Systems (GIS) developed with shared data to provide analysis and illustration for the proposal. The proposal includes two projects to enhance the coordination of services:

*SouthWest Valley Project* - would establish a new fixed-route transit service to link communities where TANF recipients live with growing employment centers, and;

*Maricopa County Brokerage System* - would provide hired drivers for a 70-vehicle fleet that normally uses volunteer drivers during the day to allow valley-wide transportation on a 24-hour, 7-days per week basis. Would establish a coordinated brokerage system for human service transportation for cash assistance and low-income individuals.

Working with the multi-agency membership of the MAG Human Service Planning Committee, human service planners have also had some success in securing additional funding available for coordinated transportation services. The Committee worked with

other HHS agencies and MPOs throughout the state to lobby the legislature to designate \$2 million in TANF funds as eligible for paying for transportation services. Similar to other states, the Arizona legislature determined that transportation was a legitimate, eligible use of a portion of TANF funds. The Committee works with the RTPA to examine the development of a joint dispatching system that would coordinate rides between the seven dial-a-ride systems that currently operate only within their own municipal boundaries. The Committee also works with the County Social Services Department and various non-profit human service providers to coordinate transportation services and develop the underlying transportation networks (primarily fleets and drivers) to service their clients' transportation needs. According to MAG staff, the collaboration between human services and transportation planners has been an education to both. The ability to utilize the expertise on human service transportation barriers and needs, and transportation expertise on options and possible solutions, has been a valuable combination to assist cash assistance and low-income people in the region.

**B. State of Ohio - Sharing Planning Resources to Overcome Obstacles to and Provide Guidance on Transportation Coordination**

<p><b>Issue:</b> Address obstacles to transportation coordination between agencies. <b>Goal:</b> Provide guidance to local communities on transportation coordination. <b>Benefits:</b> Participating agencies are shaping policies based on knowledge gained from inter-agency coordination through a statewide task force. Willingness to provide agency funding for coordination projects. <b>Costs/Cost Savings:</b> Participating agency staff time. <b>Lead Agency:</b> Ohio Department of Transportation (ODOT).</p>
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For more than 20 years, the ODOT has been encouraging transportation coordination in Ohio. Through a combination of Memorandum of Understanding (MOU), published guidance, and, more recently, the formation of a Statewide Transportation Coordination Task Force, ODOT has worked with an increasing number of other state agencies to share data and develop shared planning resources to coordinate transportation systems. In one of its first cooperative efforts, ODOT entered into an MOU with the Ohio Department of Aging (ODA) in 1988 to submit a joint grant application to FTA to assess the barriers to transportation for the elderly. The grant led to the development of the DRIVE program, a passenger assistance training program for drivers. Based on this success, ODOT developed an MOU with the Department of Mental Retardation/Developmental Disabilities (MR/DD) to have planning staff from ODOT work with MR/DD staff to develop a similar program to train drivers in transporting MR/DD clientele.

Coordination between the ODOT and State HHS agencies gained momentum in 1996 when representatives of the ODOT, MR/DD, ODA, and the state Department of Human Services (DHS) attended a transportation coordination and human service delivery meeting held in Chicago, co-sponsored by the regional offices of the U.S. DOT and U.S. DHHS. As a result of the meeting, state participants developed an action plan to form a statewide transportation coordination task force. The Governor of Ohio supported the

push for coordination between state agencies; in July 1996 the task force was formed with the four agencies and a representative of the Governor's Family and Children First Initiative. ODOT established MOUs with each of the participating state agencies to address obstacles to coordination. The task force then sponsored two statewide transportation coordination conferences which were well attended and provided a clear message that local communities were looking for guidance on transportation coordination.

As a result, the task force was expanded to include several other state agencies including:

- Department of Development
- Department of Mental Health
- Department of Education
- Bureau of Employment Services
- Alcohol and Drug Addiction Services
- Rehabilitation Services Commission (RSC)
- Head Start Collaboration Project
- Governor's Council on People with Disabilities

Members of the expanded task force have come together to share information related to issues with mutual impacts, including: agency-specific state regulatory and policy obstacles, both perceived and real; agency reporting requirements and the types of data available for transportation planning purposes; the establishment of regulatory free zones and regulatory waivers; insurance and liability; and funding distribution. Using funding from a National Governor's Association (NGA) grant to study coordination and its impact on welfare reform, planning staff from participating agencies on the task force are developing twenty coordination briefs on these and other subjects ranging from liability, headstart transportation, and setting contract rates.

Working closely with members of the Task force, and in response to increasing community requests for information regarding integrating the transportation networks of multiple providers, ODOT developed and updated its "Handbook for Coordinating Transportation Services" in October 1997. The handbook, originally published in 1991, is a step-by-step guide to implementing coordinated transportation systems. Since its original publication, over 1,200 copies have been distributed to transit and health and human service agencies throughout the state. The 1997 update included case studies and testimonials based on ODOT's experience in working with state and local health and human service agencies. The update also included a "Volume II - A Guide for Implementing Coordinated Transportation Systems" that provides step-by-step instructions and tools for forming new organizations and policies and procedures to implement coordination.

The interaction of planning staff from member agencies on the Task force has already had a significant impact on the way agencies plan for transportation, and their views on the benefits of coordination. The Department of Education recently proposed revisions to their school bus and safety rules that were shaped by their membership on the Task force.

As a result of work by the education department's planning staff with their DHS and ODOT counterparts on issues pertaining to Ohio Works First, Ohio's welfare reform effort, the proposed revisions now allow school buses to be used for Works First participants. Task force members have also shared information from insurance experts regarding the liability barriers of using school bus fleets in rural areas to provide health and human service transportation. The sharing of information among agencies on the Task force has also led to Ohio's first agreement to share funds between ODOT and the Ohio RSC. RSC will give ODOT \$250,000 to support coordinated transportation as a direct result of the Task force's work and RSC's recognition of the direct benefits to be realized through coordination.

ODOT continues to leverage partnerships with state health and human service agencies as it administers the Ohio Coordination Program (OCP), a grant program open to communities working to coordinate transportation. There are currently 13 separate projects funded under the OCP at the county level, with health and human service agencies typically serving as the lead agencies. These projects include:

- efforts to implement a coordinated brokerage concept to eliminate duplication of service, which has led to placing individuals in vehicles with trained drivers rather than agency staff or case managers
- work with local transit agencies to expand services and hours in underserved areas
- Consolidation of maintenance and fueling between a transit and human service agencies.

ODOT is also working with the Task force to jointly review FTA 5310 (Specialized Transportation Program) grant applications with member agency planning staff. Through these partnerships and the exchange of planning expertise, members are better able to remove barriers that prevent successful coordination and to plan for efficient coordinated services.

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<sup>5</sup> Coordinating Council on Access and Mobility, op cit, p. 26.

#### **IV. Joint Identification of Client Needs**

A coordinated transportation system will seek to maximize the efficiency of operations by reducing such measures as the cost per ride or cost per mile of transportation provided, and by increasing the passenger per vehicle hour average. To realize these efficiencies, participating agencies need to examine the passenger base of the coordinated transportation system as a whole. This examination can be achieved through the joint identification of the participating agencies' client needs. This process is an outcome of transit and health and human service agencies coming together to share planning resources.

The joint identification of client needs can contribute to a coordinated approach to transportation service delivery in a number of ways. When each agency's client needs are regarded collectively, the participants are then able to take the first step in scoping the size and breadth of the coordinated system. The client needs will include the type of transportation needed, the origins and destinations of trips, and the timing and frequency of required trips. Once participating agencies have this information, they will be able to adjust existing paratransit services or create new services, as needed, while achieving efficiencies through commingling of clientele or coordinated dispatching of services. These improvements would not be possible without coordination.

As agencies have come together to coordinate transportation, their comparisons of client needs have commonly revealed two important issues related to human service and paratransit service quality. First, this process has allowed many agencies to overcome the impression that their clientele could or should not be commingled or ride-share with other agency clientele. Many agencies have found that other agency clientele have the same access needs as their own clientele. Common needs not only include access to transportation service and convenient scheduling, but also access to support service locations such as childcare or shopping. Second, it has allowed agencies to identify specific instances where clients may, in fact, need a specialized service, which would not be suitable for commingling. This knowledge results in better service quality for all involved. Furthermore, as agencies have accepted various degrees of commingling of clientele, a number of agencies have reported anecdotal support for the social benefits of having clients meet neighbors and seniors who have become helpful friends and mentors.

In the past few years, the goal of moving people from welfare to work provides a good example of various agencies working together to jointly identify their clients' needs. Recent changes in national welfare legislation have led local public transit agencies and state and local social services departments to coordinate in order to identify the location of welfare recipients and compare that to available public transportation and job locations. Many welfare recipients are also clients of local health and human service agencies. As a result, transit agencies in many cities across the country have responded to welfare to work access not only by creating new or extended routes to service residential and job locations previously underserved, but also by providing more flexible paratransit services targeted to enhance access to transportation to all social services clientele.

Therefore, addressing the welfare-to-work question has also helped to address the transportation coordination issue for these agencies.

The following two examples illustrate how the process of jointly identifying clients occurred, the agencies involved, the challenges faced, and the benefits realized from implementing the process. For additional information about joint identification of client needs, please see "Planning Guidelines for Coordinated State and Local Specialized Transportation Services," Checklist of Transportation Planning Steps, Steps 3 and 4.<sup>6</sup>

**A. Flint, Michigan - *The Transit Provider Working with Customers to Define Needs***

**Issue:** Fixed-route services lack flexibility to adequately service various user groups.  
**Aim:** Work with local community and health and human service agencies to redefine and improve transit services by identifying the transportation needs of potential customers.  
**Benefits:** Provide ability for agencies to control and budget for transportation costs based on fixed rates offered by MTA; increase MTA ridership.  
**Costs/Cost Savings:** School districts reduced annual pupil transport cost from \$600 to \$264 through contact with MTA.  
**Lead Agency:** Mass Transportation Authority (MTA).

In 1975, the MTA in Flint, Michigan had 25 vehicles and carried 800,000 passengers annually, while private companies provided additional transportation services. The MTA believed that while fixed-route systems would always be the bread and butter of their operations, door-to-door, customer-oriented transit represented the key to the future of their system and its viability. To prepare for that future, MTA made a commitment to strategic planning. MTA viewed the key to the strategic planning effort as working with local community and health and human service agencies to redefine and improve their services by identifying the transportation needs of potential customers. As a result, MTA has grown impressively over the past two decades by serving a whole host of new clients, including school children, pre-school aged children, elderly, persons with disabilities, and job-training clients. By 1998, the MTA had expanded to 325 vehicles (including 230 large buses with the remainder being vans and minibuses) carrying 6.5 million passengers in a service area covering 640 square miles, with a projected 10.5 million passengers by 1999. MTA's services have been so successful that most health and human service agencies in the Flint area have left the transportation business, and rely on MTA to provide for most of their clients' transportation needs.

