

Creating Cooperative Transportation Agreements (CTAs)

by

Carol R. Denson

**Department of Consumer Studies
College of Human Services, Education and Public Policy
University of Delaware**

March 2003

DELAWARE CENTER FOR TRANSPORTATION

**University of Delaware
355 DuPont Hall
Newark, Delaware 19716
(302) 831-1446**

Creating Cooperative Transportation Agreements (CTAs)

by

CAROL R. DENSON

**Department of Consumer Studies
College of Human Services, Education, and Public Policy
University of Delaware
Newark, Delaware 19716**

**DELAWARE CENTER FOR TRANSPORTATION
University of Delaware
Newark, Delaware 19716**

This work was sponsored by the Delaware Center for Transportation and was prepared in cooperation with the Delaware Department of Transportation. 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 views of the Delaware Center for Transportation or the Delaware Department of Transportation at the time of publication. This report does not constitute a standard, specification, or regulation.

The Delaware Center for Transportation is a university-wide multi-disciplinary research unit reporting to the Chair of the Department of Civil and Environmental Engineering, and is co-sponsored by the University of Delaware and the Delaware Department of Transportation.

DCT Staff

Ardeshir Faghri
Director

Jerome Lewis
Associate Director

Wanda L. Taylor
Assistant to the Director

Lawrence H. Klepner
T² Program Coordinator

DCT Policy Council

Carolann Wicks, Co-Chair
Acting Chief Engineer, Delaware Department of Transportation

Eric Kaler, Co-Chair
Dean, College of Engineering

Timothy K. Barnekov
Acting Dean, College of Human Resources, Education and Public Policy

The Honorable Timothy Boulden
Chair, Delaware House of Representatives Transportation Committee

Michael J. Chajes
Chair, Civil and Environmental Engineering

Phil Cherry
Representative of the Secretary of the Delaware Department of Natural Resources and Environmental Control

The Honorable Tony DeLuca
Chair, Delaware Senate Transportation Committee

Raymond C. Miller
Director, Delaware Transit Corporation

Donna Murray
Representative of the Director of the Delaware Development Office

Ralph A. Reeb
Director of Planning, Delaware Department of Transportation

*Delaware Center for Transportation
University of Delaware
Newark, DE 19716
(302) 831-1446*

Creating Cooperative Transportation Agreements (CTAs)

Principal investigator:

Carol R. Denson, Ph.D.

Department of Consumer Studies

College of Human Resources, Education and Public Policy

University of Delaware

The work herein has been funded by the Delaware Transportation Institute, University of Delaware. The principal investigator wishes to acknowledge the support of Delaware Transit Corporation, and to acknowledge Mr Nickolai M Nickolov, graduate student, for his contributions to this project and preparation of this report.

Table of Contents

Part I

Introduction.....	1
Coordination.....	2
Barriers.....	4
Legislation.....	6
Case Examples: Florida Commission of the Transportation Disadvantaged	6
Designated Official Planning Agencies	7
Community Transportation Coordinators.....	7
Coordinating Boards.....	7
Transportation Operators.....	7
Standard Insurance, Safety Requirements of Chapter 427	7
Standard Reporting Requirements	8
Results	8
Broward County	9
California	10
Fresno, CA	11
North Carolina	11
Voluntary Coordination Efforts	12
Models of Coordination	12
Lead Agency Model	12
Brokerage Model	14
Administrative Agency Model	15
General National Trends	19
Emerging Medical Transportation Models	19
Transportation Brokerage Model	20
Administrative Manager Model	21
Observations and Discussion	21

Coordination in the State of Delaware.....	22
Results	22
State of Delaware Resources	24
Results	24
Overview of Existing Coordinated Transportation Agreement	25
References	29

Introduction

Reliable transportation is a formidable barrier to community access for many citizens in the State of Delaware. To be successful, transportation to jobs, to job training, and to other basic services is essential for the welfare-to-work programs now being implemented. In addition, transportation for people who cannot afford to drive, transportation for older people who are unable to drive or drive safely as well as transportation for people with disabilities have all created new levels of demand for access and mobility in and around our communities. It goes without saying that increased access and mobility can result in a greater sense of self-worth, a higher quality of life, and the opportunity to make productive contributions to society. Clearly, we can no longer afford to exclude citizens from participating in society simply because of the lack of accessible transportation.

Transportation available to older, disabled, or low-income individuals in Delaware is a "patchwork" of services provided by a variety of organizations in the public, private, and private non-profit sectors. Often, the services and resources of these providers overlap, while in other instances, there are unfilled gaps. Further, the *American's with Disabilities Act (ADA) of 1990*, mandating that access to public transportation be provided at the same level that is available to the general population, has added costs to the provision of transportation at a time when financial resources continue to decrease and demands for paratransit services increase well beyond pre-ADA levels. Consequently, service delivery methods developed in the 1970s and 1980s are no longer appropriate or cost-effective.

In the absence of increased appropriations, transit providers must optimize the combination of service quality, demand, demand structure, and efficient use of available resources involving both the public and the private sector. From the standpoint of "available resources," it becomes apparent that the problem lies not so much in the *quantity* of vehicles and transit providers as in *coordination* and *integration* of services.

Despite initial steps toward coordination, fundamental issues impede the successful integration of transit services in Delaware. For instance, basic questions must be addressed

- are legislative mandates required to accomplish coordination and integration, and if so, what shape should the legislation take
- how can competing interests among agencies be addressed
- what are the benefits and costs of coordination
- what misconceptions about coordination present barriers
- can user-friendly, quality consumer services be provided in a business efficient and financially effective manner
- who is to be given authority and responsibility for the implementation of coordination

- is a lead-agency necessary, and if so, what will be the basis for selecting an agency.

These questions must be addressed within the broad context of public transportation services, including private sector providers and non-profit sector transportation options.

By defining and developing the critical elements to create Cooperative Transportation Agreements (CTA), this project is designed to identify and evaluate methods that will promote and enhance access and mobility for people in Delaware. However, even when an expert preparation and initial study are performed, the implementation faces problems. The process is connected with considerable additional costs, while showing slow progress in improving service or reducing transportation cost. Clearly any coordination effort needs dedication and understanding of the benefits from each participant. That is why studies such as this are very important for increasing the awareness and, consequently, the belief that coordination is beneficial both for the customers and the participating agencies.

