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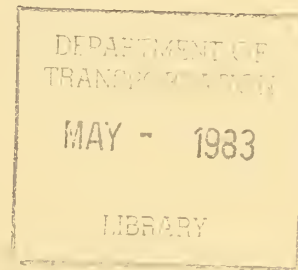


U.S. Department  
of Transportation  
  
Urban Mass  
Transportation  
Administration

UMTA-IL-06-0038-82-1  
DOT-TSC-UMTA-82-24

# The Northeastern Illinois RTA Decentralized Paratransit Brokerage Program

**Final Report  
September 1982**



UMTA/TSC Project Evaluation Series  
Service and Management Demonstrations Program

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16. Abstract This report documents the results of an UMTA Service and Management Demonstration which involved six projects implemented by local governments under the Northeastern Illinois RTA decentralized brokerage program. The RTA is responsible for providing public transportation in the six-county Chicago metropolitan area. The RTA's brokerage program, which is officially titled the "Service Development/Demonstration Grant Program," was designed to achieve maximum paratransit service with a minimum amount of centralized staff. The RTA program encourages municipalities to plan, operate, implement, and monitor a variety of paratransit services, either in geographic areas or for special users (i.e., the elderly and handicapped), that cannot support fixed-route, fixed-schedule service. The first of the six projects selected to demonstrate this program initiated service in March 1978; the last project started in July 1981. UMTA funding for each project was provided for a one- or two-year period. Three projects served the elderly and handicapped, and three served the general-purpose market. Each project was unique in program, management, and/or operations. While a number of problems were experienced during the demonstration, most were resolved, and the approach proved to be very workable. A paratransit department has been created. Paratransit in each of the local project areas continues with RTA and local funding. The program has been expanded to include 24 communities, which represent over 1,400 square miles in the region. Applications have been received from an additional 48 communities.					
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## PREFACE

This document presents a review and assessment of the Northeastern Illinois Regional Transportation Authority's (RTA) Paratransit Brokerage Demonstration Program. This demonstration is a part of the Urban Mass Transportation Administration's Service and Management Demonstrations (SMD) Program. The major focus of the project is an investigation of the institutional impacts of the RTA's decentralized approach to paratransit brokerage.

This work was done for the Transportation Systems Center (TSC) of the U. S. Department of Transportation, under Contract No. DOT-TSC-1409-5 and -13, as part of the SMD program. Dr. Bruce Spear served as TSC's Project Evaluation Monitor.

Ms. Mary Martha Churchman was UMTA's Project Monitor for the RTA demonstration. Considerable assistance was provided by the RTA's Paratransit Department, which is under the direction of Ms. Lollie L. McKeon, Department Manager, and Mr. Dale Fitschen, Section Manager. The RTA's paratransit staff, especially Mr. Joe Voccia and Mr. Jim Parvis, also made substantial contributions. Major inputs were also received from local project officials in each of the demonstration areas.

De Leuw, Cather & Company prepared this report in accordance with its previously submitted Evaluation Plan. That plan was based upon the Evaluation Framework prepared by Marian Ott of the Transportation Systems Center. Mr. William C. Nevel of De Leuw, Cather (Chicago) was the Project Manager and Principal Author. Mr. David Spacek and Mr. Lidano Boccia, project engineers/planners, also assisted early in this effort. Technical assistance and review was provided by Dr. Joseph Schofer of Northwestern University. Ms. Susan Griesbach, a graduate student in transportation planning at Northwestern University, assisted with final interviews and preparing individual project reports.

# METRIC CONVERSION FACTORS

## Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
<b>LENGTH</b>				
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
<b>AREA</b>				
in <sup>2</sup>	square inches	6.5	square centimeters	cm <sup>2</sup>
ft <sup>2</sup>	square feet	0.09	square meters	m <sup>2</sup>
yd <sup>2</sup>	square yards	0.8	square meters	m <sup>2</sup>
mi <sup>2</sup>	square miles	2.6	square kilometers	km <sup>2</sup>
	acres	0.4	hectares	he
<b>MASS (weight)</b>				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons	0.9	tonnes	t
	(2000 lb)			
<b>VOLUME</b>				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft <sup>3</sup>	cubic feet	0.03	cubic meters	m <sup>3</sup>
yd <sup>3</sup>	cubic yards	0.76	cubic meters	m <sup>3</sup>

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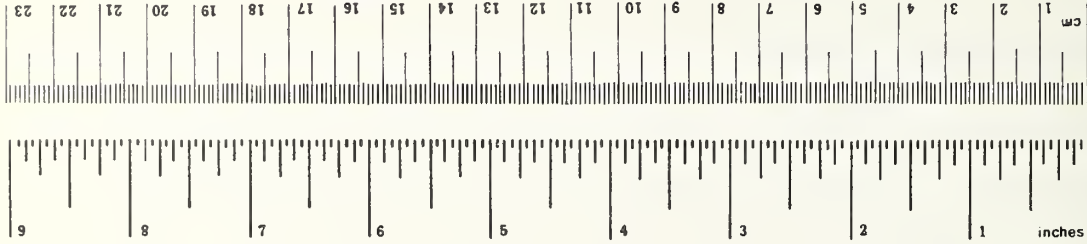
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## Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
<b>LENGTH</b>				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
<b>AREA</b>				
cm <sup>2</sup>	square centimeters	0.16	square inches	in <sup>2</sup>
m <sup>2</sup>	square meters	1.2	square yards	yd <sup>2</sup>
km <sup>2</sup>	square kilometers	0.4	square miles	mi <sup>2</sup>
he	hectares (10,000 m <sup>2</sup> )	2.5	acres	
<b>MASS (weight)</b>				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
<b>VOLUME</b>				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m <sup>3</sup>	cubic meters	35	cubic feet	ft <sup>3</sup>
m <sup>3</sup>	cubic meters	1.3	cubic yards	yd <sup>3</sup>

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\* 1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$2.25, SD Catalog No. C13-10-286.

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## EXECUTIVE SUMMARY

### INTRODUCTION

The Urban Mass Transportation Administration (UMTA) awarded a grant to the Regional Transportation Authority (RTA) to implement the RTA's Service Development/Demonstration Grant Program. The program was designed to encourage municipalities in the six-county northeastern Illinois RTA service area to plan, operate, partially fund, implement, and manage a variety of nonconventional, innovative transit services in areas that cannot support fixed-route, fixed-schedule service. The RTA acts as a broker in generating services in low-density areas or for specialized elderly and handicapped (E/H) markets.

The concept of "brokerage" as an organizational structure is a relative new and broadly used term in the transportation industry, but it is familiar to the business community. Brokers in insurance, finance, food, and real estate locate a demand, search out a potential supplier, and consummate an agreement for a commodity or service. In each market, the broker--almost always for a fee--matches potential consumers of goods and services with producers of the desired commodity.

The role of the broker in public transportation is somewhat comparable, but less definitive than in other industries. A broker in the public transportation arena identifies the needs of potential riders and matches them to the most appropriate transportation provider. One element that differentiates the transit broker from other business brokers is the provision of funding. The transit broker may arrange the funding of programs by securing agreements between federal, state, regional, local, and social service agencies and the service provider. In transit brokerage, the sharing of responsibilities varies; brokerage arrangements are often unique to each project.

The brokerage arrangement that the RTA is employing differs from the centralized approach to transportation brokerage. In the centralized approach (e.g., as in Knoxville, Mountain View, etc.), a transportation broker identifies and matches individual traveler needs with a range of existing and/or new transit services to provide a more efficient, effective transportation system. With the RTA's decentralized concept, the RTA does not directly match consumers and providers; rather, local municipalities determine their own transit needs (with varying levels of RTA assistance) and develop a service to best respond to those needs. The RTA acts as a technical facilitator, brokers money and expertise and, where appropriate, coordinates paratransit with conventional service.

As a part of this demonstration, six local governments were selected by the RTA to receive grants to operate specialized paratransit service employing small buses and taxis. The paratransit projects that were selected to receive demonstration funding varied in fare structure, modes, geographic coverage, clientele, operations, and contractual and organizational agreements. Three projects served the E/H market, and three served the general population.

The demonstration was initiated in February 1978 with funding of \$688,000. UMTA provided \$550,000, the RTA provided \$78,000, and local municipal sponsors provided \$60,000. In September 1980, UMTA approved an amendment for an additional \$175,000 to complete the one remaining project, and for adjustments for some of the other projects.

Three projects operated under the UMTA-funded demonstration for a two-year period, two projects for one year, and the final project commenced in July 1981 and is anticipated to receive UMTA funding through June 1982.

UMTA demonstration funding has ended for all but one project, but all five initial projects have continued in operation under the aegis of the RTA's Paratransit Department. Three of the projects have subsequently received increased levels of funding from a variety of sources.

A chronological overview of each of the projects follows.

#### ELDERLY AND HANDICAPPED PROJECTS

##### Proviso Township Dial-A-Ride

Two municipalities are acting as sponsors for a social service agency, Proviso Council on Aging (PCA), which designed and operates the service. The dial-a-bus operation uses a combination of a rotating zone system, scheduled checkpoints, and a roving, demand-responsive service for registered clients within a 36-square-mile service area. PCA initially operated this service directly, but later found it advantageous to contract with a private carrier, with PCA continuing to dispatch trips. Two paratransit buses are leased from the RTA to provide the service, which operates weekdays from 9:00 a.m. to 3:30 p.m.

Passengers carried during the demonstration averaged 1,100 per month. Vehicle-hours per month averaged 296, with a total cost per passenger of \$5.88 and a total subsidy per month of \$5,678, or \$5.13 per passenger.

##### Joliet/Will County Dial-A-Bus

This E/H service was designed by the combined efforts of three social service agencies, the Will County Planning Department, and the local mass transit district. This is a very large county (845 square miles), with scattered activity centers. The City of Joliet acted as a "pass-through" applicant for the countywide dial-a-bus operation, which uses five zones for scheduling control and fares. The system now has 11

small buses, most of which are lift-equipped. This service transports more physically and mentally handicapped passengers than any of the other demonstration projects. Because of the variety of agencies involved initially, there were considerable institutional conflicts in policy-making, dispatching, funding, and other major activities. Vehicle maintenance and the relationship between the two separate transit divisions within the transit district (each with its own union), and strained relationships between the transit district and the RTA, were part of the growing pains of this demonstration. Strong project management improved the direction of this project, which is now regarded as a success by most of those involved. The basic fare is \$1.00, plus \$.50 per multiple zone, but some clients pay on a subscription basis through their respective social service agencies. A considerable amount of third-party funding is also involved. Passengers carried during the demonstration averaged 2,539 per month. Vehicle-hours per month averaged 966, with a total cost per passenger of \$5.50 and a total subsidy per month of \$12,673, or \$4.99 per passenger.

#### Milton Township Shared-Ride Taxi

Two villages designed a program to coordinate taxi services for the elderly and handicapped. The 36-square-mile township is a relatively high-income, low-density area. A trustee of one of the villages, with RTA assistance, arranged the service under the auspices of the Milton Township Senior Citizen agency. Shared-ride, curb-to-curb taxi service was intended for most areas in the township with a one-hour advance reservation. A user-side subsidy concept was employed; the patrons presented prepurchased tickets, for which the driver was reimbursed at a predetermined flat rate. The \$.50 ticket was turned in to the Township, which reimbursed the cab companies at \$2.35 per ticket (this was the final subsidy rate, which had been raised four times throughout the project). Although there were spurts of activity, the taxi project was never successful. The shared-ride concept was never fully employed, the

level of subsidy was questionable, and management problems were evident at all levels. Usually one or two vehicles participated in this program, and in theory, these vehicles were also available to transport conventional, premium-ride fares. In practice, drivers had to be assigned to this service, because most of the drivers did not want to participate in the program. Passengers carried during the demonstration averaged 543 per month at a total cost per month of \$1,320. Total subsidy per month averaged \$944, or \$1.74 per passenger.

## GENERAL-SERVICE PROJECTS

### Schaumburg Dial-A-Ride

This demand-responsive service was designed by village officials in conjunction with the RTA staff. Seven RTA paratransit vehicles now operate in this project. Service is provided by a contract operator, but a local manager hired by the village oversees the operation. The manager also has other transportation-related duties in the village. The vehicles operate in Schaumburg and part of an adjoining village (a 28-square-mile service area) in a dial-a-bus mode, with fixed time points at the largest shopping center in the region. Here, the dial-a-bus service intersects with conventional bus routes that also serve the shopping center. At the conclusion of the demonstration, the RTA standard paratransit fare was \$1.00 for adults and \$.50 for children and E/H; and transfers to (10¢) and from (20¢) RTA fixed-route, fixed-schedule service are also available. The transfer rate between the demand-responsive and fixed-route service was about 10 percent. Initially, numerous conflicts arose between the village and the RTA regarding level of service, cost, and payment. These conflicts have been minimized, but still continue. The village is a strong supporter of this service, and is involved to a considerable extent in financial and management issues. The RTA program provides funding for weekday service from 9:00 a.m. to 5:30 p.m. Evening and Saturday service is also

provided, but is independently funded by the village. Passengers carried in the RTA-supported program averaged 2,866 per month, while vehicle-hours averaged 693 per month. Total cost per passenger approximated \$6.03 per month, with a total subsidy of \$15,534 per month, or \$5.42 per passenger.

#### Deerfield Dial-A-Bus

The Village of Deerfield, with assistance from the contract operator, the North Suburban Mass Transit District (NORTRAN), and the RTA, was involved in the implementation of this service. The service area is slightly more than five square miles, primarily single-family homes, high-income, and completely developed. The contract operator, in contrast to some of the other projects, has very sophisticated bus management and labor practices, and concomitant wage rates. The 13(c) Labor Protection Agreement required that this project (as well as the Joliet project) be operated by carriers with union labor. Three RTA paratransit vehicles provided dial-a-bus service five days a week between 9:00 a.m. and 4:30 p.m. During the peak periods, the drivers operated feeder service to the commuter rail station on a conventional fixed-route, fixed-schedule basis. Because of constrained funding, the conventional service was not part of this demonstration. The dial-a-bus service was cut into four different NORTRAN runs to provide a full working day for the union drivers. The transit district and the village shared the record-keeping function, but the village hired a full-time dispatcher, who operated out of the village's public works department. Issues related to union work rules and procedures created some concerns, especially at the start of operations, but these were not major obstacles during the course of the demonstration.

The village and the RTA carried on this project for nearly eight months after UMTA funding ended. However, because of the cost, the village in September 1981 replaced the general-public, dial-a-ride service operated



by NORTRAN with an E/H shared-ride taxi service. Passengers carried during the demonstration averaged 1,561 per month, and vehicle-hours totalled 317 per month. Total cost per passenger approximated \$4.85, with a total average monthly subsidy of \$6,820, or \$4.37 per passenger.

#### Libertyville, Mundelein, Vernon Hills Shared-Ride Taxi

The village managers, representing their respective municipalities, which have a combined service area of nearly 17 square miles, jointly submitted an application to institute a shared-ride taxi program that would serve the general public in the three communities. They originally intended to contract with a local taxi company to operate this service. At the time of the draft of this report, service had not been initiated. Recently, that situation changed; service was initiated in July 1981, and will likely conclude, using UMTA funding, in June 1982.

A number of problems have arisen in this project, but the most difficult recent one was the desire of the three villages to have the RTA directly contract with the contract operator. In all the other projects, the local municipality, or its agent, contracts with the provider. The RTA saw this as a significant alteration of the local brokerage role, was concerned about the precedent it might set, and consequently resisted this approach for some time. Eventually, however, the RTA did agree to this procedure, under which the last UMTA-funded demonstration project has been implemented.

#### RTA'S BROKERAGE APPROACH

These six UMTA projects were the first authorized under the RTA's Service Development/Demonstration Grant Program. Concurrently, the RTA was reviewing applications from other communities in the region, which subsequently initiated service without UMTA funding. At present, 24 projects are operating under the RTA's decentralized brokerage program, including the six UMTA demonstration projects. Applications have been received from an additional 48 communities for paratransit service.

The RTA concept of brokerage, as observed in this program, is to act as a technical facilitator, to coordinate and provide partial funding, and to encourage the implementation of paratransit services in selected suburban communities. Local communities, however, determine their own transit needs and develop a system to best respond to those needs. The local program sponsors establish operating policies, provide local share funding, contract with operators, and may perform some day-to-day operations, such as dispatching, maintenance, and record-keeping.

Distinguishing features of RTA's paratransit program include a competitive application process that must be endorsed by a local general-purpose government, a primary role for local agencies in designing and operating paratransit, a local funding requirement, and the assignment of an RTA project manager as a technical facilitator to deal with all aspects of the projects.

The UMTA objectives for this demonstration relate to decentralized planning and operations of paratransit service, and include:

- . Testing the workability of the RTA brokerage concept in low-density suburban areas.
- . Review of the cost-effectiveness of providing a variety of paratransit services under the decentralized brokerage arrangement.
- . Determination of the applicability of the RTA brokerage concept to other metropolitan transportation authorities.

Key issues involve institutional and administrative practices under which the brokerage concept is operated, and their impacts. In particular, six institutional aspects of the RTA Brokerage Demonstration were considered: project application, project selection, legal and regulatory requirements, financial controls and accountability, administrative

responsibilities, and change in local attitudes because of the RTA program. Transferability of this project to other RTA-served communities and to other regions is another key issue.

In 1976, the RTA created the Service Development/Demonstration Grant Program to initiate paratransit service on a demonstration basis in this region. Under this program, the RTA would fund up to 75 percent of the net project cost, but not more than \$1.50 per one-way passenger trip. Maximum noncapital expenses were limited to \$100,000 per project per year. In June 1980, new guidelines were created to reflect increasing cost, but also to distinguish between projects serving the general public and those serving the elderly and handicapped. Under the new guidelines, the RTA increased the maximum noncapital cost to \$200,000 per project. For most projects, the RTA will fund up to 75 percent, or a maximum of \$2.50 per trip; for the higher-cost projects, which serve the mobility-limited, the RTA will provide 60 percent, or a maximum of \$4.00 per trip.

To a considerable extent, both the actual and implied objectives of this demonstration have been met. The actual objectives include:

- . Expand paratransit services in the region under the umbrella of the RTA. The RTA has 24 projects in the operating stages, and is currently evaluating an additional 48 applications. Existing paratransit project coverage represents 1,431 square miles, or 39 percent of the RTA service area.
  
- . Gain experience in the delivery of E/H services and develop complementary policies. A committee of the RTA board has been created to deal with the paratransit program; a small, but apparently efficient Paratransit Department has been created that has gained considerable experience; lead time for processing paratransit applications has been reduced from 30 months to, in a number of recent cases, five months.

- . Increase transportation services for the E/H. Ten of RTA's 24 operating projects are E/H, and another 27 are in the programming and planning stages.

Implied objectives that have been met include:

- . Efficiency in paratransit services through the competitive application process. The competitive application process limits the number of requests for paratransit services and allows the RTA to select the most promising ones.
- . Establish more service in the suburbs and build suburban support for the RTA. Large suburban areas that previously had little or no service have at least some service; also many suburban officials involved in this program, and especially the families of E/H riders, enthusiastically support the program.
- . Get more suburban "bang" from the RTA staff "buck." Under the decentralized approach, the RTA can engage in a number of projects without an extensive staff commitment and without getting entangled in a host of day-to-day problems. Most of the paratransit projects have been produced with the assistance of five professional RTA staff members.

A principal advantage was afforded by the decentralized brokerage concept, which put much of the burden of developing and administering paratransit services on local officials, allowing the RTA maximum impact from its resources. New services were created. In some cases, existing services were coordinated and expanded; both local and RTA staff have gained considerable experience; capable paratransit project managers have developed at both the local and regional levels, whereas there were few, if any, before this project was initiated. Additionally, there has been a positive reaction on the part of local officials toward the RTA

service and staff; most local objectives have been met; new non-RTA sources of funding have been allocated to paratransit services; union issues have not overly complicated the project; and importantly, a methodology has been developed that provides a level of paratransit service (apparently at least as cost-effectively as in many other areas in the U.S.) in a very complex urban region reflecting a wide variety of institutional constraints.

## KEY FINDINGS

The following discussion indicates areas where the experience gained through the UMTA demonstration has shown either that improvements have been made, or that they are still needed.

### Organization

The two-tiered relationship between the RTA and local municipalities and/or their service providers, for the most part, operated effectively. Most activities have been complementary rather than redundant. At times, the bureaucracy (i.e., independent contacts by RTA departments other than the Paratransit Department) was a source of confusion to local project officials. This can be minimized by reducing the number of RTA departmental representatives who are in independent contact with local officials.

### Project Management

In a number of projects, it was intended that local governments would administer the projects on an "as-needed" or shared-staff basis. For the most part, this approach has not worked. The demonstration has shown that a capable project manager must be designated and dedicated to directing the project. However, the project manager need not be a full-time staff person. The project manager must be able to resolve

conflicts with local and regional agencies. Skills should include communication, program management, and some familiarity with dispatching, bookkeeping, and vehicle maintenance.

### Contractual Relationships

There were a variety of agreements between the RTA and local sponsors; e.g., Initial Grant Agreement, Small Vehicle Lease Agreement (where applicable) and Insurance Agreement (which was part of the Vehicle Lease Agreement). From the author's perspective, these agreements are unnecessarily complex, given the limited scope of these small paratransit operations. Local Interagency Agreements, on the other hand, are as simple as RTA contracts are complex. In some cases, this was a problem because these agreements did not clearly designate local project responsibilities.

### Lead Time and Project Constituency

Extensive lead time (the first projects took almost 30 months to get underway) to establish the overall program and to initiate the projects has been the rule rather than the exception. Those projects with a built-in clientele (i.e., the elderly and handicapped) were easier to initiate than those designed to serve the general population. The UMTA application process, in part, extended the lead time and resulted in changes in the scope of some of the projects. Lead time in some of the most recent projects has been cut to five months.

### Budgeting and Financing

Accurate estimation of cost and revenue is critical to a successful project. All the initial projects had budgeting and forecasting problems (underestimating cost and overestimating ridership). When these were combined with inflationary pressures, they had a very serious

impact on each budget. This problem has been nearly eliminated because of the experience the RTA paratransit staff has gained in estimating ridership and budgeting. A related financial issue involved developing an expertise in a variety of third-party funding programs available from governmental and social service agencies to supplement local and RTA subsidies.

Another issue here is cash flow, which plagued a number of the projects. The lesson here is that cash-flow programming should be carefully planned before implementing the project.

### Equipment and Maintenance

The RTA's decision to provide equipment for appropriate local paratransit projects was one of the major problems of this demonstration. Early in the deliberations, RTA paratransit staff wanted the flexibility of providing vehicles of a variety of types and sizes to serve specific local needs. This, however, was not acceptable to a number of other RTA departments, most of which were oriented to conventional fixed-route, fixed-scheduled service. These departments preferred to deal with proven vehicles that were standardized and could be obtained in quantity. Because RTA staff did not believe any of the "off-the-shelf" equipment would meet their needs, they developed their own vehicle specifications for a 21-foot, lift-equipped, school bus-type, gasoline-fueled vehicle on a truck chassis. This process of vehicle deliberations started in mid-1976, but vehicles did not arrive for the first of the UMTA-funded projects until April 1980. After the vehicles arrived, a series of malfunctions became evident (something that should be kept in mind in the design of any new vehicle). This issue is only now beginning to settle. A key lesson here is that if equipment is to be purchased, it should be available immediately and have a good operating history. Once the RTA prescribed a vehicle, it committed itself to a number of time-consuming monitoring and maintenance functions which, in

some of the projects, severely strained the relationships between local officials and the RTA. A key RTA staff member recommends that when initiating a paratransit program, contractors should be found with vehicles, and/or leased or purchased "off-the-shelf" equipment should be secured immediately.

### Operations

Start-up problems were encountered in almost every instance. Strong local managers, and testing of operations for a week or so prior to revenue service, minimized these problems. Meeting the appropriate dispatching needs also took some time to normalize. Finding individuals with dispatching experience, such as taxi, police or fire dispatchers, and knowing the operating area, is very helpful. Training of dispatchers, which the RTA could now undertake, would also minimize start-up problems. Priority dispatching for agency clients must be used carefully, because it can preclude the effective integration of trips within a service area. Vehicle maintenance was also a problem in projects where transit districts were maintaining both conventional and paratransit vehicles; some of these concerns regarded sharing of personnel and costs between conventional and paratransit vehicles.

### Labor

To a great extent, issues involving organized labor were not nearly as troublesome as anticipated, especially considering that the Chicago region is traditionally pro-labor. The most difficult problem was the time delay, and subsequent impact on paratransit budgets, caused by the negotiation of the 13(c) Labor Protection Agreement that the federal demonstration funds required. Two of the six UMTA-funded projects were operated by carriers with union employees. One project was operated by a separate local created with a lower wage rate than that of drivers operating conventional service. The other was operated by the same union, and the paratransit service was cut into their regular runs.



## Insurance

When the demonstration was started (March 1978), the RTA required each project to provide its own insurance, generally an amount not less than \$3,000,000 combined single-limit personal injury and property damage coverage. For most providers, this requirement was greater than their own coverage. Partly in response to this concern, the RTA created its own self-insured risk management program. The insurance provision was incorporated into the RTA's Small Vehicle Lease Agreement. For contract providers that do not lease RTA vehicles, private vendor insurance must be provided.

## Reporting and Monitoring

Reporting, bookkeeping, and accounting issues have been prevalent throughout the project, but seem to have been brought under control within the last year. RTA paratransit staff initially believed that responses to their data requests could be completed by local managers in about two hours every month; however, in practice it took four to eight hours per week to complete the forms. These data requirements, to a considerable extent, stemmed from UMTA's Section 15 Uniform Reporting Requirements. Consequently, the RTA simply passed on this requirement to local officials. The learning issue here is that reporting should be made as simple as possible. Forms should require the minimum amount of information to monitor and control the project. Single-purpose data forms should be compiled at the RTA, and not at the local level. Also, there should be a single point of contact between the RTA and local officials, to whom it sometimes appeared that the various RTA departments, each seeking data, were on conflicting courses with one another.

### Cost-Effectiveness

An important issue concerning paratransit is overall cost-effectiveness. Although the major thrust of this demonstration is the analysis of institutional issues, concerns regarding cost became increasingly important as fiscal austerity at all levels of government intensified. In a state audit of RTA services for a 15-month period ending September 30, 1980, conventional suburban service resulted in a median RTA subsidy per passenger of \$0.76. As would be expected, the per-unit paratransit cost is considerably higher than for conventional service, which has a median RTA subsidy of \$1.53. For the five demonstration projects, however, costs were considerably higher, at a net cost per passenger of \$4.50.

In addition to the per-unit cost issues, there are equity concerns regarding cost of services in the suburbs versus RTA tax revenues generated. Many suburban residents feel that tax revenues generated in the suburbs outweigh the services received. Consequently, while the cost per unit of paratransit service is greater than that for conventional service, the overall cost of the paratransit program (\$1.3 million) is small compared to the cost (\$36.7 million) of conventional suburban bus. If not for the paratransit program, many suburban areas would probably have no public transportation.

### Changes In Suburban Attitude Toward the RTA

In many of the project areas, at the start of the demonstration, there was considerable suspicion and outright animosity by local officials toward the RTA. This exists, in part, because of the central city/suburban conflict related to taxes generated and services received, but also because of paratransit project delays, increasing cost, and changing regulations by the RTA. As the projects began service, a more positive working relationship and respect developed between local

officials and the RTA Paratransit staff. By the end of the first year of services, this relationship was considerably strengthened, and in most instances, a local-regional partnership now exists. In some instances where implementing local officials have been positively influenced toward the RTA, the passengers have not been; that is, the passengers identify with the operator, rather than with the RTA. In part, this is due to very low-key marketing of these services.

### Transferability

Here, two issues are involved--transferability to other RTA-served communities and transferability to other regions. There is no question that the decentralized brokerage concept is readily adaptable to other, comparably developed communities in the RTA six-county area.

The concept has proven very popular and workable, as evidenced by the 24 operating projects and 48 additional projects for which applications have been submitted by local governments in the region. This two-tiered approach also seems to be applicable to other regions, especially multi-county regions with noncontiguous, low-density settlements. On a cost basis, the unit cost of paratransit are high (compared with fixed-route, fixed-scheduled service in moderately dense areas, of 7,000 to 10,000 people per square mile). However, on a total-per-project basis, the subsidy costs appear moderate at a little less than \$40,000 per project, per year. This is an average cost for the 17 projects in the state's audit. Factors unique to the RTA that may limit this approach in other regions are the facts that the RTA has created its own self-insured risk management program, which it passes on to local communities, and that RTA enabling legislation establishes the RTA (and not the Illinois Commerce Commission) as the regulatory body for all services for which it provides funding.

## Summary

The RTA's decentralized paratransit brokerage approach builds in local involvement and local funding, yet establishes a regional program in which the central agency is not directly responsible for the matching of consumers and providers. The decentralized approach encourages this activity and provides a feasible means to stretch funding for paratransit service within an organized regional program, but leaves considerable planning, implementation, and administration at the local level. The decentralized approach has also proved popular at the local level, and appears to be an appropriate way of providing at least minimal service in low-density areas. Although some norms have been established through the demonstration program, each project must be evaluated on its own merits, because of the vast differences among projects in such factors as funding, time, and available equipment.