MTA's commitment to strategic planning begins at the county level through the Metropolitan Alliance, a subgroup of the Metropolitan Planning Commission, the area MPO. The Alliance consists of representatives of the state DOT, MTA, airport, private providers, and political units within the county who are responsible for integrating transportation services. The Alliance develops the long-range transportation plan (Plan) and the transportation improvement plan (TIP). The MTA presents the transit component of the TIP and the Plan to their local advisory committees (LAC) who review and discuss

recommendations for service improvements to the full MTA Board. There are currently 5 transportation LACs:

- Elderly
- persons with disabilities
- Students/Employers
- Service Providers
- Job Access Transportation Needs

The LACs were established as a way for MTA to solicit input from its customer constituencies to ensure that services were meeting constituent demands. Membership on each of the LACs includes representatives of the constituent groups (e.g., elderly or persons with disabilities) as well as of the county or local non-profit, health and human service agencies responsible for administering programs for those constituent groups. The chairperson for each LAC sits on the Service Advisory Committee, which is a sub-group to the full MTA Board.

The need for new services is first reviewed by the Service Providers' LAC, which includes the MTA, transit agencies from surrounding counties, local taxi services, and private transportation providers. The LAC reviews the service needs to assess who might best provide that service and in some cases, how various agencies will coordinate. This assessment is based on an analysis of the demand (trips and frequency) for the new service, the ability to meet that demand with existing services, and the availability of resources to fund the service. Once those services are put in place, they are constantly refined through input from the other LACs. The LACs meet monthly to review how MTA is doing in meeting their needs and to discuss ideas for changes and improvements.

A recent example of improvements realized through this process was with the Elderly LAC. Seniors complained of having trouble using some 15-seat passenger vans because of the obstruction of the front seat in boarding the bus. Through the LAC, MTA worked to alter those buses to meet senior needs. More recently, in addressing a need identified through the elderly LAC, the MTA added a new transportation service to provide regularly scheduled shopping trips for seniors using vans equipped to carry shopping parcels to make the trip more convenient.

One of the keys to MTA being able to provide cost-effective transportation to community and health and human service agencies and the general public, is their ability to offer a fixed rate across all customer bases. The MTA Board establishes fixed rates based on the amount needed from farebox recovery to balance its annual budget. The ability to control and budget for transportation costs, based on the number of client trips, persuaded many customer agencies to realize considerable cost savings by leaving the transportation business. Another key to MTA's success has been their willingness to commingle clients (i.e., elderly, school children, job training clients) while serving a variety of agencies.

MTA currently provides pupil transportation to the Flint School District (except for special education, which is mandated) and commingles school children with the general

public at a considerable cost savings to the District. Formerly, it cost the district \$660 per student for transportation on an annual basis. Now, MTA provides that service at \$264 per student through a combination of fixed-routes, special routes, and curb-to-curb service. MTA currently carries 16,000 students per day out of 30,000 students in the area. Other districts in the area have indicated that they would like to have MTA handle their school bus service as well.

Today, MTA provides approximately 1,600 curb-to-curb trips per day, half of which are subscription services provided to clients of health and human service agencies. MTA has been flexible as it attempts to move into new markets, such as children below the age of six. MTA moves 300 children per day between the ages of 2 and 4 without their parents, and are also moving teen parents to their destinations after the children are dropped off. MTA has also worked with the Michigan Employment Security Agency and the local Family Independence Agency to provide transportation for welfare-to-work clientele. MTA's work with the LACs has helped to establish and refine new and flexible services to address the special needs of customers, employers, and various community agencies. MTA's efforts to reach out to constituents and provide coordinated transportation services have generated an impressive amount of public support. Local residents recently voted in support of MTA on the same ballot which provided the agency with a \$2 million surplus.

**B. Buncombe County, North Carolina - *Developing a Community Transportation Service Plan***

<p><b>Issue:</b> Coordinate local, regional, social service, and private providers. <b>Aim:</b> Enhance operating efficiencies for member agencies, expand the coordinated system. <b>Benefits:</b> Identification of cost saving opportunities for local agencies. <b>Costs/Cost Savings:</b> Savings to agencies from using Mountain Mobility versus operating their own transportation services. <b>Lead Agency:</b> Mountain Mobility (the community transportation system).</p>
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In 1978, the North Carolina State Legislature sponsored a study that identified the need to enhance transportation for seniors and other groups. The Governor issued an Executive Order requiring a coordinated planning process. Starting July 1, 1997, the North Carolina DOT required counties to develop Community Transportation Service Plans (CTSP) with local transit and health and human service agencies every four years in order to receive funds flowing through the state. A state level inter-agency committee was formed, the Human Services Transportation Council (HSTC), which included state departments of transportation, and health and human services. The HSTC determined that for each county there would be only one designated recipient for FTA 5310 (capital assistance for agencies serving elderly and persons with disabilities) and 5311 (rural and small urban community assistance) funds to promote joint coordination of services between agencies and providers. The county transportation plans would identify who would be the recipients of 5310 and 5311 funds.

In Buncombe County, the county is the designated recipient for these funds, which are then used to support the operations of Mountain Mobility, the County's community transportation system. The Transportation Division of the County Planning and Development Department operates Mountain Mobility. The county, with a population of 195,000, is the home to the City of Asheville, which accounts for approximately 35% of the county's population and is served by the Asheville Transit Authority's (ATA) fixed-route system. Mountain Mobility contracts with the Authority to provide paratransit services within the city and provides transportation services to health and human service agencies, Medicaid, elderly, and rural general public clientele throughout the county. As part of operating the community transportation system for the county, Mountain Mobility works with its advisory board, which includes representatives of the following agencies:

- Department of Aging
- Mental Health Agency
- Department of Social Services
- County Health Department
- Division of Vocational Rehabilitation
- Chamber of Commerce
- Employment Services Division
- ATA
- Private transportation providers

In North Carolina, advisory boards are an important mechanism for developing county CTSPs amongst the various agencies that jointly identify client needs, available services, and costs. As part of this process, Mountain Mobility undertakes an in-depth service planning process with its client agencies to examine existing services and opportunities to save costs through the use of alternatives such as the ATA's fixed-route services. The key to the service planning process is a survey of all client agencies including nursing homes, rest homes, and any agency or non-profit in the county whose clients require transportation services that could potentially be provided by Mountain Mobility. The survey examines each agency's needs and how they are currently being met. The survey asks for transportation operating revenue and expenditures to examine how costs are currently being allocated, whether or not all costs are being captured, and the funding sources used.

As part of the process, private providers in the county are surveyed to determine what transportation services are available and to measure the capacity of the system as a whole. Mountain Mobility also works with the employment community to examine employment transportation to assess their needs versus current services and in relation to welfare-to-work transportation issues. Survey information and operational data maintained by Mountain Mobility are then consolidated and analyzed by trip purpose, fare category, and are mapped using the Geographic Information System (GIS) for system evaluation purposes. The service planning process also includes an examination of related programs and services such as Emergency Medical Service (EMS), trips across county lines, areas where coordination might occur, and holding public forums to solicit input from the general public.

Once all this information has been consolidated and analyzed, Mountain Mobility planning staff incorporate service and organizational alternatives and consider redesigns of the current system. This may include recommendations that a new agency come into the system. The information in the CTSP would serve to identify the cost to that agency of currently providing that service and whether or not Mountain Mobility could provide a more cost-effective service. The CTSP also provides the basis for the service levels and contract costs that Mountain Mobility will establish with each agency.

Cooperation at the state level has ensured that this service planning effort is not wasted. The state DOT and HHS agency have agreed that health and human service funds would not be used for capital expenditures relating to transportation, but rather to purchase services from the local coordinating providers in each county. The state would pay for the capital equipment from state funds and would combine federal 5310 and 5311 funds to support the administrative functions for the designated local recipients of the funding. The state has also taken steps to further coordinate planning through the installation of a standard scheduling and billing software throughout the state which will enable the state to standardize ridership information and track costs by category of riders. Better information will allow the state, through the HSTC, to continue to advocate full allocation of costs for transportation between agencies, and support local community transportation systems' efforts to establish rates for agencies purchasing services that reflect the full cost of the service provided.

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<sup>6</sup> Coordinating Council on Access and Mobility, *op cit*, pp.25-26.

## **V. Identification of Transportation Services, Costs, and Revenues**

Once participating agencies have jointly identified their client needs and the broad range of demand for paratransit services and other public transit, the next step in the coordination process is to inventory the current transportation services available from the various agencies. In many cities there are numerous public and private providers of general, specialized and paratransit services, often funded by one or more agencies or funding sources. All too often, agencies are unaware that they are, in certain cases, providing identical and parallel services to those of another agency. As participating agencies coordinate, the current schedules and passenger loads for each carrier/provider are analyzed to identify where opportunities exist to consolidate routes, develop ride sharing or commingling agreements, and eliminate duplication, thereby realizing efficiencies of scale. However, analysis is not complete without the identification of attendant service costs for each provider.

As discussed earlier, health and human service agencies do not have Federal requirements to specifically identify the cost and operational information for the transportation services that they provide. Without this information, it is very difficult for these agencies to identify the full cost of providing transportation services to their clientele. Without adequate information, it also becomes difficult to assess the cost-effectiveness of a coordinated approach between agencies because of the difficulty in highlighting the potential savings to specific agencies. Cost information is also critical in assessing operating efficiencies within each agency's transportation service and for establishing cost sharing arrangements. In areas that have established full cost accounting, agencies have information available on all transportation-related costs including labor, fuel, insurance, vehicle depreciation, and maintenance. When agencies work together on coordination, agreeing on the basis of how to account for transportation costs and on which items to include, is often the first order of business.

In some instances, mandates in Florida and other states have required full-cost accounting be put in place for all local agencies receiving either federal or state funding related to transportation. In other instances, local agencies have adopted a full-cost accounting model and used it as the basis to begin negotiations with other agencies to coordinate and share the costs of providing paratransit services. The adoption of full-cost accounting practices not only has allowed many health and human service agencies to identify the true cost of providing transportation services for the first time, but has also been critical in highlighting the need for coordination to better utilize available resources.

The identification of transportation services, costs, and revenues is critical to developing a coordinated approach to transportation service delivery in many ways. Once this information has been established, realistic planning can begin based on available resources and costs. The identification and sharing of information will allow agencies to avoid duplication of services, realize economies of scale, and sometimes leverage available dollars for state or Federal match purposes. Better information regarding available public transit services can also help health and human service agencies in their

decisions to locate their facilities in areas more readily served by public transportation, thereby avoiding the need for more expensive specialized transportation services.