Coordination

In the transportation industry, . . . coordination occurs when a group of people work together to expand one or more transportation related activities through joint action to realize increased benefits
Ohio Department of Transportation [Ohio DOT], 1997

Transportation coordination can improve people's ability to get to health care, jobs, and needed services by improving the effectiveness and efficiency of a community's transportation system. Over two decades experience with transportation coordination has shown that it is a cost-effective and efficient method for ensuring accessibility.
Community Transportation Assistance Project [CTAP], 1992

Transportation coordination is a cooperative arrangement between transportation providers and organizations needing transportation services. . . . Coordination can improve people's ability to get to services [and] helps in so many other ways as well—strength in numbers, increases flexibility, effective short-range and long-range planning, and enhanced service to clients.

Community Transportation Assistance Project [CTAP], 1992

The CTAP project also states that

the concept of coordination as a continuum of efforts to share resources begins with a commitment to improve service quality, serve a large client base, reduce unit costs, increase the service area, provide

more comprehensive transportation services, and eliminate duplication of efforts.

Coordination can be broken down into three models.

- cooperation
- joint use of arrangements
- consolidation

Cooperation usually takes the form of information exchange or purchase of transportation services from another agency for its clients. Joint use of arrangements involves sharing resources by participants in the coordination effort. Consolidation, the most comprehensive type of coordination, is defined as "joining or merging of transportation resources for the benefit of all participants" (Ohio DOT, 1997). In a consolidated transportation system the services of two or more providers are combined into a single system.

The benefits of a coordinated transportation system for providers include

- more efficient use of resources
- access to a range of equipment
- more flexible funding
- elimination of duplicated transportation services and wasteful vehicle use
- expertise from A (administration) to Z (zoning regulations) and everything in between, such as grant proposal writing and vehicle specifications, improved facilities and maintenance, volume purchasing power, greater marketing potential, and removal of transportation responsibilities from agencies that do not want them

The benefits for the community include

- more reliable transportation service
- business community support (more shopping)
- economic development (access to jobs)
- higher quality transportation service
- improved access to human services programs
- reduced costs for the transportation provided
- increased participation in community activities

The benefits for the consumers range from more and better quality service to safer and cheaper transportation to more destinations (CTAP, 1992).

Barriers

In 1986, Department of Transportation (DOT) and Health and Human Services (HHS) established the Coordinating Council on Human Services Transportation to improve the efficiency and effectiveness of specialized and human services transportation by coordinating related programs at the federal level. In 1988, the Council was renamed the Coordinating Council on Mobility and Access. The Council initiated a nationwide effort to identify, statutory, regulatory, and programmatic barriers to transportation services coordination. Ten Regional Working Groups gathered information from local transportation providers, individuals, human services agencies, state agencies, and industry associations. Since 1988, when the Coordinating Council on Mobility and Access identified 64 barriers to coordination, little has been done to address these issues on the federal level. In fact, the Council is still revising its coordination guidelines and has not finalized its strategic plan.

For each of the 64 barriers, the Council offered a federal response. These responses, however, were not complete enough to provide effective resolution for various reasons, including a lack of legislation, a lack of jurisdiction, or the need for additional research.

Some of the key barriers identified include the following.

- Uncertainty regarding federal responsibilities for transportation. This barrier is particularly strong when an individual is a client of multiple programs. Turfism and fear of loss of funding play a deterrent role so that programs are willing to participate in transportation coordination.
- Fragmented accounting and reporting. Difference in programs' reporting requirements and their incompatible accounting systems hinder the coordination efforts on state and local level.
- Uncertainty in using resources for non program constituents. Some government regulations and agency funding usage restrictions prohibit the use of equipment and facilities to meet needs of other programs.

- Prohibition against charging fares under the Older Americans Act. The needed local match for federal funding could provide more easily if elderly riders are also charged fares for using the coordinated transportation systems.

In 1995, there were efforts to strengthen the future of the Coordinating Council by providing it with a draft strategic plan for advancing transportation coordination. It listed 6 goals, 27 objectives, and 30 related tasks. HSS and DOT sponsor another nationwide transportation coordination effort. In regional meetings issues, such as interagency coordination, barriers, important problem areas and issues, and plans for action were discussed.

In 1997, the Coordinating Council established a working group to develop transportation coordination guidelines. The group concentrated on three principal efforts:

- Developing a framework for state and local human services transportation planning. A report identified 7 FTA programs and 12 HHS programs, which could coordinate their transportation efforts.
- An advisory planning workshop on July 1, 1998 received stakeholders' input. Key points expressed by transit authorities representatives, health care representatives, and local and state governments representatives included
 - Coordination in the planning process can increase cost-effectiveness of human services transportation efforts.
 - Coordination is difficult and involves a lot of work. Most agencies are poorly informed and cannot see the benefits of coordination of transit services. Locally, more data-intensive information is needed.
 - Public transit services for human services agencies programs and their clients may decline without a commitment to coordinate planning and resources.
 - Financial and other incentives are needed.
- DOT's Volpe Center supported the development of the joint planning guidelines.

Also, in 1997, the Ohio Department of Transportation identified the following barriers to coordination reinforcing the earlier findings of The Council.

- Turfism and fear of yielding control over clients or funds
- Reluctance to alter client's transportation routes, modes, or schedules

- Regulatory or legislative restrictions on use of funds or use of vehicles
- Insurance and liability issues
- Perceived incompatibility among passengers
- Problems with organization and staffing

Legislation

Some states legislators have passed mandates that require coordination among public sector transit services while other states have initiated coordination on a voluntary basis. For purposes of this report, existing statewide coordination-related legislation was identified by conducting a literature search and also by contacting individual state DOT's.

We found that existing coordination efforts, whether legislation-based or not, examples of all three models of coordination have been identified.

The overall picture of coordination legislation is not uniform. The documents identified in the review of literature range from executive orders, to state statute chapters, to state senate bills. Fourteen states have legislation that specifically addresses coordination. Some legislation is restricted only to transportation of the elderly (Arizona) or the disabled (Virginia and Illinois). Other states have legislation requiring coordination of the transportation of both the elderly and the disabled (New Jersey, Maryland and Connecticut) or of all human services needs (Arkansas, California, Florida, Iowa, Maine, Michigan, North Carolina, and Pennsylvania). Most legislation was passed in the late '70s and early '80s but was not implemented until 1990s. Florida has received the most recognition as a model for its state-wide coordination mandates.