While this program has the potential to provide and manage paratransit service that involves both public and private providers, its application could be considerably streamlined. Resolving the vehicle issues, simplifying contracts, developing training materials and programs, and generally, simplifying the requirements that the RTA imposes on the local municipalities would enhance the decentralization of the program by giving the local officials as much latitude as possible. On the other hand, certain functions could be best centralized by the RTA, such as vehicle assistance--not necessarily requiring use of a standard RTA vehicle, but providing information on vehicles that have good operating experience to meet local needs.

Furthermore, RTA training materials and staff expertise could be provided in dispatching, record-keeping and reporting, vehicle maintenance, driver training for handling the more severely handicapped, and sponsoring information exchange seminars for local project managers. These activities would all strengthen the effectiveness and efficiency of the program.

## 1. INTRODUCTION

### 1.1 OVERVIEW - RTA PARATRANSIT BROKERAGE CONCEPT

The Northeastern Illinois Regional Transportation Authority (RTA) is an umbrella transportation agency that plans, coordinates, and funds nearly all conventional surface transportation in the metropolitan Chicago six-county region. In March 1978, the RTA was awarded an Urban Mass Transportation Administration (UMTA) demonstration grant to test the workability of a decentralized paratransit brokerage program.

This RTA program was designed to encourage municipalities to plan, operate, partially fund, implement, and manage a variety of nonconventional transit services in areas or for specific markets (i.e., elderly/handicapped) that could not support fixed-route, fixed-schedule service. The RTA would act as a broker in generating these new services by coordinating, funding, providing technical staff assistance, and monitoring results.

The brokerage arrangement that the RTA is employing differs from the more traditional, centralized approach of transportation brokerage (to the extent that a traditional brokerage arrangement exists). With the centralized approach, a transportation broker identifies and matches individual traveler needs with a range of existing and/or new urban transit services to provide a more efficient and effective transportation system. In addition, the broker often acts as an advocate for

shared-ride modes, and in this capacity, may work for whatever institutional or regulatory changes are required to facilitate the expansion of their use.<sup>1</sup> The RTA, however, does not directly match consumers and providers; rather, local municipalities determine their own transit needs and develop a system to best respond to those needs.

As a part of this demonstration, six local governments were selected by the RTA to receive grants to operate specialized paratransit service employing small buses and taxis. Three of these demonstration projects served the elderly and handicapped market, and three were intended to serve the general population. Three projects operated under the UMTA-funded demonstration for a two-year period, two projects for one year, and a final project commenced in July 1981. While UMTA demonstration funding has ended for all but one project, the five initial projects have continued in operation under the aegis of the RTA's Paratransit Department. Three of the projects have subsequently received increased levels of RTA, local, and social service agency funds.

The original (1978) demonstration funding level was \$688,000, with \$550,000 provided by UMTA, \$78,000 by the RTA, and \$60,000 by the local municipal sponsors. In September 1980, UMTA approved an amendment for an additional \$175,000 for the remaining project, and for funding adjustments for the other projects.

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<sup>1</sup>Juster, R.D., et al., The Knoxville Tennessee Transportation Brokerage Demonstration: An Evaluation, Final Report No. UMTA-TN-06-0006-80-1, Multisystems Inc., prepared for UMTA, Washington, D.C., August 1979.

## 1.2 PROJECT SETTING

The Regional Transportation Authority service area includes Chicago, suburban Cook County, and five counties surrounding Cook County (Lake, McHenry, DuPage, Kane and Will Counties.) The RTA's area of jurisdiction covers about 3,100 square miles, an area larger than the combined size of the states of Delaware and Rhode Island. There are more than 7 million persons living in nearly 260 municipalities. Population density ranges from 55,000 per square mile near Lake Michigan on the north side of Chicago, to large outlying areas with little or no development, as in Will and Kane Counties. Typical suburban population densities in developed areas approximate 1,500 to 3,000 or more persons per square mile, but the range is considerable, depending on the municipality.

The RTA is charged with the responsibility of funding, coordinating, and improving public transportation services in the region. The RTA coordinates and funds the Chicago Transit Authority, seven commuter railroads, and about 20 suburban bus operations through purchase-of-service and grant agreements. At the time the paratransit demonstration project was initiated, the RTA funded only conventional (fixed-route, fixed-scheduled) services.

The demographics of the individual demonstration projects are presented in Table 1-1, and a map of the region and approximate location of each project are shown in Figure 1-1.

With two exceptions, the projects are in relatively low-density outlying suburban areas. The Joliet/Will County project initially focused on the City of Joliet (although it also served some outlying social service activity centers). Joliet is a heterogeneous satellite city 35 miles southwest of Chicago. It is a mature, well-developed community with a cross section of middle- to low-income ethnic groups. The extended

TABLE 1-1  
DEMOGRAPHIC AND TRANSIT SERVICE FEATURES

DEMOGRAPHIC FEATURES

ITEM	PROVISO TOWNSHIP	JOLIET	MILTON TOWNSHIP	SCHAUMBURG	DEERFIELD	MUNDELEIN LIBERTYVILLE VERNON HILLS
TYPE OF SERVICE	Dial-A-Ride	Dial-A-Ride	Shared Ride Taxi	Dial-A-Ride (Base)	Feeder Bus (Rush) Dial-A-Ride (Base)	Shared Ride Taxi
SERVICE AREA DEMOGRAPHICS						
Area (Sq. mi.)	29 sq. mi.	845 sq. mi.	31.5 sq. mi.	28 sq. mi.	5.3 sq. mi.	16.5 sq. mi.
Population	170,191	293,000	61,588	43,580	19,179	36,200
Population Density	5,868/sq. mi.	346/sq. mi.	1,955/sq. mi.	1,556/sq. mi.	3,618/sq. mi.	2,234/sq. mi.
Eligible Users	E & H	E & H	E & H	General Public	General Public	General Public
Eligible Population	14,636	33,540	3,818 + H	Not Applicable	Not Applicable	Not Applicable

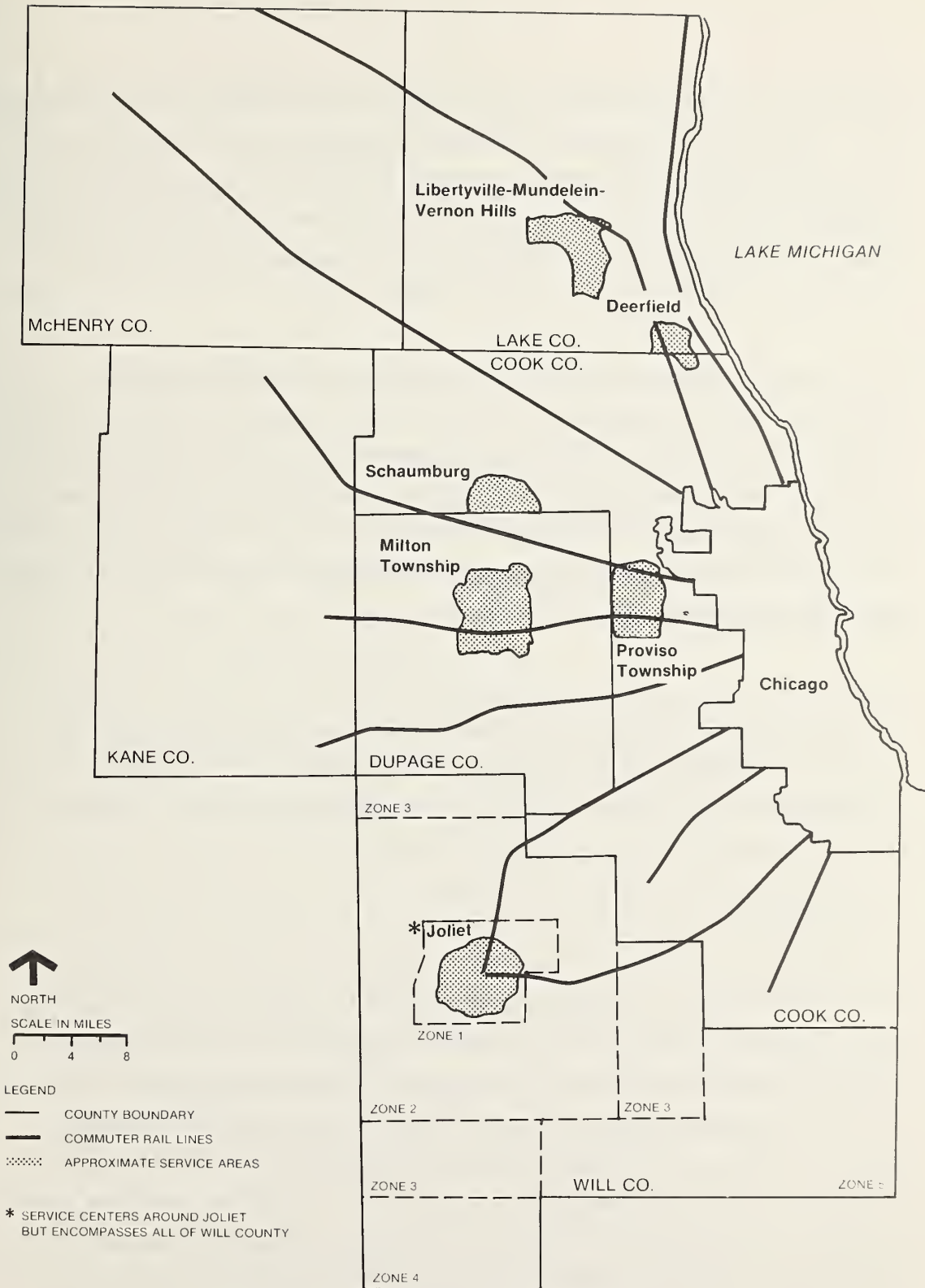
TRANSIT SERVICE FEATURES

ITEM	PROVISO TOWNSHIP	JOLIET	MILTON TOWNSHIP	SCHAUMBURG	DEERFIELD	MUNDELEIN LIBERTYVILLE VERNON HILLS
Existing Service	<ul style="list-style-type: none"> <li>- West Towns &amp; CTA Bus</li> <li>- 2 Commuter RR</li> <li>- Maywood DAB (GP)</li> <li>- Melrose Park Mini-Bus</li> <li>- Council on Aging E/H DAB</li> <li>- Taxi Service</li> </ul>	<ul style="list-style-type: none"> <li>- 3 Agency E/H</li> <li>- 2 Commuter RR</li> <li>- JMTD Routes</li> <li>- Taxi Service</li> </ul>	<ul style="list-style-type: none"> <li>- Commuter RR</li> <li>- Commuter Shuttle Bus</li> <li>- West Towns</li> <li>- Subsidized Taxi for Elderly</li> </ul>	<ul style="list-style-type: none"> <li>- Commuter RR</li> <li>- Schaumburg Twns. Elderly DAB</li> <li>- Northwestern Transit</li> <li>- Taxi</li> </ul>	<ul style="list-style-type: none"> <li>- 2 Regional Bus Routes</li> <li>- Commuter RR</li> <li>- 2 Community Bus Routes</li> <li>- Taxi Service</li> </ul>	<ul style="list-style-type: none"> <li>- Commuter RR</li> <li>- Commuter Shuttle Bus</li> <li>- Taxi</li> </ul>

SOURCE: PROJECT APPLICATIONS

NOTE: THE MUNDELEIN, LIBERTYVILLE, VERNON HILLS PROJECT HAS AN ANTICIPATED START DATE OF JULY 1, 1981.





**FIGURE 1-1**  
**RTA PARATRANSIT PROGRAM**  
**PARATRANSIT DEMONSTRATION AREAS**

service area includes all of Will County, a low-density, primarily rural area. The other exception is Proviso Township; while a suburban location, it is totally developed. Residents are primarily moderate-income, and many families are in blue-collar categories. The other project areas are in locations characterized by large-lot, single-family development and moderate- to high-income groups.

Public transportation service existing at the time the Federal demonstration application was prepared in each of the project areas is listed in Table 1-1. All areas are served by at least one commuter railroad. Nearby regional bus service is available in the Milton, Proviso, Deerfield, and Schaumburg project areas. In most cases, this service is only skeletal, involving considerable walking distance and operating infrequently.

Joliet has a conventional bus system, with basic 30-minute headways, serving the city. Milton, Deerfield and Schaumburg have some peak-period feeder services to commuter rail stations. A few elderly and handicapped (E/H) special services were also operating in the three E/H project areas.

### 1.3 HISTORY

The Illinois General Assembly passed the RTA enabling legislation in 1974. At that time, there was minimal suburban area transit service, but even that was in danger of collapse. It was a precarious majority in the six-county region that voted for the creation of a regional authority empowered to rescue and reinvigorate public transportation. In March 1974, the referendum on the RTA Act passed by the thin margin of fewer than 16,000 votes out of 1,359,000 votes cast, and carried only in Chicago. The most urgent task of the new RTA was to stabilize existing rail and bus services, but the unenthusiastic vote of the

suburban areas generated an equal concern with finding ways to deliver new services to the smaller municipalities distant from Chicago in low-density areas. In addition, the RTA was further concerned with meeting its legislated mandate to consider the special transportation problems of the handicapped, the economically disadvantaged, and the elderly.

In early 1975, the RTA was in the throes of developing as an agency with a mandate to provide public transportation throughout the six-county region. Heavy pressure was placed on the establishment of conventional service in the suburban areas, which generate a substantial amount of RTA operating subsidies. This pressure eventually led to concern that a program be developed to experiment with specialized and innovative services. At least three factors acted as catalysts to establish the RTA paratransit brokerage program:

1. RTA Board members, especially those from suburban areas, were looking for innovative ways to provide transportation in low-density suburban areas where fixed-route services were highly inefficient, and 40-foot buses were unwelcome. They were concerned about responding to service requests and matching the non-fare revenues (a five-percent gas tax and a portion of the sales tax) generated in these areas with some form of service. This was a concern because most of the transit service was provided in Chicago, but it was estimated that only 37 percent of the gas tax was derived from Chicago residents and 63 percent from the suburbs (38 percent from those living in suburban Cook County and 25 percent from the five surrounding counties).

2. Local agencies requested paratransit funding. The Proviso Council on Aging, a social service agency located in Proviso Township, was one of the first agencies that met with the RTA Board and staff members about funding their financially pressed dial-a-bus service for the elderly. The first request was made about one year after the RTA was created, but the RTA had not yet formulated a program to deal with nonconventional service. Later, social service agencies from Joliet also approached RTA officials regarding funding of a coordinated dial-a-bus service program that they wished to initiate. Both of these services were to become part of the UMTA-funded demonstration program.
  
3. The Federal Government. In 1975, UMTA required federally funded transit agencies to plan for and provide special transportation services for the elderly and handicapped.

In response to these pressures, RTA operations planning staff formulated the Service Development/Demonstration Grant Program in the fall of 1975. This program would broker innovative paratransit services, thereby responding to the RTA's need to place additional service in the suburbs and to develop experience with elderly-and-handicapped services. Since the RTA was a planning, funding, and coordinating agency (not operating services directly), it was ideally suited to play a brokerage role. It had an independent board which was at arm's length from the carriers and which could represent regional consumer interests. In addition, the enabling legislation gave the RTA the power to fund, regulate, contract with, or operate a broad range of transit services, enough to include most potential paratransit modes.<sup>2</sup>

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<sup>2</sup>Fitschen, Dale, manager, RTA Paratransit Planning; The RTA Brokerage Program: Problems in Developing a Paratransit Industry, paper presented to 7th National Conference on Transportation for Elderly and Handicapped, Florida State University, December 1979.

The program was intended to allow maximum flexibility for testing new methods of providing innovative services. The services to be created were expected to be small, personalized services tailored by local communities to meet local needs. The RTA, as a regional authority, could not provide the close day-to-day supervision such services required. The RTA therefore designed its program to ensure local government sponsorship and local involvement in management, costs, quality, and type of service, as well as maximum utilization and coordination of existing resources.

A 40-page booklet containing funding guidelines and all information required for an application was sent in the spring of 1976 to nearly 260 municipalities in the region. The application indicated that only general-purpose governments were eligible for the program. However, the program permitted municipalities to act as pass-through applicants for social service and other interested agencies. The intent of dealing only through general-purpose governments was to put a limit on the number of applications, assure local accountability, and identify a source of local funding.

The first solicitation generated 18 partially completed applications, which were pared down to 12, and finally to six (with two alternatives), which were submitted to UMTA in March 1977, in an application for demonstration funding. No two paratransit projects were the same. They varied in fare structure, mode, geographic coverage, clientele, and contractual and organizational agreements. In the final selection, emphasis was placed on the "most interesting projects" and avoidance of those projects that had weak local interest.

When the application was submitted to UMTA for demonstration funding, the RTA defined its program in terms of the decentralized brokerage concept. The brokerage concept was not discussed in the mailings requesting applications from the local municipalities.

In January 1977, the RTA made its initial contact with labor representatives regarding the required 13(c) Labor Agreement needed to obtain the UMTA grant. The RTA staff tried to obtain a fairly innovative 13(c) Agreement, to include part-time operators and mechanics, overtime work rules favorable to paratransit operations, and a wage differential between paratransit and conventional operators' wage rates. In July 1977, however, a fairly standard 13(c) Agreement was approved by the Amalgamated Transit Union (ATU). The agreement did not incorporate any of the innovative provisions RTA Paratransit staffers had hoped for. The agreement stipulated that two of the projects were to be operated by union operators in service areas where it was anticipated that the local transit districts, with organized labor, would operate the paratransit service. In December 1977, the U.S. Department of Labor (DOL) signed off on the 13(c) Agreement.

It has been reported that these negotiations reflected the influence of labor in the Chicago metropolitan area. The final negotiations were carried on by high-level RTA staff and legal counsel. A considerable amount of time was spent on this issue by the RTA staff and board members, by the local and national ATU representatives, by outside labor counsel, and with representatives from UMTA and U.S. DOL.

UMTA's approval of the Decentralized RTA Paratransit Brokerage Demonstration was received in February 1978, and the first project received UMTA funding in March. Subsequently, two projects started in July 1978. These initial projects were extended from a one-year demonstration to a two-year period.

The other two UMTA-funded projects started in October 1979 and January 1980, respectively. These were operated for one year with UMTA funds. The final project started in July 1981.

All of the UMTA-funded operating projects have been continued under the RTA Service Development/Demonstration Grant program. A number of paratransit projects were initiated by RTA independent of UMTA demonstration funding. The source and amount of local contribution of funds is the only difference in the RTA paratransit program; otherwise, there is almost no distinction between the six UMTA projects and the remaining projects brokered under RTA's program. In January 1981, RTA was involved in 24 operating paratransit projects, and another 48 were in the evaluation stage.

The paratransit services concept was initiated and administered by RTA's Operations Planning Department until June 1979, when a separate Paratransit Department was established, with the new director reporting directly to the general manager of the RTA. This department is now responsible for programming all RTA paratransit services in the region.

Early in the development of the RTA paratransit program, there was opposition by some of the RTA's top management because of bad paratransit experiences they had had while managing transit properties in other areas. For the most part, the internal negative feelings toward the paratransit program have considerably dissipated.

In June 1980, substantial changes were made in increasing the funding limitations for paratransit service. These adjustments were necessary to account for the increased cost of fuel and total operating costs. In addition, separate funding guidelines were created to adjust for the cost differential for services designed for the special mobility-limited markets.

While there are a number of problems with the RTA's paratransit brokerage approach, the program has proven to be a popular one with the suburban municipalities and with the RTA Board members. The present

crisis involves the funding and future of the RTA, including paratransit operations. The RTA's future, to a large extent, is now in the hands of the governor and the legislature. At this stage, the outcome of the political and legislative process and its impact on the RTA (and paratransit services in particular) is unknown.

#### 1.4 PROGRAM AND PROJECT DESCRIPTION

Under the RTA's brokerage program, which is officially titled the "Service Development/Demonstration Grant Program," (SD/DGP), service is intended to reflect local decision-making, as opposed to regional-level decision-making, which may not be sensitive to specific local needs. This demonstration puts the emphasis on the decentralized brokerage arrangement, under which the RTA serves as a funder of service, with local communities (at least, as initially intended) providing most of the staff, planning, and implementation work, as well as contracting with the actual provider(s). The RTA's intent is to provide low-density and specialized transport service by coordinating and directing the efforts of several communities that otherwise would probably be unable to undertake these endeavors.

The primary purpose of the program was to gain experience with the provision of nonconventional, special transit services for both the general public and mobility-limited persons.

The six projects that were selected to illustrate the RTA brokerage concept consist of two major subgroupings: projects that primarily serve elderly and handicapped, and those that are primarily oriented to the general population. An overview of the projects is presented chronologically; the three E/H projects started soon after UMTA approval, but the general-population services took longer to initiate.



#### 1.4.1 Elderly-and-Handicapped Projects

Three UMTA-funded demonstration projects were designed to test the elderly-and-handicapped innovations; Proviso Township Dial-a-Ride, Joliet/Will County Dial-a-Bus, and Milton Township Shared-Ride Taxi.

##### 1.4.1.1 Proviso Township Dial-A-Ride

Two villages, Bellwood and Stone Park, are acting as sponsors for the Proviso Council on Aging (PCA), a social service agency. The latter provides curb-to-curb bus service using a combination of a zone system, schedule checkpoints, and dial-a-bus operation, primarily within Proviso Township. Proviso Council on Aging initially operated this service directly, but later found it to its advantage to contract the pickups and deliveries to a private carrier with PCA continuing to dispatch trips. Two paratransit buses are leased from the RTA to provide the service. The service operates from 9:00 a.m. to 3:30 p.m., Monday through Friday. Day-in-advance registrations are required for the dial-a-ride service. The fare is 35¢ per ride and, in addition, passengers are required to pay an annual \$12.00 registration fee.

This project had been in existence four years prior to RTA/ UMTA funding. Previously, it had been funded under the Older Americans Act.\* In March 1978, it was the first project funded by the RTA Service Development/Demonstration Grant Program, and continued operating under the UMTA grant for two years. Since March 1980, it has been funded by the RTA and one of the local sponsoring municipalities.

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\*Older Americans Act of 1965 and Comprehensive Older Americans Act of 1978; Public Law 89-73, Title III, subsection 301 as added; Public Law 95-478, Title I, subsection 103b, October 8, 1978, 82 Stat 1513-1551.

#### 1.4.1.2 Joliet/Will County Dial-A-Bus

This service, identified as Handicapped and Elderly Personal Transit (HEPT), is a not-for-profit division of the Joliet Mass Transit District. The latter provides conventional, fixed-route, fixed-schedule service operated by union employees. The HEPT service was created by three social service agencies (who combined their efforts, some funding, and some vehicles) and the local transit district. The City of Joliet acted as the "pass-through" applicant for the countywide dial-a-bus operation that utilizes five zones for scheduling and fare system. The original six-bus operation has been expanded to 11 vehicles, five of which are now leased from the RTA. Service is provided from 7:00 a.m. to 7:00 p.m. Monday through Friday and on Sunday. This service transports more physically and mentally handicapped than any of the other demonstration projects. Service requests are required 24 hours in advance, unless the passenger is a regular agency client, in which case that person usually rides on a subscription basis. The basic fare is \$1.00, plus 25¢ to 50¢ per multiple zone, but some clients pay on a subscription basis through their respective social service agencies.

The project started in July 1978, and UMTA funding ended in August 1980. A slightly expanded project is continuing with increased levels of RTA, social service, and local municipal agency funding.

#### 1.4.1.3 Milton Township Shared-Ride Taxi Demonstration

This shared-ride taxi service developed when the villages of Glen Ellyn and Glendale Heights coordinated their services to provide the demonstration paratransit project. A trustee of the Village of Glen Ellyn was the catalyst who put these services together under the auspices of Milton Township in conjunction with a social service agency, Milton Township Senior Citizen VIP group. Curb-to-curb taxi service was intended to be provided to most areas within the township with a one-hour minimum advance reservation. It did not include the largest city

in the township, because that city wished to develop its own service and not become involved in the RTA program. The Milton service utilized two different cab companies. To use the service, eligible (E/H) patrons were required to present a prepurchased ticket. Tickets were available at 50¢ each, or as a book of 10 for \$5.00. Between one to six (but usually only one or two) vehicles participated in this program; in theory, these vehicles were also available to transport the conventional premium ride fares between the subsidized trips. The UMTA project started in July 1978, and ended in May 1980, after the second of three taxi companies ceased operations.

While there were spurts of activity, the taxi project was never successful. A substitute project operated by a bus company (using a station wagon and a van) started a replacement service in February 1981. The latter project is funded by the RTA and pro-rata local share funding, comparable in principle, but at higher amounts, to the UMTA Demonstration Grant.

#### 1.4.2 General Service Projects

These three UMTA-funded demonstration projects (i.e., Schaumburg Dial-a-Ride, Deerfield Dial-a-Bus and Libertyville Shared-Ride Taxi) were designed to test service primarily oriented to the general service needs of three suburban areas.

##### 1.4.2.1 Schaumburg Dial-A-Ride Service

This project was initially intended to provide a comprehensive range of services involving a peak-period subscription bus to the commuter rail station and a 12-hour-per-day, demand-activated service using taxis and vans. As part of the project, a full-time professional project manager was hired in September 1978 by the village to develop this service.

Because of a budget crunch, the subscription and taxi services were dropped from the project; however, the peak period feeder service was assumed by the RTA under its conventional bus operations program.

The local project manager eventually developed a seven-vehicle contract dial-a-bus operation with a local bus company. Originally, buses were leased from the operator, but currently all vehicles are leased RTA paratransit buses. The vehicles operate in Schaumburg and part of an adjoining village in a dial-a-bus mode with fixed time points\* at the largest suburban shopping center in the region. The RTA program provides funding for weekday service from 9:00 a.m. to 5:30 p.m. Evening and Saturday service is also provided, but is independently funded by the village. Fares were initially 80¢ for adults and 40¢ for students, elderly and handicapped; transfers to and from the regional bus system were also available. The adult basic fare has since been increased to \$1.00, and 50¢ for students, the elderly, and the handicapped.

Bus operations commenced in October 1979, and UMTA funding ended in September 1980. The RTA and the Village of Schaumburg are continuing to provide this contract service.

#### 1.4.2.2 Deerfield Dial-A-Bus

The Deerfield demonstration was originally envisioned as a combined fixed-route/demand-responsive service that would operate in a feeder mode in the peak period, and dial-a-bus (with a few scheduled checkpoints) in the off-peak. Because of a lack of financial resources, the feeder service was dropped from the UMTA-funded demonstration, but was assumed by the RTA under its conventional funding arrangement. The dial-a-bus demonstration was provided by two buses from 9:00 a.m. to 4:30 p.m. Tuesday through Saturday.

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\*Paratransit checkpoints.

Three small paratransit vehicles, including one spare, were leased from the RTA. Adult fare was 80¢ and children, the elderly, and the handicapped pay 40¢ (this has recently been increased to \$1.00/50¢). The Village of Deerfield contracted with the North Suburban Mass Transit District (NORTRAN) to operate the service. NORTRAN serves 20 municipalities in the region, including Deerfield, and is perhaps the best run and managed suburban carrier in the RTA region. The transit district has fairly sophisticated management and labor practices and, consequently, costs are comparable to those of the Chicago Transit Authority (CTA)--the major carrier in the region. Union issues, including work rules, have been a major factor in this demonstration. NORTRAN and Deerfield share the record-keeping function; Deerfield does the dispatching and did some fueling of the buses. Deadheading cost, except those for Saturday service from NORTRAN's garage 13 miles southwest of Deerfield, are assigned to the RTA feeder operation.

The UMTA-funded demonstration commenced January 29, 1980, and ended in mid-January 1981. The village and RTA are now continuing to fund the service, although there are ongoing deliberations about the future of the project. Because of the cost of the service, in September 1981 Deerfield replaced the general public dial-a-ride service with an elderly-and-handicapped shared-ride taxi service.

#### 1.4.2.3 Libertyville, Mundelein, Vernon Hills Shared-Ride Cab

Three villages--Libertyville, Mundelein, and Vernon Hills--jointly submitted an application to institute a shared-ride taxi program that would serve the general public in the three communities. They intended to contract with a local taxi company to provide this service. The project was not operational at the time the draft of this report was prepared. There have been many problems, but the most onerous one is

that the villages, acting through one of the municipalities (Libertyville), did not want the role as the local contracting entity; instead, they wanted the RTA to contract directly with the taxi operator. While this is a significant alteration of the local brokerage role, eventually the RTA agreed to this position. The delay has also been compounded by the RTA's lack of funds and by concerns about finding an appropriate operator. Recently, an UMTA amendment was approved and a taxi operator was selected.

### 1.5 DEMONSTRATION OBJECTIVES

A variety of objectives are applicable to this decentralized paratransit brokerage demonstration project. UMTA's objectives are primarily institutional in scope and are the primary concern of the evaluation. Other objectives include those of the RTA and the local applicants. RTA objectives involve a mixture of service impacts, cost-effectiveness, and institutional interrelationships; local objectives include increasing the amount of local public transportation service and adapting RTA resources to fit local community needs.