The two following examples illustrate how various agencies have come together to share information and to identify all available services, costs, and revenues for paratransit services, the impetus, the agencies involved, the basis of estimating costs, the challenges faced, and the benefits realized from their efforts. For additional information about identifying transportation services, costs, and revenues, please see "Planning Guidelines for Coordinated State and Local Specialized Transportation Services," Checklist of Transportation Planning Steps, Step 6.<sup>7</sup>

**A. Miami, Florida - Identifying Transportation Services, Cost and Revenues Through a Community Transportation Coordinator**

**Issue:** Address the needs and costs to the transportation disadvantaged at the local level.

**Aim:** Coordinate services of all recipients of Federal, state, and local transportation funding.

**Benefits:** Provision of 16 million trips to more than 125 local agencies and organizations.

**Costs/Cost Savings:** \$600,000+ per month in cost savings on Medicaid trips alone for a total savings of more than \$24.6 million since 1993. (source: MDTA)

**Lead Agency:** Miami-Dade Transit Agency (MDTA).

In 1979, the Florida Legislature enacted a law that created a council and requires coordination among programs that receive local, state, and federal funds to provide or purchase transportation for persons

"who because of physical or mental disability, income status, or age are unable to transport themselves or to purchase transportation and are, therefore, dependent upon others to obtain access to health care, employment, education, shopping, social activities, or other life-sustaining activities, or children who are handicapped or high-risk or at-risk." Florida Statutes, §427.011

These persons were collectively termed "transportation disadvantaged."

The law created the Coordinating Council on the Transportation Disadvantaged. The Council's policies for coordination were promulgated in 1980. The Council's first five-year state plan was developed in 1984.

In 1989, the Legislature elevated the Council to an independent Commission and established separate funding authority. The Commission for the Transportation Disadvantaged (the TD Commission) was located in the DOT for administrative purposes but had its own staff and operated as an independent agency. The Commission helped to establish local coordinating boards covering all of Florida's 67 counties. Each

coordinating board selects a community transportation coordinator (CTC) who coordinates all local transportation services using a variety of service delivery options - either as a broker, a broker/provider, or a sole provider, as in some rural areas. Each of the 50 CTCs is required to work with the local coordinating board, which typically includes local district office representatives from the following organizations:

- State Department of Transportation
- State Department of Health and Rehabilitative Services
- State Department of Education
- State Department of Labor and Employment Security
- State Department of Veterans' Affairs
- State Department of Elderly Affairs
- State Agency for Health Care Administration
- Florida Association for Community Action
- Florida Transit Association
- Private for profit and not-for-profit transportation providers
- Citizen's advocates
- Senior citizens
- Non-transportation business community
- Handicapped persons
- Local publicly elected officials

In Miami-Dade County, the MDTA is the designated CTC for the county. MDTA was a logical choice, not only because it is a provider of transit and rail service throughout the county, but as a county agency, it is also able to receive pass-through funding of state and Federal transportation funding. As a recipient of FTA 5310 (Specialized Transportation Services) funds and state funding from the Transportation Disadvantaged (TD) Trust Fund, local health and human service agencies have incentives to coordinate with the CTC if they wish to be eligible for these funds. The Miami-Dade coordinated system receives approximately \$500,000 annually in 5310 funding and received \$4.1 million in the current year in TD funds. Approximately \$3.1 million of the TD funds are designated to support MDTA's ADA complementary paratransit services, while the remaining \$1 million is used to pay for the unmet demand or service gaps identified by the CTC.

Coordination is particularly vital in Miami-Dade County, where approximately 25% of the population of two million is at or below the poverty level and is very dependent on the coordinated transportation services. The CTC provided almost sixteen million trips during the past year to more than 125 local organizations and health and human service agencies. The coordinated system uses 732 vehicles to provide transportation disadvantaged services, not including MDTA's fixed-route buses, which are also being used to provide coordinated trips at lower costs. The coordinated system was developed and is continually being refined as the CTC examines available services, costs and revenues of all providers and users of the system. The CTC works with agencies through the local coordinating board to develop a Coordinated Community Transportation Disadvantaged Service Plan every two to three years. For each local agency, the Plan

identifies available agency transportation services, funding, client demand, and unmet demand in the area.

The advantage of having a CTC to coordinate between various agencies is their ability to examine the local transportation universe as a whole and identify opportunities for cost savings, consolidation and enhancement of services. The CTC monitors the cost and efficiency of operations on a monthly basis through cost and ridership information provided by regular contact with local agencies. Each agency is required to coordinate and share information about their transportation services (routes, ridership, frequency, cost) with the CTC in compliance with the state law on coordination and also under reporting requirements to receive 5310 grant and TD funding. Operating reports from grant recipient agencies provide the CTC with operating data and cost information to help identify the actual cost of providing transportation to the various agencies' clientele and determining the utilization of the services they provide. The CTC examines available service and cost information provided by other agencies, assesses the efficiency of those operations based on the costs incurred, and compares that with MDTA's ADA complementary paratransit services (which cost approximately \$15.28 per ride for the county to provide) or other less expensive alternatives including MDTA's fixed-route rail and transit systems (which are fully accessible).

The CTC uses this information as the basis to negotiate rates with each of the health and human service agencies and to develop service contracts and agreements with transportation providers. Being at the center of the operations has allowed the CTC to develop innovative programs for delivering transportation services based on their knowledge of local transportation services and costs. By examining the numbers and types of trips being provided by health and human service agencies, the CTC realized that many of these trips could be provided at a far lower cost on accessible vehicles in the MDTA system. In response, the CTC developed an idea for the ADA Free Ride program, whereby ADA-eligible riders get a free pass if they choose to ride accessible vehicles in the MDTA system, thereby avoiding the co-payment fare for the paratransit ride and increasing their own mobility. This program has reduced the number of paratransit trips by 25,000 over the past year at a significant savings to the agencies and the MDTA.

Even more notable was the CTC's success in working with the Agency for Health Care Administration (AHCA) to implement the Metro Pass program. The program encourages those Medicaid recipients who can use the public transit system to use the monthly Metro Pass. The Metro Pass gives them unlimited transportation on the fixed-route system at a cost of only \$30-\$50 per month to AHCA. This program has resulted in the avoidance of providing more costly paratransit trips and resulted in an estimated \$600,000 savings per month in Medicaid-related transportation for AHCA for a total savings of more than \$24.6 million since 1993, according to MDTA.

**B. State of Kentucky - *Developing a Statewide System to Provide Services and Control Costs***

**Issue:** Lack of sufficient transportation services in rural areas and concerns

about fraud and abuse for Medicaid trips.

**Aim:** Develop a statewide coordinated human transportation delivery service network to expand services at a fixed cost.

**Benefits:** Expand availability of transportation services in rural areas and cap state expenditures.

**Costs/Cost Savings:** \$3 million in annual cost avoidance to the state by the year 2002.

**Lead Agency:** State Transportation Cabinet.

In Kentucky, the Families and Children Cabinet identified 22 rural counties with little or no public transportation systems. Due to this lack of transportation, welfare recipients in the more rural counties were often exempted by the state from requirements to participate in job training and work activities that limited the state's success in moving people from welfare to work. Medicaid trips in more rural counties were available through local taxi systems; however, there were concerns about fraud and abuse under that system. The cost of non-emergency medical transportation statewide had risen an average of 22.3% in each of the preceding 10 years. Against a backdrop of the passage of national welfare reform legislation and concerns about Medicaid transportation programs, the state selected the transportation delivery process, among other state programs, for redesigning under the governor's 1996 state level re-engineering project known as Empower Kentucky. The state formed the Kentucky Transportation Delivery Team, which included representatives of the following agencies:

- State Department of Transportation
- State Department of Workforce Development
- State Department of Health Services and Families and Children
- State Department of Medicaid Services
- State Department of Mental Health/Mental Retardation Services

The team's mission was to define the need for transportation and develop a statewide coordinated human transportation delivery service network to meet that need. One of the team's first tasks was to examine the level of transportation services available throughout the state. The team divided Kentucky into sixteen human service transportation regions based upon the number of Medicaid and Temporary Assistance Needy Families (TANF) recipients, and the availability and capacity of local transportation providers. For each region, a single broker/provider was selected who was responsible for coordinating and/or providing all trips. The broker/provider had access to eligibility lists via the Internet for health and human service, Medicaid and TANF riders.

In a move to centralize oversight of the transportation services under the proposed system, the state decided to consolidate the administration and funding of all human service transportation under one agency, the State Transportation Cabinet. The Transportation Cabinet was reorganized to create a Human Service Transportation Delivery Branch to work with the Public Transit Branch to coordinate operations. Using available cost data based on previous transportation operations by individual agencies, including receipts for past Medicaid transportation services, the state projects that they

will realize approximately \$3 million in annual cost avoidance by the year 2002 through consolidation and coordination.

At first, a number of health and human service agencies resisted consolidation under the Transportation Cabinet for fear that they would not be as sensitive to their clients. The formation of the Human Service Transportation Delivery Branch, staffed in part by former health and human service employees familiar with their clients needs, helped to ameliorate this concern. The development of interagency agreements to transfer funding to the Transportation Cabinet was also critical in coordinating services. These agreements were formed as a result of support from the Governor and Cabinet Secretaries, but also by the agencies working with the Transportation Cabinet to identify the current costs of transportation services. In certain cases, such as TANF and Medicaid, there were records of past transportation expenditures, while in other cases, such as Mental Health/ Mental Retardation Services, an actuarial study was conducted to assess historical cost and the number of trips provided to determine the revenues that would be transferred to the Transportation Cabinet to support the coordinated system.

The success of the proposed system depends in large part on the state's effort to set a capitated rate for TANF and Medicaid non-emergency trips, which account for 90% of all trips (other trips are on a fee basis). Under this system, the Transportation Cabinet pays regional broker/providers a flat rate per month based on the number of eligible recipients. The rate, which is based on historical data and actuarial studies, determines funding to the broker and the expense to the state. The Transportation Cabinet hopes to satisfy demand under this arrangement while making it a feasible undertaking for the broker/providers. Prior to consolidation, the Transportation Cabinet provided \$7 million in funding to local transit agencies throughout the state. Under the consolidated system with funds transferred from other agencies, the Cabinet has approximately \$50 million in funding to pay for services provided by the broker/providers.

Changes to state statutes and regulations and a Medicaid waiver from Health Care Financing Administration (HCFA) have also been important parts of putting the new regional broker system in place. The Medicaid waiver, which will end freedom of choice in terms of transportation providers, carries with it a 5% reduction in funding to the state, but the state believes that the efficiencies realized through the new system will make up for that reduction. While some clients originally resisted the lack of choice, the regional broker system guarantees the availability of transportation in all areas of the state, including areas that had no available service under the former system. Taxis are to adhere to new rates as regulated in the past legislative session, which gives broker/providers additional ability, particularly in rural areas, to provide needed transportation services at a reasonable cost.

The Transportation Cabinet has established an evaluation system that includes a two-way complaint tracking system via the broker, and at the state level, via a toll free number for customers. The state will also conduct site visits to broker/providers and has implemented rigorous reporting requirements for the broker/providers. An oversight committee including staff from each of the participating agencies has also been created to provide

feedback during the first two years of the coordinated system. To date, twelve regions have selected a broker provider and operations are underway, while the remaining four regions are scheduled to select a broker.

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<sup>7</sup> Coordinating Council on Access and Mobility, *op cit*, p. 27.