Case Examples: Florida Commission of the Transportation Disadvantaged (CTD)
(Florida Statutes, Chapter 427 and Rule 41-2, F.A.C., 1979)

The Florida Commission for the Transportation Disadvantaged was created to implement transportation coordination on a statewide level. The mission of CTD is "To insure the availability of efficient, cost-effective, and quality transportation services for transportation disadvantaged persons." (Approved March 11, 1992). Members of the commission represent fourteen organizations and community groups. Older people or those with physical or mental disabilities, low income status, or those who are unable to transport themselves or pay for transportation to healthcare, employment, education, shopping, and social activities because of these conditions, are considered transportation disadvantaged.

The CTD includes four categories of input.

Designated Official Planning Agencies (DOPA)¹ develop transportation improvement programs, recommend community transportation coordinators and evaluate their performance, report the availability of local and direct federal funds in their region designated for disadvantaged transportation.

Community Transportation Coordinators (CTC)² broker or subcontract the transportation services uniformly to transportation operators and perform all coordination on local level.

Coordinating Boards include consulting and advising bodies to the CTCs on the local level. These are primary information and supervisory bodies, consisting of local representatives of the agencies and groups represented in the Commission.

Transportation Operators include subcontractors or brokers of transportation services from the Community Transportation Coordinator. These are the actual providers of the transportation services.

The legislation also requires standard contracts, insurance, safety, and reporting methods. Under **Contractual Agreements (Rule 41-2.008)** three levels of agreements were established.

1. **Memorandum of Agreement** between the Commission and the Community Transportation Coordinator
2. **Transportation Operation Contract** between CTC and each Transportation Operator
3. **Coordination Contract** between CTC and those agencies who receive transportation disadvantaged funds

Standard Insurance, Safety Requirements of Chapter 427

The Community Transportation Coordinator and all Transportation Operators must insure the vehicles within the following minimum liability limits:

\$ 100,000 per person and \$ 200,000 per accident

Commission approved standards include the following issues:

¹ The Metropolitan Planning Organizations are designated to serve as DOPA "in areas, not covered by a Metropolitan Planning Organization, agencies eligible for selection as DOPA include County or City governments, Regional Planning Councils, Metropolitan Planning Organizations from other areas, or Local Planning Organizations." (Rule 41-2.009, F.A.C.)

Unfortunately, the basis of these savings is not explained in the report. Consequently, there is no way to validate this information.

A close examination of the 1998 Annual Performance Report indicates a deficit of \$17.5 ml and \$19.3 ml for 1997 and 1998, respectively, in the operating budget. The same table shows a decrease in the number of CTCs, transportation operators, vehicles used, and passengers served from 1997 to 1998. Viewing the operating efficiency measures, the statewide system has increased its efficiency only in the category "operating expense per total trips," where the expense fell from \$5.62 to \$5.34 or 5% from 1997 to 1998. This decrease, however, followed an increase in this cost from 1996 to 1997. The cost of paratransit services rose from \$9.95 per trip in 1996 to \$10.48 in 1997 and to \$10.94 in 1998. The cost per total miles fluctuated from \$2.80 in 1996 down to \$1.72 in 1997 and up to \$1.80 in 1998. While that the total number of trips increased, the system served fewer passengers as a percentage of the total potential transportation disadvantaged population – from 13.6% in 1996 to 11.2% in 1997 to only 10.5% in 1998.

1997: 32 million trips

\$23 million revenue of the CTD's Trust Fund

\$161.2 million total operating revenue

\$180.6 million total operating expense

53 Community Transportation Coordinators, covering all 67 counties

446 Transportation Operators with 5,114 total vehicles

1998: 36.6 million trips

\$24 million revenue of the CTD's Trust Fund

\$176 million total operating revenue

\$195.7 million total operating expense

50 Community Transportation Coordinators, covering all 67 counties

426 Transportation Operators with 4,975 total vehicles

Broward County

Broward County Transit (BCT) is the Community Transit Coordinator for Broward County, Florida. BCT receives funding for coordinated public transit trips from the CTD, Health Care Administration (Medicaid), Elder Affairs, Labor and Economics Security, Education, and Health and Rehabilitative Services. BCT operates a fixed route bus service and a paratransit service. With the implementation of the ADA, BCT decided

not to cut the fixed route program, but to create more cost-effective travel options for current paratransit riders. The objective was to integrate fixed route transit with paratransit. Geographic information systems (GIS) to map connections between passengers, human services, and existing transportation services is actively used in the coordination effort.

BCT developed a community bus network to help meet the demand for paratransit services and to streamline the county's fixed route service. The community bus network is connected with the major local fixed route network. The community bus network includes eight local fixed routes that operate directly between major residential areas, malls, and healthcare facilities. This network is designed to serve the needs of the transportation disadvantaged, but the trips are also open to the general public. The eight community bus network lines use mini busses, which, in addition to the fixed route service, can perform curb-side service for elderly and disabled passengers. Since all network vehicles are lift-equipped, the system provides a fixed route travel alternative to the paratransit-eligible customers.

The BCT used several methods to increase the use of fixed route and community bus services by persons with disabilities:

1. Introduced a travel training program, including one-on-one training of people with various types of disabilities to read bus maps, identify bus stops and routes, and communicate with bus drivers.
2. Hired an outside company to make ADA eligibility determinations.
3. Introduced "ParaPass" for recipients of Medicaid. It is an alternative to expensive taxi services and saves the county Medicaid office hundreds of thousands of dollars.

California (CTAP, 1996)

The Social Service Transportation Improvement Act of 1979 led to the designation of Consolidated Transportation Services Agencies (CTA) to be responsible for "providing cost-effective and efficient transportation by minimizing duplication of administrative and operational services." By law, the CTA identifies and consolidates all funding sources to maximize the services provided. The law requires combined purchasing of vehicles and centralized dispatching, vehicle maintenance, and

administration. As a further incentive, 5% of local sales taxes are designated for exclusive use of transportation services coordinated by consolidated providers.

Fresno, CA

The designated consolidated agency is the Fresno County Rural Transit Agency (RTA). Over half of the budget of RTA comes from contracts with social services agencies. As a designated coordinator, RTA provides centralized services such as administration and purchasing, dispatching, maintenance, driver training, and direct delivery services. This reduces costs and insurance premiums for the human services agencies.