In more detail, the demonstration objectives include:

#### 1.5.1 UMTA Objectives

- . Test the workability of the RTA brokerage arrangement for providing service in low-density suburban areas as a means by which a large regional authority can give local communities a voice in services provided.
- . Review the cost-effectiveness of providing a variety of paratransit services under the decentralized brokerage arrangement.

- . Determine the transferability of the concept to other RTA-served communities and to other metropolitan transportation authorities.

#### 1.5.2 RTA Objectives<sup>3</sup>

- . Test the RTA's brokerage role in coordinating the purchase of service by local agencies from special service providers, and evaluate the cost-effectiveness of these services.
- . Evaluate the application of paratransit services in this region.
- . Encourage communities to design and implement relevant local transportation services utilizing local resources.
- . Determine the nature of RTA staff assistance in the local planning and implementation process.
- . Increase the level of transportation service to mobility-limited persons, especially the elderly and handicapped.

From the author's perspective, there is another implied, but important, RTA objective. This deals with establishing more service in the suburbs to build a suburban support base for the RTA. A controversial issue in many suburban areas has been the relative magnitude of the subsidies provided to the RTA from the suburban areas versus the services received. It is part of the central-city/suburban conflict that affects most urbanized regions in the United States. In Illinois, its greatest manifestation is in the state legislature, where a number of suburban legislators have consistently attempted to pass opt-out provisions to disengage the outer counties from the RTA.

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<sup>3</sup>RTA, Application of the Regional Transportation Authority for a Service and Methods Demonstration Grant, Chicago, Illinois, March 1977.

### 1.5.3 Municipal Objectives<sup>4</sup>

- . Increase the level of public transportation coverage or provide new service where none now exists.
- . Serve the travel needs of the mobility-limited, especially the elderly and handicapped, within the municipality.
- . Utilize the resources provided by the RTA and adapt them to local community needs.

## 1.6 EVALUATION ISSUES AND APPROACH

### 1.6.1 Evaluation Issues

The central theme of this evaluation concerns institutional issues. However, to the extent that supply and demand characteristics (such as quantity and type of service, economics of operation, trip and traveler characteristics) provide a perspective of scale that can be identified by readers outside the RTA region, these data are reported. In many cases, these data indicate the catalyst around which the institutional issues evolved.

This evaluation differs from the traditional quantitative approach to recording the service impacts of demand and supply. The qualitative institutional concerns are addressed through evaluation of the following issue categories:

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<sup>4</sup>Project applications, submitted by Joliet, Milton, Proviso, Deerfield, Libertyville, et al, and Schaumburg, 1976.



1. Project Application and Selection. The RTA has a limited budget, and there are some 260 municipalities in the six-county RTA region. Evaluation of this issue involved documenting and tracking the process of notifying communities, reviewing the selection process, and assessing the impacts for the communities that were chosen, as well as those that submitted applications but were not selected.
2. Financial Controls and Accountability. Here the evaluation involved tracking the flow of funds from the RTA through the municipalities to the service providers.
3. Legal and Regulatory Requirements. A principal concern was the 13(c) Labor Agreement and other labor issues for the two projects that use union labor. Another concern was the legal issue(s) that could surface because of the involvement of so many different agencies.
4. Administrative Responsibility and Effectiveness. At issue was whether the decentralized brokerage process itself was efficient in terms of cost, use of staff resources, smoothness of operations, ease of decision-making and implementation of those decisions. Documentation and tracking involved a number of subissues including:
  - . Initial agreements: Between the RTA, the municipalities, and local service providers.
  - . Division of responsibilities: Under this two-tier situation, who actually does what and how timely is the performance?

- . Information flow and use: How much data and information are required, how is it used, and what impact does the data requirement have on the demonstration?
- . Interagency relationships: How do the multiple agencies relate to one another, especially in the case of disputes between agencies?

Other institutional concerns included tracking local attitudes toward the RTA, relating the impacts of the institutional effects on the service delivered, and determining if the institutional structure affected local objectives.

#### 1.6.2 Evaluation Approach

The approach to this evaluation stressed institutional concerns by reviewing individual projects, making comparisons among projects, and tracking the overall RTA brokerage program. Service impact information reviewed was furnished primarily by the RTA; these data, in turn, were provided by local project officials to the RTA. The institutional evaluation involved documentation of largely qualitative concerns that focused on the allocation of responsibilities and communication flow. Extensive use was made of the principles of management auditing, which involved identifying decision-making responsibility and the flow and utilization of information. This was accomplished by conducting interviews at all levels during the course of the demonstration, by observation, and by tracking decisions and the impacts of those decisions.

## 1.7 ORGANIZATIONAL ROLES IN DEMONSTRATION

General evaluation-related responsibilities of organizations involved in the project were as follows:

UMTA	Made grant to RTA, monitored demonstration progress. Specified evaluation issues of national interest.
RTA	Specified issues of regional interest; provided most data for the evaluation and kept TSC and De Leuw, Cather & Company informed of demonstration activities.
Municipal Sponsors	General-purpose governments made application to the RTA for paratransit funding. They were recipients of funds and were ultimately responsible for implementing, arranging for the operations, providing local funding, and monitoring the service. Additionally, they were responsible for providing the RTA with monthly operating and financial data as required by the RTA. However, most of the municipalities simply passed on these requirements to the transportation entity that implemented the service.

Social Service Agency	In some cases, the municipalities acted as a legal pass-through entity to obtain the grant for a nonprofit social service agency. In these cases, the social service agency performed all the functions the municipality would normally provide; i.e., implementing, arranging for the operations, local funding, and monitoring the service.
Operator(s)	These included public, semi-public, or private entities that provided service, maintenance, and other functions.
TSC	Managed evaluation program; coordinated UMTA/RTA and De Leuw, Cather & Company; specified issues of planning-methodological interest and provided evaluation guidelines; authorized and monitored all De Leuw, Cather work.
De Leuw, Cather & Company	Designed and carried out evaluation and reports to TSC. These included the preparation of the Evaluation Plan, Interim Review, and Final Evaluation report.

## 2. THE ROLE OF BROKERAGE IN PUBLIC TRANSPORTATION

### 2.1 THE BROKERAGE CONCEPT

The concept of "brokerage" as an organizational structure is a relatively new and broadly used term in the transportation industry, but it is familiar to the business community. Insurance brokers, financial brokers, food brokers, and real estate brokers locate a demand, search out a potential supplier, and consummate an agreement for a commodity or service. The role of the broker in public transportation is somewhat comparable, but less definitive than in other industries.

As used in business, the term "brokerage" indicates a service provided by an agent, or intermediary, who matches service or product demand with potential suppliers and arranges agreements for the purchase.

In each market, the broker, for a fee, matches potential consumers of goods and services with producers of the desired commodity. The presumption is that the consumer and/or the producer are willing to pay a fee for the broker's services because there is some market imperfection inhibiting a normal transaction.<sup>5</sup> The reasons for the use of a broker often include:

1. A broker's knowledge of various types of goods or services.
2. Savings to the seeker in terms of both time and money.
3. A broker's contact with the providers.

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<sup>5</sup>Edner, Sheldon, U.S. D.O.T., unpublished paper, "The Future of Transportation Brokerage", November 1980, Washington, D.C.

4. A broker's awareness of the legal responsibilities and obligations of both parties.

A broker normally represents more than one supplier. In this way, the broker can match the needs of the purchaser with the most appropriate service or product.

A broker in the public transportation arena identifies the needs of potential riders and matches them to the most appropriate transportation provider. One element which differentiates the transit broker from insurance, stock, real estate or other business brokers is the provision of funding. The transit broker arranges the funding of programs by securing agreements between federal agencies (most often UMTA), state agencies, regional transportation agencies, local governments, and the service provider. Another distinguishing feature in transit brokerage is that there are varying degrees of sharing responsibilities for providing service at the regional, local, social service, and contract operator level. Frequently, these arrangements are unique to each project.<sup>6</sup>

Normally, the transportation broker does not own and operate the transportation service, and the services procured through a broker are usually not conventional fixed-route/fixed-schedule operations. A broker can serve the general public or groups with special needs, such as the elderly, the handicapped, students, or workers at large, low-density facilities. A variety of paratransit service types may be employed by the broker: feeder bus, subscription bus, dial-a-bus, shared-ride cabs, van pooling, car pooling, and premium-ride cabs.

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<sup>6</sup>Nevel, William C., et al., Interim Review, Northeastern Illinois RTA, Paratransit Brokerage Demonstration Program, De Leuw, Cather & Company, for U.S. Department of Transportation, Transportation Systems Center, Chicago, Illinois, August 1979.

### 2.1.1 Centralized Brokerage Approach

To the extent that a "traditional" approach to transportation brokerage exists, it usually involves some central entity that performs the following functions.<sup>7</sup>

1. Determination of transportation demand:

Identification of travel demands of commuters, employers, social service agencies, and other individuals or groups.

2. Determination of transportation supply:

Identification of potential providers of transportation services, including public-sector institutions (i.e., transit authority) and private-sector institutions (charter bus companies, taxi companies); the range of vehicle types, including those under public-sector ownership (transit buses, city-owned vans) and private-sector ownership (private cars, vans, taxis); and fixed-route and demand-responsive operations.

3. Matching transportation demand and supply:

Coordinating existing transportation facilities to meet expressed travel demands in the most effective, efficient manner.

Probably the most publicized brokerage project that falls within this brokerage classification was initiated in Knoxville, Tennessee, in 1975.

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<sup>7</sup>Juster, R. D., et al., The Knoxville Tennessee Transportation Brokerage Demonstration: An Evaluation, Final Report No. UMTA-TN-06-0006-80-1, Multisystems Inc., prepared for UMTA, Washington, D.C., August 1979.

There, the Tennessee Valley Authority, a major employer in the Knoxville area, provided the Knoxville Transit Authority (KTA) with an in-house coordinator, or broker, who worked with the KTA to bring transportation services to its employees. The Knoxville Commuter Pool (KCP) was then established on the assumption that there was a demand for public transportation if the service could be tailored to meet the needs of commuters, and if coordination between industry and supplier could be established. It was believed that the public interest could best be served through a service that promoted all forms of transportation, both public and private. While there was considerable success in the areas of legislative and regulatory reform, the brokerage program did little to alter modal balance.<sup>8</sup> The Knoxville project had mixed results.

#### 2.1.2 Decentralized Brokerage Approach

The brokerage organization that has been applied in Knoxville and other areas differs greatly from the decentralized approach as applied by the RTA. The RTA's approach decentralizes the identification of transit needs, service design, and selection of service providers. Here, local communities or their transportation agency (i.e., social service agency) act as brokers in designing and/or operating services that meet individual community needs. Furthermore, because those services are theoretically under the community's control, they should be readily adaptable to changing community conditions.

Under this decentralized concept, the role of the Regional Transportation Authority is to channel funding, review plans and policies initiated at the local level, and give technical assistance to local providers. The local government, acting as broker, plans service based on its knowledge of demand, sets operating policy, directly provides or contracts with a service provider who will meet these local needs.

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<sup>8</sup>Ibid.



To the extent that it may be necessary, RTA has the authority and funding leverage to coordinate these brokerage services and, importantly, to coordinate the paratransit brokerage service with adjoining or nearby conventional RTA service.

## 2.2 CONVENTIONAL RTA SERVICE

To clearly understand the RTA brokerage approach, it is necessary to be familiar with the approach the RTA uses in providing conventional service. In many respects, the method of service delivery for the paratransit decentralized brokerage is not unlike the RTA's "arm's length" relationship with conventional service providers throughout the region. The RTA is not now a transit operator\*; rather, it furnishes public transportation through purchase-of-service and grant agreements. However, rather than contracting with a general-purpose government, as in the RTA Brokerage Demonstration, for conventional service, the RTA contracts directly with a provider and almost always funds 100 percent of the deficit for conventional fixed-route, fixed-schedule operations. In developing conventional service, the RTA may work through the municipalities, or the RTA staff may independently select areas that warrant service. The RTA staff then seeks a service provider who, in most cases, is established in the areas in which the service will be implemented.

RTA staff, to the extent that resources are available, monitors the conventional service and provides centralized functions such as preparation of capital grant applications, funding, and fare and schedule coordination. The RTA also provides in-house expertise for such elements as equipment, scheduling, and radio services to the conventional service provider on a request basis (if staff time is available). This service

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\*Because of an increasing financial crisis in mid-1981 the RTA took over the operation of the suburban Rock Island rail line.

may be provided automatically if, during their monitoring process, the RTA discovers problems with the service.

Figure 2-1 contrasts the normal RTA arrangement for providing service with that for Paratransit Brokerage Demonstration service.

### 2.3 RTA'S SERVICE DEVELOPMENT/DEMONSTRATION GRANT PROGRAM

When the RTA was established in the spring of 1974, it initially funded conventional transit only. In response to the growing demand for paratransit services, and because it was the only way any transit services could be provided to certain low-density areas and special groups, the RTA instituted its Service Development/Demonstration program. A "service development" project is considered to be a special-purpose (non-conventional) service such as dial-a-bus, shared-ride taxi, or special elderly-and-handicapped service or subscription bus. A "demonstration" project is focused on development of new methods, perhaps in management or technology, and incorporates some innovative elements.

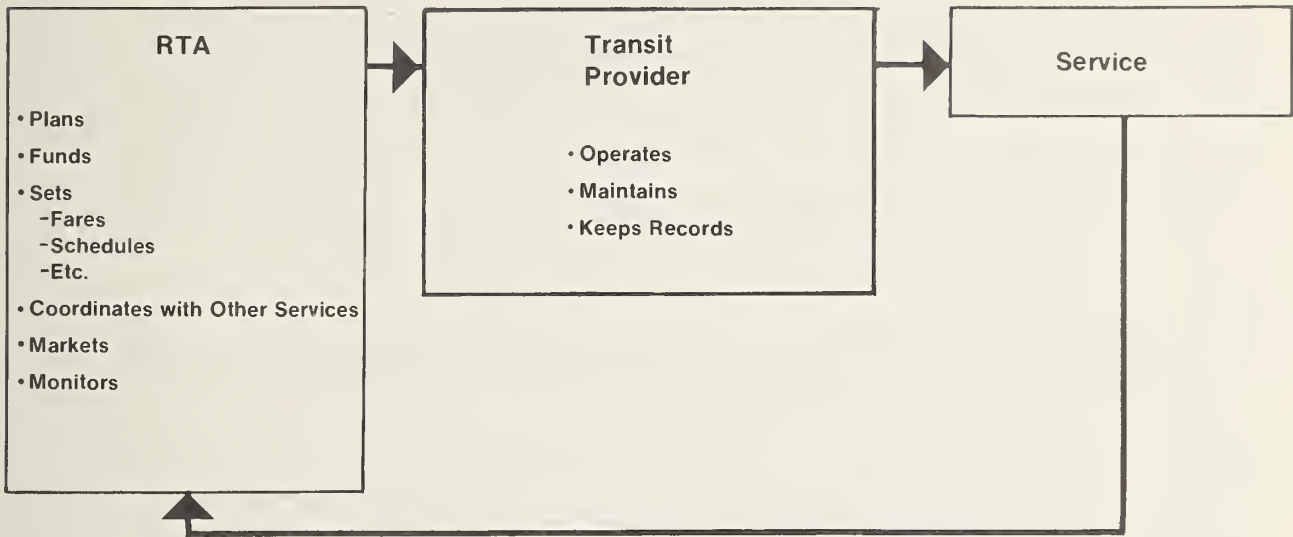
Eligible applicants included general-purpose governments, rather than the area's major transit operators (the Chicago Transit Authority and suburban transit districts). The municipality(ies) must submit an application and compete for available funds. The initial funding structure for the Service Development/Demonstration Program was as follows:<sup>9</sup>

1. The RTA would provide funding for up to 75 percent of the net project cost for projects that did not receive direct Federal operating assistance from U.S. DOT. For projects that received operating assistance from U.S. DOT, the RTA share would not exceed one half of the non-Federal share required.

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<sup>9</sup>Fitschen, Dale, Manager, RTA Paratransit Planning, The RTA Brokerage Program: Problems in Developing a Paratransit Industry, paper presented to 7th National Conference on Transportation for Elderly and Handicapped, Florida State University, December 1979.

## Conventional Arrangement



## Paratransit Brokerage Arrangement

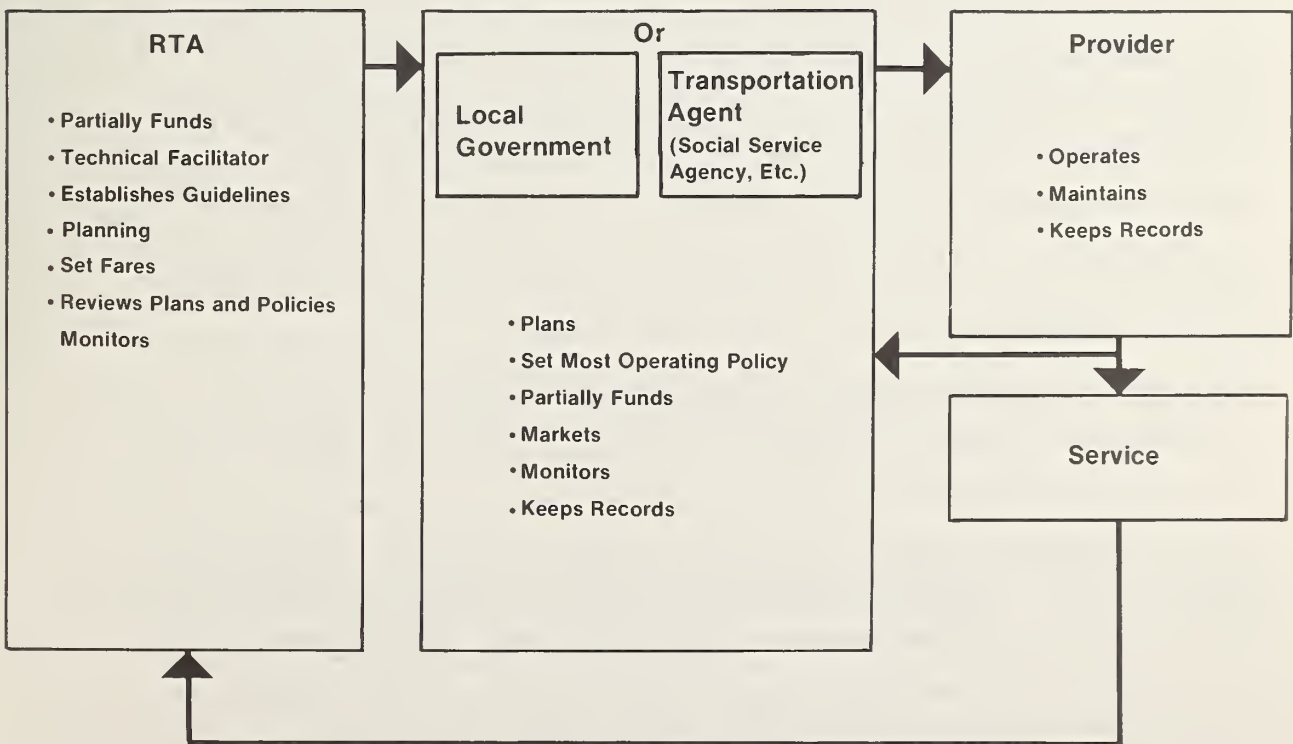


FIGURE 2-1

RTA PARATRANSIT PROGRAM

RTA FUNCTIONAL INVOLVEMENT

CONVENTIONAL AND PARATRANSIT BROKERAGE ARRANGEMENT

2. In no case would RTA funding for operating expenses (excluding capital costs) of a Service Development/Demonstration Project exceed an average of \$1.50 per one-way passenger-trip. For service development projects, RTA funding per passenger for operating expenses would be reduced over the life of the project to a maximum of \$1.00 per passenger-trip at the end of the project.
3. RTA funding for noncapital expenses would be limited to a maximum of \$100,000 per project per year.

In June 1980, these guidelines were adjusted to reflect increasing costs, but also to distinguish between projects serving the general public and those serving the elderly and the handicapped. This policy recognizes that services for the handicapped are more costly to operate than the paratransit projects that serve the general public.

The RTA's new guidelines increased the maximum noncapital cost from \$100,000 to \$200,000 per project and adopted two levels of funding. For most paratransit projects, the RTA will fund up to 75 percent or a maximum of \$2.50 per trip cost; for the higher-cost projects, which serve the mobility-limited, the RTA will provide 60 percent, or a maximum of \$4.00 per trip cost. The RTA also established minimum trip fares of 50¢ for the elderly and handicapped and \$1.00 for services for the general public.

This decentralized brokerage approach was designed to allow local governments to develop systems more responsive to local needs. There was also an implied objective of building support for the RTA in outlying, low-density areas, and perhaps reducing problems encountered in other regional transportation systems from which municipalities withdrew their support (i.e., Montgomery County, Maryland, where municipalities started their own bus system because they wanted a greater degree of control, as well as more extensive, less costly service than that

offered by the regional provider)<sup>10</sup>. It also provided a procedure for expanding public transportation services with minimum day-to-day RTA staff involvement.

#### 2.4 DEFINITIONAL CONCERNS REGARDING BROKERAGE

Before leaving the definitional issue of transportation brokerage, and exploring the details of the RTA demonstration, the reader should be aware that there is considerable controversy regarding the application and labeling of transportation brokerage. Some in the field are of the opinion, for example, that the RTA's decentralized approach is not brokerage at all; others maintain that the expanded definition of brokerage would certainly include the RTA program.

In a recent paper, Richard Bradley and Ellen Casebeer indicated that the early brokerage concept was largely market-based.<sup>11</sup> Here, the broker was to identify markets and match them with services and, if the services were not available, a broker could help establish them. The latter activity, however, was viewed as a function to remove institutional and regulatory barriers, not to actively modulate transportation demand.

The brokerage concept, Bradley and Casebeer indicate, "has since been applied in a number of demonstration projects and subsequently incorporated into the transportation lexicon to describe coordinated approaches aimed primarily at either commuter ridersharing or social service

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<sup>10</sup>Ott, Marian, "Evaluation Framework for the Paratransit Funding Brokers in Chicago, Illinois," Transportation Systems Center, U.S. Department of Transportation, Cambridge, Massachusetts, March 1978.

<sup>11</sup>Bradley, Richard H. and Casebeer, Ellen, "A New Role for Transportation System Manager: Public Entrepreneurs"; Yerell, Stuart, "Transport Research for Social and Economic Progress," Gower Publishing, London, England, 1981.

agencies' transportation services. The use of the term "brokerage" in general has lost some of its original definition. It now appears to describe attempts to integrate and coordinate service procedures, both public and private, primarily through negotiation rather than regulation."<sup>12</sup> In this definition, brokerage is the application of the "human element" of interpersonal and management skills. These include the ability to negotiate, build coalitions, sell ideas, manage conflict, communicate with the general public, and operate with a systems view, very often outside normal bureaucratic channels.

This broadened approach to transportation brokerage certainly incorporates the RTA brokerage program.

Sheldon Edner of U.S. DOT also discusses the concept and ambiguity of the definition of brokerage in a paper reviewed at a recent brokerage conference.<sup>13</sup> Edner argues that the definitional troubles with transportation brokerage begin with the degree of market intervention by the broker. In a pure sense, the broker does not manipulate the market, but only facilitates market transactions. However, he indicates that most transportation brokerage activities have operated with some form of proactive market intervention. Proponents of brokerage, in Edner's view, "seem to feel perfectly justified in advocating whatever level of activity is necessary to achieve what appears to be the ultimate goal: a truly flexible multimodal urban transportation system which makes effective use of all possible capacity for all possible patrons within the system."<sup>14</sup>

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<sup>12</sup>Ibid.

<sup>13</sup>Edner, Sheldon, "The Future of Transportation Brokerage," U.S. DOT, Washington, D.C., November 1980.

<sup>14</sup>Ibid.

Once the proactive threshold has been crossed, according to Edner, any limit in either scale or range of the broker activity is hard to perceive--thus resulting in the concept's ambiguity. The concept, Edner states, has merit in the general realm of promoting increased transit usage, particularly paratransit. A central theme is changing the institutional context within which the transit system operates. Thus, transportation brokerage is less a precise tool than a general operational philosophy designed to encourage and focus nontraditional transit efforts.

While it is not the intent of this evaluation to resolve the definitional issues of transportation brokerage, evaluation team members believe that brokerage typology should be viewed in terms of a continuum with pure passive, market-based brokerage functions on one end of the scale, and traditional, conventionally operated, fixed-route, fixed-scheduled transit service on the other end. In this context, the Knoxville approach would be closer to the market-based brokerage function, because a central agency attempted to match transportation providers with consumers. The RTA approach is considerably different in that the local agencies were active brokers in defining the market and contracting with a service provider. From this perspective, the RTA's approach would be closer to the opposite end of the brokerage continuum.

### 3. INSTITUTIONAL ISSUES

#### 3.1 INTRODUCTION

"The importance of carefully planned and skillfully implemented institutional efforts in achieving brokerage goals should not be underestimated, particularly by prospective brokerage operators."<sup>15</sup>

This conclusion, from the evaluation of the Knoxville Brokerage Demonstration, is a particularly appropriate starting point for discussion of institutional issues in the RTA Program. In the Knoxville case, the primary emphasis of the demonstration evaluation was on the service provided, but institutional issues were found to have a major impact on service. In the RTA Demonstration, the institutional issues relating to the brokerage concept were the central concern of the evaluation. These institutional issues revolved around the two-tier RTA/local government relationships, and the roles of the various parties. The emphasis here on the institutional process of implementation and administration is intended to go substantially beyond consideration of similar issues in most other UMTA-TSC paratransit evaluations. The focus is largely on qualitative concerns: the allocation of responsibilities, communication flow, and the use of information. Extensive use was made of the principles of management auditing; i.e., identifying the locations of decision-making responsibilities, and the flow and utilization of data and information. The evaluation was accomplished by conducting interviews at all levels during the course of the demonstration, by observation, and by tracking decisions and the impacts of those decisions.

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<sup>15</sup>Juster, R. D., et al., The Knoxville, Tennessee, Transportation Brokerage Demonstration: An Evaluation, Final Report No. UMTA-TN-06-0006-80-1, Multisystems Inc., prepared for UMTA, Washington, D.C., August 1979.



Six institutional aspects of the RTA Brokerage Demonstration were considered:

1. Project application
2. Project selection
3. Legal and regulatory requirements
4. Financial controls and accountability
5. Administrative responsibilities and effectiveness
6. Local attitudes toward the RTA

### 3.2 PROJECT APPLICATION

Before the Demonstration was initiated, the RTA invited each of the municipalities in the region to submit applications for paratransit service. The application was an extensive one and required detailed answers to many items (see Table 3-1).

According to the RTA staff, most of the applicants responded, at least in part, to each requirement in the application. The major problems in the first round of applications involved:

- . Demand estimating
- . Cooperative agreements (when multiple agencies were involved)
- . Obtaining legal agreements between the applicant and third-party carriers
- . Obtaining letters from participants indicating their responsibilities (especially where multiple agencies were involved)
- . Obtaining letters from affected transit service operators.

Table 3-1A

INITIAL APPLICATION REQUIREMENTS

1. Name of general-purpose government
2. Designated individual to represent applicant
3. Statement of project objectives
4. Service area characteristics--land use, demographic, socioeconomic, housing, etc.
5. Listing of existing transportation services
6. Consideration given to use of taxi service
7. Description of the area's unmet needs
8. Detailed description of the project, including ridership projections
9. Organization for carrying out the project
10. Mechanism for ongoing coordination
11. Marketing efforts
12. Staffing
13. Selection and training of drivers
14. Operating budget
15. Capital budget
16. Efforts to obtain federal or state funds
17. Grants for service continuation after RTA funding
18. Project time schedule
19. Project grant request
20. Background technical data, reports, evaluation, etc.
21. Data for application evaluation (population estimated, annual vehicle-miles, vehicle-hours, speeds, trip time and distance)

Table 3-1B

REQUIRED DOCUMENTS

1. Summary application
2. Opinion of legal counsel
3. Governing body resolutions authorizing application
4. Cooperative agreements (if more than one applicant)
5. Draft legal documents (between applicant and third-party carrier)
6. Letters from other participants indicating their responsibilities
7. Proof of funding agreements
8. Letters from affected transit service operators
9. Certification that project is not inconsistent with local planning objectives
10. Financial information
11. Minutes of public hearing (only if selected)

Based on this initial experience, RTA staff were convinced that the demand-estimating review consumed too much time; the available budget usually limited vehicle-hour supply below any projected paratransit demand. On the other hand, obtaining cooperative interagency agreements when multiple agencies were involved and obtaining more specific definition of responsibility, especially in the areas of staffing, financing and distribution of service, needed more attention.

In the course of nearly four iterations of the application procedures, RTA Paratransit staff has simplified the process considerably. The mailing piece has been reduced to a 10-page instruction booklet and preliminary application form, five pages of which constitute the preliminary application form (see Appendix A).