## **VI. Establishment of Cost Sharing Arrangements**

One of the typical outcomes of various agencies working together to identify available transportation services and accurately estimate their attendant costs is a clear realization of the scarcity of available resources to finance transportation services at a level of service and quality to the satisfaction of all the agencies involved. While local transit agencies and health and human service agencies in many areas have had a history of coordinated transportation, including sharing transportation costs, the passage of the ADA created a significant resource squeeze on public transit agencies. ADA significantly increased the mobility of many Americans by requiring public transit agencies to provide paratransit transportation to all ADA-eligible riders within specified service areas. While many transit agencies were already providing some level of paratransit services prior to the ADA, the passage of the ADA resulted in a significant increase in the demand for paratransit rides provided by public transit agencies.

Due to the increase in demand and the comparatively high cost of providing paratransit services, many transit agencies chose to define their paratransit services fairly restrictively under ADA. Transit agencies looked to contain costs by enforcing strict ADA eligibility criteria and by implementing service changes including switching from door-to-door service to curb-to-curb service. These measures often resulted in a number of individuals, who formerly used the pre-ADA paratransit services provided by the transit agency, finding themselves ineligible or left unable to access the paratransit services provided. While demand for paratransit services has increased, Federal, and sometimes state resources available for paratransit services have been decreasing. Public transit agencies will find it increasingly difficult to provide services to a broader range of individuals, many of whom may have been formerly transported by human service agencies. Without the establishment of cost sharing arrangements between transit and health and human service agencies, the level of service provided by public transit agencies to health and human service agency clientele under ADA could further decline.

Cost sharing arrangements can provide the underpinning of a coordinated approach to transportation service delivery. Cost sharing can help ease pressure on available transit agency resources, thereby allowing the paratransit provider to provide enhanced levels of service such as door-to-door and regularly scheduled rides to specific groups to a work or activity center. The basis for cost sharing arrangements can either be negotiated, or, as is often the case, calculated using a uniform cost accounting of transportation expenses. The establishment of a uniform cost accounting system to identify and classify applicable transportation expenses, is often the first step in developing cost sharing arrangements. A uniform system of accounting for costs allows participants to share a clear understanding of their respective costs, which can serve as the basis of an agreement between agencies when trying to coordinate. In most instances, once the cost sharing agreements are in place, health and human service agencies provide resources to the paratransit provider for an agreed upon level of service or on a per trip cost basis. Cost sharing is not only restricted to transfers of resources to the transit agencies; local health and human service agencies often pool their own resources in rural areas where a transit agency may not exist.

The following two examples illustrate how the formation of cost sharing arrangements occurred, what provided the basis for the arrangement, the agencies involved, the challenges faced, and the benefits realized through these arrangements. For additional information about establishing cost sharing arrangements, please see "Planning Guidelines for Coordinated State and Local Specialized Transportation Services," Checklist of Transportation Planning Steps, Steps 8 and 9.<sup>8</sup>

**A. Lane County, Oregon - *Sharing Costs to Ensure Higher Levels of Service and Leveraging Local Match to Increase Paratransit Funding***

**Issue:** Cost-per-ride increases for ADA paratransit threaten ability to maintain levels of service; fare increases to reach the ADA maximum allowable fare adversely impacts frequent riders, who attend work and training opportunities, specifically those designed to assist persons with developmental disabilities.

**Aim:** Develop cost sharing arrangement with participating agencies to enable maintenance of desired service levels and reduce the cost of service for some riders.

**Benefits:** Provision of over 100,000 coordinated trips per year.

**Costs/Cost Savings:** Local funds used as state match to increase federal funding resources.

**Lead Agency:** Lane Council of Government (LCOG).

In Lane County, Oregon, prior to the passage of the ADA, the Lane Transit District (LTD) was actively mainstreaming special needs riders onto fixed-route by outfitting all buses with lifts while also supporting a limited dial-a-ride service. LCOG, the region's MPO, also serves as the Area Agency on Aging and administers services for seniors and persons with disabilities. In the mid-1980s LCOG entered into an agreement with LTD to administer contracts throughout the region for specialized transportation services. The metro-based service, now called *RideSource*, was the result of an effort to pool resources and provide paratransit to local health and human service agency clientele and eligible elderly and persons with disabilities.

When the ADA required that transit agencies take responsibility for the provisions of paratransit services comparable to those available on fixed-route, LTD continued to contract with LCOG to coordinate and implement the ADA-required service. ADA requirements have significantly increased the demand for rides provided by the *RideSource* program to the point where they are providing 100,000 trips per year using a fleet of 20 vehicles. LCOG owns vehicles and leases them to the respective agency selected to operate services. Special Mobility Services is the current operator of the *RideSource* program.

Funding for specialized transportation in Lane County comes from a combination of revenues. In 1985, the state adopted a statewide cigarette tax that flows into the Special Transportation Fund and is distributed on a population-based formula. Other sources of revenue include: rider fares; Medicaid medical trip reimbursements and non-medical trips reimbursed at 50% of the full cost through a cost sharing arrangement with the Oregon

Department of Human Resources (DHR); some Older Americans Act funding dedicated for rural volunteer based services; and other agency contract agreements. The majority of funding for the *RideSource* program (55%) is derived from the LTD's general fund. Each year, LTD budgets revenues and transfers them to LCOG to help pay for the *RideSource* contract. LCOG re-bids the contract periodically to ensure that costs remain competitive and to establish a base cost for service.

Since the passage of the ADA, the cost on a per ride basis has risen despite service to an ever increasing number of riders. LTD has continued to increase their funding for paratransit services out of their general fund to meet increasing demand, from \$281,000 in FY 93-94 to \$623,000 budgeted for FY99-2000. LCOG and LTD anticipated increases in demand and costs under ADA and set policy to restrict services in order to contain costs such as adopting strict eligibility guidelines under ADA, providing curb-to-curb rather than door-to-door service, and incrementally increasing fares aimed at attaining the ADA maximum allowable fare. As costs have increased, LCOG has sought to develop revenue-sharing agreements with health and human service agencies to ensure continued high levels of paratransit service, to provide the level service needed by the agency for their clientele, and to eliminate fares for persons receiving agency support for transportation.

LCOG has worked with State DHR agencies to establish cost-sharing agreements, whereby the State and LCOG share the cost of providing transportation. LCOG calculates the full cost of providing rides using a cost allocation model and provides local matching funds as a percentage of the cost. The DHR agency pays the remaining portion of the cost as per the matching agreement and agency riders are not charged a fare for these trips. Local revenues are then used as match in obtaining additional Federal revenues for specialized transportation.

Critical to putting this agreement in place was the development of a full cost allocation model for transportation in 1992. LCOG used consultants' assistance to conduct an analysis and implement a cost model to determine the actual cost of each component of the *RideSource* program. *RideSource* is the "umbrella" for a number of service components within the contract that are designed to meet a variety of needs:

- *RideSource* is the curb-to-curb service that meets the requirements of ADA
- *RideSource* Shopper is a once-a-week shopping service that operates on service route model
- *RideSource* Escort utilizes volunteers to accompany persons who need door-through-door assistance to medical appointments
- Other components that provide transportation services for eligible Title XIX (Medicaid) clients and clients of the Pearl Buck Center for the developmentally disabled (DD).

In calculating costs for agency agreements, many costs, such as office time and expenses did not clearly belong to one service component or another. Even the cost of operating certain vehicles needed to be allocated since clients of various programs often ride on the

same vehicle. The model, as described by LCOG, categorizes all expenses as either fixed or variable costs under one of eight expense categories<sup>9</sup>. The total expenses under each of the eight expense categories are allocated between the various service components according to one of six cost drivers as follows:

<b>Expense Category</b>	<b>Cost Driver</b>
Administration	<i>All Allocated Expenses</i> - based on total percentage of all other expense categories allocated to each service component.
Management, dispatch and coordination	<i>Estimated Time</i> - of office staff spent on each service component.
Driver and mechanic labor hours	<i>Driver Hours</i> – dedicated to each service component.
Vehicle operating expense	<i>Vehicle Miles</i> – dedicated to each service component
Volunteer coordination and processing	<i>Volunteer Rides</i> – provided for each service component.
Volunteer mileage reimbursement	<i>Volunteer Rides</i> – based on actual mileage by service component.
Subcontracted transportation	<i>Taxi Rides</i> – allocated according to number of rides purchased for each service component.
Vehicle depreciation	<i>Vehicle Miles</i> – allocated based on estimated life of vehicles and assigned to service components according to vehicle miles used.

Information on driver hours, rides, vehicle miles, and subcontracted transportation come from records of operations which are available by type of trip (i.e., RideSource, RideSource Shopper, RideSource Escort, Title XIX, agency contracts). Using the cost drivers to allocate the expense categories by type of trip based on that actual information, LCOG develops cost rates for each different type of ride provided. They use the calculated average cost per trip as the basis for their cost sharing agreement with the State DHR.

More recently, LCOG has approached the state DHR Mental Health and Developmental Disability Services Division and Lane County Developmental Disabilities, the local agency of the DD, to consider cost sharing based upon their service agreements. RideSource provides transportation services to the developmentally disabled on a

subscription basis, bringing clients to job sites and training centers by the times specified by the local DD agency. This service is provided at a considerable cost, however. Under the ADA, while LCOG is required to provide the transportation service, they could provide a much lower level of service in terms of service times and scheduling. In an effort to maintain these higher levels of service, LCOG has begun discussions with the agency regarding cost sharing. According to LCOG staff, one of the major challenges in beginning these discussions, as was the case with the DHR, is developing an understanding of the terminology of how the State Mental Health Agency is funded and where opportunities may reside to leverage or increase funding for local specialized transportation.

#### **B. Madison, Wisconsin - *Sharing State and Federal Resources to Support Paratransit***

**Issue:** Passage of ADA significantly increased demand for paratransit services without attendant resource increases.

**Aim:** Work with County health and human service agency to establish a cost sharing agreement.

**Benefits:** Transit agency provision of specialized transportation services for human service agency.

**Costs/Cost Savings:** Cost sharing agreements cover 60 percent of cost of paratransit ride.

**Lead Agency:** Metro Transit.

In Madison, Wisconsin, the city transit agency, Metro Transit, has been providing paratransit services since 1976 and, more recently, in response to the passage of the ADA in 1991. Madison Transit's paratransit service was originally envisioned as a service for elderly and persons with disabilities, but had no restrictions on the type of rides they would provide. When ADA was put in place, Metro's paratransit system was already meeting ADA requirements in terms of the size of the service area. Metro Transit was already providing a substantial share of the transportation services to health and human service agency programs administered by the Dane County Human Service Agency (HSA). The passage of the ADA significantly increased the demand for existing paratransit services, particularly from seniors eligible under ADA's guidelines. From 1992 through 1996, Metro's paratransit ridership and costs increased by an annual average of 20 percent.

Confronted with rising costs and demand, Metro Transit undertook a ridership study of their paratransit services in 1995 that examined who their riders actually were in contrast to their ADA-certified eligible riders. The study revealed that at least one-third of their ridership was in support of employment or employment training for the developmentally disabled, programs supported by the Dane County HSA. Furthermore, they discovered that many of their riders were supported in part through the state-operated Medicaid waiver Community Integration Program (CIP) and the state-funded, county-operated Community Operations Program (COP) administered through the HSA. The study also pointed out that Metro Transit was providing paratransit services to many clients who might be able to access their fixed-route services. In 1995, the City Comptrollers Office

also undertook an ancillary study, which looked at paratransit services within Dane County. The study revealed that Metro Transit was providing approximately 85% of the specialized transportation services within Dane County, despite the city accounting for only 60% of the population.