RTA offers three types of transportation services:

- Timesharing—RTA's pool of vehicle is used by the agencies
- Ridesharing—same vehicle used to transport different agencies' customers at the same time
- Consolidated Services—ads services, such as maintenance, emergency backup, purchasing and dispatching

North Carolina

North Carolina Human Service Transportation Council (NCHSC) is govern under Executive Order No. 78 (1995) which established the NCHSC. The NCHSC is composed of representatives of the Departments of Administration; Transportation; Human Resources; Environment, Health, and Natural Resources; and Commerce. Representation includes all divisions, which administer federal and state funds used for transportation. Other department and agencies are encouraged to join the Council and agree to adopt the policies, procedures, and decisions of the Council. The Deputy Secretary for Transit, Rail, and Aviation of the DOT is Chair of the Council.

The policy of the Council is to utilize all existing private and public transportation resources before public funds are made available and, determine the most cost-effective and efficient use of transportation resources through the local transportation Development Plans. DOT provides capital equipment for the provision of local human service transportation and other agencies shall fund operating expenses.

The Council addresses "problems, concerns, and opportunities regarding the provision of human service transportation" and leads to "increased cooperation among member agencies and increased coordination of human services transportation." The

efforts include the appropriation of funds for the Elderly and Disabled Transportation Assistance Program.

Voluntary Coordination Efforts

There are numerous examples of coordination efforts across the country. Many programs have been successful in their implementation and results. The majority of these were initiated in the 1990s to comply with the ADA. However, some states had actively coordinated their transit systems before passing the ADA including Florida, California, Arizona, Minnesota, Iowa. Other states (Ohio, Connecticut, Pennsylvania, Wisconsin, Maine). At the federal level, much of the information on transportation coordination is compiled and disseminated by the Community Transportation Assistance Project. CTAP publications include Coordinating Transportation: Models of Cooperative Arrangements, The Planning and Implementation Handbook, Coordinating Transportation Resource: States and American Indian Tribes on the Cutting Edge, as well as the periodical Community Solutions. Consulting firms, such as Multisystems, EG&G Dynatrend, and CGA Consulting Services, among many others, have worked with local and state authorities to design and implement coordinated systems.

Models of Coordination

The CTAP identifies three basic models which are "clearly distinguished and descriptive of the major differences among coordination models" (CTAP, 1992). They are the lead agency, brokerage, and administrative agency models. Each model is different in how coordination is implemented at the local level.

The Lead Agency Model

One agency has the responsibility for providing transportation for several other agencies and it takes on most of the related transportation responsibilities: administration, grants management, purchase of service contracts, scheduling, dispatching, operations, maintenance, purchase of vehicles and other capital equipment.

The Existing Human Services Lead Agency is typically a private nonprofit corporation, responsible for providing transportation for itself and other agencies. The human services agency takes a lead in developing a consolidated system. A major advantage is that this type of agency provides other services and is less likely to go out of business and more likely to fully support its own overhead and administration expenses. It is a stable system, which can share administrative responsibilities with other non-

transportation services. Finally, such agencies provide better employee benefits and less turnover and an existing goodwill in the political elite.

One potential disadvantage that the lead agency might provide lower levels of transportation service to clients of other agencies. Another is that transportation has to compete with other services for attention from top management and for funding. Finally, the existing image of the agency (as serving a distinct group of people) can damage the ability of the transportation system as general public accessible.

An example of an existing lead agency is the York County, Maine Community Action Corporation (YCCAC). It provides several different types of transportation services to the county: public fixed route transit, demand-responsive services for elderly, disabled, and low-income clients, and a subscription service for Medicaid-eligible persons, child-protective cases, and elderly persons at risk of institutionalization. The YCCAC has developed an accurate cost allocation model to cover its Medicaid-related costs. It obtains funds from different sources, such as Social Services Block Grant, Title III of the Older Americans Act, Medicaid, Vocational Rehabilitation, Head Start, Section 18 and Section 16(b)(2).

The Pure Transportation Lead Agency typically is a private non-profit corporation, which is primarily engaged in providing transportation services. Often, this type of agency has been spun off from a human services agency, which had decided to concentrate on its central mandate. This model allows administration to concentrate solely on transportation services.

The advantages of this model include the fact that there is less concern that it will favor one agency over another and that the lead agency will be focussed only on providing transportation. However, this model has its disadvantages because the system is less stable since the pure transportation agency is dependent solely on transportation funding from the other participants. As a generally new entity, it provides less attractive or no employee benefits and has less political influence than an existing human services program.

An example of a Pure Transportation Lead Agency is Paratransit, Inc. in California. This agency served as a model for the California Social Service Transportation Improvement Act. Paratransit, Inc. has part of the local sales tax allocated for its services. It provides transportation services to other agencies for 50% of the cost. It

also provides maintenance and scheduling services. Finally, Paratransit, Inc. provides ADA complementary paratransit service in Sacramento.

The Brokerage Model

This is a totally coordinated system with consolidated management but actual operations are dispersed among the participating agencies. The broker generally registers information for eligible individuals, contracts for transportation with operators, maintains agency billing and record keeping, provides reimbursement to operators, and ensures quality control. The broker can also provide reservation, scheduling, dispatching, maintenance, and insurance services.

In the Pure Brokerage model the broker concentrates on determining the most cost-efficient way to serve the transportation demand. It does not provide direct operation of vehicles and could handle everything from management, administration, contracting, request taking, and scheduling. In a variation of the pure brokerage, the broker is responsible only for management, administration, contracting, and quality assurance. The operators take the responsibility of scheduling, dispatching, and providing the rides.

The pure brokerage is a stable system with fair treatment of participating agencies. It provides for cost-effective transportation because of the competitive procurement of providers and central scheduling. This model does not require agencies or operators to give up control over their fleets or lose too much independence. The disadvantage of the model is the large number of trips required to meet minimum administrative costs, and this disadvantage sometimes requires funding from outside sources.

A good example of pure brokerage is Wheels, Inc. in Philadelphia, PA. It coordinates the request taking and scheduling of paratransit and medical assistance transportation for the City and County of Philadelphia. The providers are private organizations, selected by competitive procurement on cost-efficiency basis. Wheels, Inc. managed to reduce the cost per trip for the Department of Public Welfare from \$21 to \$6 in 1993.

The Partial Brokerage model provides direct transportation services along with contracting for services and coordinating the system. It is primarily useful in rural areas, with fewer providers and low trip volume to support the start-up cost of a pure brokerage. Typically, the partial broker starts as a lead agency and adds contracted transportation

later. Partial brokers usually subcontract taxi companies to provide peak-period transportation for its clients, adding flexibility to the brokerage fleet. This model allows the lead agency to take advantage of a lower cost outside provider for some trips, thereby expanding capacity. As a disadvantage, the CTAP (1992) publication notes the possible conflict of interest in assigning trips between its own fleet and subcontractors.