In addition, the RTA began making much more extensive use of the telephone in responding to a potential applicant's questions. Because of the natural screening now occurring during the pre-application process, fewer applications are being submitted. Only after the preliminary application is submitted, and the RTA and applicant are finally considering implementation of paratransit service, does the applicant have to complete a detailed application. Again, based on RTA experience, legal documentation is not called for, even in this detailed application, until the project is ready for start-up. Here, experience has indicated that legal documentation may need to be redrafted if there is a significant time lapse between final application and project start-up. However, it has become apparent that at the outset, the community should be made immediately aware of its obligations--especially especially those dealing with funding--under the anticipated contractual requirements.

### 3.3 PROJECT SELECTION

According to criteria published in RTA's "Information for Applicants" brochure, projects were to be selected on the basis of their potential contribution to the Service Development/Demonstration Program objectives, the opportunity for providing a significant "learning experience," the fulfillment of program guidelines, and the amount of available grant monies. In addition to these considerations, the RTA also considered geographic coverage, suburban impact, extent of existing available transit service, uniqueness of project, project viability, local support, and the capability of local staff to implement the project.

These considerations require qualitative judgments, but to date, there have been no major complaints from communities. One of the interesting features of this approach, probably because of the local funding required, is that there has been no appreciable adverse response from those communities not selected. Some of the communities dropped the initiative and no longer considered the program. Some resubmitted in a later round of applications and eventually were selected.

In the first round of project selection, the RTA received 18 applications, 13 of which met many of the application requirements, and 12 of which were selected for review with the Urban Mass Transportation Administration.

Six projects, along with two alternates, were finally selected for the UMTA demonstration. They were chosen to test a variety of approaches, contract requirements, service designs, and geographic characteristics. The RTA, however, has been through at least three additional selection iterations, and the process has not changed considerably. Generally, the Paratransit staff recommends to top RTA management and the RTA Board the most promising projects within the constraints of available funding.

RTA staff attempts to avoid projects which, in its estimation, have weak local interest. To a considerable extent, this approach has proved very workable. This is evidenced by the continuing level of interest, including local funding, of all of the paratransit projects that have been selected for implementation.

### 3.4 LEGAL AND REGULATORY REQUIREMENTS

The legislation that established the RTA set a very broad legal framework for all RTA-sponsored (i.e., funded) services. Specifically, it exempted the RTA from regulation by the Illinois Commerce Commission, or any local municipal franchise regulations.\* Consequently, within this broad framework and with the exception of the 13(c) Labor Protection Agreement, the RTA created its own contractual instruments which have become part of the institutional process for implementing paratransit service. Key paratransit contractual instruments include the Service Development/Demonstration Grant Program Agreement, Small Vehicle Lease Agreements, insurance agreements, and 13(c) Labor Protection Agreements. (The insurance agreement is part of the Small Vehicle Lease Agreement. In the Libertyville demonstration, the insurance agreement was included as part of the standard Service Development/Demonstration Grant Program Agreement.)

#### 3.4.1 Service Development/Demonstration Grant Program Agreement

The Program Agreement is the principal legal document between the municipality (which may only be acting as an agent for a service provider) and the RTA. It is a two-part agreement, with Part 1 describing the particulars of the specific demonstration project and Part 2 containing

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\*Section 2.06, RTA Enabling Legislation.

the standard General Terms and Conditions, which apply to all municipalities. Part 1 explains the relationship between the local agencies; i.e., municipalities, social service agencies (where they are involved), and transit service providers. Part 1 agreements have been developed, for the most part, by local representatives (as opposed to RTA staff) and have been very simple. In some cases, they have been "handshake" type of agreements, later resolved by a one- or two-page contract. For the most part, these have presented few problems, unless a number of agencies are involved (i.e., Joliet), and responsibilities are not clearly defined.

Part 2, on the other hand, is very complex; it is a standard demonstration project agreement and is nearly identical to the agreements that are signed by all carriers (CTA, suburban, transit districts, private carriers, etc.) that receive funding from the RTA. The agreement, which was developed by RTA with the assistance of several of Chicago's leading law firms, is 36 pages long and has some 29 sections, as outlined in Table 3-2.

While Part 2 of the Agreement may appropriately relate to conventional service funding, nearly all local officials were of the opinion that this Agreement was too legalistic and unnecessarily complex for the small-scale paratransit services.

Initially, for every demonstration project, Part 2 created a problem between the RTA and the local municipalities. In five cases, the RTA was able to allay concerns over the agreement. (Recently, the agreement has become an accepted fact, understood to be one of the conditions by which the applicant must abide.)

In the case of Libertyville, however, the language was seriously contested, and as a result, other arrangements have been made. Here the basic issue was liability. The municipalities did not wish to assume

Table 3-2

RTA SERVICE DEVELOPMENT/DEMONSTRATION GRANT PROGRAM  
GENERAL TERMS AND CONDITIONS

(Part 2)

1. Definitions
2. Amount of grant
3. Reporting requirements
4. Payment of grant
5. Recovery of payments in respect to depreciation
6. Use of grant proceeds in operating income
7. Accomplishment of the project
8. Audit/inspection
9. Limits of liability; no agency
10. Employees
11. Environmental and safety standards
12. Equal employment opportunity; minority business enterprises
13. Certain covenants
14. Third-party providers
15. Opinion of counsel
16. Indemnification
17. Coordinated risk management program
18. Independence of transportation agency
19. Noncollusion
20. Nonwaiver
21. Successors and assigns
22. Notices
23. Agreement to supersede other agreements, arrangements and understandings
24. Governing law
25. Assignment
26. Severability
27. Titles and precedent
28. Documents forming this agreement
29. Amendment



the liability for the transit providers (in this case, a taxi carrier) and requested that instead, the RTA contract directly with the provider, rather than pass through the liability--from the municipality to the carrier--as is the practice on all other RTA Paratransit projects. Subsequent negotiations between the municipalities and the RTA caused considerable consternation and delay, but eventually the local communities in the Libertyville demonstration were able to change the contract so that the RTA contracted directly with the local taxi provider.

Once the contract has been executed, Part 2 has not been at issue during the demonstration. The basic problem is still getting over the first hurdle; i.e., the initial contract review, especially with the smaller communities that react negatively to what they believe is unnecessary bureaucratic entanglement.

#### 3.4.2 Small Vehicle Lease Agreement

The RTA purchased 48 21-foot, 15-passenger vehicles, which are leased to some of the paratransit projects. The rental fee is a nominal \$1.00 per year per vehicle. A 29-page Small Bus Equipment Lease Agreement (17 pages of text and 12 pages of appendices) was created by Paratransit staff and RTA attorneys. The various sections of the agreement are listed in Table 3-3.

As in the case with the Standard Grant contract, the lease agreement was not a problem once executed, but because it is fairly complex, initial deliberations between the RTA and local representatives were time-consuming and resulted in strained relationships. The more time it took and the more legalistic the involvement at the local level, the more the strain resulted on regional and local relationships.

For the locals, these negotiations were frequently costly in legal fees and in the delay which, because of inflation, resulted in higher project costs.

Table 3-3

SMALL BUS EQUIPMENT LEASE AGREEMENT PROVISIONS

1. Leased Equipment
2. Acceptance of Equipment by Lessee
3. Rental
4. Term
5. Maintenance and Repairs
6. Equipment Inspection
7. Insurance
8. Equipment Replacement Responsibility
9. Indemnity
10. Coordinated Risk Management Program
11. Lessee's Damage
12. Use of Equipment
13. Taxes, Licensing, Registration
14. Return of Vehicles
15. Default
16. Possession, Use and Quiet Enjoyment
17. Reports
18. Ownership and Encumbrances
19. Warranty Disclaimer
20. Disputes Settlement
21. Lessee's Operations
22. Equal Employment Opportunity
23. Employees
24. Termination
25. General and Miscellaneous

APPENDICES

- |             |                                     |
|-------------|-------------------------------------|
| Schedule A. | Vehicles Leased                     |
| Exhibit B.  | Equal Employment Opportunity Clause |
| Exhibit C.  | Manufacturer's Warrant              |
| Exhibit D.  | Sublease Agreement                  |

### 3.4.3 Insurance

When the demonstration was initiated in March 1978, the RTA required each project to provide its own insurance--generally an amount not less than \$3,000,000 combined single-limit personal injury and property damage coverage. This limit evolved from RTA's study of state insurance requirements and RTA's self-insured risk management program, which was under review at the time the demonstration started. For most of the local providers, this insurance requirement was greater than their own coverage, and consequently was another source of irritation between the RTA and local staff.

In 1979, the RTA created its own self-insured risk management program. This was done primarily to save money for RTA conventional carriers. After a number of months of staff deliberation, it was decided to expand this program to include paratransit services that lease equipment from the RTA. In anticipation of the self-insured risk insurance program, the RTA inserted this provision into the Small Bus Equipment Lease Agreement even before the program had been approved. (Incidentally, this was a point of serious confusion with some of the local project officials, because one section of the agreement required local insurance, while another described the RTA's self-insured risk program.)

In the concluding UMTA-funded demonstration in Libertyville, this risk management provision has been extended to a private contract operator. This was done after months of deliberation on how to handle the insurance requirements.

In the context of the overall program, insurance issues were not a major impediment to the brokerage program. To a considerable extent, this was due to the RTA's assistance to local project officials in interpreting insurance regulations, and also because of the RTA's self-insured risk management program provided to projects that used RTA paratransit vehicles.

#### 3.4.4 13(c) Labor Protection Agreement

As a prerequisite of UMTA funding for this demonstration, a 13(c) Labor Protection Agreement was necessary. This indirectly impacted the RTA overall paratransit program and directly affected two of the individual projects.

From the perspective of the overall program, the 13(c) Labor Agreement caused the greatest delay in moving the RTA's request for UMTA Demonstration funding from the application to the approval stage. Including the informal contacts with labor representatives, this agreement took about one year to resolve. RTA staff had carried out considerable research and hoped to obtain a fairly innovative 13(c) Agreement to include part-time operators/mechanics, favorable overtime work rules, and a wage differential between the paratransit and regular operators' wage rate. The 13(c) Agreement, approved in December 1977, was in fact fairly standard in that it provided for the protection of union operators for those projects that were operated by nonunion operators in Milton, Proviso, Libertyville, and Schaumburg. It further stipulated that service be operated by existing local union operators in the Joliet and Deerfield projects. The latter communities are presently served by conventional bus transit, represented by organized labor.

To date, the 13(c) Agreement has not been an issue in the RTA Paratransit Program or the two projects directly affected (except for the costs in the Deerfield project, which will be discussed later). One of the concerns some RTA staff shared was that the 13(c) would lock in existing levels of conventional service, but this has not been the case, since there have been cuts in nonproductive suburban conventional service operated by organized labor. However, while the labor impact per se has not had a negative effect, the year it required to get the initial approval did negatively affect the timing and cost projections of individual projects, and as a consequence, was another factor that initially strained the relationship between the RTA and local officials.

In a subsequent 1980 amendment to the UMTA grant, the 13(c) issue was again a problem because of the delays in obtaining the agreement. Some of the RTA paratransit staff were of the opinion that because the amendment did not substantially change the grant, it was not necessary to go through the entire 13(c) process again. The amendment provided for an increase in project funding, primarily to compensate for inflation. However, the U.S. Department of Labor and top management at the RTA were of the opinion that it was necessary, and subsequently the 13(c) was secured again.

### 3.5 FINANCIAL CONTROLS AND ACCOUNTABILITY

The brokerage concept involves a transfer of operating funds from the RTA to local governments. The latter, in turn, may implement service or contract with a third or even a fourth party to provide transportation services. The flow of funds requires control mechanisms; i.e., reporting forms to assure that expenditures are reasonable and appropriate, and to guarantee accountability throughout the process. Tracking these forms to determine their adequacy for these purposes was an important concern in evaluating the project.

A list of all the major forms used in the RTA Paratransit Demonstration is presented in Table 3-4.

The first two forms deal with cost and revenues. These two forms, along with the daily summary of operations by month, were the RTA's key means of cost and revenue control. In addition to the paratransit staff (which interpreted these data), RTA accounting and auditing departments also checked the arithmetic on the submitted forms. At the local level, the forms often required the involvement of the municipality, the municipal or contract operator, and the social service agency (for the three projects that served the elderly and handicapped). Frequently, each of these entities had a role in recording funds, passenger, and operations data.

Table 3-4

RTA PARATRANSIT SERVICE DATA REPORTING FORMS  
( ) Form Number

COST & REVENUES

Revenue and Expense Summary - Forecast (R51050)  
Revenue and Expense Summary - Actual Line Item (R51048)

OPERATIONS

Trip Sheet (Dial-A-Bus/Taxi) (101)  
Dispatcher Call Sheet (Dial-A-Bus/Taxi) (102)  
Subscription/Feeder Bus Driver Trip Sheet (103)  
Daily Summary of Operations by Month (104)  
Transit Service Consumed (R51655)  
Transit Service Supplier (R51650)

PERSONNEL

Personnel Schedule (630)  
Employee Count Schedule (635)

MAINTENANCE

Revenue Vehicle Maintenance Performance Measures Schedule (640)  
Consumption Report (R30001)  
Preventive Maintenance Worksheet - 12,000 Mi. (R1887)  
Preventive Maintenance Worksheet - 6,000 Mi. (R1888)  
Equipment Repair Order (R30000)

At the outset of each of the demonstration projects, the issue of recording and reporting data was a problem at the local level. Local agencies were not sure how to fill out the forms, and they felt that the RTA was not sure what was wanted. This was further compounded because local officials were of the opinion that different RTA departments were not consistent on the amount and type of record-keeping that was necessary. According to the local project officials, RTA views changed several times during the course of the demonstration, which further complicated local-RTA relationships. The flow of data recording and reporting became more complicated as the amount and source of nonfare funding increased (this was especially true in the Joliet/Will County elderly-and-handicapped service). In the latter situation, problems were compounded because of the conditions that were attached to nonfare funding--especially from social service agency sources--and the RTA's changing interdepartmental reporting requirements.

Initially, for each of the demonstration projects, completing these forms accurately and on time at the local level was a problem. By the fourth or fifth month of operation (for almost all of the projects), the data reporting and recording had fallen in line, with occasional problems occurring throughout the project. However, in one project (Milton), local project officials were never able to meet all the reporting requirements.

RTA staff initially was of the opinion that responses to their data requests could be completed by the local managers in about two hours every month. The local officials indicated that four to eight hours per week were necessary to complete the forms. After the locals gained reporting experience, however, they did not feel that this was an onerous request, but simply a requirement that had to be met in order to receive RTA funding.

It should be noted that the data requirements of the RTA-supported para-transit services are almost identical to those required from any RTA conventional (fixed-route, fixed-scheduled) operator. Consequently, it appears that in a large bureaucratic organization, the data reporting activities are not proportional to the size of the system operated or number of passengers carried, but reflect a standardized data need that must be fulfilled. In the interest of presenting an accurate assessment of this issue, it should be pointed out that RTA data requirements result largely from data requirements that the RTA must comply with, especially UMTA Section 15 Uniform Reporting Requirements. Consequently, the RTA simply passes on its requirements to local project officials.

Internally, the RTA experienced a considerable learning curve in the compilation and reporting of this data. It took six to seven months before the RTA could stream the initial data out of its own organization. This situation did not seem to improve appreciably until about the 20th month of the project, and even then, it took about four months to process the data after the local officials turned the information over to the RTA. Data reporting was a low-priority RTA issue. This consequently was reflected in the length of time to compile and release the information.

### 3.6 ADMINISTRATIVE RESPONSIBILITIES AND EFFECTIVENESS

At issue is whether the decentralized brokerage process itself is efficient in terms of cost, use of staff resources, smoothness of operations, ease of decision-making, and implementation of those decisions. Documentation and tracking involved a number of subissues:

- . Division of Responsibilities: Under this two-tier system, who actually does what, and how timely is the performance?



- . Information Flow and Use: How much data and information are required, how is it used, and what impact does the data requirement have on the demonstration project?
- . Administrative Costs and Relationships: The questions here concern staff time consumed and interdepartmental relationships in implementing projects. Additionally, is there a duplication of effort under this two-tiered brokerage arrangement?
- . Interagency Relationships: How do the multiple agencies relate to one another, especially in the case of disputes between agencies?

These issues are introduced in the following sections in Chapter 3, and evaluated in the concluding chapter (Ch. 5), after the characteristics of each of the projects has been reviewed.

### 3.6.1 Division of Responsibilities

There were a number of concerns relative to the division of responsibilities:

- . Was there sufficient competence at all levels to develop and operate the service?
- . To what extent were RTA staff skills needed at the local level, and to what extent would they be effectively used or misused?
- . Would the two-tier brokerage structure so diffuse administration and policymaking as to negatively affect operating decisions?
- . Would there be such a mismatch between responsibilities and authority that the RTA would exercise veto power over local service activities?

. Would the RTA intrude in the day-to-day local activities?

In order to track this issue, Table 3-5 was prepared, indicating the distribution of the paratransit functions between the RTA and local project officials.

For the most part, the activities have been complementary rather than redundant. Some RTA project monitors become more involved in day-to-day activities than others. This is partly a function of the specific problems encountered as well as the nature of the individual project monitor. The RTA and local participants have generally traded off functions as necessary to get the job done.

Functional overlap between the local municipalities and the RTA primarily involves project management or coordination. For example, frequently the RTA staff has assisted local officials in seeking transportation providers to operate local services. In at least four projects (Joliet, Milton, Proviso and Schaumburg), the RTA has been involved in an advisory capacity in the hiring of the local project manager. Depending upon the need, the RTA has been intensely involved in record-keeping, scheduling, and maintenance. Most RTA involvement has occurred because of special problems in the individual projects or because of failure of the local project manager to follow RTA methodology.

Most of the time, this type of assistance appeared to be welcomed by local project officials; in a number of cases, the local managers wished the RTA had given them more training, especially just before project start-up. Because of the press of day-to-day activities, the RTA paratransit staff could not devote extensive time to the local projects. Additionally, because RTA staff was then at the low end of the learning curve, they had little experience and their effectiveness, in some instances, was questionable. The latter is no longer true, but staff

Table 3-5

RTA PARATRANSIT BROKERAGE PROGRAM--FUNCTIONAL RESPONSIBILITIES

RTA	Local Municipalities	Local Agencies
Design Brokerage Program	Review/Develop Project Plan	FOR ALL PROJECTS:
Secure 13c Agreement	Participate/Endorse Paratransit Application	Develop Plan
Evaluate/Select Projects	Execute RTA Grant Agreement	Prepare Service Design
Assist in Project Planning	Pass-Through Funding	Prepare RTA Application
Obtain UMTA Grant	Provide Local Share	Project Management
Negotiate Local Grant Agreement		Hire Personnel
Provide Funding		Train Personnel
Develop Equipment Standards		Provide Local Share
Obtain Equipment		Comply with RTA Record-Keeping
Provide/Assist with Insurance		Marketing
Start-Up Assistance		Monitor/Adjust Service
Financial/Operational Monitoring		FOR AGENCY-PROVIDED SERVICE:
Equipment Monitoring		Provide Equipment
Formal Year-End Evaluations		Dispatch-Schedule Trips
Coordinate Services		Operate Service
		Maintain Equipment
		Negotiate Labor Contracts
		Obtain Insurance
		FOR AGENCY-CONTRACTED SERVICE:
		Develop Third-Party
		Operating Agreements
		Sell Tickets/Collect Revenue

time is still a major problem; the RTA paratransit staff cannot commit full time to any single project, and consequently, local officials must largely fend for themselves.

A complementary issue is whether there are functions now being performed by the RTA or a local entity in which the roles should be reversed, or the function eliminated entirely. Probably the best example of this is related to the decision to provide RTA paratransit equipment. As it turned out, it took a considerable amount of time to obtain the equipment (a detailed review of vehicle issues is presented in Section 4.2). A number of problems would have been eliminated if the local communities had obtained their own equipment either by lease or contract service. The RTA could still have prepared equipment standards and specifications, developed bid packages, and awarded contracts, but with less urgency and delay. Then, when the RTA vehicles did arrive, they could have replaced the locally leased vehicles on a convenient schedule.

The manager of Paratransit Operations is now convinced that, in the absence of an agency's own equipment, the leased-vehicle approach should be employed. However, at the time the RTA was making these decisions, they did not realize that building a new vehicle with their specifications would require as much time as it did. According to RTA Paratransit staff, there was also a minor issue with insurance on leased vehicles. Some RTA staff members believed that sufficient insurance coverage would not be obtained. In at least one of the projects (Schaumburg), leased vehicles were utilized prior to receipt of RTA equipment.

### 3.6.2 Information Flow and Use

Here the concern was that the two-tier administrative structure might lead to excessive vertical communication requirements. There was concern that excessive information might be requested, which could

impair the delivery of service. As it turned out for most of the projects, compliance with RTA data requirements was not a significant problem after the project had been operating for two to three months.

Information is supplied to the RTA via the forms previously reviewed (see Section 3.5). While there were some objections on the part of local project officials to the required record-keeping, most have complied. Some local officials were of the opinion that the RTA's requests could be simplified to the extent that all data could be supplied on one or two forms, from which RTA staff could transfer information to as many single-issue report forms as deemed desirable. In fact, in the Milton project (which was a fairly straightforward shared-ride taxi service), this approach was tried. It did require additional work for the RTA, but even with this simplified approach, the local project manager was not able to comply with the RTA's request for data.

Another issue related to the effective use of the data. The information is fairly effectively used to flag projects that are experiencing difficulties, but to some extent, this depends upon time and capabilities of the RTA project manager assigned to monitor the local project. Data were also presented on an irregular basis to the RTA Board to keep them informed on how projects are doing, as well as to provide supporting documentation for changing program guidelines, and/or expanding the program. Data on paratransit services are now provided monthly to the RTA Board.

### 3.6.3 Administrative Costs and Relationships

Here, the issue involves the internal process of administering the brokerage program and its costs in both time and budget.

Developing the program within the RTA, requesting Federal Demonstration funding, and obtaining the 13(c) Agreement took a considerable amount of

time. About 30 months elapsed between concept formulation and the funding of the first project. As a result, the inflationary pressures of the late 1970's took a considerable toll in local project budgets and, consequently, service concepts. In most cases, demonstration service was reduced by approximately one third to half of that initially envisioned in the individual project applications.

Within the last two years, this has improved considerably. Now implementation is usually accomplished within four to six months of the application submittal (unless there are unusual internal or external problems, such as the budget crunch that the entire RTA organization is now experiencing).

Information regarding time spent on individual projects was not kept by the RTA paratransit staff for the first year of the project. Table 3-6 shows the average monthly time charged to each project during the 13-month period from May 1979 through May 1980.\*

The top two projects have very capable full-time local project managers; these projects, however, are more complex than the others, and consequently require more time to administer. Deerfield, on the other hand, split its project management between the community and a highly organized suburban transit district. Proviso also has a very capable local project manager. Originally, she worked full-time on organizing and administering the paratransit service, but now only spends 25 percent of her time on transportation, with the rest of her time spent on social service agency functions.

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\*One element that this analysis does not (and cannot) estimate are the scale economies that were achieved by the RTA in negotiating these projects with the various Federal agencies. A considerable effort, however, would have been required if these municipalities had attempted to negotiate independently with Federal officials to develop and fund local paratransit programs.

Table 3-6

RTA PARATRANSIT STAFF AVERAGE MONTHLY CHARGES  
TO DEMONSTRATION PROJECTS

(May 1979 - May 1980)

<u>Project</u>	<u>Average Monthly Hours</u>	<u>Range in Hours</u>	
		<u>High</u>	<u>Low</u>
Joliet/Will County	42.5	64.5	18.5
Schaumburg	37.5	62.5	12.5
Deerfield	19.5	46.0	3.5
Proviso Township	15.0	31.0	2.0
Libertyville et al	14.5	27.5	0
Milton	14.3	25.0	2.0

Libertyville is not an operating project, but has required a considerable amount of time in negotiating the application. Milton never had a full-time project manager sufficiently capable to manage the contract taxi service; because of the marginal nature of the suburban taxi industry, an extremely strong and capable local manager is needed to administer contract taxi programs, which are consistently on the edge of bankruptcy. That at least was the case in the RTA demonstration, where the level of project funding apparently was no greater than the taxi operators earned from their conventional service.

#### 3.6.4 Internal RTA Relationships

The concern was how paratransit, as a new nonconventional transit function, would relate to a large bureaucracy that was oriented toward conventional fixed-route, fixed-schedule service. In short, the paratransit function has fared well.

Figure 3-1 indicates RTA's present organization chart. Paratransit is now one of the eight key departments that report directly to the general manager. When this demonstration was initiated, the paratransit function was performed by two individuals in the Operations Planning section.

Interdepartmental relationships are indicated in Table 3-7. Eleven typical paratransit activities are shown on the left side of the table; the x's indicate which RTA departments are involved in each of the paratransit activities. Other than the management-board review and approval functions, there are two distinct interdepartmental relationships for projects, depending on whether or not they require RTA vehicles. In general, it is much simpler internally to administer a brokerage project that does not require RTA vehicles. Projects requiring vehicles involve five additional departments, with engineering dominating the relationship because of the problems the RTA has had with its vehicles. The



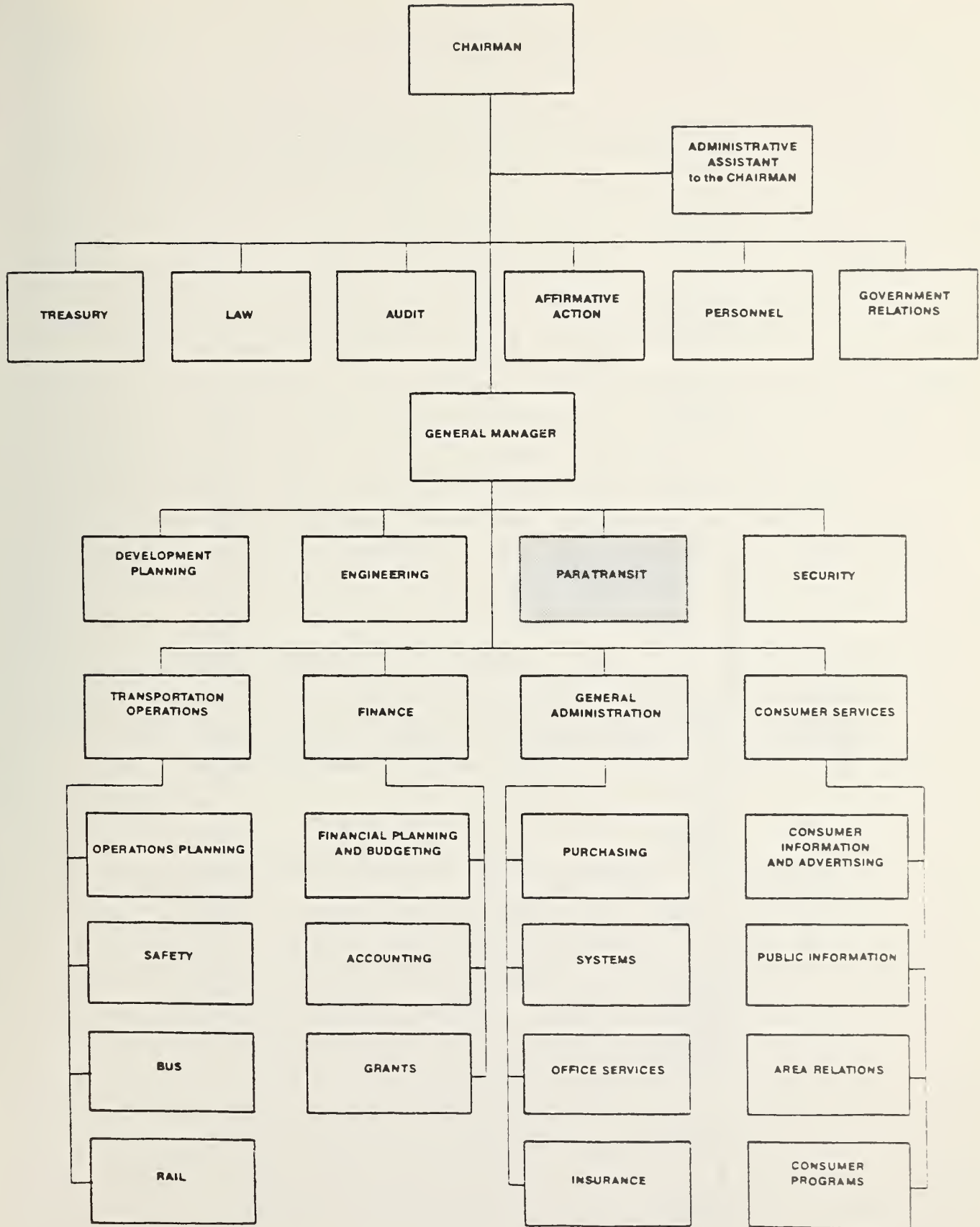


FIGURE 3-1  
 RTA PARATRANSIT PROGRAM  
 RTA ORGANIZATIONAL CHART

Table 3-7

RTA INTERDEPARTMENTAL PARATRANSIT FUNCTIONAL RELATIONSHIPS

Paratransit Project Activity	RTA Departments Functions											Total X's		
	Para-Transit	RTA Top Mgmt.	RTA Board (Paratransit Committee)	Legal	Trans. Operations (Bus)	Purchasing	Acctg.	Auditing	Eng.	Insurance	Develop. Plng.		Consumer Services	Grants
Project Application	X	X	X	-	-	-	-	-	-	-	-	-	-	3
Project Selection	X	X	X	-	-	-	-	-	-	-	-	-	-	3
Contracts w/ Municipality	X	X	-	X	-	-	-	-	-	-	-	-	-	3
RTA Ordinance	X	X	X	X	-	-	-	-	-	-	-	-	-	4
Funding	X	X	-	-	-	-	X	X	-	-	-	-	-	4
Start-up	X	-	-	-	-	-	-	-	X	-	-	X	-	3
Financial and Operational Monitoring	X	X	X	-	-	-	X	X	-	-	-	-	-	5
Year-End Performance Evaluation	X	X	X	-	-	-	-	-	-	-	-	-	-	3
THE FOLLOWING ONLY APPLY TO PROJECTS FOR WHICH RTA FURNISHES VEHICLES														
Equipment Negotiations-Administration	X	X	X	-	X	X	X	-	X	-	X	-	X	8
Equip. Lease	X	X	-	X	X	X	-	-	X	X	-	-	-	7
Monitoring Equip.	X	X	X	-	X	X	-	-	X	-	-	-	-	6
TOTAL X's	11	10	7	3	3	3	2	2	3	2	1	1	1	49

complexities that vehicles present to this program have been evident throughout the demonstration.