After considering a number of service change options, including excluding seniors from their paratransit services, Metro Transit staff approached the Dane County HSA to examine possible opportunities for sharing paratransit costs. Staff from Metro Transit and the county were able to develop cost sharing arrangements for designated state transportation funding sources and to secure specific health and human service agency Federal funding to support Metro Transit's paratransit services. In the case of state and Federal funding sources, the ability of staff to develop cost-sharing arrangements was due in part to circumstances that are particular to Wisconsin. As was expressed by staff, however, these circumstances could be duplicated in other parts of the country with changes to state laws regarding eligible expenditures of health and human services funds.

Wisconsin is one of only a few states in the country with a segregated State Transportation Fund exclusively designated for transportation uses and funded by state gas and vehicle license taxes. Metro Transit and county staff developed an agreement to commingle the funds that each agency received from the state transportation fund in support of transportation provided by the other agency. Requirements for the specific use of State Urban Transit Aid funds (received by Madison Transit) and the State Elderly Transport Aid funds (received by the county), both of which are derived from the State Transportation Fund, are loosely defined. This enabled Metro Transit to use Urban Transit Aid funds to pay not only for their own paratransit services, but also to share the cost for county-provided paratransit services which might otherwise need to be provided by Metro Transit. Conversely, the county agreed that since Metro Transit was providing 85% of the paratransit trips within the county they should receive a portion of the Elderly Transport Aid funds available because they were transporting many senior riders.

With regard to federal funding, a state-adopted Medicaid waiver provided an opportunity for staff of the county and Metro Transit to establish cost sharing arrangements. The state waiver allows a portion of CIP funds, which are aimed at enabling children and adults who are developmentally disabled (DD) or mentally retarded (MR) to live at home rather than in an institution, and COP funds, which are aimed at enabling persons of all ages with disabilities or elderly to continue to live at home, to be allocated to community-based services such as transportation as an eligible expense. While this pass-through of funding from the county to special districts or independent transit agencies is prohibited in many states, Metro Transit is part of the city and, as such, can receive pass-through funding from the county as an eligible transportation provider to the HSA.

As a provider, Metro Transit bills the HSA for paratransit services provided. Metro Transit and the county were able to agree on the cost basis for reimbursement based on the transit agency's database of ridership and their full cost accounting for paratransit services. The county HSA reviews the ridership information, removes any ride that they deem ineligible for reimbursement under the CIP and COP programs, confirms the bill

and authorizes Metro Transit to bill the county. The county HSA then bills the state, which in turn bills the Federal government. The money is then passed back through the layers of government and ultimately to the transit agency. As a result of this cost sharing arrangement, the county HSA reimburses Metro Transit for 60% of the cost of the ride. The 40% of the cost of the paratransit ride not covered by the county HSA is covered primarily by the commingled state transportation funds discussed earlier, paratransit fares of \$1.25, and other city general fund support. The 40% claimed as local match by the state when it bills the Federal government enables the state to gain more federal dollars in support of these services.

Transit agency staff is continuing to work through the County Specialized Transportation Committee, which includes representatives of the city, Metro Transit, and the Dane County HSA, to further build on these coordination efforts. The committee is currently considering centralized paratransit dispatch for the entire county, which would include Madison Transit's services and those transportation services provided by the county in the non-urbanized areas of the county. Madison Transit is also attempting to re-orient their entire system to more of a transfer point system, whereby paratransit services could bring able riders to mainstream trunk routes and thereby reduce the total cost of the trip. As part of this re-orientation, the transit agency has adopted tight ADA-eligibility standards in an attempt to mainstream able riders onto the regular service routes when practical, and also is attempting to work with the county to adopt similar standards for its services.

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<sup>8</sup> Coordinating Council on Access and Mobility, *op cit*, pp.28-29.

<sup>9</sup> Additional information is available in David Koffman, "Appropriate Cost Sharing for Transportation Service," Transportation Research Record No. 1463, Transportation Research Board, 1994.



## VII. Performance Measurement

It is a widely held perception that paratransit trips are unavoidably expensive to provide. Historically, when individual agencies provide transportation directly to their clientele, this has been the case. The high cost per paratransit trip is a result of not being able to maximize the use of vehicles and personnel by spreading the cost of a given trip over a greater number of passengers. A coordinated system provides the ability to link trips and passengers between various agencies and expands the pool of potential riders. This should serve to enable the provider to group trips more efficiently and decrease the per trip cost. These benefits can become apparent when performance measures are put in place to measure system performance and cost, and to compare the costs of providing services before and after coordination.

Public transit operators have traditionally established performance measures to evaluate the efficiency and effectiveness of their transportation services. Transit operators typically use such measures as operating cost per revenue vehicle hour, operating cost per passenger boarding, fare box revenue per operating cost, passenger boardings per revenue vehicle mile, and passenger boardings per revenue vehicle hour. These measures allow transit operators to assess the effectiveness of individual routes by volume, time of day, and day of week for their planning purposes. Many health and human service agencies provide transportation as a tangential service to their primary mission. These agencies have limited, if any, reporting requirements for their transportation operations and therefore do not typically have the same type of data available to assess transportation performance. As agencies cooperate to develop coordinated paratransit services, the development and adoption of appropriate performance measures and the data to support them are key to their ability to evaluate services and the benefits of coordination.

Performance measures as applied to paratransit services will incorporate many of the traditional measures of revenue hours/miles per vehicle/passenger. However, some agencies are broadening the way performance is measured, particularly because of the different nature of paratransit versus fixed-route services. Ride statistics such as total number of rides, number of rides denied, average miles per passenger trip and average ride time are being applied to gauge the impact of paratransit services in terms of improving transportation access. Paratransit providers are also beginning to measure their performance in terms of vehicle capacity, instead of the number of vehicles in their fleet, to reflect the mixed fleet used to deliver paratransit services.

The establishment of performance measures can further contribute to a coordinated approach to transportation service delivery in a number of ways. Performance measures allow paratransit administrators to assess system performance based on their established criteria, and compare that to past measures of performance and target goals. They also enable providers to calculate the benefit of coordination in financial terms and passengers served and further base their resource allocation decisions on that information. Finally, performance measures also provide data to support further advocacy for coordination at a local, state and Federal level through the illustration of cost-savings and improved services.

The following two examples illustrate how appropriate performance measures were developed to gauge paratransit effectiveness, how those measures were developed, and how the results are used to manage and improve paratransit operations. For additional information about performance measurement, please see "Planning Guidelines for Coordinated State and Local Specialized Transportation Services," Checklist of Transportation Planning Steps, Step 10.<sup>10</sup>

#### **A. Sweetwater County, Wyoming - *Measuring System Costs and Performance***

**Issue:** Provide public transportation to agencies and individuals where little service exists.  
**Aim:** Develop a coordinated system to provide expanded transportation services through more cost-effective use of agency vehicles and resources.  
**Benefits:** Provision of 6,500 coordinated trips per month, a fourfold increase in number of trips provided; services available to agencies and the general public.  
**Costs/Cost Savings:** Estimated \$1.6 million in annual savings to state and local governments from coordination.  
**Lead Agency:** Sweetwater County Transit Authority (STAR).

STAR serves the sparsely populated area of Sweetwater County in Southwest Wyoming, a service area of 10,400 square miles. STAR was created in 1989 and replaced a number of health and human service agency-based transportation services to form a coordinated public transportation system providing transportation to the general public and to agencies on a contract basis. The transit agency uses a fleet of 15 vehicles to provide door-to-door services with no fixed-route operations. Today, STAR provides approximately 6,500 trips per month on an annual budget of roughly \$500,000. Under STAR's coordinated system, the number of trips being provided has increased fourfold over the number of rides previously provided under agency-based transportation services. To meet this demand, STAR has kept a close eye on the cost and performance of their system. This attention to system cost and performance ensures that they maximize the use of the scarce resources available by providing cost-effective services at a price below what agencies were formerly spending for transportation on their own.

STAR was born out of the need to provide public transportation to agencies and individuals where little service existed. In 1981, a number of Sweetwater County human service agencies applied for and received grants under the then Urban Mass Transportation Administration's (UMTA) Nonurbanized Area Formula Grant program (rural and small urban community transportation assistance) to purchase transportation vehicles. However, operating funds to support transportation services were not readily available through the agencies. In 1985, the Child Development Center (CDC), two local senior centers, the Youth Home, and the South West Counseling Service decided to submit one grant application covering all agencies for transportation operating funds and began to discuss the feasibility of the formation of a coordinated system. While the original grant was funded, the County Commission decided not to form a single transit agency at the time, but instead to have individual agency transit providers to operate as a coalition.

As part of the evaluation of the grant process, each agency provided information on the number of riders being served and the expenditures each agency was putting forward. In early 1988, the lead staff of the coordination effort worked with the senior agencies and developed a fully allocated cost analysis for providing transportation, which had previously not been done by the agencies. The cost allocation system enabled agencies to capture costs for items that had not been accounted for previously such as fuel, maintenance, and insurance which had, in some cases like the senior centers, been supplied by the county. After going through this process with each of the various agencies and gathering data for a number of consecutive years, staff calculated that the agencies were spending a combined \$400,000 annually on transportation. This information helped to increase the support for coordination, and by late 1988, a County Transportation Committee was established to consider the formation of a single transit agency. The cost allocation system was used as a way to establish initial agency financial support for the proposed transit agency, based on past agency expenditures.

In 1989, the County Commissioners passed a resolution forming the regional transit authority. The agencies turned their vehicles over to STAR and operations commenced in May 1990. From the very beginning, STAR staff maintained detailed records of every trip provided by trip purpose, miles traveled, vehicle hours, and trip duration. Using operational data obtained from the individual agencies preceding the formation of transit authority, STAR staff established benchmark operating costs under the old agency operated system for the purposes of comparing these with STAR's operations. STAR established an internal system to track three specific measures of system performance and three measures of system cost.

On a cost basis, staff used the trip data to establish measures of cost per passenger trip, cost per vehicle mile, and cost per vehicle hour. On the performance side, staff used trip data to track ride statistics including average miles per passenger trip, passengers per vehicle hour, and the average trip time. The availability of these performance measures has been critical to the transit agency's ability to track and contain costs. From 1990 through 1995, STAR's service was provided free to the rider, supported by contracts with the agencies, in addition to 5309 and 5311 money, State Impact Assistance Funds, local grants, and Community Service Block Grants. When ridership increased significantly, and staff discovered that more rides were being requested than STAR could possibly afford to provide, they used their performance measures to calculate a general public rider fare of \$2 per trip to help partially cover the full cost of the trip. STAR staff is also able to use these performance indicators to establish contractual rates with local agencies as well as the private sector. Using these measures, the agency is able to illustrate that eight years after the transit agency began operations, the costs to the agencies are still less than prior to 1990, while the service has increased.