An example of partial brokerage, is People for People (PFP) in Yakima, Washington. This nonprofit corporation handles local, state, and federal contracts that provide employment and training, volunteer services, and other human services. PFP also has direct transportation services for older people and people with disabilities. It is a broker for the Medical Assistance Administration since 1989 and serves nine counties. PFP has contracts with taxi companies, ambulances, city transit authorities, inter-city bus companies, paratransit services, and airlines.

Administrative Agency Model

This model is viewed as a final possible stage in the development of a totally coordinated system. Often, the administrative agency model results from a lead agency model evolving in a spin-off from a pure transportation system, the creation of an administrative agency and the absorption of the pure transportation system by the agency. In this model just one agency coordinates and provides transportation.

The Administrative Agency Model with Lead Agency occurs when the local public transit authority performs the coordination of human services transportation in addition to its public transport responsibilities. Madison County Transit, Illinois is an example. In addition to providing fixed route and paratransit services, the transit authority created the private non-profit Agency for Community Transit (ACT). ACT provides more cost-effective and better quality paratransit transportation tailored to the needs of human services programs and disabled and elderly people but not bound by government eligibility requirements. The general model is most appropriate for smaller service areas with few existing providers.

The last model in the CTAP's Coordinating Transportation: Models of Cooperative Arrangements is the Administrative Agency Model with Broker. The administrative agency here acts like a broker or contracts with one. In the first case, the administrative agency takes on all functions from agreements with human services programs to reservations, scheduling, dispatching, and contracting with a transportation

provider. Otherwise, the broker will handle agreements, registration, dispatching and contract monitoring. One example is the Port Authority of Allegheny County, Pennsylvania (PAT) system. It is the public transit operator in the county, which contracts with a private for-profit broker ACCESS Transportation Systems. ACCESS services the transportation needs of human services programs by approving qualified private profit and non-profit operators as contractors. ACCESS negotiates compensation rates, sets insurance requirements and vehicle standards, and performs general administration functions. ACCESS has proven to be very cost-efficient by reducing its administrative and per trip costs. This model is appropriate for large service areas with many providers.

The major advantages of the administrative agency model include easier access to public funding, tax money, and subsidies. It is the most stable system and “institutionalizes transportation as a local public service” (CTAP). However, this model has large administrative costs and regulatory burdens and could eventually lead to increased transportation costs.

Finally, we will discuss two currently implemented studies of brokerage models in Wisconsin and Connecticut. Both projects were aimed at evaluating the potential for brokerage in these states. The method required the implementation of a brokerage in a study area/county, analyzing the success of the process and evaluating the appropriateness of the brokerage model for coordinating of these transportation systems.

The Dane County, Wisconsin Coordinated Specialized Transportation Project had the “intent . . . to research the feasibility and evaluate the effectiveness of a brokerage model as a coordinating mechanism for meeting the transportation needs of the elderly, persons with disabilities, and clients of a variety of programs in a way that can be replicated throughout the state” (Cashin, 1997). The brokerage was designed to meet the problems in public transportation in Wisconsin prior to 1995. The problems were defined as fragmented, inefficient use of resources, unsuccessful past coordination efforts, high cost of Medicaid transportation, and lack of local coordination. The project focused on the rural areas of the county, which are similar to the less developed rural Sussex and Kent counties in Delaware.

The project started in 1995 with the designation of Dane County as a demonstration site. Initially, the study planned to implement an “administrative

brokerage" (Cashin, 1997), which is pure brokerage. The broker was to receive requests, verify eligibility, arrange transportation in a cost-effective manner, establish a fare/donation collection process, develop policies and procedures, do bookkeeping, and provide control. The plan also included the development of a system software that would meet the needs of a rural, coordinated transportation system. The University of Wisconsin contracted to design an inexpensive and customized software application. The project called for a toll-free number and centralized handling of complaints.

In April of 1995, the implementation of the project began with an inventory of existing service providers in the area and appraisal of the overall transportation system capability. Then, the project staff developed project policies and decided to concentrate on servicing the Medicaid program. Between August and December 1995, the DCDHS found a way to reduce the cost of Medicaid transportation. They combined Medicaid ambulatory riders with Specialized Medical Vehicles riders. However, Medicaid denied access to the confidential eligibility information and lists of customers. So, the project staff developed and implemented a Medicaid Point-of-Service authorization service (Cashin, 1997). This program has resulted in a 712% increase in utilization of Medicaid transportation from October 1995 through the end of the project.

By the end of 1995, the development of the specialized dispatching software was delayed, thus postponing the implementation of Phase 1 of the project until March 1996. This phase was initialized without the implementation of a software and included only Dane County Public Health and Medicaid as serviced agencies. Later in 1996, Children Youth and Families (CYF) Division clients began to be serviced by the brokerage. In May 1997 a new scheduling and reporting software application was implemented successfully.

The implementation of this project faced some very serious problems, which can serve as a good diagnostic and warning tool for other states. The three major areas that caused problems to the steering committee and DCDHS were the internal organization, the technology, and the reluctance of the potential participating agencies. From organizational point of view, the steering committee took on a responsibility for which it had neither the expertise nor the resources. The committee did not select an experienced agency to carry out the planning and implementation, but instead actively monitored and took part in these activities. The steering committee developed a very comprehensive

and optimistic plan but was forced to revise it and limit it drastically due to poor progress. While there were some very good ideas and cost-saving initiatives, they were not implemented due to lack of funding and cooperation from the outside agencies. Although DCDHS was the officially appointed broker, it devoted very limited resources and effort to the implementation (one half-time coordinator and one assistant).

Medicaid resisted most of the efforts of the broker to access confidential patient/client information, which would have led to better dispatching and reduced the cost of service. This problem blocked the implementation of mixing the transportation of ambulatory patients with SMV-certified riders. Medicaid and other human services agencies were not convinced of the real need for and benefit from coordination. The overall lack of enthusiasm seemed to be reinforced by the broker's disorganization, lack of financing, and technological inability to perform its services.

Finally, the success of the project was most jeopardized by the inability of the University of Wisconsin to develop a suitable system software. This technological problem delayed the entire project for over two years and seriously damaged the credibility and ability of the broker.