An interesting feature illustrated in Table 3-7 is the involvement of the RTA Board's Paratransit Committee. This is a standing and active committee that was created in 1979. The creation of the standing committee indicates the importance that the Board has attached to the paratransit function. The interest of the RTA Board in paratransit service was also demonstrated by their desire to continually expand the paratransit program. The staff, however, would have preferred a more deliberate approach involving thoroughly administering the initial projects before expanding the program. Because of the interest in the program, the Board prevailed, as is evidenced by the nearly 30 operating projects and the receipt of applications for an additional 98 projects.

The concluding figure for this chapter (Figure 3-2) shows the organization chart for the Paratransit Department. Currently, 12 individuals (only nine are actually employed) have been authorized to administer some 30 ongoing projects, and are involved in the planning of another 48 projects.

In addition to the paratransit brokerage projects, the department is also involved in ridesharing and social service agency coordination activities. Presently, the RTA Paratransit organizational structure is very flexible, so that most individuals are assigned brokerage projects and departmental functions as well. The latter include data compilation, keeping track of vehicle malfunctions, tracking disbursements to local projects by RTA accounting, etc. Some of these functions have a continuity, and it appears that they will be regular reporting activities of the department (such as compiling project operating and financial data), while other department functions will terminate as issues are resolved, such as vehicle problems or assignment of radio frequencies.

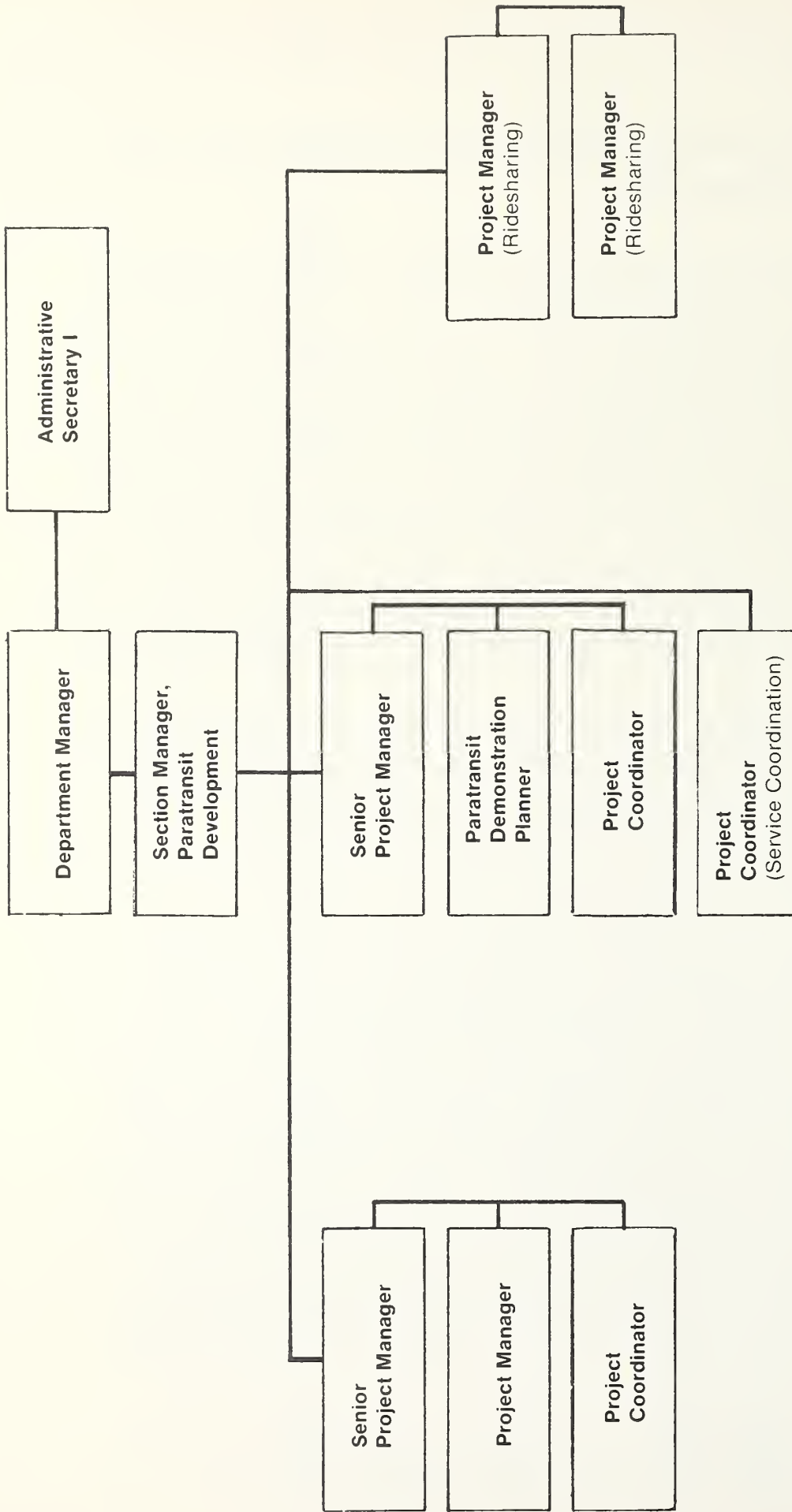


FIGURE 3-2  
 RTA PARATRANSIT PROGRAM  
 RTA PARATRANSIT DEPARTMENT  
 ORGANIZATION CHART

### 3.7 LOCAL ATTITUDES TOWARD THE RTA

This institutional issue is focused on the potential ability of the brokerage program to enhance the RTA's image locally.

For most of the projects, at the outset, there was considerable animosity toward the RTA on the part of local officials. This was due to a number of factors:

- . The divisive referendum which originally established the RTA
- . The length of time between submission of applications and actual project implementation
- . The strained relationships between the RTA and local officials due to budget and contract negotiations
- . The opinion that the suburbs were not getting services in proportion to the funds they were contributing to the RTA.
- . The perception of being dominated by a large regional organization not sympathetic to local needs.

As the project got started and local and RTA staff worked together, relationships with local municipal officials (but not necessarily the local contract operators) warmed considerably. As the projects entered the sixth to ninth month of operation, there was nearly a complete reversal in local attitudes toward RTA paratransit activities. By the end of the first year of the projects, there was usually a strong endorsement of the RTA's role in paratransit.

While this attitude has tended to reduce the outright animosity almost universally held by outlying suburban areas toward the RTA, the goodwill was not transferred to the entire RTA. Rather, the strong positive attitudes were mostly toward the RTA Paratransit staff and the board's paratransit policies, rather than the RTA in general.

## 4. SERVICE CHARACTERISTICS

### 4.1 INTRODUCTION

This chapter presents a summary of the service characteristics, including key supply and demand features of each project. The diversity of the individual demonstrations warrants a detailed presentation for each project; the scope of this evaluation, however, precludes a more detailed approach.\*

One programwide characteristic, however, requires more than a summary consideration; this involves the issues relating to the paratransit vehicles.

### 4.2 PARATRANSIT VEHICLES

One of the major problems of this demonstration program related to the RTA's decision to provide equipment for the local paratransit projects. The small-vehicle equipment issue was considerably more complex and required more time to deal with than was ever anticipated. This issue caused more continuing problems than any other single concern.

Two of the UMTA projects were immediately affected by the early RTA deliberations on equipment. In Deerfield, the service requested involved a 20- to 23-passenger vehicle that would operate fixed-route, peak-period feeder service and dial-a-bus service during the off-peak. In Schaumburg, a comprehensive local service was envisioned that called for 12-passenger vans, 25-passenger buses, and taxis.

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\*More detailed individual summaries of some of the projects will be available upon request from TSC or UMTA.

RTA Paratransit staff wanted the flexibility of providing vehicles of a variety of types and sizes to serve specific local needs, as in the Schaumburg project. However, this was not acceptable to RTA's Transportation, Engineering, and Grant staffs. These departments preferred to deal with proven transit vehicles that were standardized and could be obtained in such quantity as to justify the considerable expenditure of staff time that would be needed to meet all governmental grant requirements.

Early in the deliberations, the RTA executive staff made the decision that the taxi-type vehicles were not consistent with the objectives of the RTA, and consequently would not be purchased by that agency. The issue of obtaining vans was not as clear-cut, but was subsequently settled in a similar manner. The concern expressed here was a perception that vans were not proven, were possibly unsafe, were expensive to maintain, and were not built for reliable day-to-day service.

RTA staff from four departments (Paratransit, Engineering, Grants, and Planning & Development) went through a series of iterations before settling on a 21-foot, school-bus-type, gasoline-fueled vehicle on a truck chassis. As it turned out, this selection was not satisfactory, but problems were further compounded by the decision not to go with any "off-the-shelf" equipment. Instead, the RTA developed its own small-vehicle specifications.

The RTA had hoped that as many as five manufacturers would bid on the specifications for 48 small vehicles, but only one bid (by Superior-Globe) was furnished. This process of vehicle deliberation started in mid-1976; it was June 1980 before all vehicles were delivered, only a portion of which were to be used in the six UMTA-funded projects. After the vehicles were delivered, a series of malfunctions became evident, which most believe are fleet defects; these include starters, starter solenoid, shocks, transmission, stabilizer brackets and bar, heater



hose, and entrance door assembly. Because of the extent of delay, the RTA Board, as well as other departments, became involved in this issue. In one project (Schaumburg), local staff was hired a full year before the promised vehicles were delivered; throughout the period of delay, costs were escalating.

Because of the vehicle issue, a number of projects were delayed a year or more, which considerably strained the relationship between local project officials and the RTA. As discussed in Chapter 5, there were many learning issues in the course of the demonstrations, but perhaps the key issue is that the vehicle problems could have been avoided, or at least considerably minimized, by contracting with project providers who had vehicles. Also, purchasing "off-the-shelf" equipment would have considerably lessened the RTA's problems.

#### 4.3 SERVICE FEATURES

The following discussion presents a brief summary of the service features and operating characteristics of each of the UMTA-funded operating\* brokerage projects. These are presented in the order of start date (i.e., Proviso, Joliet, Milton, Schaumburg, and Deerfield).

##### 4.3.1 Proviso Township: Elderly and Handicapped Dial-a-Bus

Description/Overview: Curb-to-curb bus service is provided for all elderly and handicapped residents of Proviso Township. The service primarily focuses on the three largest villages in the township. A few major generators outside the township are also served. The area is about 13 miles west of downtown Chicago in a completely developed,

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\*The Libertyville shared-ride taxi project had not started service at the time the draft for this report had been submitted; service subsequently commenced on July 1, 1981.

moderate-income suburban area. All passengers must be registered with the Proviso Council on Aging (PCA), an agency formed to provide transportation to the elderly and handicapped. The genesis for this service was initiated about three years before the RTA Brokerage Program was funded; the earlier service began with volunteer drivers, and later the agency purchased two vans with 16(b)(2) funds. This service was terminated because the agency could not maintain the equipment. Older Americans Act funding was replaced by the UMTA Demonstration Grant in March 1978.

Vehicles and Maintenance: The service is now provided by a private operator under a contract agreement with the PCA. Two RTA paratransit wheelchair-lift-equipped vehicles are leased from the RTA by one of the sponsoring municipalities to provide the service. This is the second contract operator. The first--a school bus operator--provided his own equipment; after operating the service for about one year, he decided not to continue the relationship with PCA.

Fares and Rider Eligibility: The users of the service are township residents over the age of 60 registered with PCA. All registered passengers pay a \$12.00 annual fee, plus \$0.35 per trip. The Village of Bellwood now pays the \$12.00 registration fee for its resident users.

Non-Fare Funding: Local nonfare funding that was secured by the PCA included the annual registration fee, United Way, and a Title 3 grant.

Period of Service: Service is furnished weekdays (Monday through Friday) from 8:30 a.m. to 4:30 p.m. The PCA originally used both vehicles in a many-to-many demand-responsive mode, but it found that this was costly, had operational problems (often late for pick-ups), and was generally inefficient. Instead, the drivers and the PCA director created a more efficient system that keeps one bus in the dial-a-bus

mode and dedicates the other to a rotating zone system\* with established origin-destination time-scheduled checkpoints.

Request Requirements: The dial-a-bus requires day-in-advance reservations (except for emergencies). The zone system works on a fixed-scheduled basis, which enables passengers to board the bus at designated locations within a zone.

Users/Service Impacts: Typical users are elderly women and a few handicapped persons. On-board surveys were not scheduled as part of the evaluation of this project.

Project Organization and Management: The Villages of Bellwood and Stone Park were the local applicant municipalities. After cosponsoring the initial application, the Village of Stone Park no longer maintained an active role in the project; the Village of Bellwood, however, continues to provide pass-through funding, and acts as a legal agent, to the PCA. The PCA board provides policy direction and has hired the project director. One interesting feature of the board is that it included a staff member of the RTA, one of the Public Affairs Department's field representatives. This project experienced considerable management and operating problems (vehicles were not operable, drivers were not available at designated times, etc.) at the time the UMTA demonstration was initiated. As a consequence, the PCA Board was reconstituted with a strong chairman. The Board reorganized PCA staff and employed an experienced project manager--this was the key to turning this operation

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\*The rotating zone involves four areas in the township's service area. Each day of the week there is some variation in zones and major generators served. A published schedule indicates which zones are to be served on a particular day and the pick-up and return times at each major generator (e.g., shopping center, nutrition center, church, village hall, etc.). This system was developed by analyzing the dial-a-bus ridership patterns.

around from nearly a disaster to an efficient organization. The new staff manager replaced most of the previous staff and mandated strong business practices (in management, accounting, reporting, etc.) in the organization. Operations and maintenance are provided by a private operator, but dispatching is performed by a full-time PCA dispatcher.

#### 4.3.2 Joliet/Will County: Elderly and Handicapped Dial-a-Bus

Description/Overview: On July 3, 1978, a curb-to-curb, demand-responsive bus service (many-to-many and many-to-one) began transporting elderly and handicapped residents of Joliet. A few months later, the service was expanded to all of Will County. This large, low-density county contains a number of dispersed population centers. Joliet, the county seat, is located about 35 miles southwest of downtown Chicago. Three social service agencies (Easter Seals, community action agency, and sheltered workshop) and the local mass transit district pooled resources to initiate the Handicapped & Elderly Personal Transit (HEPT) service. This service transports more handicapped people than any of the other demonstration services, and, in fact, more than any other RTA brokerage project. This is also the most institutionally complex of the RTA's brokerage projects because so many different agencies are involved.

Vehicles and Maintenance: The project started with four 10-passenger and two 15-passenger buses (although not all were operable); four had wheelchair lifts. Four vehicles were obtained with UMTA 16(b)(2) funds through the social service agencies, and two were obtained by the local transit district with Section 3 state and federal funds. Five new RTA vehicles, all lift-equipped, were received in April 1980 (although they were expected in the fall of 1979). Vehicle maintenance is performed by mechanics employed by HEPT. Obtaining operable vehicles and maintaining equipment was a problem in this project since its inception. Replacement vehicles did not arrive when promised, and vehicle downtime has

seriously hampered operations. At times, only two to three vehicles were operable, which required many difficult decisions about which passengers to serve. This resulted in a considerable amount of negative reaction by riders and social service agencies. In 1981, a second mechanic was to be employed to alleviate this situation.

Fares and Rider Eligibility: A zone fare system was established at a cost of \$0.75 for one-zone travel and \$0.50/zone for travel through two or more zones. Fares have been increased to \$1.00 for the first zone and \$0.50 for each additional zone. The number of zones has been increased from three to five. Some riders affiliated with member social service agencies pay on a subscription basis. Nearly all riders are preregistered (i.e., certified elderly and handicapped) with the HEPT agency.

Non-Fare Funding: In addition to RTA subsidies, third-party funding is provided by the participating social service agencies, public aid, and the local park district. After about one year of operation, Easter Seals, one of the participating social service agencies, helped secured a HEW Department of Aging Title XX grant for HEPT. In December 1980, the HEPT project director obtained a grant of \$101,000 from the Will County Board's revenue-sharing funds. Securing adequate funding was painstaking work that required an aggressive, but personable and convincing, HEPT project manager. The project manager spent about 20 percent of her time on funding issues.

Third-party funding increased from an average of \$702 per month for the first 12 months of the demonstration (July 1978 through July 1980) to an average of \$4,013 per month for the last 12 months (June 1979 through May 1980) of the UMTA-funded demonstration. This helped to decrease the RTA subsidy per passenger from \$4.35 in the first year to \$3.52 in the last year of the demonstration. The fare paid by agency clients evolved during the course of the demonstration. Basically, the agencies are

billed on a per-trip basis at a cost of \$4.45/per trip. Before October 1979, most agencies only paid the general public fare.

Period of Service: When the service was first initiated, it operated from 7:00 a.m. to 7:00 p.m., Monday through Friday. Toward the end of the demonstration, service was extended to Sunday. In the first year of the demonstration, vehicles were essentially reserved to serve specific social service agency functions on a subscription basis. These trips, after considerable negotiation between the social service agencies and HEPT, have now been integrated into a more comprehensive, cost-effective, demand-responsive service.

Request Requirements: Reservations are required at least one day in advance, unless the passenger is a member social service agency client. In such a case, the passenger rides on a subscription basis.

Users/Service Impacts: At the time the project was initiated, about 95 percent of the passengers were from one of the three member social service agencies; by 1981, these founding agencies represent about 50 percent of the users. Due to expanding the service and funding sources, about 31 percent of the passengers are HEW Title XX nonagency E/H, 29 percent from the sheltered workshop, 22 percent from the community action agency (Foster Grandparents), 10 percent from Easter Seals, and 8 percent general E/H. Broadening service to include passengers from more than just the three founding social service agencies required considerable effort on the part of the HEPT project manager. Major institution hurdles, in many cases presented by the founding agencies, had to be overcome to expand service to other users.

Project Organization and Management (Figure 4-1): The City of Joliet acted as the local applicant and provides pass-through funding from the RTA to the local mass transit district. The Joliet Mass Transit District (JMTD) Board sets all policy for paratransit service and

**Brokerage Functions**

Advisory - Monitoring .....  
Funding

Application and Funding  
Pass Through

Policy  
Management Supervision  
Contractual Agreements

Project Management  
Daily Operations  
Driver Training  
Record Keeping  
Scheduling/Marketing  
Personnel  
Labor  
Fund Raising

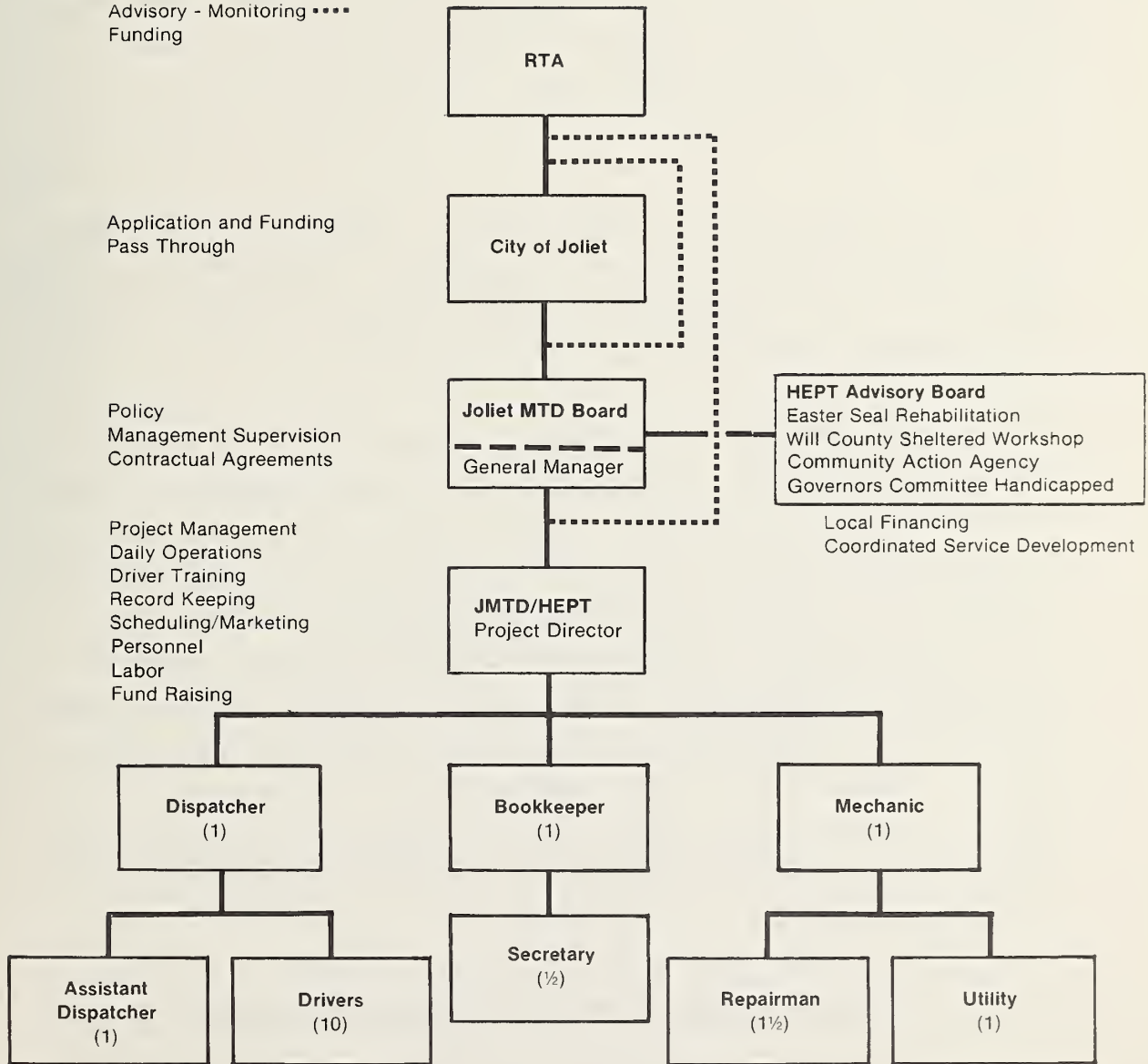


FIGURE 4-1  
**ORGANIZATION CHART**  
Joliet/Will County Dial-a-Ride for Elderly and Handicapped

authorizes all contracts. The HEPT project director is in charge of all day-to-day activities and is responsible to the JMTD general manager. The HEPT Advisory Board, which is made up of the social service agencies, the JMTD general manager, and HEPT project director, meets occasionally to review policy. Originally, the HEPT Advisory Board acted as the board of directors, but this arrangement proved troublesome because management authority was too diffuse. Operations are performed by one bookkeeper, one dispatcher, one assistant dispatcher, 10 drivers, one mechanic, one full-time and one half-time repairman, one utility person, and a half-time secretary. The drivers are members of the JMTD Mass Transit District union, although they belong to a separate ATU local and have a lower negotiated wage rate. The 13(c) labor agreement required that this service be operated by union personnel.

This project experienced considerable organizational, operational, and institutional difficulties during the first year of operation. A power struggle for project leadership was a key issue. The organization got on track when the JMTD transit district board hired a qualified director and became more assertive in taking responsibility for this service (which minimized the in-fighting among the social service agencies). The director dismissed most of the original staff and introduced sound organizational, bookkeeping, and dispatching practices, which improved service. The HEPT local project manager played a key role in turning around a complex project (due to the institutional relationships) that appeared headed for failure into a service that has considerable local and regional support.

#### 4.3.3 Milton Township: Elderly and Handicapped Shared-Ride Taxi

Description/Overview: Two villages in Milton Township (Glen Ellyn and Glendale Heights) coordinated an ongoing taxi-operated service with township officials to provide curb-to-curb taxi service in the township. Service was initiated in July 1978. The township's senior citizen



agency, VIP, applied for and oversees the service. The subsidized service was confined to the 36-square-mile Milton Township, which is a relatively high-income, low-density suburban community 24 miles west of downtown Chicago. This was a user-side subsidy in which E/H passengers could utilize the reduced-fare, shared-ride system by a means of a pre-purchased ticket. The ticket was surrendered to the driver and the taxi carrier, in turn, was reimbursed, at a predetermined flat rate, on a per-ticket basis.

Vehicles and Maintenance: Two taxi companies participated in the initial demonstration: the Wheaton Cab Company, which was supposed to make four vehicles available; and the Schaumburg-Glen Ellyn Cab Company, which was to provide two cabs in the area. These cabs could pick up both program and conventional riders. As it turned out, there were at most one or two cabs assigned to the program. Six months into the program, Wheaton Cab ceased operation and was replaced by Classic Carriage Cab. The latter's performance record was worse than the service it replaced. Schaumburg-Glen Ellyn Cab Company never participated fully in this demonstration because the Village of Glen Ellyn prevented them from providing intravillage trips, because of the company's poor performance record. Most of the trips in the demonstration were centered around the Village of Glen Ellyn.

Fares and Rider Eligibility: The subsidized fare was \$0.50 per ticket or a book of tickets for \$5.00. The tickets, which could be bought individually or in books, had to be purchased in advance at the Glen Ellyn municipal buildings, the township VIP agency, or three other convenient locations. Passengers had to be preregistered, which required an RTA senior citizen or handicapped I.D.

Non-Fare Funding: In addition to the RTA subsidy, the three municipalities, Milton Township, Glen Ellyn, and Glendale Heights, contributed a pro rata amount (based on anticipated ridership from each area). The

cab drivers collected a ticket from each passenger and turned the tickets over to the cab company. The cab companies sent the tickets to Milton Township, which initially reimbursed the cab operators at the rate of \$1.75 per ticket. This subsidy was increased four times through the two-year period, with a final subsidy rate of \$2.35 per ticket. The RTA set the amount of this subsidy. The subsidy, according to the cab companies and village officials, was not sufficient to keep the driver and cab companies interested in the program. This, in addition to a considerable number of management problems, contributed to the failure of this project.

Period of Service: Initially, the service was technically available on a 24-hour basis, but when the Wheaton Cab Company went out of business, the replacement carrier negotiated for 16 hours of service on weekdays (6:00 a.m. to 10:00 p.m.) and 11 hours on weekends and holidays (7:00 a.m. to 6:00 p.m.).

Request Requirements: A one-hour minimum was initially established to obtain service. There were, however, many complaints about delayed arrivals (two or more hours late) throughout the demonstration. While it was the responsibility of the cab companies to group the riders' origins and destinations, the VIP, from time to time, requested users to call in for service with groups of riders going to the same destinations. The shared-ride aspect was rarely accomplished, which resulted in lower payments to drivers and cab companies.

Users/Service Impacts: An on-board survey administered about midway through the project indicated that 92 percent of the users were retired women, generally living at home. Most of the users did not have a valid driver's license, and one third of the riders considered themselves to be handicapped, although ambulatory. Seventy percent were weekly users. Most trips were for shopping, medical or dental attention.

Project Organization and Management: Milton Township provided pass-through funding from the RTA to the VIP senior citizen agency. VIP, in turn, administered the program, which involved bookkeeping, monitoring the taxi service, selling discount tickets, and reporting to the RTA. This involved a bookkeeper and project manager (although the latter was not designated until the project was suffering from serious reporting problems). The taxi operators provided the service, maintenance, and dispatching, and turned in the tickets to the VIP agency.

The Milton project, in contrast to the two projects previously described, never had a strong local project manager. Had the RTA Paratransit staff not played a strong advocate and technical assistance role, the project would have likely failed much earlier than it did.