Today, STAR is able to boast of a door-to-door trip cost of roughly \$7, and average passengers-per-vehicle-hour of 4-6 passengers, each of which are well below and above the national averages respectively. In a service area as large as some states, the establishment of computerized dispatch was critical to making these operating efficiencies possible. By careful coordination and dispatch, the transit agency has been

able to achieve the high passenger-per-vehicle-hour averages that have been critical to their ability to remain financially viable. The decision to commingle clients was also a key element of efficient use of vehicles and resources, particularly considering the size of the service area.

In 1997, U.S. DOT sponsored a study<sup>11</sup> that estimated \$1.6 million in annual savings to state and local governments resulting from the coordinated transportation system in Sweetwater County. These savings were calculated based on the detailed trip information, including trip type such as work, nutrition, medical, and education, maintained by STAR. Economic benefits were calculated in the six areas shown below, along with a brief description of the calculations applied to each area:

- *Access to Employment* - used the number of workers who are transit dependent and who would otherwise be subject to the loss of their jobs without transit, and calculated their annual wages as a benefit. The savings from welfare reductions were also calculated based on the number of persons recorded to have moved off public assistance through the use of access to jobs provided by transit.
- *Access to Medical Care and Other Social Services* - calculated benefit using a conservative estimate of the higher per trip cost for taxi service incurred by people who take those medical trips that would still need to be taken if transit were not available.
- *Providing Rides to the School Age Children of Working Parents* - calculated based on the hours of wage earnings that would be lost by parents transporting their children to the CDC if transit were not available to provide that service.
- *Access to Shopping, Recreation, and Other Personal Services* - calculated as the greater cost to make these trips than would be incurred using the transit service, assuming at least one-third of the trips would still be made.
- *Access to Educational and Counseling Services* - calculated based on the assumption that these trips will enable travelers to increase their long-term chances of employment. Using similar calculations to the Access to Employment above, the number of affected persons using transit are calculated, and their potential wages, in addition to potential savings through welfare reductions, are credited as benefits due to the transit system.
- *Enabling the Continuation of Independent Living* - based on detailed records of its riders, calculated as the number of persons able to remain living independently and out of nursing homes because of transit services. A percentage of the cost for those people to live in a nursing home is then used as an avoidance cost attributable to maintenance of independent living.

**B. Pittsburgh, Pennsylvania** - *Establishing Equitable Agency Service Contracts Based on Systems Performance and Cost Data*

**Issue:** Contract with existing service providers for paratransit services instead of developing in-house paratransit services.

**Aim:** Develop accurate and reliable cost data to recover costs from contract

agencies.

**Benefits:** Higher levels of service to agency clientele and choice of transportation provider.

**Costs/Cost Savings:** Contracting agencies costs contained through contracting process.

**Lead Agency:** ACCESS Transportation Systems.

In the Pittsburgh, Pennsylvania metropolitan area, ACCESS Transportation Systems provides ADA paratransit services under a contract with the Port Authority of Allegheny County (PAT), the public transit operator for the area. In 1978, PAT applied for an FTA Service and Methods grant with the objective of demonstrating that it is possible to contract with existing service providers for paratransit services instead of developing in-house paratransit services. Under the grant, PAT contracted with ACCESS as the broker for paratransit services. ACCESS has continued as the contract broker for PAT since the original grant, rebidding the contract every five years. ACCESS is now one of the largest paratransit providers in the nation, providing close to 2.5 million trips in the past year.

ACCESS serves as the broker using annual service purchase contracts with seven for-profit companies and three non-profit agencies, operating from 13 distinct facilities. Local riders have a choice of two to three providers in each area. ACCESS develops one-year contracts with the local health and human service agencies for the provision of transportation services. From the start, local health and human service agencies agreed to purchase service through contracts with ACCESS as opposed to directly from the provider. One of the keys to the success of the brokered system and the strong relationship between ACCESS and the contracting agencies has been the establishment of annual service contracts based on detailed system performance and cost data.

ACCESS developed a series of performance measures for their providers to evaluate their services. ACCESS established measures including those for:

- on-time performance
- complaints per 100,000 trips
- vehicle condition
- responsiveness
- target revenue passengers per billable hour by provider

As the system broker, ACCESS collects and maintains the performance data from each service provider, which is supplemented by road audit data provided by each of the providers on a monthly basis and ACCESS surveys of paratransit riders. ACCESS develops this information into system performance and cost measures for each provider and uses the information as a deciding factor in allocating trips. ACCESS will shift market share to carriers who can provide less expensive services, particularly trips provided for more cost-conscious agencies.

Cost information on a per trip basis is calculated using a specially developed model. The model establishes 198 fare zones, each roughly equivalent in size, and calculates per trip

costs based on the number of airline miles between central nodes in the origin and destination zone, with a minimum of \$7.50 per trip. This detailed cost information enables ACCESS to recover the costs for service provided based on origins and destinations. The cost information provides a basis for developing average unit cost estimates for each agency contracting with ACCESS for services. ACCESS takes a large sample of the trip information including trip length, trip purpose, and the performance measures discussed earlier, and develops an average trip cost for the agency based on actual trips taken by the agency's clients. The agencies audit this information on an annual basis as part of the contracting process.

The contracting procedure begins when the agency estimates the level of service desired for the year. ACCESS' two largest customer agencies are the Area Agency on Aging (AAA) and the Medical Assistance Agency (under the County Department of Federal Programs) responsible for administering Medicaid. Each agency's contract is based on average unit costs, which take into account the parameters set by that agency for types of trips and trip length. Each agency sets its parameters by either statute, as with the Medical Assistance Agency, or by local policy, as is the case with the AAA. ACCESS then uses its average unit cost information to establish an annual contract fee based on the number and types of trips that will be provided. ACCESS has worked closely with local agencies to implement strict ADA eligibility guidelines to control costs. As part of that process, ACCESS provides eligibility screening services for the AAA, while the Medical Assistance Agency pre-screens for eligibility before referring riders to ACCESS.

The relationships between ACCESS and the contracting agencies have proven pivotal in maintaining the feasibility of the current system. Prior to ADA, ACCESS provided service to areas that were also being served by fixed-route transit. When the ADA was passed, customers did not want to be mainstreamed onto those fixed-routes. However, the Pennsylvania State Department of Public Welfare, responsible for Medicaid, drafted a mandate that required local agencies administering Medicaid to pay only the ADA fare, which would represent a large decrease in revenues to ACCESS. ACCESS worked to start a process of building consensus among its customers and local health and human service agencies in order to make an argument against passing the state mandate. The key to their ultimate success turned out to be local health and human service agencies' willingness to provide more of the cost of ride versus the required ADA fare, a result of an understanding of the true costs of the service gained from the annual contracting process with ACCESS.

<sup>10</sup> Coordinating Council on Access and Mobility, *op cit*, pp.29-30.

<sup>11</sup> Jon E. Burkhardt, et. al., "Assessment of the Economic Impacts of Rural Public Transportation," Ecosometrics, Inc., for the Transit Cooperative Research Program, Transportation Research Board, TCRP Report 34, 1997.

## **VIII. Measuring Cost Savings and Benefits of Coordination**

As part of local, state, and federal budget processes, agencies and departments are called upon to justify their budgets and estimate the value of the services they provide. In some cases, the value of a given service has a market value and can be estimated. In other instances, a price may exist but it may or may not represent the value of the service. Public transit agencies are a good example where the price of the service, the fare, often does not accurately reflect the value or the cost of the service. This is especially true when we consider a coordinated paratransit system. The ADA sets the limit of a paratransit fare not to exceed twice the fare charged for a similar fixed-route trip. The paratransit fare typically does not come close to covering the cost of providing the ride.

Assigning a value to coordinated paratransit services is primarily a measure of the cost savings achieved and the benefits realized from coordination. With performance measures in place, supported by available cost, revenue, and service data, paratransit providers can attempt to gauge the impact of coordinated services. Estimating the cost savings achieved through coordination is more straightforward than estimating the benefits. While some health and human service agencies might not have extensive historical operational data, most agencies can develop a rough estimate of what they were spending prior to coordination. That data are readily comparable to the cost of providing transportation to their clientele under a coordinated system. Cost savings are typically calculated on lower per passenger costs to the agencies and, in some cases, the elimination of the costs of operating, maintaining, and insuring vehicles on their own.

Calculating the benefits of coordination is a bit more difficult, but can ultimately be done. The first step in many areas is to define the broad parameters of benefits. This requires a process for analyzing the number and types of rides provided including work, medical, shopping, educational, and other types, and then assessing the impact on those riders of not providing that service. The impact could include such costs as the loss of jobs for lack of other affordable transportation alternatives and the loss of the ability to live independently for developmentally disabled clients or those clients with medical needs. The benefits of an affordable and accessible coordinated system could also include more non-quantifiable measures such as quality of life enhancements.

Measuring the cost savings and benefits attributable to coordination plays a clear role in developing support for further collaboration. Realistic cost savings and benefits estimates provide an opportunity for joint agency advocacy for better transportation services. These estimates also provide valuable information for agencies to share with other agencies still resisting coordination. Many health and human service and transit agency personnel reported that once they were able to provide actual cost savings achieved through coordination, other agencies became increasingly interested. In many areas, cost savings achieved have been substantial, but perhaps more importantly, coordination has led to simplification of customer access to the transportation system. On the cautionary side, claims about the benefits of coordination must be realistic and should continue to focus on real savings to individual agencies and enhanced services to their clientele if coordinated systems hope to encourage other agencies to participate.

The following two examples illustrate how agencies developed means to measure the cost savings and benefits of coordination, the data involved and the methodology applied, and the resulting use of the information. For additional information about measuring cost savings and benefits of coordination, please see "Planning Guidelines for Coordinated State and Local Specialized Transportation Services," Checklist of Transportation Planning Steps, Step 10.<sup>12</sup>

#### **A. State of Florida - *Illustrating the Power of Coordination***

**Issue:** Lack of available transportation to the transportation-disadvantaged statewide and a lack of coordination of local transportation resources.  
**Aim:** Establish local community transportation coordinators and coordinating boards to contract and evaluate local, state, and Federal transportation funding to coordinate their services.  
**Benefits:** Provision of 36.6 million trips, a 14% annual increase and a 5% decrease in costs.  
**Costs/Cost Savings:** \$154 million in savings to the State through coordination over the past three years.  
**Lead Agency:** Florida Commission on Transportation Disadvantaged.

In Florida, the Commission on the Transportation-Disadvantaged has been a vocal advocate of the benefits of developing a coordinated transportation system since its creation as the former Coordinating Council on the Transportation Disadvantaged under a Florida state law in 1979. Under the law, all agencies and operators receiving Federal, state and/or local funds for transportation services are required to coordinate their transportation services. The 27-member commission includes all major state level transportation and health and human service agencies, in addition to transportation providers and representatives of the transportation-disadvantaged (TD) eligible groups including children, poor, elderly and persons with disabilities. Through its systems of local coordinating boards covering all of Florida's 67 counties, the Commission has designated 50 community transportation coordinators (CTC) who coordinate all local transportation-disadvantaged services under their umbrella that provide operating and expenditure reports to the commission. From this and other information, the Commission was able to estimate cost savings and benefits of coordination in the amount of \$154 million over a three-year period in its report to the state senate in late 1998.