All these circumstances and experiences should be taken into consideration when attempting coordination efforts. This example does not disprove the effectiveness and feasibility of the broker model, but it does pinpoint some crucial problematic areas. These problems have to be faced with professionalism and due seriousness.

The Greater Waterbury Paratransit Coordination Study could serve as a model for initial research of the viability and specific need for a coordinated system. This document was prepared by Multisystems, a reputable and very successful transportation consulting firm. The study is comprehensive and exact in the determination of the situation prior to the brokerage. It concentrates on the demographic characteristics of the serviced region, the organizations providing transportation services, operating statistics, and coordination efforts. Finally, the report assesses the potential for a brokerage in the region.

Notwithstanding the good initial study, the implementation of this pilot project has failed in some of its major aspects. The brokerage is operational but Medicaid withdrew even before it started operating. This withdrawal has prevented the broker from reducing cost and providing sufficient funding. As a result, participation in the brokerage by local agencies is very limited. Again, efforts are confounded by a lack of enthusiasm

and by uncooperativeness from the human service agencies and other potential participants.

Even though Medicaid has been historically reluctant to coordinate with other agencies, it has a highly ineffective structure determined in its details by individual states. Medicaid is a DHSS program under the Division of Social Services. Each state is “required to assure that all Medicaid recipients have a way of getting to health facilities and covered services and, if needed, to pay for medically-necessary transportation” (Raphael, 1997). In Delaware, Medicaid contracts with several transportation providers, including DART First State. DART requires Medicaid clients to book their trips with the DSS Customer Service Unit, while all other providers take reservations directly from the clients. In addition, Medicaid coordinates transportation in some specific cases with the Division of State Service Centers and the Department of Education.

General National Trends

There is a shift to prepaid services which substitutes the fee-for-service basis of operation with prepaid plans. The community hospitals are merging into regional facilities and individual practitioners into healthcare networks, which requires this new approach especially in the rural areas. However, there are concerns with

- Fraud and abuse issues—In states, such as Maryland, Georgia, Arkansas, and Louisiana, “public exposure to past billing abuses, along with fear of future scandals, is contributing to . . . searches for improved approaches” (Raphael, 1997).
- Americans with Disabilities Act of 1990, (ADA) and public transit – Coordination among public transit, paratransit, and Medicaid transportation is viewed as very important methods for increasing ridership and decreasing costs.

Emerging Medical Transportation Models

- Capitated Transportation Services

The model includes non-emergency transportation in the prepaid contracts with managed care organizations (MCO). The estimated cost of providing Medicaid transportation is “built into the capitated rate received by the MCO” (Raphael, 1997).

Missouri – Since 1995 the participating HMOs in the St. Louis area contract with one private transportation broker, MTM. MTM assumes administrative,

scheduling, dispatching, and coordinating responsibilities and subcontracts with 40 local providers. MTM operates under full capitation contracts with the HMOs, partially-capitated agreements with other plans, and a per trip basis with the transportation subcontractors.

Rhode Island – Since 1994 65% of the state Medicaid recipients have been enrolled in RIte Care participating HMOs. Each of the RIte Care HMOs contracts its non-emergency transportation with the Rhode Island Public Transit Authority (RIPTA). “For a capitated rate of \$2.25 per enrollee per month, all five health plans subscribe to RIPTA’s medical transportation service” (Raphael, 1997)

Transportation Brokerage Model

The brokerages are “entities established for coordinating the screening of recipients, determining eligibility, and arranging and paying for actual transportation” (CTAA, 1997). Regional or statewide brokerages have been established in Florida, Maryland, Massachusetts, Oregon, Vermont, and Washington.

Washington State – A network of regional transportation brokers serves the entire state which is divided into 13 medical transportation service districts. Brokers (local planning agencies, councils on aging, human services agencies, community transportation operators and other agencies) receive an administrative fee to coordinate the program, plus reimbursement for the direct trip costs. They verify Medicaid eligibility, determine the medical necessity of each trip, and assign the appropriate provider. Providers are reimbursed for each trip on an agreed upon fee.

Oregon – In Portland since 1994, Medicaid transportation is coordinated by the metropolitan transit authority, TRI-MET, acting as a broker. TRI-MET has centralized dispatching operations, receives requests, and assigns trips to more than 40 taxi and other contract providers. The lowest cost provider is assigned each particular trip.

Vermont – The state has established a system of nonprofit brokerages to manage Medicaid transportation statewide. The system is coordinated by the Vermont Public Transportation Association and consists of nine regional medical transportation brokers. Emphasis is placed on volunteer drivers and local public

transit options. Half the Medicaid trips are provided by public transit and about 30% by volunteers.

Administrative Manager Model

This is a model of in-house brokerages and modified administrative structures within the Medicaid agency. States, such as Alabama, Louisiana, and Mississippi, designate Medicaid staff to monitor transportation providers and utilization of services. In New York and Maryland public agencies are established to administer medical transportation. In Idaho, Montana, and New Mexico, private agencies manage the Medicaid transportation.

Observations and Discussion

In light of the information that has been gathered for this project, some reoccurring trends in the field off transportation coordination have been identified. Although some states have legislation mandates at different governing levels, the implementation of coordinated services is restricted to pilot study regions or counties or to some more affluent communities. Many of the state DOTs and leading human services agencies have not decided on a most suitable model for their conditions and still conduct studies about the feasibility and benefits from coordination. Florida is the only state with statewide coordination with some consistency from county to county.

Since the coordination of transportation services is a relatively new trend and has few successful examples, the idea is being met with skepticism and a lot of resistance from the participants. The brokerage, however, is a model with increasing popularity. Though it can take many forms, the brokerage gives much more flexibility and autonomy to the participating agencies than do the leading agency and the administrative agency models. The latter two have the potential to favor one of the participating agencies over the others or to incur significant initial administrative costs. Similar problems are inherent in the brokerage model as well, but for the early stages of coordination it seems to be the most logical. Probably, there is misunderstanding and lack of knowledge about the essentials of any of these models; however, the brokerage is favored based on image and popularity.