#### 4.3.4 Schaumburg: General Community Dial-a-Bus

Description/Overview: The Schaumburg Dial-A-Ride Transportation (DART) Program was designed to substitute for more expensive fixed-route service. The latter had been recommended by a transportation consultant hired by the village. The dial-a-ride service operates in the Village of Schaumburg and parts of neighboring Hoffman Estates. The village is one of the fastest-growing communities in the metropolitan area and is located about 26 miles northwest of downtown Chicago. It is a low-density, middle- to high-income community. The largest regional shopping center in the U.S., Woodfield Mall, is located in the northeast corner of the village. The service, which began in October 1979, is demand-responsive and available to all residents; vehicles are provided by the RTA, and the service is operated by a private contractor.

Originally, it was anticipated that Schaumburg would operate a comprehensive transit service including feeder bus, dial-a-bus, vans, or taxis. Lack of funding eliminated all but the dial-a-bus service.

Vehicles and Maintenance: Seven RTA paratransit vehicles, all with wheelchair lifts, have been assigned to this project. The number of vehicles in service on a weekday varies from four to seven, depending on the time of day. Vehicle maintenance is performed by the contract operator. The contractor provided four leased vehicles, at \$25.00 each per day, for five months, until the RTA equipment was made available.

Fares and Rider Eligibility: The standard RTA paratransit fare is \$1.00 for adults and \$0.50 for children, the elderly, and the handicapped. Transfers\* to and from RTA fixed-route, fixed-schedule service are also available. There are no eligibility standards for this service. Any person traveling within the service area can use the system.

Non-Fare Funding: In addition to the RTA subsidy, the Village of Schaumburg contributes substantial nonfare funding (i.e., \$50,000 for the first year of the demonstration). This amount was originally predicated on the local share for operating the comprehensive system. While that system was trimmed to only the dial-a-ride service, the village decided to use the full local share for the project.

Period of Service: Weekday service begins at 9:00 a.m., and the last scheduled pick-up is at 5:30 p.m.

This original schedule was constrained by the requirement that the RTA, because of limited funding, would only pay for 28 vehicle-hours of service per day. This has now been increased to 38 vehicle-hours per day. The village, at its own expense, increased service to include evening and Saturday service. The service basically operates in the many-to-many dial-a-bus mode, except that two scheduled paratransit

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\*Transfer cost from the dial-a-ride to fixed-route service is \$0.10 and from fixed-route to dial-a-ride is \$0.20.

checkpoints are located at Woodfield Mall. These tend to constrain the flexibility of the service, especially during the a.m. pickups.

Request Requirements: Response is as immediate as possible, but usually all passengers are picked up within 20 minutes (providing the capacity exists). During peak periods, it tends to operate as a subscription service, with workers being transported to and from jobs (usually Woodfield Mall area). Given the amount of vehicle-hours and distances, the service frequently operates at capacity.

Users/Service Impacts: Using March 1980 as a representative month, total passengers averaged 133.5/day; 65 percent were adult full fare, 19 percent were senior citizens, five percent were student/child, less than one percent were handicapped, two percent were full transfers, and the remainder (about eight percent) were fare-free children and special-ticket passengers (all-day and 10-ride).

Project Organization and Management: In contrast to the other demonstrations (except for Deerfield), the village takes a very active role. It provided \$50,000 for the first year of service. The village manager and village board are involved in all major decisions. A full-time professional transportation staff member was hired as part of the RTA grant. It was originally anticipated that this person would be responsible for a multimode (buses, vans, and taxis) paratransit service. During the course of this demonstration, there were frequent conflicts between the village and the RTA. Most of the conflicts were concerned with the village's desire to increase the levels of service and budget. Because of the conflicts the village sometimes had with the contract operator, the village asked for new proposals for the second year of operation. Although the proposals were close, the village did select a different contractor for second-year operations. The local project manager now serves as the village's transit manager, and is supervised by the planning director. The contract operator is responsible to the

transit manager except for maintenance review of RTA vehicles, for which he reports directly to the RTA. Legally, the village has always been responsible for vehicle maintenance (it is a condition of the RTA's small-vehicle lease agreement), but because there were so many problems with the new vehicles, the RTA had the contract operator report directly to them. That has subsequently been changed, and the operator now reports maintenance issues to the village. When UMTA funds were ended for this project, the transit manager's salary was, for the most part, picked up by the village.\*

#### 4.3.5 Deerfield: Community Dial-a-Bus

Description/Overview: The two-vehicle, dial-a-bus service that started January 29, 1980, was originally envisioned as a combined feeder/demand-responsive service that would be available to the general public. Because of time delays and cost increases, the feeder aspect was dropped from the UMTA demonstration but picked up by conventional RTA funding. Deerfield is a completely developed upper-middle income suburb about 24 miles north of downtown Chicago. The service involves the RTA, Village of Deerfield, and the North Suburban Mass Transit District (NORTRAN). The latter has the most sophisticated bus management and labor practices, outside of the Chicago Transit Authority (CTA), in the metropolitan region. Dial-a-bus service is offered between 9:00 a.m. and 4:30 p.m. During the peak period, drivers operated feeder service with the same vehicles. Dial-a-bus service was cut into four different NORTRAN runs to provide a full working day.

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\*Complementary information on this project is available from the Northwestern University research study titled Implementation of Innovative Transportation Services, Evanston, Illinois, May, 1981; particularly volume 4: "Paratransit Implementation History and Evaluation of Paratransit Potential in Schaumburg, Illinois."

Vehicles and Maintenance: The dial-a-bus service utilizes two RTA lift-equipped paratransit vehicles, plus one spare dial-a-bus. (On a few occasions all three vehicles have been inoperable.) The vehicles are maintained and housed by NORTRAN at its garage 13 miles southwest of Deerfield. Maintenance is performed by the same union mechanics who work on NORTRAN's fleet of 120 40-foot diesel vehicles.

Fares and Rider Eligibility: RTA standardized the fare for dial-a-ride at \$1.00 for adults and \$0.50 (for students with a school I.D. pass) and for senior citizens and the handicapped with an RTA I.D. Transfers from RTA conventional service cost an additional \$0.20 for adult passengers and \$0.15 for half-fare users.

Non-Fare Funding: Nonfare funding is provided by the RTA and the Village of Deerfield.

Period of Service: Service originally operated Tuesday through Saturday (because there was not sufficient funding to operate six days a week), but that has recently been changed to the standard Monday through Friday. Dial-a-ride pickups begin at 9:00 a.m. and the last run concludes at 4:30 p.m. Route deviation or paratransit scheduled check-points occur at two shopping centers. These centers are also used as layover stations when the vehicles are not on call. Vehicles operate within the village and the major regional shopping center (Northbrook Mall) a few minutes southeast of the village's eastern boundary.

Request Requirements: A minimum of one-half hour is the specified operating procedure, except that a bus frequently arrives minutes after call; rarely does it take more than 20 minutes. Service sometimes operated at capacity on Saturdays, when heavily used by school-age population.

Users/Service Impacts: The service was heavily used by school-age riders, but no rider profiles were available for this service. The village manager believes that the service is important but not essential, and could be reduced or cut if his board found it is too costly.\*

Project Organization and Management: The Village of Deerfield was the official applicant and provides RTA pass-through funding. The village also provided the 10 percent local share. The village manager and village representative on the NORTRAN board are very much involved in all major decisions concerning this service. The village hired and pays a full-time dispatcher, who works under the public works director and uses the village radio frequency. The village staff also assembles all the cost data and passes it on to the RTA. The North Suburban Mass Transit District (NORTRAN) operates the service and maintains the equipment. NORTRAN sends the village its cost as well as revenue data after it separates revenues gained on the dial-a-bus from those received on their peak-period feeder service. The village also was fueling the gas paratransit vehicles, which required leaded fuel not stocked by NORTRAN. The 13(c) agreement required that this service be operated by union personnel. NORTRAN had to conduct a special "pick" and to train all 126 drivers (minimum of one-hour training) to meet union requests.

#### 4.4 SUMMARY OF PERFORMANCE DATA

In addition to the institutional issues, which are the primary focus of this evaluation, supply and demand data are concerns related to the viability of the decentralized brokerage concept. The RTA requires the sponsoring municipalities to submit monthly financial and operating data. Local project officials are given a cash advance for the first two months of operation, but no further payments are provided until the monthly data reports are submitted.

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\*In September 1981, the village determined this level of service was too costly. The dial-a-bus was replaced by a subsidized elderly-and-handicapped taxi service.



The data aspects have been at issue throughout the demonstration. Frequently the local project manager submits the information late, and sometimes it is incomplete and/or not accurate. During most of the demonstration, it was four to five months after the data were sent to the RTA to be compiled, summarized, and reviewed before the information was sent to De Leuw, Cather, the contract evaluator. As the demonstration progressed, the information contained in the Monthly Management Reports (see Appendix B) became more and more abbreviated.

Table 4-1 presents a summary of operating and financial data for the five projects that have been concluded under the UMTA demonstration grant. An assessment of this data is presented in the cost-effectiveness section (5.4.1) in Chapter 5.

#### 4.4.1 Operating Months

This indicates the number of months that the project was funded under the UMTA demonstration grant. In most cases, monthly reports were submitted, but they were not always complete for the entire period. In some cases, as in Milton, the contract carrier did not operate (because of bankruptcy), but data, because of the accounting procedures, were submitted for those months.

The three elderly and handicapped projects started first because they did not require RTA paratransit vehicles. Additionally, they had a built-in service advocate. This is in contrast to the paratransit service for the general population, which is considerably more diffuse. Originally, all projects were scheduled to be funded under the UMTA grant for one year, but as it developed, the three that started first were extended for a second year because of the funding source and because the other projects were delayed. In retrospect, a minimum of 18 months, rather than one year, is a more accurate test period because of the extensive learning curve that is needed for these types of paratransit projects.

Table 4-1

PERFORMANCE SUMMARY DATA  
RTA/CMTA-FUNDED PARATRANSIT BROKERAGE PROJECTS  
AVERAGE MONTHLY DATA

PROJECT MARKET TYPE OF SERVICE	PROVISO E&H D-A-R	JOLIET E&H D-A-R	MILTON E&H Shr'd Taxi	SCHAUMBURG Gen. Pop. D-A-R	DEERFIELD Gen. Pop. D-A-R
DEMONSTRATION PERIOD	3/78-5/80	7/78-5/80	7/78-5/80	10/79-9/80	2/80-1/81
OPERATING MONTHS	27	23	23	12	12
RIDERSHIP					
Passengers/Month	1,110	2,539	543	2,866	1,561
Estimated Average Trip Length	3.8	16.8	1.6	N/A	4.0
SERVICE SUPPLIED					
Vehicle Hours/Month	296	966	N/A	693	317
Vehicle Miles/Month	3,316	13,557	N/A	11,480	3,413
Vehicles Operated	1.8	3.3	N/A	3.3(1)	2.0(7)
Estimated Lift Use/Month	41.8(1)	238.4(2)	N/A	14.2	2.3
PRODUCTIVITY					
Passenger/Vehicle Hour	3.7	2.6	N/A	4.13	4.93
Passenger/Vehicle Mile	0.33	0.19	N/A	0.25	0.46
COST					
Total Cost/Month	\$ 6,009	\$ 13,486	\$ 1,320	\$ 17,285	\$ 7,575
Total Cost/Vehicle Hour	\$ 21.72	\$ 14.29	\$ N/A	\$ 24.93	\$ 23.92
Total Cost/Passenger	\$ 5.88(2)	\$ 5.50(3)	\$ 2.47	\$ 6.03(1)	\$ 4.85
Net Cost/Passenger	\$ 4.66(2)	\$ 4.27(4)	\$ 1.61	\$ 5.42(1)	\$ 4.37
LOCAL ADMINISTRATIVE COST					
% of Total Cost/Month for Administration	25%	25%	8%(5)	17%(6)	10%(7)
REVENUE AND SUBSIDY					
Fare Revenue/Month	\$ 311	\$ 813(3)	\$ 376	\$ 1,751	\$ 755
Total Subsidy/Month	\$ 5,698	\$ 12,673	\$ 944	\$ 15,534	\$ 6,820
Total Subsidy/Passenger	\$ 5.13	\$ 4.99(4)	\$ 1.74	\$ 5.42	\$ 4.37
Other Revenue/Month	\$ 927	\$ 2,415(4)	\$ 0	\$ 0	\$ 0
Total Revenue/Month	\$ 1,238	\$ 3,228	\$ 376	\$ 1,751	\$ 755
RTA Subsidy/Month	\$ 4,293	\$ 9,189	\$ 896	\$ 11,771	\$ 6,488
RTA Subsidy/Passenger	\$ 4.20	\$ 3.84	\$ 1.54	\$ 4.11	\$ 3.93
Total Revenue as % Cost	20.6%	23.9%	28.5%	10.1%	9.9%

FOOTNOTES TO TABLE 4-1

- (1) Monthly average, first eight months of project.
- (2) Monthly average for July 1979 to December 1980.
- (3) Includes cash fares plus third-party funding.
- (4) Funding provided by HEPT agencies.
- (5) No administrative costs were recorded by locals for eight of the 23-month evaluation period (data are questionable).
- (6) For eight months, October 1979 through May 1980.
- (7) RTA estimate, May 1981.

N/A: Not available.

Source: RTA, Service Development/Demonstration  
Grant Program, Monthly Management Report

Note: Administrative costs taken from Section 15 reports;  
some of these line items could be designated as  
operating charges in this program.

#### 4.4.2 Ridership

Average monthly ridership, as well as estimates of average trip length, are indicated in Table 4-1. The ridership data are fairly accurate in that they have been rigorously compiled and reviewed; the trip length information, on the other hand, is felt to be representative, but is considerably more selective. Each project had considerable peaks and valleys in the initial three- to six-month start-up period due to vehicle malfunctions, dispatching practices, and circumstances that were unique to each project. Over the last six months of the demonstration, the ridership considerably stabilized.

The estimated average trip lengths are comparable, except for the Joliet and Milton projects. The Joliet/ Will County service area is very large and of low density, and while most of the clients originate in the Joliet area, one of the social service agency's treatment centers is about 25 miles from Joliet. In Milton, the major travel generators involved only a few facilities, and they were in close proximity. The Milton data may also be somewhat skewed because of problems encountered in operating the service and in reporting the data. The commonality of the trip distances for the three remaining projects is somewhat remarkable, given that the communities in their development patterns and the characteristics of the riders are very different; i.e., elderly and handicapped vs. high school and general population market segments.

#### 4.4.3 Service Supplied

This includes the vehicle-hours and vehicle-miles operated per month, the average number of vehicles operated and an estimate of the use of the wheelchair lifts.

Except for the Proviso and Deerfield projects, there is a considerable range in vehicle-hours and miles operated per month. In part, that is a reflection of the service area, type of service, and number of vehicles

operated. There were, in almost all cases, twice the number of vehicles available as were operated. The difference between the number of vehicles available and those actually operated reflects the considerable problems that arose in operating and maintaining these vehicles. It did not seem to matter whether they were agency 16(b)(2) vehicles, contract vehicles, or later, the RTA's own paratransit small buses, or whether they were maintained by highly trained transit district maintenance staff, or by lesser trained mechanics; they all had problems. The best experience as to vehicles operated in proportion to vehicles available was with the service vehicles provided and maintained by the contract operator in the Proviso project. This was in direct contrast to the early days of the Proviso project, when the agency tried to operate the service itself and had an extremely poor operating performance record.

#### 4.4.4 Productivity

The RTA most frequently relies on passengers per vehicle-hour as the standard productivity measure. The passenger per vehicle-mile is low because most trips are deadheaded in one direction. The most productive service, for the four projects with available data, is the dial-a-bus in Deerfield; this serves the general population and operates during the off-peak. In the peak period, those vehicles serve as feeders to/from the commuter railroad; however, the operating data for the feeder service are not included in the data shown, which are for dial-a-ride service only. The least productive service operates in a very low-density area and serves a very specialized elderly and handicapped market. In fact, this service in Joliet/Will County carries more handicapped than any of the other demonstration services, by a considerable margin. That is evidenced in the use of the lift. Note also that the most productive project also transports the fewest wheelchair-lift-assisted passengers.

#### 4.4.5 Cost

The selected variables are total cost per month, total cost per vehicle-hour, total cost per passenger, and net cost per passenger. As defined by the RTA, net cost per passenger represents total per-passenger costs, less fares and other local transportation-related revenues.

For all dial-a-bus service, the total cost per passenger approaches or exceeds \$5.00, and does not seem to bear major relationship to service area or type of management structure. Proviso (\$5.88 per passenger) and Schaumburg (\$6.03 per passenger) are operated by private, for-profit contractors, and while they are higher than the publicly operated services, their costs are comparable. The lowest dial-a-bus total cost per passenger is that of NORTRAN, which, other than the CTA, has one of the highest publicly operated system costs in the region. Total per passenger cost for most of these projects is leveling and, in fact, decreasing over that initially incurred. This reflects more efficient operations gained through experience, stronger project management, and higher demand levels.

Schaumburg has, by far, the highest net cost per passenger. This is a result of the nature of the service area, the period of service during which it operates, and the fact that it does not receive any third-party funding, as is provided in Joliet and Proviso.

The Milton shared-ride taxi certainly has a favorable cost picture, but that must be tempered because it is a user-side subsidy (which builds absolute cost limits into the program), and because of the nature of the on-again, off-again service, as well as the data collection problems that this demonstration experienced.

#### 4.4.6 Local Administrative Cost

The percentage of total cost per month due to local administration represents about one quarter of the costs for the two elderly-and-handicapped dial-a-bus services. The estimate is based on Section 15 reporting data, which the RTA Paratransit staff believes overstates the administrative costs because it includes some line items they feel should be assigned to operating functions. Community meetings, fund raising, personnel and training, and equipment issues take up the majority of local project manager's time. In Schaumburg, that cost is strictly administrative because the contract operator is responsible for dispatching, maintenance, personnel, and training, and even performs some of the record-keeping chores. Part of the reason for this high administrative cost is due to the fact that a professional transportation administrator was hired as part of the initial budget. Since the RTA has picked up this project, the administrator has been retained, but most of his costs are now separately paid for by the village.

Milton shows, as with some of the other variables, the least administrative cost. This is due to the nature of the project, which should not require much administration, but the low figure may also result because the project was never properly administered.

#### 4.4.7 Revenue and Subsidy

Revenue was defined as fares and funds from other local transportation-related sources. It did not include RTA or UMTA funding. Subsidy payments were averaged by subsidy per month and subsidy per passenger.

In RTA subsidy per passenger, for the dial-a-ride services, Joliet shows the least cost (\$3.84). This occurred because that program generated the highest amount of third-party funding (from the social service agencies, state, park district, etc.). In total subsidy per passenger

(RTA and all other funding), this is one of the highest per-unit services provided under the RTA's brokerage program. Proviso was the highest at \$4.20 per passenger, but all four projects are again comparable; i.e., the highest is only \$0.36 more (or about 9.4 percent) per passenger than the lowest.

Milton shared-ride-taxi again fares far better than any of the other programs. A good deal of this can be attributed to the nature of the user-side subsidy program, but also because the program was never fully operational for any extended period. Consequently, it incurred the least cost.



## 5. SUMMARY AND ASSESSMENT OF RTA'S DECENTRALIZED BROKERAGE

### 5.1 INTRODUCTION

This chapter summarizes and assesses the viability of RTA's decentralized approach to paratransit brokerage. Qualitative aspects are reviewed, including the concept and objectives of decentralized brokerage. In addition, key project level findings are presented. Impacts of the demonstration experience on the RTA Paratransit Brokerage program and the transferability of the concept are also discussed.

### 5.2 CONCEPT AND OBJECTIVES

#### 5.2.1 Concept

The RTA concept of brokerage, as observed in this program, is to act as a technical facilitator and funding source to encourage local officials to implement paratransit services in selected suburban communities. The RTA decentralized approach encourages local communities to plan, design, administer, operate, and monitor their own paratransit systems to meet their own needs. The systems are developed in areas where conventional public transportation is not feasible, or for certain market segments that require specialized service.

Under this program, the RTA brokers money and expertise, while local agencies assemble and operate paratransit services. The RTA also coordinates the paratransit with conventional services where appropriate.

The RTA brokerage concept differs from centralized brokerage systems in that in the latter, the agencies typically make a direct match between community transportation needs and the service providers; that is, they identify the transportation needs of a community; select the type, route, schedules, and coverage of a new system; and develop contracts between consumers and operators.

Though a major aspect of the decentralized brokerage concept is minimum RTA participation in service design and operation, the RTA in fact acts as a partner in these local programs. To an extent, however, the RTA is able to control the design of service by the amount of funding and technical assistance provided to applicant agencies. The RTA in many ways is more involved in the paratransit services than it is in its "arm's-length" conventional contract operations. The distinguishing features of the paratransit brokerage program include:

- . A competitive application process that almost always requires a general-purpose government (as opposed, for example, to a special-district transit agency) as the legal sponsoring agency. Sometimes the general-purpose government is directly involved in the paratransit services, but more frequently it acts as a pass-through to a transportation agency.
- . The primary role of the local community in developing paratransit service, in contrast to conventional service, which is developed by the RTA.
- . The local funding requirement. The community must pay at least 25 percent of net costs (deficit) of paratransit, as opposed to 100 percent funding by the RTA for conventional service.
- . The assignment of a specific RTA project manager to deal with all aspects of the paratransit project on a fairly regular basis, as opposed to the RTA's "as needed" monitoring structure for conventional service. The paratransit project manager coordinates all aspects of the RTA paratransit interface with local project officials. In practice, however, other RTA departments (such as Accounting, Auditing, Bus Operations) often are in contact independently with local officials, and frequently this has been confusing to the local officials, as well as to the RTA Paratransit staff.

As the projects have developed, contact between the RTA Paratransit staff and local officials has diminished. This is not by design; rather, it is a result of the increased workload of Paratransit staff. Additionally, RTA Paratransit staff believes that the projects do not require as much of their time because of the experience they have gained with the initial rounds of projects. While less RTA staff time is devoted to recent projects, there still is considerable reluctance to truly "decentralize" activities. This is evident in the grant agreement, which is nearly identical to that for conventional operations, and in the reporting requirements, which also are nearly identical to those for conventional services. In part, this is an institutional problem resulting from initiating a nonconventional service in an organization that was primarily created to provide heavy-duty, fixed-route rail and bus service. Because of the nature of the organization, it is simply easier for the Paratransit staff to use the same benchmarks as the staff responsible for conventional services. In the absence of any acceptable separate paratransit benchmarks, this situation is likely to continue.

#### 5.2.2 Objectives

To a considerable extent, both the actual and implied objectives of this demonstration have been met. The actual objectives include:

- Expand Paratransit Services in the Region Under the Umbrella of the RTA. The RTA has 24 projects in the operating stages, and is currently evaluating an additional 48 applications. In areas where service is operating, the program has become very popular with suburban officials. This is especially the case for the E/H projects. However, it is still very low-key, and not many residents are aware of the program. Consequently, the services have not had a major impact on those not directly affected by the program, nor on the typical suburbanite's negative image of the RTA

(i.e., the RTA as a tool for gaining suburban subsidies to pay for the Chicago Transit Authority services).

. Gain Experience in the Delivery of Elderly and Handicapped Services and Develop Appropriate RTA Policies Based on this Experience.

Considerable strides have been made in regard to this objective. A committee of the RTA Board has been created to deal with paratransit issues; a paratransit staff has been created that has gained considerable experience; lead time from the application to implementation has been reduced considerably, from nearly 30 months to as few as five or six months. The next major hurdle, should the RTA survive its present funding crisis, will be how quickly the staff and RTA Board streamline paratransit services, now that they have a fairly solid base of experience. The use of RTA funds to force improvements (such as project management, increased productivity, lower costs, etc.) at the local level needs to be made more effective. These improvements, however, must be worked out amicably with local officials.

. Increase Transportation Services for the Elderly and Handicapped.

Prior to this program, there was no regional organization with any appreciable expertise in the delivery of E/H services. Now, 10 of RTA's 24 operating paratransit projects are the E/H services, and another 27 are in the programming and planning stages. The number of total trips served is still small compared with the nearly 1,600,000 trips per day offered by conventional RTA services throughout the region. The RTA paratransit staff believes that, because of the special nature of paratransit service, any assessment of service has to include square miles of the region now being served that previously were not. Using this parameter, inroads have been made, because now about 1,431 square miles (about 39 percent of the region) have some type of E/H or general-population paratransit service.

A subelement of this objective is the coordination of paratransit with conventional service. Here minimal inroads have been made. For the E/H projects, there is little interest and minimal need to transfer to conventional service; consequently, there has been no need to coordinate E/H with conventional service. For those paratransit projects serving the general population, service coordination has been a concern. Transfers with conventional service have been increasing, but usually less than 10 percent of the patrons transfer.

The following implied objectives also have been met, but with mixed success:

- Seek Efficiency in Paratransit Services Through the Competitive Application Process. The competitive application process certainly limits the number of requests for paratransit services and allows the RTA to review a number of applications and select the most appealing ones. Considerable staff time is required to evaluate and make recommendations. It was hoped that this process, combined with local subsidies and RTA's ceiling on per-trip cost, would build in efficiencies and result in lower unit costs. Here, there has been mixed success; many local project officials seek out efficiencies, but usually only after trying unsuccessfully to force the RTA to supply more project funding.
- Establish More Service in the Suburbs to Build Suburban Support for the RTA. Again, there is no question but that those directly affected by the services, especially the families of E/H riders, enthusiastically support the program. While their support is building, this attitude is not shared by many suburban residents, perhaps because of the low-key nature of the program.

- . Improve the Quality of Paratransit Service. In view of the degree of local involvement, it would seem that pressure would build to provide reliable, top-quality service. In fact, this has not been the case. There have been many operational problems that, especially in the early phases of the projects, resulted in unreliable service. Local elected officials were not pressured into improving service until it reached near-disaster level. This was probably due to a combination of the lack of benchmarks against which to measure service, the "period of adjustment" during which many problems were overlooked, and importantly, the fact that the projects did not involve a great many riders in any single area.
- . Avoid Direct Responsibility for Delivery of Service and Get More Suburban "Bang" for RTA Staff "Buck." One advantage of this method of service delivery is that local agencies are responsible for service development and implementation. Consequently, the RTA staff can engage in a number of these projects without an extensive staff commitment, and without getting mired in a host of day-to-day operating problems. This is demonstrated by the 24 projects in which the RTA staff is now involved, with nine professional staff members (only five of whom are involved with paratransit operations).

If the unit costs approximate those of other methods of paratransit service delivery (and it appears that they do), this is a very commendable way to maximize transportation dollars in a major metropolitan area, which nearly always has more projects than available resources.

### 5.3 KEY FINDINGS OF BROKERAGE DEMONSTRATION

This section deals with key learning issues that evolved primarily as a result of individual project implementation. While many of these issues

resulted from inexperience at the regional and local levels, there were many positive aspects that should not be overlooked in the attempt to improve the program.

A principal advantage was afforded by the decentralized brokerage concept, which put much of the burden of developing and administering paratransit services on local officials, allowing the RTA maximum impact from its resources. New services were created. In some cases, existing services were coordinated and expanded; both local and RTA staff have gained considerable experience; capable paratransit project managers have developed, whereas there were few before this project. Additionally, there has been a positive reaction on the part of local officials toward the RTA service and staff; most local objectives have been met; new non-RTA sources of funding have been allocated to paratransit services; union issues have not overly complicated the project; and importantly, a methodology has been developed that provides a level of paratransit service (apparently at least as cost-effectively as in many other areas in the U.S.) in a very complex urban region reflecting a wide variety of institutional constraints.

The following findings, however, indicate where the experience of the demonstration has shown that improvements are needed:

### 5.3.1 Project Management

This category includes those issues most important in accounting for the success or failure of paratransit projects: staff and development of staff. Three separate elements are involved: local project staff, RTA decentralized staff, and training.

#### 5.3.1.1 Local Project Staff

Originally, it was intended that, with the exception of the Schaumburg project, local governments would administer the paratransit services

with existing personnel on an "as needed" or shared-staff basis. With the possible exception of the Deerfield project,\* this approach has not worked. In fact, the demonstration indicated that it is crucial that a local project manager be designated and dedicated to directing the project.

The local project manager must be goal-oriented, a self-starter, assertive, and responsible for accomplishing a variety of tasks involving the management of people and resources. She or he must be able to resolve conflicts with local and regional agencies. The most desirable candidate for this position should possess strong communication skills, have program management experience, and some familiarity with dispatching, bookkeeping, and vehicle maintenance issues. The ability to lead, be flexible and yet assertive, and able to acquire new "on-the-job" skills is very important.

Depending on the project, such as Milton or Deerfield, the individual does not have to devote full time to the service, but someone must be designated to assume the local project manager's role and responsibilities; otherwise, even with strong RTA paratransit leadership, the project is likely to fail. While an absolute number of hours cannot be determined for local administration/project management--because it depends upon the complexity of each project and the capabilities of the project manager--even for a fairly simple brokerage project, the local manager should be prepared to spend between one-half and full time from a month before project initiation through the first three months of service. After that, all the parties involved will be able to determine the time necessary to optimally administer the project. Of the five

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\*In Deerfield, project management was shared between a new hire (the dispatcher) and village staff. Representatives from the contract operator, NORTRAN, also assisted with management issues.



operating demonstration projects, the only one that appears to warrant a full-time manager is Joliet. This is because of the nature of the service and number of vehicles operated.