Estimating the impact of coordination is part of the Commission's preparation of its Annual Performance Report (APR). Commission staff gathers annual operating information from the local CTCs, as well as actual expenditure reports from each purchasing or planning agency that provides funds for TD transportation services. When the program first began, state and local agencies reported their total transportation expenditures of approximately \$8 million. Today, with reporting requirements in place for all agencies providing TD services, actual expenditures total \$224.9 million statewide. This information has enabled health and human service agencies to assess how much they are spending and has encouraged some agencies to be more interested in coordination as they realize the potential for cost savings. The tracking of performance data including the

number of trips provided, trip purpose, vehicle miles, vehicle and driver hours, and accidents, all of which are reported in the APR, allow the Commission and local CTCs to continue to focus on improving the cost-effectiveness of the coordinated system.

On a statewide basis in 1998, the Commission surveyed the local CTCs to estimate the cost savings. Savings were calculated as a measure of the number of trips diverted from the more expensive paratransit system to a less expensive alternative. The cost saving is then a calculation of what it would have cost to provide those trips by paratransit. In Florida, most of the cost savings estimated have been in urban areas, where trips are diverted from paratransit to fixed-route transit systems through the use of a bus pass.

The most notable of these examples is from Dade County, where the CTC worked with the local Agency for Health Care Administration (AHCA) to implement its Metro Pass program. The program encourages those Medicaid recipients who can use the public transit system to use the monthly Metro Pass, which gives them unlimited transportation on the fixed-route system at a cost of only \$30 - \$50 per month (including administrative fees) to AHCA. The local CTC estimates that the program is saving AHCA approximately \$600,000 per month and \$24.6 million since its implementation in 1993. A sample calculation from October 1998 is provided in the table below. The Dade County CTC runs other similar programs to divert passengers from paratransit to fixed-route services, which provide further cost savings.

**Dade County CTC Cost Savings**

	<b>Registered Users</b>		<b>Number of Trips</b>		<b>Cost Per Trip</b>		<b>Total Cost</b>	
Former Operations	5,084	X	52,752	X	\$15.28	=	\$806,051	
Metro Pass	5,084	X	Unlimited	X	\$38.05* per month	=	\$193,458	
<i>Total Cost Savings to AHCA for October 1998</i>								\$612,592

\*Average cost of monthly pass using \$50.44 for full fare passes and \$30 for discounted passes.

**Table 1. Cost Calculation of Savings Using Metro Pass vs. Paratransit Fare**

In 1998, the Commission compiled data from the 50 CTCs to provide an overall cost savings estimate resulting from the coordinated system. On a statewide basis in FY 97-98, the Commission reported 36.6 million trips through the statewide coordinated system, a 14% increase over the previous year, while total system trip costs decreased by 5% over

the previous year. The significant Medicaid cost savings illustrated in Dade County with AHCA is spurring health and human service agencies throughout the state to explore similar cost saving opportunities. As a result of the Metro Pass success in Dade County, the Commission is urging ADA-eligible Medicaid trips to be provided through similar bus pass programs where fixed-route services are available. These and other programs have resulted in a 23% increase in the utilization of mass transit in 19 Florida counties where fixed-route systems are in place as reported in the Commission's 1998 APR. The state is continuing to examine issues of establishing statewide standards for setting a reasonable rate for a coordinated trip and accounting for the benefits of coordination. These and other measures will continue to reinforce the potential benefits of coordination.

#### **B. Greene County, Ohio - Comparing Costs of Coordination: Before and After**

**Issue:** Need to tap opportunities for greater coordination between health and human service agencies to increase the availability of transportation services to meet demand.

**Aim:** Stretch existing agency transportation funding to serve more passengers through coordination and use progress in coordination to generate more resources from funding agencies.

**Benefits:** Agencies are able to obtain higher levels of service and provide more rides through additional transportation options.

**Costs/Cost Savings:** Cost of staff time to develop operational and cost data reports.

**Lead Agency:** Greene County Coordinated Agency Transportation System (Greene CATS).

The Ohio Department of Transportation (ODOT) administers the Ohio Coordination Program (OCP), a grant program that supports community efforts to coordinate transportation. In Greene County, Ohio, the County Board of Mental Retardation and Developmental Disabilities (MRDD) is the host agency in administering an OCP grant. The MRDD originally joined other county human service agencies to form Greene CATS. Since its formation, Greene CATS has grown to 44 member agencies operating 90 vehicles and now includes the Ohio Bureau of Employment Services, the Ohio Rehabilitation Services Commission, hospitals, senior centers, and nursing homes as well as other state, local, and private and public non-profit organizations such as the American Red Cross and the United Way. Greene CATS serves four major client groups including low income, elderly, mental health, and persons with disabilities.

According to staff, coordination was never meant to supplant individual agency efforts, but rather to expand agencies' abilities to provide transportation for their clients by stretching their limited transportation dollars. Unlike many coordinated systems, Greene CATS is not a centralized system. Greene CATS functions as a transportation broker between various agencies that either provide their own transportation or purchase transportation services from other agencies. Under the Greene CATS model, each human service agency and operator continue to provide their usual transportation services while

Greene CATS staff work to develop transportation arrangements between member agencies. Greene CATS staff serve as brokers between member agencies, providing details on the services available from the other agencies (driver qualifications, cost per trip, etc.) and matching trip requests with available service as well as available funding.

One of the keys to the underlying success of the system has been an effort to put a process in place to measure the cost-effectiveness and service levels of transportation provided by individual agencies. Using cost allocation guidance provided by ODOT, Greene CATS staff have worked with member agencies to implement a transportation cost model that enables agencies to determine both an agency's total cost of providing transportation service and the cost of individual routes or services. The model includes definitions of standard account codes for identifying and classifying passenger transportation costs.

One of the first steps taken by Greene CATS was to encourage member agencies to develop a data collection and analysis plan that would put a process in place to collect transportation operations and cost data at the agency level. In order to benefit from the OCP grant, each of the member agencies is required to provide data in quarterly operating reports which are, in turn, submitted to ODOT as part of the OCP grant requirement. This has been a challenging task, as many health and human services agencies are not accustomed to collecting or tracking transportation data. The process called for agencies to collect five basic types of data about the transportation services they operate or purchase including:

- *amount of service* - a measure of vehicle miles and hours that can be gathered from the vehicle odometers and payroll records.
- *use of service* - a measure of the number of trips provided (one-way) that can be pulled from the driver logs.
- *quality of service* - a measure of the number of accidents, time on-board vehicles and on-time performance that can be gathered from driver logs, customer complaints, and discussions with drivers.
- *cost of service* - a measure of both the operating and capital cost including vehicle cost, vehicle maintenance, fuel, and driver costs.
- *payments for service* - a record of the various revenue sources used to fund services including fares, contract fees, and Federal, state, and local grants.

According to information from Greene County, agencies use the transportation cost model to assign costs as either fixed costs, which should not vary significantly based on the amount of services provided, and variable costs, which are expected to change directly based on the amount of service provided. The cost data are then combined with operational data to develop overall agency cost ratios and productivity numbers for passenger service including:

- *cost per trip* - a measure of the cost-effectiveness of transportation.
- *cost per vehicle mile and vehicle hour* - a measure of how efficiently service can be produced.

- *passengers per vehicle-mile and vehicle hour* - a measure of how effectively the service matches service with ridership.
- *passenger revenue per cost* - a measure of how much of cost is covered by the user and other sources.
- *accidents per passenger* - a measure of the safety of operations.

These measures are captured in the quarterly reports to track performance of the coordinated system and will provide data on the system's performance over time. The cost model also provides guidance for using agency-wide variable and fixed costs to develop variable unit costs due to vehicle miles, variable unit costs due to vehicle hours, and fixed unit costs for the purposes of determining the cost of individual agency routes. Individual route costs can then be determined by applying unit costs to data on miles and hours of operation for each route. Greene CATS staff hope to ultimately encourage the collection of individual route data by the agencies in order to evaluate costs and service levels at the route level. This information could provide valuable information to Greene CATS and agency coordinators as they evaluate service changes or alternative service delivery methods.

Originally, many of the data submitted by various agencies were incomplete and of questionable validity based on agencies' lack of experience in collecting the data. Over time, the data have improved and are beginning to provide useful measures for comparing services. Trying to gather the data has also helped some agencies to estimate accurately the full cost of providing transportation for the first time. In a number of cases, agencies were surprised to see what their transportation costs were in comparison to other providers. This information has enabled agencies and consumers to assess the efficiency of transportation services provided by the coordinated system as a whole and on an individual agency basis over time, and has led some agencies to utilize less expensive services provided by another entity. While these costs may be surprising to some, executive directors of various agencies have acknowledged that going through the process has allowed them to evaluate how best to provide transportation services - directly operating services, purchasing services from another member agency, or contracting with a private provider - and the savings they could achieve through coordination.

In the near future, Greene CATS will be using other grant funding from ODOT to install an automated scheduling and dispatch system that will further improve inter-agency coordination. Greene CATS staff is also hoping to leverage their coordination success to generate additional funding from public and private funding sources by showing that the coordinated system is providing higher levels of service and greater operating efficiencies. In the meantime, coordination has opened up discussion between agencies and provided opportunities to adopt one another's best practices. Understanding costs and taking a coordinated systems approach is also beginning to lower barriers to commingling of clients to improve operational productivity and better utilize each agency's existing transportation capacity.

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<sup>12</sup> Coordinating Council on Access and Mobility, *op cit*, pp.29-30.



## IX. Combining the Planning Strategies into an Effective Process

In each of the preceding case studies, coordination has succeeded through the use of one or more of the seven planning strategies examined. While each strategy has been discussed separately, it can be maintained that the agencies involved have incorporated all seven planning strategies in one form or another to achieve coordination. The intent of this report is to illustrate how each of these various strategies might fit into a flexible regional transportation planning process to address the challenge of improving transportation access through coordination. For additional information about combining the planning strategies into an effective process, please see "Planning Guidelines for Coordinated State and Local Specialized Transportation Services," Keys to Success: How to Make the Coordination of Transportation Services Work.<sup>13</sup>

In Buffalo, New York, the transit agency, in partnership with local health and human service agencies, has recently undertaken a redesign of their existing system and services. Through a re-orientation of their system and greater coordination with local agencies, the transit agency hopes to increase their ridership by attracting a new client base while providing a cost-effective transportation alternative to health and human service agencies. The process in Buffalo illustrates how each of the seven planning strategies has played a part in their regional planning effort to develop a new, more responsive transportation system for the area.