Coordination in the State of Delaware

The next step in the project involved identifying and describing the federal funding sources related to transportation and transportation services that flow into the State of Delaware. The primary printed sources of information were "CTR Resource Guide" (Community Transportation Reporter, 1994), Federal Express" (*Community Transportation*, September/October 1999), "Funding Table" (*Community Transportation Resource Guide 2000*), and "Building Mobility Partnerships: Opportunities for Federal Funding" (CTAA, 1999). These publications list the federal programs that fund transportation and related services by government departments and agencies. In this process, programs in departments other than the Department of Transportation, such as Department of Agriculture, Department of Labor, Department of Defense, Department of Education, and Department of Health and Human Services were identified. Basic information about the relevant programs was obtained, including eligibility criteria, activities, transportation services, and average annual federal dollars awarded to Delaware. In addition, a contact person in each respective department was identified. Twelve federal programs were identified from the literature and then were contacted by telephone for additional information.

Guidelines for telephone interviews

The following questions were used as a discussion guide during the telephone contact with federal representatives:

- "What is the last fiscal year budget allocation for the State of Delaware?"
- "Is there a federal budget line item for transportation services in the program?"
- "Is there a state budget line item for transportation services in the program?"
- "Can you provide the program's key contact for Delaware?"

Results

During the month of December, 1999, twelve (12) federal programs in four (4) federal departments were contacted. The overall number of calls was forty-five (45); each identified agency was contacted at least once. When the first call was unsuccessful, at least three more follow-up calls were placed. The most calls, ten (10), were placed to Medicaid. One of the programs (Job Opportunities and Basic Skills from the DHHS) was discontinued; there was no response after at least 5 calls placed to two of the programs

(Social Services Block Grant and Supportive Services and Senior Centers). After numerous telephone calls and follow-up referral calls, no specific information was obtained about the Medicaid Program.

Additional information was sought from local Delaware sources to compare the findings from the federal information. However, no useful information about federal funding sources or other money flowing into the State of Delaware was obtained.

The following information about the Federal FY 1999 budgets for the State of Delaware was obtained from the process described above.

Urban Enterprise Community, Wilmington, DE	\$3 million (1994)
Vocational Rehabilitation	\$7,623,760
Community Services Block Grants	\$2,667,825
Developmental Disabilities Basic Support and Advocacy Grant:	
Delaware Developmental Disabilities Council	\$403,093
Protection and Advocacy Program	\$254,508
Head Start	\$8.5 million
(5%-6% transportation)	
Community Development Block Grants	
Kent and Sussex County grant	\$1,914,000
(transportation falls under street repair, sidewalks, capital park general infrastructure between 30%-60%)	
Senior Community Service Employment Program	\$1,871,728

The dollar amounts reflect the budgeted amounts for the State of Delaware. The Federal Budget FY 1999 started on October 1, 1998 and ended on September 30, 1999. The budgets for FY 2000 for all programs except the USDOT were delayed until late December 1999 and the amounts on all of the above programs became available in 2000.

For information on the Department of Transportation FY 2000 Budget, an alternative source—the Department's web page—was accessed. It features the FY 2000 budget for all states for each of the following programs:

- Transit Capital Improvement Grants (5309) \$901,000
- Metropolitan Transit Planning Grants (5303) \$199,000

- Transit Capital and Operating Grants for Urbanized Areas (5307) \$6,137,000
- Public Transportation for Non-urbanized Areas (5311) \$457,000
- RTAP \$69,000
- Capital Assistance for Elderly and Disabilities Transportation (5310) \$304,000
- State Planning (5313) \$52,000

State of Delaware Resources

A final step in identifying the federal funding sources for transportation in Delaware was to contact each local agency office and inquire about the portions of their funds that they use or plan to use for transportation. In January and February 2000, another round of telephone interviews was conducted. The Delaware offices of the previously identified federal programs were contacted. The survey included the following questions:

Do you provide transportation services or transportation-related programs to program participants?

Do you provide transportation directly, by contracting out, or by reimbursement for customer's expenses?

Who is eligible for transportation services?

What is your FY2000 budget allocation specifically for transportation?

What percentage of the total budget is allocated for transportation?

How many customers are unable to drive, do not have a car, or are dependent on some sort of transportation assistance?

Results

Twenty-eight (28) agencies and programs were contacted. The total number of calls placed was 95, with Delaware Vocational Rehabilitation General Agency receiving 12 calls, Medicaid receiving 12 calls, 2 faxes, and 1 Freedom of Information Act letter requesting information.

From the agencies identified as potential sources for funding of transportation at the state level, the following do not sponsor or provide any transportation services in Delaware: the Social Services Block Grant, the Protection and Advocacy Program, and the Community Development Block Grant.

Medicaid does not specifically itemize transportation in its budgets or account for

such expenses in its expenditure reports, according to one interviewee. However, after persistent follow-up contact with officials in the DHHS and after filing a letter under the Freedom of Information Act requesting information the following was received:

Medicaid FY 1999 spending on transportation	\$ 3,500,000
Medicaid FY 2000 (first 8 months) spending on transportation	\$3,200,000
Medicaid FY 2000 budget for transportation	\$ 4,700,000

From the rest of the agencies and programs, Head Start has the largest budgeted amount for transportation of more than \$500,000 for FY 2000. Of this amount, \$115,000 are provided by the state in the form of Early Childhood Assistance Program funds and \$375,000 are federal funds. The second largest transportation-expenditure agency is the Delaware Vocational Rehabilitation General Agency with \$155,513 budgeted in FY 2000. The estimated total amount for federal and state funding of transportation by agencies and programs outside of the Delaware Department of Transportation was approximately \$692,103 in FY 2000. When including the transportation portion of the Medicaid budget, the funding reaches \$5.4 million.

Overview of Existing Coordinated Transportation Agreements (CTAs)

One of the most significant factors for the effective and efficient implementation of any transportation coordination program is the creation of working contractual agreements. These legal documents can vary in form and content depending on the level of coordination implemented, each state's legal requirements, the model of service provision, and other factors. In order to outline the elements of the model Coordinated Transportation Agreements (CTAs) for the State of Delaware, some existing practices' documents and contracts will be explored.

The Florida Commission for the Transportation Disadvantaged (CTD) uses the most structured approach to CTAs. The state law requires that contracts on three levels be implemented. This reflects the hierarchical structure of the CTD; only two of the documents will be reviewed here.