A key result of the RTA brokerage project was the development of strong local project managers who had not necessarily been previously involved in transportation. In the case of the Joliet project, for example, a talented individual developed on-the-job as a strong, capable project manager. In other cases, the local project manager had some previous transportation experience which they further developed, and as a result, also proved to be capable managers (i.e., in Proviso, and to an extent in Deerfield). To an extent, the RTA helped develop these managers by providing an instructive influence, but also by providing impediments that the local manager had to resolve.

#### 5.3.1.2 RTA Decentralized Staff

In the development phase, it would have been very helpful to have had one or two staff members on board that had some expertise (actual experience) in operating and managing paratransit services. That was not the case in this demonstration, but over time, RTA staff members have acquired all the skills necessary to act as technical facilitators in the planning, programming, and administration of this program. RTA's Paratransit manager believes "that the start of each of the small transit operations has as many subject areas to be mastered as one large transit operation, and it falls on the RTA Paratransit project manager and the local operations manager to master all of them."<sup>16</sup> To a considerable extent this is true, except that technical skills (dispatching, bookkeeping, mechanical aptitude, etc.) are not, at least

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<sup>16</sup>Fitschen, Dale, manager, RTA Paratransit Planning, The RTA Brokerage Program: Problems in Developing a Paratransit Industry, paper presented to 7th National Conference on Transportation for Elderly and Handicapped, Florida State University, December 1979.

initially, as necessary as interpersonal negotiating skills. Basic skills at the regional level for this type of program should include budget and financing, paratransit operations, management information systems, familiarity with equipment, maintenance practices, and the ability to secure "as needed" skills from other RTA departments. These typically include Accounting, Bus Operations, Legal, Marketing, and Engineering. Generally, RTA project managers can handle three to nine projects, depending on the complexities of a project and the individuals involved. At project start-up, the number monitored is at the lower end of the scale, and as projects progress, more can be monitored.

The RTA Paratransit staff members not only acted as technical facilitators for the local projects, but also had to deal with related, more general departmental issues, such as insurance, vehicles, data reporting, etc. The manager of RTA Paratransit believes that as the number of projects and staff grows, some staff members will be assigned exclusively to assisting local project managers.

#### 5.3.1.3 Training

Previous sections of this report have indicated that the single most important determinant of a successful project is a strong, capable manager at the local level. At times, RTA staff assisted with the selection of local managers; this was especially the case when the initial project manager had to be replaced. While RTA's input was not the key determinant in selecting the new manager, local officials were of the opinion that the RTA's assistance was very helpful.

Training is one area where more emphasis would have aided both the local manager and the RTA project manager. Very little was done when the demonstration was initiated because the RTA was on the low end of the learning curve, but even now, this area needs to be upgraded. Now that

the RTA has gained considerable experience, it could play a strong role in training new managers. Lately the RTA has been calling in all new local project managers for a day or two, but this level of training is still not adequate.

One tool critically needed is a project manager's paratransit handbook. It should be clear, concise, and well organized. The State of Michigan has produced one of the better ones.\* The Michigan handbook sets the stage for both local and regional managers. It covers project management, operations, contracts, financial management, equipment management, marketing, personnel management, and monitoring and evaluation.

It is well documented with examples of the type and purpose of records needed, and could be readily modified if produced in a notebook format. Creation of such a document is highly recommended for any regional agency that is implementing a paratransit program. The RTA would like to develop such a handbook, but so far it has not had the resources.

### 5.3.2 Selection of Equipment

The RTA purchased 48 21-foot, gasoline-powered, lift-equipped small buses from Superior Sheller-Globe (the company changed ownership in May, 1981). The problems and delays involved in selecting a vehicle type, designing specifications, bidding, manufacture, delivery, and maintenance have been extensive. The RTA's equipment policy of designating a standardized vehicle type conflicts with the brokerage concept, which implies flexibility in service design and type of equipment. This was another instance where there was a reluctance to truly decentralize the brokerage program.

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\*Michigan Department of State Highways and Transportation, Bureau of Urban Public Transportation, Michigan Small Bus Program System Management Handbook, Lansing, Michigan, June 1978.

The decision to go with a standardized vehicle has been troublesome and costly. RTA Paratransit staff has recommended that when "initiating a program, find contractors with vehicles, and lease or buy equipment off the shelf immediately."<sup>17</sup>

The maintenance issue has compounded the difficulties connected with the vehicles. Because there have been so many difficulties with fleet defects, this issue has resulted in strained relationships among the RTA, the manufacturer, the supplier, and the local agencies using the buses.

Obtaining the necessary radio frequencies in high density urban areas is also another problem that needs to be carefully considered. A plan has been developed by the RTA to share radio frequencies, but this is a complex issue that has not been resolved. Again, the RTA is of the opinion that contracting with existing operators would minimize this problem.

### 5.3.3 Project Selection

The first projects were subject to a detailed and painstaking process that required 19 months before approval by the RTA Board (part of this delay was also due to the UMTA demonstration negotiations, especially the 13c Labor Agreement). The time period has been shortened to five to six months. The application has been streamlined to minimize initial detailed financial and legal documentation. More time is spent via telephone with the local applicants, and elaborate demand estimating has been all but dropped (because budgets usually limit vehicle-hour supply below projected demand, and the RTA has an experience base in dealing with anticipated ridership). Now there is more concern that the various

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<sup>17</sup>Ibid.

financial and operating responsibilities be identified in these early conversations with local officials. In general, the application process is considerably more efficient now than in the initial round.

#### 5.3.4 Lead Time

Extensive lead times are the norm and a very conservative, rather than optimistic, approach should be taken in estimating start dates. Lead times for this demonstration were compounded by the UMTA grant requirements, but as a general rule, any agency initiating such a program should anticipate extended delays. This is one disadvantage of the decentralized brokerage approach. It results because the local brokerage agency does not have absolute control over the project and may be dealing with a number of local entities (governments, operators, social service agencies, etc.) on the same project. However, if the problems are recognized and an aggressive approach is taken to coordinate and manage the project, these time delays should be minimized.

#### 5.3.5 Contractual Relationships

Here, the general rule should be to keep the legal documentation as simple as possible; i.e., cover the basic requirements (state and agency regulations) and liability issues, but, to the extent possible, minimize the legalistic approach. The basic RTA agreements include the Initial Grant Agreement (Part 1, Description of the Individual Project, and Part 2, General Terms and Conditions), Small Vehicle Lease Agreement (where applicable), Local Interagency Agreements, and Insurance Agreements (where applicable). From the author's perspective, all agreements, with the exception of Local Interagency Agreement, are unnecessarily complex for these small paratransit operations. The Standard Terms and Conditions in the Grant Agreement, for example, were written to cover conventional bus operations, some of which have over 125 buses and are staffed to deal with that type of contract. The Standard Grant

Agreement was initially a problem in every one of the demonstration projects, and in some cases, it seriously strained relationships between the local officials and the RTA. Alternatives need to be developed to simplify the contractual relationships.

The Interagency Agreements at the local level are as simple as the RTA contracts are complex--in some cases, to a fault; they have not clearly designated local project responsibilities. For the most part, achieving these local contractual arrangements was a very simple process. Most municipalities simply contacted a few operators picked from the phone book and came to an agreement with one. In some cases, at the request of the operator, there was no written agreement, but simply a handshake agreement between the local agency and the operator. To date, these local agreements have not been a problem, with the exception of the Joliet project. In that instance, the difficulty arose with the multiple social service agencies involved and failure to clearly designate their responsibilities. The responsibilities had to be negotiated by the local project manager and transit district. In retrospect, however, the project might never have been initiated without this more flexible arrangement.

#### 5.3.6 Project Constituency

Projects with a built-in constituency, such as those that are replacing existing elderly and handicapped programs, are likely to move along more quickly than those just starting or those that will serve the considerably more diffuse general-population market. It is important that there be a strong local interest in developing the project. In the decentralized approach, it is also important to be working with, or through, local elected officials (as opposed to local staff), to ensure that the project moves along and that the necessary local resources are employed to resolve the frequent problems in starting a new service.

Some of the local transportation providers felt that requiring municipal sponsorship was an unnecessary burden that further delayed the flow of activities between the RTA and local providers. There is some justification in this regard, especially where the municipalities are almost reluctant pass-through partners. Overall, these problems have been minimized, and it has been an advantage to have the local municipal sponsorship. It enhances credibility, provides access to local staff, forces accountability, enhances exposure of the program and the need for specialized local transportation, and sometimes provides a new source of local funding.

Because this requirement enhances exposure of the program, it also elevates the level of expectation, and those levels of expectation are initially very high. More often than not, these expectations cannot be met in the early stages of the service, but this built-in pressure helps correct operating problems early on.

### 5.3.7 Budget and Financing

Accurate estimation of cost and revenue is critical to a successful project. This was very difficult with the initial projects because of the lack of paratransit experience. In all cases, there were budgeting and forecasting problems (underestimating cost and overestimating ridership). When these were combined with present-day inflationary pressures, they had a very serious impact on each project budget. This issue has been nearly eliminated because of the experience the RTA Paratransit staff has gained in budget and financial matters.

A related financial issue involved developing an expertise in a variety of social service funding programs that are available from the state and federal governments to supplement RTA subsidies. Initially, the RTA suggested that local officials pursue these programs, but provided almost no assistance in identifying or seeking the funds. Again, that

has changed as the RTA Paratransit staff has gained some experience in these specialized programs and has designated staff to assist local officials.

Cash flow has been another serious problem that developed as a result of issues that expanded the paratransit program. At times, the RTA did not have sufficient funds to finance all its services and consequently, this trickled down to the operators. Sufficient cash flow is especially critical to the small paratransit services because they have no other source of funds (unless a municipality wants to act as a bank by providing loans, and most do not), and in order to meet their obligations must have available cash. (In one case, for example, the local project manager took out a personal loan so that she could meet payroll obligations.)

#### 5.3.8 Operations

In each project, a number of operational issues evolved, some critical and others less so. Many were unique to the project, but almost all have been negotiated and resolved jointly by the RTA and local project officials. In most instances the initiative, and frequently the solutions to problems, were provided by the local officials, with technical expertise and back-up by RTA staff. While issues varied from project to project, some common ones involved start-up, dispatching, vehicles and maintenance, reporting, labor and shared-ride taxi (where applicable).

##### 5.3.8.1 Start-Up

Problems were encountered at start-up in almost every instance. Dealing with equipment problems and malfunctions, dispatching, having sufficient cash for supplies and day-to-day operations, and in general, just getting organized, were major tasks. Projects with strong local project



managers, and where operations were tested for a week or so prior to revenue service, minimized these problems. Here is where the central agency (RTA) could have played a much stronger role: in furnishing more advanced training, handbooks, and systemized procedures, and by assigning RTA staff on site for the first two weeks. While these steps would have prevented many problems, at the time of the initial start-ups, the RTA had neither the staff nor the experience needed. It is strongly advisable that any agency contemplating the decentralized approach to paratransit implement a policy of advanced training.

#### 5.3.8.2 Dispatching

Demand-activated services, even with day-in-advance reservation and/or subscription service, require capable dispatchers. These individuals are the key to an efficient operation. The RTA now has sufficient experience to train dispatchers and to help set up their operations. Finding individuals with dispatching experience is also very helpful, such as taxi company or municipal police and fire dispatchers. However, a taxi dispatcher not properly trained can often be more of a liability than an individual who has had no training. (In one of the projects, a retired air traffic controller from nearby O'Hare International Airport was hired, but quit soon after starting because he found it too "nerve-racking" to match the locations, times, and vehicles.) In most projects, even where there was a contract operator, the local project officials separated the dispatching function from the vehicle operation because they felt it gave them more control over the project. That in fact has been the case, and such services have operated fairly smoothly.

Once the dispatcher has been trained, manual dispatching has been effective, even with seven to 11 vehicles (which includes some subscription-type service). There is a point at which computer dispatching could be more effective, but so far, only minimal interest has been expressed in pursuing this objective by either local or regional paratransit staff.

In one of the demonstrations, the bus drivers receive a 10¢ per-passenger incentive (this was developed locally to keep qualified drivers and to increase productivity), but the dispatcher does not receive any additional compensation. Some form of incentive was considered, because the dispatcher is crucial to successful operation, but to date this has not been implemented. In the Joliet project, the local project manager replaced a dispatcher at a salary less than that of the previous dispatcher, but with a productivity incentive that could result in a significant increase in salary. This informal agreement included a \$700/year increase three months after productivity increased from 1.7 to 2.5 passengers per vehicle-hour. The second phase included an additional \$800 per year predicated upon an increase in the next three months from 2.5 to 3.3 passengers per vehicle-hour. In both cases, the dispatcher was able to achieve these increases. The director monitored these increases to assure that riding times were not lengthened to achieve these gains in productivity.

Another problem has been priority dispatching, especially involving social service agency clients. Long-term commitment to this type of arrangement should be avoided so as to efficiently integrate all trips. Once the practice of priority dispatching starts, it is difficult to break; in one instance, for example, there was an unsuccessful attempt by local agencies to fire one of the local project managers because she did change this pattern of priority dispatching to integrate all trips.

#### 5.3.8.3 Vehicles and Maintenance

The problems that arose with the RTA designating a small vehicle and designing its specifications have constituted the most perplexing aspect of the entire paratransit program. If equipment is to be purchased, it should be available immediately and have a good operating history.

Training mechanics, directly or indirectly, is another function that a central agency could effectively undertake, as well as identifying vendors who are equipped to maintain small vehicles. (This seems to be especially pertinent in the situation, because the RTA mandated the vehicle specifications. Initially, RTA staff did not share this opinion, but recently there has been some movement at the RTA to sponsor maintenance training.) In those situations where transit districts were maintaining the small vehicles, problems arose because their regular diesel maintenance equipment was not designed for small, gasoline-powered vehicles. Also, there was some lack of status perceived in working on the small vehicles, with the result that they received lower maintenance priority than regular diesel coaches.

There is also an issue regarding sharing of personnel and costs when an agency is funding two different services (conventional and paratransit) under different funding programs. There was resistance to sharing personnel funded by different RTA programs. This was due in part to the RTA and in part to the local agencies that did not want to allocate their conventional staff to paratransit programs that they believed were underfunded by the RTA. Sharing of activities will require a considerable amount of administrative flexibility and carefully thought-out accounting practices.

#### 5.3.8.4 Reporting

The finding here is the same as with contractual arrangements: keep the reporting function as simple as possible. All RTA data needs should be determined in advance of project implementation. This is no small feat, because it requires the coordination of many RTA departments (Accounting, Auditing, Operations, etc.). Forms should be kept to a minimum, and the transfer of data to single-purpose forms should be accomplished by the RTA, not at the local project level. Again, the RTA central staff should instruct local officials in reporting methods well in

advance of the project. (A handbook would greatly simplify this task.) Also, there should be a single point of contact between the RTA and local officials when forms or data needs are modified. (To local officials, it appeared that the various RTA departments were on conflicting courses with one another.) The purposes of all data to be required should be clearly documented in advance of the project, as well as procedures for compiling, analyzing, and reporting the data.

#### 5.3.8.5 Labor

To a great extent, issues involving organized labor were not nearly the problems that most anticipated. The most difficult problem was time delay, and subsequent local budget increases, caused by negotiation of the 13(c) Labor Protection Agreement that the federal demonstration funds required. In one project, wage and work rule differentials were created for the paratransit operating division without much difficulty. There is a concern that these operators may wish to eventually achieve parity with conventional service providers. In another project where the regular drivers were "cut" into the paratransit service, the operating parameters and budgets had to incorporate union concerns, wages, and work rules, but this occurred without much difficulty. A special drivers' pick had to be held because the vehicles were not available at the regular pick. Both long-term and more recently hired operators "picked" the service. It took them about three weeks to become familiar with the dial-a-bus operation, but this was greatly facilitated by the local dispatcher. Some drivers stayed with the service on subsequent picks and some did not. Some left because there were no overtime provisions and others because they did not care for the vehicles (initially, the paratransit vehicles were not air-conditioned). Because of driver protests in one project, all 126 union drivers had to be given one hour of training on the vehicles, which ostensibly qualified them for the paratransit service. Additional training was provided, however, after they picked the paratransit service. A concern expressed by a general

manager of one of the union-operated systems that operates both conventional and paratransit services was that if many changes were made in regular work procedures for paratransit service, these changes could be used as bargaining chips by the union at future contract negotiations. Consequently, he minimized special work rule changes to accommodate paratransit service.

#### 5.3.8.6 Shared-Ride Taxi

One of the biggest disappointments of the demonstration was the lack of any sustained shared-ride taxi service. In the suburbs, with very few exceptions, taxi service is a marginal operation. It was, for example, considerably more difficult than anticipated to find capable contractors that could or would provide this type of service. Companies appear barely able to stay in business and, as a consequence, the taxi industry is very unstable; this affects the quality of management, staffing, etc. The RTA Paratransit staff became very familiar with taxi costs, and negotiated contracts at levels of profit that were equal or less than that which the carriers would make serving their conventional markets. The offset anticipated here was that there would be some guaranteed funding through the RTA program, and that the shared-ride aspect would permit the taxi companies to earn the same or more than with their regular taxi service. On this issue of funding the service, there is some dispute; RTA staff is of the opinion that their trip rate reimbursement was at about the same level as the taxi carrier's meter rate. The taxi companies, on the other hand, did not believe they were getting sufficient income for this service. However, the taxi companies agreed to these reimbursement rates in their negotiated contracts. Actual revenues were considerably less than anticipated; part of the problem was that the riders were not interested in sharing rides, and therefore the dispatcher was reluctant to force the shared-ride aspect. These problems were compounded by poor management, personnel staffing, record-keeping, and other less dominant issues.

In future projects of this type, careful attention should be given to finding capable operators and then to setting a level of funding sufficient to maintain service. Here there are definite conflicts between private providers that operate on a profit basis and RTA staff members, who are more concerned about providing service at the lowest cost levels than about profit for the provider. In addition, because of the nature of the suburban taxi industry, a strong local project manager is required, with sufficient authority to monitor taxi service and make adjustments as needed.

#### 5.4 COST-EFFECTIVENESS OF DECENTRALIZED BROKERAGE

An important issue concerning paratransit brokerage in general, and decentralized brokerage in particular, is overall cost-effectiveness. Although the major thrust of the demonstration is the analysis of institutional issues, concerns regarding cost became increasingly important as the issue of fiscal austerity at all levels of government intensified. Measuring cost-effectiveness in absolute terms without first establishing and documenting benchmarks would be imaginative at best; but measuring cost-effectiveness in relative terms is both appropriate and achievable. Once the RTA made the decision to provide paratransit service, their implied concern was under which service delivery approach they could effect the most paratransit service at the least cost. The RTA opted for the decentralized approach, involving local governments which could subcontract to public and private providers.

On the national level, the best way to evaluate cost-effectiveness would involve comparing the RTA's approach with other methods of delivering paratransit service, as in Cleveland and Denver, where the transit agencies are directly operating the service; or in Knoxville, where a centralized brokerage approach directly matches consumers and providers; or as with some statewide brokerage programs (as in Michigan and Minnesota), which also use the decentralized concept. This work was not

within the scope of this project, but UMTA/TSC intends to eventually conduct such a comparative analysis.

Here, the evaluative approach involves a review of cost comparisons of paratransit service with RTA-sponsored conventional suburban bus, a review of the equity issue of the cost of paratransit service versus the tax revenues the RTA receives from the suburbs, and a qualitative assessment based on program cost and overall benefits, as perceived by participants in this demonstration.

#### 5.4.1 Cost Comparisons

Cost comparisons between paratransit and conventional suburban bus are difficult because the consumers, service areas, methods of funding, and accounting are frequently not comparable. Also, data points for conventional suburban bus were not tracked during this project. However, to summarily review this issue, data have been compiled that provide some overview of the cost involved in these somewhat disparate services. In March 1981, the Auditor General of the State of Illinois released an audit<sup>18</sup> of RTA services that covered a 15-month period ending September 30, 1980. Coincidentally, this includes the period during which much of this demonstration project was in progress. Two tables included in the Auditor General's report are especially significant.

Table 5-1 presents data for a variety of conventional (fixed-route, fixed-schedule) suburban transit service. Some of the service is provided throughout the day, while some involves only peak-period feeder service to the commuter railroad stations; in some cases, service is provided by public agencies; in other cases, it is provided by private contractors. These 23 different services (14 public, not including

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<sup>18</sup>Robert G. Cronson, Auditor General, State of Illinois, Report Digest, Financial Audit of Regional Transportation Authority for the Fifteen Months Ended September 30, 1980; March 4, 1981, Springfield, Illinois.

Table 5-1

## REGIONAL TRANSPORTATION AUTHORITY

FINANCIAL RESULTS AND OPERATING DATA FOR FUNDED CARRIERS  
FOR THE (15) FIFTEEN MONTH PERIOD JULY 1, 1979 - SEPTEMBER 30, 1980

## SUBURBAN BUS AND CONTRACT ROUTES

(UNAUDITED)

Carrier	Total Revenue	Total Expense <sup>(D)</sup>	Total Deficit	Revenue Passengers	Subsidy Per Passenger
Aurora	\$ 388,114	\$ 1,682,468	\$ 1,294,354	\$ 2,096,832	\$ .6173
Bensenville	11,597	86,206	74,609	37,665	1.9809
Elgin	544,528	2,401,498	1,856,970	2,337,402	.7945
Glen Ellyn	60,788	171,893	111,105	180,140	.6168
Geneva	-0- (E)	50,539	50,539	N/A	N/A
Highland Park	99,857	357,405	257,548	337,094	.7640
Joliet Mass Transit	443,365	3,024,490	2,581,125	1,860,539	1.3873
Naperville	163,412	628,582	465,170	528,831	.8796
Niles	160,951	297,852	136,901	478,670	.2860
Nortran	3,517,363	9,600,771	6,083,408	10,074,614	.6038
Safeway	4,074,049	10,111,299	6,037,250	10,015,111	.6028
Suburban Transit	1,142,710	4,292,676	3,149,966	3,529,113	.8926
Waukegan	468,305	2,229,457	1,761,152	1,620,277	1.0869
Westmont	-0- (E)	38,496	38,496	N/A	N/A
West Towns	3,519,365	11,221,383	7,702,018	8,479,838	.9083
Wilmette	314,634	758,966	444,332	1,300,844	.3416
Contract Routes (F)	-0- (E)	4,696,446	4,696,446	3,650,236	1.2866
			<u>\$36,652,354*</u>	<u>\$42,527,206*</u>	<u>\$0.79*</u>

\*Not including Geneva and Westmont.

See accompanying footnotes.



Geneva and Westmont; and nine contract carriers) served 42,527,206 revenue passengers and incurred a total deficit of \$36,652,354. This approximated an average subsidy of \$0.79 per passenger, and a median per-passenger subsidy of \$0.76.

Table 5-2 presents similar data for RTA's paratransit service. For 21 projects (including the five demonstration projects, but not including Crestwood and Franklin Park because of incomplete data) 440,308 revenue passengers were served at a total deficit of \$1,306,779. This approximated an average subsidy per passenger of \$1.84, with the median subsidy per passenger at \$1.53. (The difference between the average and median deficits reflects the vast differences among paratransit projects.) Excluding the McHenry County projects (Crystal Lake, Harvard, Marengo), which were financed 100 percent by the RTA, the average subsidy per passenger declines to \$1.47, with a median subsidy value of \$1.41.

As would be expected, the per-unit cost of providing paratransit service is considerably higher (by a factor of nearly .86) than conventional suburban service. The higher cost appears to reflect the low-density type of development, and/or special (E/H) nature of the rider served by paratransit. However, the total units of paratransit service, and therefore total cost expended, is much less than the cost of conventional suburban service (\$36.3 million for conventional suburban service versus \$1.3 million for paratransit service).

Cost-effectiveness comparisons of RTA service must be viewed on an individual basis. Park Forest, a planned town about 30 miles from downtown Chicago, had two fixed routes, with a passenger productivity of 5.7 passengers per vehicle-hour. The village switched to the RTA's paratransit, general-purpose, dial-a-bus program, and productivity almost immediately increased to eight passengers per vehicle-hour. It is now operating at almost 12 passengers per vehicle-hour. The community is developed with centrally located travel generators, which enhance the productivity of paratransit dial-a-ride services.

Table 5-2

REGIONAL TRANSPORTATION AUTHORITY  
 FINANCIAL RESULTS AND OPERATING DATA FOR FUNDED CARRIERS  
 FOR THE (15) FIFTEEN MONTH PERIOD JULY 1, 1979 - SEPTEMBER 30, 1980

PARATRANSIT  
 (UNAUDITED)

Carrier	Total Revenue	Total Expense <sup>(D)</sup>	Total Deficit	Revenue Passengers	Subsidy Per Passengers
Bellwood/Stone Park	\$ 15,169	\$ 82,960	\$ 67,791	\$ 19,117	\$1.0577
Bensenville	16,713	95,847	79,134	33,638	1.5760
Bloomington	4,837	33,489	28,652	5,929	1.5250
Bolingbrook	3,508	27,958	24,450	10,644	1.5735
Chicago - MOSCH	455,345	672,648	217,303	87,546	1.1423
Crestwood	135	4,072	3,937 <sup>(G)</sup>	231	.0433
Crystal Lake	27,109	146,052	118,943	42,125	3.4779
Deerfield	6,338	60,468	54,130	12,789	2.4734
Elgin	3,307	35,988	32,681	12,716	1.1044
Evanston/Skokie	4,833	27,460	22,627	3,222	2.0944
Forest Park	485	14,727	14,242	2,298	1.4012
Frankfort	4,818	32,245	27,427	14,165	1.4138
Franklin Park	N/A	N/A	N/A <sup>(H)</sup>	922	2.5239
Harvard	2,899	23,307	20,408	4,407	4.7681
Joliet - HEPT	60,726	217,317	156,591	42,474	1.0610
Lake Villa	936	6,605	5,669	1,451	1.3797
Marengo	5,228	38,316	33,088	8,510	3.9497
Milton	3,113	15,716	12,603 <sup>(I)</sup>	5,973	1.5249
Palatine	7,800	50,569	42,769	17,178	1.6703
Park Forest	17,072	108,774	91,702	46,501	1.2724
River Grove	6,801	32,153	25,352	18,841	1.0106
Schaumburg	21,016	216,361	195,345	33,634	1.7457
St. Charles/Geneva	9,941	45,813	35,872	17,150	1.4309
			\$1,306,779*	\$440,308*	\$1.84*

\*Not including Crestwood and Franklin Park.

See accompanying footnotes.

REGIONAL TRANSPORTATION AUTHORITY

FINANCIAL RESULTS AND OPERATING DATA FOR FUNDED CARRIERS  
FOR THE (15) FIFTEEN MONTH PERIOD JULY 1, 1979 - SEPTEMBER 30, 1980

FOOTNOTES TO TABLES 5-1 AND 5-2

N/A - Not Available

- (D) Total Expense includes all direct expenses incurred by the carriers plus in-kind assistance paid directly by the Regional Transportation Authority, such as fuel, insurance, major repairs.
- (E) Geneva, Westmont, and the Contract routes do not reflect any revenues. The revenues for these routes are counted by Illinois Armored Car Service, and deposited with the Regional Transportation Authority directly.
- (F) Contract routes are operated by the following carriers: Airporter, Continental Air Transport, Illinois School Bus, Northwestern Transit, Our Town Bus Company, Valley Transit Westway Coach, and Worts Transit.
- (G) This project began on August 1, 1980. The amounts shown are for August, 1980 and September, 1980 only.
- (H) The revenue, expense, and deficit for Franklin Park were unavailable at the time of publication.
- (I) Revenue, expense, deficit and ridership amounts represent (12) twelve months' data (July, 1979 - June, 1980). The subsequent (3) three months' data were unavailable at the time of publication.

By contrast, in Schaumburg (one of the project areas in this demonstration), the major travel generator is in the far northeast corner of the village. Because this lengthens trip distances, increases deadheading, and reduces system capacity, the system can scarcely attain seven passengers per vehicle-hour. Consequently, the RTA is concerned that fixed-route service may be more productive than the paratransit service.

In outlying McHenry County, the RTA is also reviewing the cost of fixed-route and paratransit services. Here, the fixed-route subsidy amounted to \$2.82 per passenger, with a farebox recovery ratio of 16 percent. In comparison, the paratransit service subsidy amounted to \$3.02 per passenger, with a farebox recovery ratio of 19 percent. Paratransit generates a higher rate of recovery from the farebox because its per-hour operating costs are less. The RTA is considering the possibility of a hybrid of paratransit and fixed-route service.