### A. Buffalo, New York - *Bringing Together the Techniques for Coordinated Planning*

**Issue:** Transit agency faced with reduced funding sources and ridership due to suburbanization of jobs and residences.  
**Aim:** Redesign transit system to reflect geographic changes, attract new customers, expand services, and provide transportation options to health and human service agencies.  
**Benefits:** Increased access with lower overall costs to agency customers and the general public.  
**Costs/Cost Savings:** Ridership increases could generate savings up to \$4 million through service enhancements and expense reduction resulting from coordination.  
**Lead Agency:** Niagara Frontier Transit Authority (NFTA).

In 1996, as part of the NFTA transit planning process, NFTA was facing a number of trends that presented a challenge to the future feasibility of their system. Sources of funding were being reduced with a drop in local mortgage taxes and declining federal operating subsidies for transit. NFTA's traditional downtown central business district (CBD) orientation was not matched to recent trends of suburban sprawl and the shift of jobs and residences outside of the central city. Faced with these realities, NFTA decided to redesign their system by undertaking a six-step process aimed at regional coordination of transportation systems that included reaching out to the health and human service community.

The potential to realize benefits from coordination for both NFTA and health and human service agencies had already been proven. In an earlier cooperative effort, NFTA had provided the local Medicaid agency with their scheduling software. The software enabled Erie County Medicaid to decrease their costs, which were approximately \$7-\$8 per ride, by getting Medicaid riders out of paratransit vehicles and taxis and onto NFTA buses. NFTA benefited from increased ridership, which they could provide for the standard \$1.50 fare per ride. The Erie County Medicaid agency was able to use the savings for other essential services, primarily more medical care for its clients. NFTA staff believed that there were other social service agencies in Erie County with whom they could duplicate this success. Some of those agencies knew how many people they transported, their origins and destinations, and whom they were transporting, but they did not know the times or other critical scheduling elements that NFTA could provide or the potential benefit from coordination.

The six-step system redesign process included public outreach, a technical review, market research, a coordination survey, analysis, conclusions and ideas for a new system. Contained within these six steps are all of the seven planning strategies discussed in this report. Using a flexible regional planning approach developed as part of the effort, NFTA and its partners incorporated these planning strategies, which resulted in plans for a redesigned system referred to as Hublink.

*Building Partnerships.* The first step in the process was public outreach. NFTA conducted approximately 90 stakeholder meetings with various neighborhood, business, and special interest groups to discuss the challenges of redesigning the transit system and to solicit stakeholder input. These stakeholder groups and the committees described below provided ongoing input and feedback throughout the system redesign process as different service alternatives and models of coordination were being considered. NFTA also established policy and technical committees, which garnered both support and active membership from many agencies in the area. Membership on the policy committee included some of the following representatives:

- Erie County Commissioner of Social Services
- Mayor of Buffalo
- Niagara County Commissioner of Social Services
- Mayor of Niagara Falls
- County Welfare to Work Coordinators
- United Way
- County Medicaid Transportation Coordinators
- Private Industry Council

The committees also included representatives of the transit union, persons with disabilities community, local businesses, the University of Buffalo, and religious groups. Staff on the technical committee was responsible for transportation planning or provision for the organizations on the policy committee.

*Sharing Planning Resources.* The second step, the technical review, began with an assessment of the current NFTA system and was conducted using an outside consultant working with NFTA planning staff. After undertaking a current system assessment that examined available resources, system capacities, routing, and opportunities for enhancing operations, the consultant and NFTA staff worked with members of the technical committee to examine what NFTA would consider non-traditional transit trips, such as Medicaid or welfare-to-work trips, and what might be done as part of the system redesign to provide new services to accommodate those trips. Staff from health and human service agencies provided input on their agency and clientele's current use of the transportation system and ideas for revised or new services.

*Joint Identification of Client Needs.* The third step, market research, looked at the potential for attracting new riders to a redesigned and coordinated system. Market research was done in two stages. The first stage was a survey of non-users of transit from the general public that focused on identifying travel behaviors. The survey focused on identifying what characteristics of convenience would make transit an attractive alternative including greater frequency and hours of operation. The second stage targeted five major health and human service agencies and focused on what would get their clients to ride public transit. The survey was based on the customization of services to meet the demands and needs of specialized client groups.

*Identification of Transportation Services, Costs and Revenues.* The fourth step was the development of a coordination survey that NFTA sent out to funding agencies that bought, sold or used transportation services. Approximately 50% of the health and human service agency mailings generated responses, and those responding represented 90% of the total transportation services provided. The data gathered on the survey included some of the following elements:

- agency spending for transportation
- sources of funding for transportation
- types and number of trips provided
- number of vehicles
- hours of operations
- number of trips per day/hour
- cost per trip

NFTA worked with the technical committee to review the data and develop a measure of the cost per trip by agency, which they shared with each agency. In many cases, agencies did not have accurate estimates of their per trip costs; development of a general cost figure was often instrumental in developing further support for some kind of coordination.

*Establishment of Cost Sharing Arrangements.* Concurrent with and using information from the technical review and the coordination survey, NFTA worked with the technical committee and the consultant to develop a number of financial models for use in examining the feasibility of a redesigned and coordinated transportation system. The

models incorporated possible funding sources from FTA, U.S. DHHS, the Department of Labor, and other sources that were currently being expended to provide transportation services by various agencies within the region. The feasibility analysis looked at whether or not this funding would be enough to strengthen a redesigned transportation system and looked at a number of different system designs. The models allowed NFTA to broach a number of different issues related to who would provide financial support for the system with their potential partners. They examined how current resources could be reallocated with the assumption that money saved through efficiencies would go toward strengthening the system rather than back to individual agencies. According to NFTA staff, this has precipitated discussions among partners as to whether or not they could actually lower traditional barriers between agencies to pool resources. While these discussions have included an assessment of real and perceived barriers to costs sharing, the issue has yet to be completely resolved.

*Performance Measures.* Results from the coordination survey conducted as the fourth step allowed NFTA to proceed with the fifth step, analysis of systems. Survey data revealed that health and human service agencies are spending approximately \$23 million annually for transportation through 40 various programs, using 168 vehicles and providing 2.3 million trips at roughly \$10 per trip. Meanwhile NFTA was spending \$65 million annually using 300 buses and 27 paratransit vehicles to provide 27 million trips at roughly \$2.40 per trip. These data enabled NFTA to develop per trip cost analyses for each agency as discussed earlier and to establish a performance measure for the existing transportation system as a basis for comparison with a redesigned system.

*Measuring the Cost Savings and Benefits of Coordination.* The final step for NFTA and its partners was to develop ideas for a redesigned system. Using information and models developed in the preceding steps, NFTA and the technical committee, with consultant assistance, examined a number of possible system configurations to assess the expense structure that would allow them to take a segment-by-segment approach to redesigning the system. The result was a concept for a six-year plan called Hublink, whereby hubs would be built in suburban locations and systems would be developed to feed those hubs, which would tie into fixed-route transit services. Hublink called for a phased approach whereby NFTA core service would be the first area of focus, followed by the development of regional connectors between suburban areas and linked to the traditional CBD, and finally, the development of a feeder system to the regional hubs.

A coordinated system would be the backbone of the Hublink concept and be designed to integrate the transportation operations of NFTA, health and human service agencies, and private transportation providers. Using the cost information developed earlier, NFTA projected that under a coordinated system, if they could increase ridership from 1.5 to 2.5 passengers per hour on only \$15 million of the \$23 million being spent by health and human service agencies, they could save up to \$4 million through service enhancements and expense reduction that could be used to strengthen a redesigned transportation system.

While recent administrative changes at NFTA have precipitated a review of the planned system redesign, the participants in Hublink hoped that 1999/2000 would be the first full year of implementation for the Hublink system. While the results of this undertaking are not yet available, the coordination process in Buffalo has provided a model for nearby Syracuse, where the transit agency is in the process of implementing a Hublink model. Judging from the successes realized in other areas, as illustrated in the case studies throughout this report, it is likely that NFTA and all the partners in the coordinated system may realize important benefits from coordination. General public and specialized needs customers will enjoy a more flexible and responsive system, while the providers hope to realize operating efficiencies through increased ridership, greater utilization of capacity, and the elimination of redundant or under-utilized services.

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<sup>13</sup> Coordinating Council on Access and Mobility, *op cit*, pp. 30-31.



## Conclusions

On a statewide level, in urban areas, and in rural communities, various organizations are working together to conduct the planning necessary to realize the benefits of greater coordination of local transportation services. As the case studies presented in this report illustrate, coordination can occur through many different forums including:

- *Statewide task forces and coordinating councils* in Ohio, Washington, Kentucky, and Florida
- *MPOs* in Phoenix, Arizona and Lane County, Oregon
- *Local advisory boards* in Buncombe County, North Carolina and Miami, Florida
- *Transit agencies* in Flint, Michigan and Madison, Wisconsin
- *Local broker* in Pittsburgh, Pennsylvania
- *A grass roots coalition* in Detroit, Michigan, and
- *Local health and human service agencies* in Greene County, Ohio and Sweetwater County, Wyoming

Agencies are working through these forums to implement coordinated transportation systems to provide greater access to transportation through more efficient uses of available resources.

In these areas, agencies have joined each other to plan and develop various service delivery systems. From newly created transit systems, to broker/provider systems, and through human service lead agencies, systems are being created that not only improve transportation access for ADA paratransit and health and human service agency clientele, but also for the general public in some cases. In some areas passengers are being commingled from different agencies, including seniors, clients with disabilities, school children, people moving from welfare to work, and the general public. This commingling of passengers not only allows the coordinated systems to improve operating efficiencies, but has had the tangential benefit of lowering barriers between groups that may formerly have had little exposure to one another, both individually and at an agency level.

The seven planning strategies discussed in this report are meant to illustrate the various ways that agencies are coming together to address the challenge of improving access through coordination. As shown in the case of Buffalo, New York, these strategies can and should be integrated into a flexible regional transportation planning process. Whether or not this process takes place through the MPO, the state or local DOT, the transit agency, or a local health and human service agency is really not important. What is important is that there be a planning process in place whereby agencies can come together to form *partnerships*, and through those partnerships *share planning resources to jointly identify the needs of their clients*. Once working relationships have been established, participating agencies can then attempt to look at their systems as a potentially coordinated whole, *identifying available transportation services, costs, and revenues*, how they will *share the costs of the system*, and how they will *define performance measures* to evaluate the system. When the process is put in place and a

coordinated system has been implemented, the agencies can then *measure the cost savings and benefits of coordination*.

A coordinated transportation system will seek to maximize the efficiency of operations by reducing such measures as the cost per ride or cost per mile of transportation provided and by increasing the passenger per vehicle hour average. To realize these efficiencies, participating agencies need to examine the passenger base of the coordinated transportation system as a whole. This examination can be achieved through the joint identification of the participating agencies' client needs. This process is an outcome of transit and health and human service agencies coming together to share planning resources.

Coordinated systems have shown that through inter-agency cooperation and partnerships, greater productivity can be realized.

## **Appendix A - Transit Agency and Health and Human Service Agency Contacts**

The following individuals provided important input and information to this study either through telephone interviews or by supplying supporting materials.

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