The "Memorandum of Agreement" is a contract between the CTD and the designated Community Transportation Coordinator (see p.7 for details). This document has the following general elements:

- I. Duties and responsibilities of the Coordinator

- A. Become and remain appraised of all coordination resources available in the service area
 - B. Coordinate efforts with the rest of the CTCs in the state
 - C. Arrange for all services in accordance with Chapter 427, FS and Rule 41-2, FAC
 - D. Return any profits or surpluses over the amounts specified in the Transportation Disadvantaged Service Plan
 - E. Accomplish the project by developing a Transportation Disadvantaged Service Plan; maximizing the use of available public school transportation; providing a 24-7 customer service; complying with local and state laws and regulations; and submitting to the CTD and Annual Operating Report
 - F. Comply with audit and record keeping requirements
 - G. Retain all financial records and other supporting documents for a period of 5 years
 - H. Comply with the safety requirements
 - I. Comply with the CTD insurance requirements
 - J. Protect and keep confidential all customer information
 - K. Protect civil rights
 - L. Indemnify and hold harmless the CTD for its own actions or omissions
 - M. Comply with CTD standards and performance requirements
 - N. Comply with subcontracting requirements
 - O. Comply with requirements concerning drivers and vehicles
 - P. Comply with other requirements
- II. Duties and responsibilities of the CTD
- A. Recognize the CTC as the entity described in the law
 - B. Attempt to assure that all entities with transportation disadvantaged funds will purchase transportation disadvantaged services through the Coordinator's system
- III. Further agreements between the parties. These clauses include termination conditions, conditions for re-negotiation or modifications of the contract and other standard legal conditions.

The "Standard Coordination/Operator Contract" is the second level CTA used by the Florida Commission. The parties to this contract are the designated Community Transportation Coordinator and each agency or operator, which are applying to be providers of coordinated transportation services. The provisions of this contract are as follows:

- I. Duties and responsibilities of the "Agency/Operator"
 - A. Provide services and vehicles
 - B. Coordinate available resources
 - C. Submit quarterly operating reports to the "Coordinator"
 - D. Comply with audit and record keeping requirements
 - E. Keep all records for a period of five years
 - F. Comply with safety requirements
 - G. Comply with CTD insurance requirements
 - H. Safeguard information
 - I. Protect civil rights
 - J. Comply with lawsuit requirements
 - K. Comply with CTD, Coordinating Board, and client standards and performance requirements
 - L. Provide corrective action
 - M. Submit to audit by the "Coordinator"
 - N. Return any profits or surpluses over the amounts specified in the Transportation Disadvantaged Service Plan
 - O. Not discriminate against applicants for employment and employees
 - P. Agree not to bribe or lobby for the purpose of obtaining an approval of its application for financing
- II. Duties and responsibilities of the "Coordinator"
 - A. Recognize the "Agency/Operator"
 - B. Insure the purchase of coordinated services
 - C. Monitor the "Agency/Operator" performance at least annually
- III. The "Coordinator" and "Operator" further agree to
 - A. Not violate state and local laws in the act of complying with this contract

B. Terminations conditions

C. Other legal provisions about the validity of the contract

The Ohio Coordination Program has a much less structured set of contractual agreements. This program requires that each county transportation board apply for "funds through the Ohio Coordination Program to coordinate existing transportation services." The main CTA that the program uses is the Memorandum of Understanding. This document states in the first paragraph which agency has been selected as the county's lead agency to administer the coordinated effort, called "Project." The Project budget is also specified in the first paragraph of the Memorandum of Understanding.

The next paragraph defines any county human service agency and transportation provider willing to participate as a "coordination partner." The coordination partners agree to a short list (4-5 items) of very general requirements ranging from "integrate transportation trips within its regularly scheduled service as assigned by the lead agency to" to "develop a coordination model which can be applied to other communities." Though both service providers and human services agencies can be coordination partners, the memorandum of agreement does not specify the responsibilities of the service providers. This purpose is served by regular purchase of service contracts. The overall general language and unstructured approach to the CTAs at the Ohio Coordination Program reflect its volunteer nature and lack of legal requirements for implementation.

Most other programs have an even less defined coordination effort reflected in the lack of a coordination contract and the existence of only standard services provision contracts. Such is the case with the Ottumwa Transit Authority in Iowa where a transit provider is designated as the official regional transit system. The agencies that purchase service from the transit system sign a regular "Contract for Transportation Services."

References

- Cashin, Norah. (1997). Dane County Specialized Transportation Project Final Report. Madison, WI: Dane County Department of Human Services.
- Commission for the Transportation Disadvantaged. (1998). 1998 Annual Performance Report, Tallahassee, FL: Commission for the Transportation Disadvantaged.
- Community Transportation Assistance Project. (1992). Coordinating Community Transportation Services: A Planning and Implementation Handbook. Washington, DC: U.S. Department of Health and Human Services
- Community Transportation Assistance Project. (1996). Pooling Community Resources Makes Accessible Transit Affordable. Community Solutions. 2, Washington, DC: U.S. Department of Health and Human Services.
- Community Transportation Assistance Project. (1997). Building Mobility Partnerships: Opportunities for Federal Funding. Washington, DC: U.S. Department of Health and Human Services
- Community Transportation Assistance Project. Coordinating Transportation: Models of Cooperative Arrangements. Washington, DC: U.S. Department of Health and Human Services.
- Community Transportation Association of America. (1994). CTR Resource Guide. Community Transportation Reporter. Washington, DC. Community Transportation Association of America
- Community Transportation Association of America. (1997). Managing Medicaid Transportation: A Manual Examining Innovative Service Delivery Models Under the Medicaid Managed Care Plans. Washington, DC. Community Transportation Association of America
- Community Transportation Association of America. (2000). Funding Table and State Contacts. Community Transportation Resource Guide 2000 . Washington, DC. Community Transportation Association of America
- Division of Public Transportation. (1997). A Guide for Implementing Coordinated Transportation Systems, Columbus, OH: Ohio Department of Transportation.

Division of Public Transportation. (1997). A Handbook for Coordinating Transportation Services. Columbus, OH: Ohio Department of Transportation.

GAO web page. (1999). Transportation Coordination: Benefits and Barriers Exist, and Planning Efforts Progress Slowly (Letter Report, 10/22/1999, GAO/RCED-00-1). <http://www.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=gao&doccid=f:rc00001.txt>. accessed on 02/15/2000

Multisystems. (1997) Greater Waterbury Paratransit Coordination Study Final Report. Newington, CT: Connecticut Department of Transportation.

Raphael, David. (1997). Medicaid Transportation and Managed Care. Community Transportation. July 1997. Washington, DC. Community Transportation Association of America

Zeilinger, Chris. (1999). Federal Express. Community Transportation. Washington, DC. Community Transportation Association of America