#### 5.4.2 Cost vs. Revenues

During the review of the initial draft of this report, questions were raised regarding the cost of providing paratransit service compared to the amount of tax revenues the RTA receives from the suburbs. The issue here is the equity of services received versus tax subsidies provided. Such data were not researched during the demonstration, nor are they readily available. When available, such data are often controversial, because allocation of cost to service area is not an exact science. In the Auditor General's report referenced earlier,<sup>19</sup> data were presented

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<sup>19</sup>Ibid, see page 29, Allocation of Fiscal Year 1980 Expenses and Obligations by Transportation Area, from which the data for this Section were derived.

for 1980 for restricted revenues\* and a cost allocation for all RTA services for each transportation area; i.e., the City of Chicago, suburban Cook County, and the five outlying RTA collar counties. Of the nearly \$409,000,000 raised in restricted revenues, 48.2 percent was generated in the City of Chicago, and 51.8 percent in suburban Cook County and the five outlying counties (more than three quarters of the suburban revenue was generated in suburban Cook County). According to RTA's cost allocation, total services amounted to \$506,107,000, 71 percent of which was allocated to the City of Chicago and 29 percent to the suburban jurisdictions.

There is a perception in the suburbs, perhaps supported by these data, of an imbalance between tax revenues generated and services received. In many instances, this perception is manifest in a suburban antagonism toward the RTA. The paratransit program, however, which only accounted for slightly more than \$1.3 million, very positively influenced the suburbs toward the RTA through the demonstration projects.

#### 5.4.3 Cost-Effectiveness Assessment

A number of observations, though qualitative and evaluative in nature, support the overall cost-effectiveness of the decentralized approach to paratransit service:

- . The approach is attractive and feasible, as evidenced by the 24 ongoing projects and applications from another 48 communities for additional projects.

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\*Restricted revenues accounted for nearly \$409 million, or all but 22.5 percent of all RTA operating revenues, in 1980. These funds included gas tax, sales tax, Section 5, investments, license tag fees in Chicago and Cook County, contract service receipts, special fare reimbursements, and liquidation of unused prior-year appropriation.

- . While the cost per unit for paratransit is greater than that for conventional suburban service, the overall cost of the paratransit program (\$1.3 million) is small compared to the cost (\$36.7 million) for conventional suburban bus.
- . The paratransit program appears to fit the need in many low-density suburban communities, and the special needs of the elderly and handicapped.
- . The decentralized paratransit program, as evidenced by local interest, returned a valued service to a number of its suburban communities. The program also improved the image of the RTA in these communities at a relatively small cost.
- . The paratransit program appears to have received more positive support from its suburban constituents than its counterpart of fixed-route, fixed-schedule conventional service, even though the latter is funded entirely by the RTA.
- . The local enthusiasm for the decentralized paratransit approach is evidenced by the fact that although most local communities must provide at least 25 percent of the deficit and share in some operating tasks, they have continued demonstration services with additional local financial support.

#### 5.5 IMPACT OF RTA ON PARATRANSIT SERVICE

In responding to this issue, three questions need to be addressed:

1. Does the organizational strategy of decentralized brokerage facilitate or frustrate paratransit development in the RTA region?

2. Does the approach enhance the ability to deliver desirable, useful, economical service?
3. Does this institutional arrangement positively or negatively influence the quality and performance of the service?

The RTA acts as broker in generating paratransit services by funding, providing technical staff assistance, coordinating, and monitoring results. The decentralized approach requires municipalities, or their agents, to plan, match consumers and providers, operate, partially fund, implement, manage or administer a variety of nonconventional services in areas or for markets that cannot support fixed-route, fixed-scheduled conventional service.

In order to respond to the first question, the RTA approach should be compared with other paratransit alternatives, which are: RTA planning and/or operating (directly or by contract) paratransit service--or, at the other extreme, completely abandoning paratransit service to some other unit of government or to the private sector. The RTA strategy facilitates the development of paratransit through local communities, local interest groups, and/or local political leaders. In as complex a region as the RTA serves, with 7 million people living in 260 municipalities in a 3,700-square-mile area, the decentralized approach provides a technique whereby scarce resources (paratransit funding) are intended to be maximized. The decentralized approach facilitates the development of paratransit services. This is evidenced by the interest in the RTA's Paratransit program; 24 local services are now in operation, and applications are pending from 48 municipalities for new and/or additional services. If the RTA had to provide the services itself directly or through contract operators, the services would probably be fewer in number, more expensive, and burdened by policies of standardization, control, coordination, systematic procedures, and the like. There is already a good deal of this bureaucracy, as evidenced by standardized contracts, vehicles, record-keeping and fares.

The RTA could not divest itself of any paratransit obligation and remain consistent with its enabling legislation, because the legislation requires "special commitments to transportation problem of the poor, the handicapped and the elderly..."\*

Regarding the second question, concerning the ability to deliver desirable, useful and economical service--the RTA approach provides a mechanism that responds to an expressed local need. However, that need (i.e., the desirability of the service) must receive local financial support and the endorsement of municipal officials, at least to the extent that they approve the application and pass it through to the RTA. Furthermore, there must be some continuing interest by local officials in supporting the paratransit service, as evidenced by the RTA's avoidance of selecting projects without strong local support.

In the case of the E/H service, in two of the demonstrations, there has been overwhelming testimony to support the usefulness of the services; in the Joliet project, for example, the local project manager obtained more than \$100,000 from the county board to continue the E/H service after the UMTA demonstration funds ended. The Schaumburg project, which serves the general population, also has received strong local funding support. However, in another of the general-population services where there are many school-age riders, the local officials discontinued the dial-a-bus service because it was too expensive, and instead, instituted a shared-ride taxi, but only for the elderly and handicapped.

With respect to economic concerns, paratransit is more labor-intensive and less productive than conventional service. Consequently, it is characterized by higher per-passenger costs. While comparing costs of

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\*RTA Enabling Legislation, Sec. 1.02, Findings and Purpose.



the RTA's decentralized approach with other U.S. paratransit arrangements was not part of the scope of this project, the author's experience in transit studies in other areas indicates that RTA costs are comparable--sometimes higher, sometimes lower--than costs of paratransit services offered under different operating arrangements.

Using taxi carriers for shared-ride services, as attempted in one project, is one way to reduce costs. This method has been successful in a number of areas in the U.S., but not under this demonstration. The remaining UMTA-funded RTA brokerage demonstration project is a shared-ride taxi service. This has commenced, and the results here may provide a better test of this option.

Quality and performance of the service under the decentralized approach is another issue that needs to be addressed. There were mixed results. Positive aspects include the number of projects providing service, the development of technical staff to help facilitate service, the merging of some operations to more efficiently and effectively provide service (over that offered by participating agencies as independent services), improvement of dispatching and accounting procedures, and resolution or minimization of regulatory, union, and insurance issues. Additionally, despite some threats, there has been no litigation as a result of this program.

Negative aspects included substantial delays on the part of the RTA in initiating service (thereby reducing the scope of service by half or more in some instances); complicated, controversial, and prolonged contract negotiations in almost every instance; bureaucratic entanglements with different RTA departments; and involvement of various levels of decision-making by local and regional governments. These were negative influences in that they resulted in delays which, because of inflationary pressure, greatly affected the cost of all projects. In

many instances, the process has since been streamlined to a four- to six-month start-up cycle (which, incidentally, still needs to be reduced). Much of the initial delay was due to required UMTA demonstration procedures, especially the 13(c) Labor Protection negotiations; these factors are no longer a concern of the continuing paratransit program, which is not now involved in UMTA demonstration funding (except for the Libertyville project).

## 5.6 LOCAL INVOLVEMENT AND ATTITUDES TOWARD RTA

The most significant finding at the local level is the importance of a capable local project manager. This individual, for the most part, is the single most important determinant of the success or failure of a project. Under the decentralized brokerage concept local project management can be shifted for a time to a combination of RTA project managers and ad hoc local officials. However, over the long term, leadership has to be vested in capable designated individuals at the local level. While it is helpful for the individual to be technically proficient, he or she must be able to manage people and resources. The individual must exhibit a "can do" attitude so that when impediments are encountered, she or he can develop alternative solutions. Program management, government funding, accounting, dispatching, and a basic knowledge of vehicles and maintenance practices are also important attributes of the ideal candidate for local project manager.

In a situation where a number of local agencies are involved in the paratransit service, which is frequently the case, the local project manager must obtain commitments from each of these agencies on its role in the project. The local project manager must also be able to negotiate these roles and modify them as required as the project moves from start-up through the stabilization phase.

In this instance, the local project manager must realize that she or he is dealing with a program that is not truly decentralized. As a result, there is a constant push-pull between the RTA and local officials over control and budgeting issues. The challenge here is for the local and RTA project managers to find the middle ground between too little planning and administration (which can be a costly disaster) and too much institutional encumbrance. For example, while local officials have been able to work out simple arrangements quickly with service providers, the RTA has had just the opposite experience. The RTA Paratransit staff functions within a bureaucracy that works best with a standardized contract, leasing and insurance agreements, monitoring forms, vehicles, funding arrangements, and fares. Here, the issue will be which of these standard arrangements should be adopted at the local level to improve efficiency, and which should be resisted to ensure the flexibility that local paratransit arrangements must provide.

With respect to the attitude of local officials toward the RTA, in many cases, this began as outright animosity because of project delays, increasing costs, changing regulations, etc. As the projects moved on, a more positive working relationship and respect developed. By the end of the first year of services, this relationship was considerably strengthened, and in most instances, a local-regional partnership now exists. Even in the single case where local and RTA relationships are still strained, there is recognition that the RTA "is the only game in town" and that the program is workable.

Local officials, especially from areas where E/H projects operate, were positively impressed with the RTA's paratransit program and staff, but this did not extend to the RTA as a whole. In some instances where the implementing local officials have been positively influenced toward the RTA, the passengers have not been; that is, the passengers identify with the day-to-day operating agency rather than with the RTA, which is the

major source of funding. In part, this is due to the low-key promotion of the paratransit program; where paratransit has been more aggressively promoted, this promotion has been by local project officials rather than the RTA marketing staff.

## 5.7 TRANSFERABILITY OF DECENTRALIZED BROKERAGE CONCEPT

A principal issue of this evaluation is whether and how the RTA decentralized brokerage concept may be applicable in other situations. This requires identifying factors unique to RTA projects versus factors that may apply more generally. Two cases are addressed:

- . Transferability to other RTA-served communities
- . Transferability to other regions

### 5.7.1 Transferability to Other RTA-Served Communities

There is no question that the decentralized brokerage concept is readily adaptable to other, comparably developed communities in the RTA six-county area. The concept has proven very popular and workable, as evidenced by the 24 operating projects and 48 additional projects for which applications have been submitted by local governments. Only six projects were funded under the UMTA demonstration program. The projects not funded by UMTA have not been followed closely during this evaluation, but their experience appears to have been comparable. The start-up cycle has been greatly streamlined, vehicles are available, regional and local funding arrangements have been tailored to project needs, labor and insurance issues have been resolved. An RTA Paratransit Department has evolved with a considerable depth of experience. Basic problems remain in RTA interdepartmental dealings and in further reducing response time on critical local-regional issues. With regard to the latter, many of the local-regional issues involve funding; presently,

that is beyond the control of the RTA, but is being dealt with by the governor and the state legislature. How these legislative deliberations will be resolved, and how they will affect the RTA, is yet to be determined.

### 5.7.2 Transferability to Other Regions

RTA's experience with the decentralized approach to providing paratransit service should be directly applicable to other comparable areas. The decentralized approach is especially well suited to large, complex metropolitan areas because it enables a multitude of projects to provide a variety of types of paratransit service without an elaborate amount of central staff. In regard to geographic perspective, the decentralized approach could be applied to almost any size region, including statewide (as in Michigan and Minnesota). In very small urban centers (for example, less than 50,000 population), it may be more effective to adopt a more centralized brokerage approach, because with fewer projects, the centralized staff would get more involved in the day-to-day activities of providing paratransit service. Though there may be nothing wrong with this, it would not be consistent with the arm's-length technical facilitation/funding role inherent in the RTA's decentralized brokerage concept.

The following section deals with issues concerning the overall feasibility and practicality of the decentralized concept, unique RTA aspects, and more universal application to other agencies. Three questions are basic to these issues:

1. Is decentralized brokerage a valid concept?
2. Are there features unique to the RTA that limit transferability?

3. Could other transit authorities, or regional organizations with transportation responsibilities (such as county transportation departments), expect the same results if they were to implement decentralized brokerage?

#### 5.7.2.1 Validity of Decentralized Brokerage

The two-tiered approach involving the RTA and local municipalities and/or social service agencies is both feasible and attractive. This is evidenced primarily by the fact that 24 projects are now in operation and 48 applications have been received for expanded or additional paratransit service. Under the RTA's approach, both the RTA and local agency contribute nonfare funding. At least 25 percent local funding (in most cases) has to be provided by some local agency. In a number of cases, the local agencies have contributed more than 25 percent to obtain a higher level of service. Contributions in excess of the RTA's 25 percent minimum local share requirements appear to be more the norm than the exception with the diminution of RTA funds. Since individual projects do not require a considerable amount of funding, it is fairly easy to get into this type of program. The element of funding provided by the RTA makes this program attractive for many local communities that have a demand for low-density and/or specialized public transportation service. Based on the level of community response, the RTA could probably reduce its level of funding and still provide a program in which many communities would participate.

#### 5.7.2.2 Unique RTA Issues

A number of issues may be unique to the RTA that could limit transferability to other regions.

1. The RTA had a mandate to provide paratransit service. This was later reinforced by federal requests for accessible transit. The enabling legislation establishing the RTA required that special transportation problems of the handicapped, the economically disadvantaged, and the elderly be considered in providing regional transportation service.
2. All those residing in the RTA six-county service area provide tax subsidies to the RTA for regional transportation. Tax subsidies provided by the suburban areas were, by most estimates, greater than services received, so there was a need to provide new services. In many instances, it would be too costly to provide fixed-route, fixed-schedule services, and consequently paratransit brokerage became an attractive alternative to conventional service.
3. RTA's paratransit approach has not had any major problems caused by outside regulatory agencies. RTA enabling legislation exempts transportation agencies or carriers with which it has funding agreements from regulation by the Illinois Commerce Commission and regulation by other units of local government (Sec. 2.06 of RTA Enabling Legislation).
4. The RTA program does not have any major impediments relating to insurance. About one year into the demonstration, the RTA created a self-insured risk management program; thus, all the projects that lease RTA vehicles do not have to obtain insurance from private vendors, which, although not an insurmountable problem, can be a difficult task.
5. The fact that RTA can provide a project with a leased vehicle is a perceived advantage by the applicant municipality. Problems with the RTA-provided vehicles have been thoroughly reviewed in this report. For the first 18 months, this aspect of the program was a

disadvantage because it took so long to get the vehicles, which, once received, exhibited mechanical problems. The lesson here was to make do with proven technology (rather than developing specs for a new vehicle) and in any case, to lease vehicles until the purchased vehicles arrive.

#### 5.7.2.3 Application to Other Regions

The RTA's decentralized paratransit brokerage approach appears to be appropriate for a variety of transportation-related agencies that wish to build in local involvement and local funding, yet establish a region-wide program in which the central agency is not directly responsible for the matching of consumers and providers. The decentralized approach encourages this activity and provides a feasible alternative for stretching available funding for paratransit service within an organized regional program, but leaves planning, implementation, and administration at the local level.

The RTA requirement of competitive applications has worked out very favorably for the program. It has permitted a large segment of the suburban community to get involved with the RTA to mutually review programs suggested by local agencies. The progress has worked well for those communities with sound paratransit programs and financial commitment. For other applicants, it has permitted the local community and the RTA to adjust the service concept and/or funding; and, for those applicants without a strong financial basis, it has enabled them to terminate their application in a mutual decision with the RTA.

The average cost of 17 typical projects (not including Chicago, McHenry County, Crestwood, and Franklin Park) for the 15-month period during which the Auditor General conducted his audit (see Table 5-2) was \$54,810. This approximates \$38,688 for a 12-month period. Twenty-five percent of this cost is generally provided by the local entity (or a



little over \$9,600) and the rest by the RTA. On a total basis, this is not a considerable amount; however, on a per-passenger basis, the costs were high. The five demonstration projects averaged nearly \$4.50 net cost/passenger (from Table 4-1) over the course of the demonstration. Administrative costs, again for the five demonstration projects, approximated 17 percent of total monthly cost. While RTA has constantly been reducing these costs, any agency contemplating this type of program should be prepared to expend such funds, at least initially, for this type of program.

While this program has the potential for providing and managing para-transit service which involves both public and private providers, in a large complex metropolitan region, there is considerable opportunity for streamlining its application. Resolving the vehicle issue, simplifying contracts, developing training materials and programs, and in general, simplifying the requirements that the RTA imposes on the local municipalities would enhance the decentralized aspects of the program by giving the local officials as much latitude as possible. On the other hand, certain functions could be best centralized by the RTA, such as acting as a resource for vehicle assistance--not necessarily requiring use of a standard RTA vehicle, but providing information on vehicles that have good operating experience to meet local needs.

Furthermore, RTA training materials and staff expertise could be provided in dispatching, record-keeping and reporting, vehicle maintenance, driver training for handling the more severely handicapped, and sponsoring information exchange seminars for local project managers. These activities would all help strengthen the effectiveness and efficiency of the program.



Appendix A  
PRELIMINARY APPLICATION FORM





# Regional Transportation Authority

300 N. State Street, Chicago, Illinois 60610  
312 836-4000

Lewis W. Hill  
Chairman

ANNOUNCING

RTA's FISCAL YEAR 1980

PARATRANSIT SERVICE DEMONSTRATION GRANT PROGRAM

AND

PARATRANSIT VEHICLE LEASE PROGRAM

The Regional Transportation Authority is pleased to notify you that we are now soliciting applications for two programs which are designed to aid local general purpose governments in the provision of special transit services:

1. The Paratransit Service Demonstration Grant Program

This program is designed to develop innovative transit services designed and sponsored by local communities to meet local public transportation needs.

Projects funded under this program might include a dial-a-ride type service, subscription bus, or other proposed nonconventional transit services.

The primary intent of this RTA program is to gain experience with the provision of special, nonconventional transit services for the general population, including those with special transportation needs, such as elderly and handicapped persons. Such service is particularly appropriate in areas which have nonexistent or inadequate conventional transit service. A basic objective of the program is to determine the appropriate role of these special services in the regional transit system.

2. The Paratransit Vehicle Lease Program

This program will make available small lift-equipped vehicles to general purpose governments to provide transportation for mobility limited persons.

Enclosed are summaries on each program. Also enclosed is a preliminary application with which you may apply to either program.

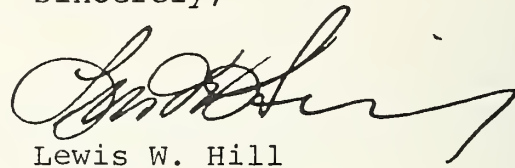
Page 2.

Preliminary applications must reach RTA by May 14, 1980. We encourage submission at the earliest possible date.

After the preliminary applications have been received, a member of the RTA Paratransit Department will contact you to provide further details on the programs.

If you wish to acquire additional information regarding the preliminary application, call the RTA Paratransit Department at (312)836-4243.

Sincerely,

A handwritten signature in cursive script, appearing to read "L. Hill", written in black ink.

Lewis W. Hill  
Chairman

Attachments

## SUMMARY

### PARATRANSIT SERVICE DEMONSTRATION GRANT PROGRAM

- Eligibility:** Any general purpose government in the RTA six county region is eligible to apply for operating funds and vehicles for eligible services.
- Filing Deadline:** The preliminary application should be filed with RTA by May 14, 1980.
- Eligible Services:** Dial-a-ride type service, subscription bus or other proposed nonconventional services are eligible for funding. These services are considered particularly appropriate in areas which have nonexistent or inadequate conventional transit service.
- Operator of the Service:** The applicant government may directly operate the service or subcontract with a private operator or another public agency.
- Application Review:** After preliminary applications have been received, a member of the RTA Paratransit Department will contact you to provide further details on the program.
- Based on the evaluation of the preliminary application, selected applicants will be asked to submit additional information and file a final application. The detailed requirements of the final application including the program contract will be forwarded to those selected applicants.
- Funding Guidelines:** Projects approved by RTA will be eligible to receive up to a \$1.50 per one-way passenger trip or 75% of the project operating deficit, whichever is less. A minimum 25% local share is required. No project may receive more than \$100,000 per year.
- Vehicles:** RTA vehicles, if provided, will be leased to the applicant for a fee of \$1.00 per year. All lease agreements will be reviewed annually and may be extended upon mutual agreement. Applicants should note that implementation of projects dependent upon delivery of RTA vehicles may be delayed because of the lead time required to purchase vehicles.

Length of Funding: Approved projects which successfully meet program guidelines in the first year of operation may be considered for second year funding.

Reporting Requirements: Projects approved by RTA will be required to submit monthly financial and operating reports.



## SUMMARY

### THE PARATRANSIT VEHICLE LEASE PROGRAM

- Eligibility:** Any general purpose government in the RTA six county region is eligible to apply for use of a paratransit vehicle to serve mobility limited persons.
- Filing Deadline:** The preliminary application should be filed with RTA by May 14, 1980.
- Eligible Services:** Any service in which the vehicle will be used primarily to transport mobility limited persons. Mobility limited persons are individuals who are semi-ambulatory or are wheelchair users.
- Operator of the Service:** The applicant government may directly operate the service or could subcontract operations to a private operator or another public agency.
- Application Review:** After preliminary applications have been received, a member of the RTA Paratransit Department will contact you to provide further details on the program.
- Preliminary applications will be reviewed in order to determine the most effective placement of vehicles. Successful applicants will have demonstrated their ability to fund the operating cost of a vehicle and their ability to maintain a vehicle.
- Approved Applications:** Applicants approved to receive a vehicle will be leased a RTA lift-equipped vehicle for a fee of \$1.00 per year. The lease agreement will be reviewed on an annual basis and may be renewed upon mutual agreement.
- Reporting Requirements:** Monthly maintenance and operating reports will be required.



PRELIMINARY APPLICATION FOR THE  
REGIONAL TRANSPORTATION AUTHORITY  
PARATRANSIT SERVICE DEMONSTRATION GRANT PROGRAM  
AND THE  
PARATRANSIT VEHICLE LEASE PROGRAM

REGIONAL TRANSPORTATION AUTHORITY  
PARATRANSIT DEPARTMENT  
300 NORTH STATE STREET  
CHICAGO, ILLINOIS 60610  
(312) 836-4243



Please complete this preliminary application providing as detailed a description of your project as possible. MARK ALL QUESTIONS THAT DO NOT APPLY AS N/A. Return your completed application to:

REGIONAL TRANSPORTATION AUTHORITY  
PARATRANSIT DEPARTMENT  
300 NORTH STATE STREET  
CHICAGO, ILLINOIS 60610  
Any questions, please call  
(321) 836-4243

I. APPLICANT INFORMATION

(1) \_\_\_\_\_  
(Municipality Name)

(2) \_\_\_\_\_  
(Street Address/P.O. Box)

(3) \_\_\_\_\_  
(City) (County) (Zip)

(4) \_\_\_\_\_  
Phone (Area Code/Number/Extension)

(5) \_\_\_\_\_  
Chief Elected Official (Office)

(6) \_\_\_\_\_  
Project Representative (Title)

(7) This application is being submitted in consideration for:

PARATRANSIT SERVICE DEMONSTRATION GRANT PROGRAM

PARATRANSIT VEHICLE LEASE PROGRAM

II. PROJECT DESCRIPTION

(8) Is this Project: Proposed \_\_\_\_\_ or Currently Operating \_\_\_\_\_  
If Operating, for how long \_\_\_\_\_

(9) Are any vehicles being requested through this application: Yes \_\_\_\_\_ No \_\_\_\_\_  
If so, how many \_\_\_\_\_

(10) If the project is currently operating, how many of the requested vehicles will be used as replacements for those already in operation: \_\_\_\_\_

(11) Please provide a brief description of the project service area:

Square Mile Area \_\_\_\_\_

Total Population \_\_\_\_\_

Geographic Boundaries of the service area: \_\_\_\_\_

\_\_\_\_\_

This project will serve: General Public \_\_\_\_\_ Elderly/Handicapped \_\_\_\_\_

(12) Name of project operator or proposed operator, if known:

\_\_\_\_\_

(13) Actual or anticipated project schedule:

Day of Week	Hours of Operation A.M. to P.M.
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

(14) Please indicate the fares or proposed fares: \_\_\_\_\_

(15) Please indicate the existing annual trips or estimated annual ridership  
if the service is not now in operation: \_\_\_\_\_

### III. VEHICLE MAINTENANCE

(16) If applying for RTA vehicles, the applicant is required to provide garage storage space and carry out a preventive maintenance program.

Where will the RTA vehicle(s) be stored:

\_\_\_\_\_

Who will maintain the RTA vehicle(s):

\_\_\_\_\_

(17) The projected annual operating revenues and expenses of the project should be provided for the time period during which funding or RTA vehicle(s) will be provided. The information below will assist you in completing the estimated annual budget at the bottom of the page.

I. Revenues

- User Charges: This category includes revenue expected to be received from passenger fares.
- Subsidies: This category includes operating revenue received from sources other than the RTA.
- Other Revenue: Any amounts received which, under standard accounting practices, would be properly classified as operating revenues.

II. Expenses

- Employee Wages and Benefits: All wages, salaries and benefits provided should be accounted for under this category.
- Administrative Costs: Includes management fees, advertising, marketing and promotion fees and any other general office expenses.
- Vehicle Maintenance: Includes all costs relative to vehicle upkeep.
- Transportation: Includes all non-labor costs relating to the expense of providing service, including fuel, lubricants and the payment of traffic violations.
- Rental Fees: Includes costs of renting vehicles, equipment, land and buildings.
- Insurance: Cost of insurance premiums for liability, property damage and workmen's compensation are included.
- Other Expenses: All additional costs properly classified as expenses.

REVENUES	EXPENSES
User Charges..... _____	Employee Wages and Benefits.. _____
Subsidies:    Federal..... _____	Administrative Costs..... _____
State..... _____	Vehicle Maintenance..... _____
Local..... _____	Transportation..... _____
Other..... _____	Rental Fees..... _____
Other Revenues..... _____	Insurance..... _____
	Other Expenses..... _____
 Total Revenues..... <u>                  </u>	 Total Expenses..... <u>                  </u>

NOTE: For those projects requesting Operating Funds, RTA funding will be a maximum of 75% of Total Expenses less Total Revenues or \$1.50 per one-way trip, whichever is less.

V. SIGNATURE

(18) The applicant certifies that to the best of his/her knowledge and belief that the above information in this application is true and correct.

---

Name of Chief Elected Official (Typed)

---

Office or Title Held

---

Signature

---

Date



Appendix B  
TYPICAL MONTHLY MANAGEMENT REPORT



SERVICE DEVELOPMENT/DEMONSTRATION  
GRANT PROGRAM  
MONTHLY MANAGEMENT REPORT

PROJECT AREA Will County (Joliet) MONTH September

Service Supplied

	Total	Per Day
Service Hours	325	13
Vehicle Hours	764	31
Vehicle Miles	11,757	470

Operating Days; 25  
Number of Vehicles Available: 5  
Average Number of Vehicles Operated: 2.4  
Equivalent Full-Time Employees: N/A

Ridership

	NUMBER	PERCENTAGE
Total Monthly Ridership: 2191		
Average Weekly Ridership: 509		
Average Daily Ridership: 88		
Lowest Day: 6		
Highest Day: 143		
Subscription Riders: -----		
No Shows: 50		
Passengers/Vehicle Hour: 2.87		
Full Fare Adults		
Half Fare 7 - 11		
Students		
Wheelchair Special Users	185	8.5
Non-Wheelchair Special Users	1990	90.8
No Fare Under 7		
Attendants	16	.7

Financial

Grant Period Completed: 25.0 %

Grant Expended: 21.3 %

	Budget	Actual	Per Vehicle Hour	Per Vehicle Mile	Per Passenger
Operating Cost	13,567	6,436	8.42	.55	2.94
Administration Cost	3,233	3,756	4.92	.32	1.71
Total Cost	16,800	10,192	13.34	.87	4.65
Fare Revenue	2,055	804	1.05	.07	.37
Other Revenue	3,078	6,311	8.26	.54	2.88
Net Cost	11,667	3,077	4.03	.26	1.40
Subsidy	N/A	2,769	3.63	.23	1.26

CONSUMER RESPONSE Not Available

MONTH

Total individuals who have used since implementation						
First Time Users (Started using this month)						
Current Users (Used service this month)						
Trip Frequency of Current Users (Trips per month)						
Market Penetration (Current users/eligible users)						

Trip Characteristics

Trip Purpose	Number	Percentage
Medical	Not Available	
Education		
Work		
Shopping		
Social/Recreational		
Other		

Average Trip Length:                      miles  
 Average Trip Time:                              minutes  
 Average Wait Time:                              minutes  
 Average Pickup Deviation:                      minutes

Consumer Satisfaction Not Available

Percent Rated:

	Excellent	Good	Poor
Promptness/Reliability			
Courtesy/Helpfulness			
Comfort			

Appendix C

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## Appendix D

### REPORT OF NEW TECHNOLOGY

A thorough review of the work performed under this contract has revealed no significant innovations, discoveries, or inventions at this time. In addition, all methodologies employed are available in the open literature. However, the findings in this document do represent new information and should prove useful throughout the United States in designing and evaluating future transportation demonstrations.





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