Collier County Transportation Disadvantaged System Evaluation and Enhancement Study

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Transportation Disadvantaged System Evaluation and Enhancement Study

Final Report
COLLIER COUNTY TRANSPORTATION DISADVANTAGED SYSTEM EVALUATION AND ENHANCEMENT STUDY

FINAL REPORT

Prepared for the
Naples (Collier County)
Metropolitan Planning Organization

by the
Center for Urban Transportation Research
College of Engineering
University of South Florida

April 1995
Naples (Collier County)
Metropolitan Planning Organization

2800 North Horseshoe Drive
Naples, Florida 33942
(813) 643-8300
Project Manager: Jeffory Perry

Center for Urban Transportation Research

University of South Florida
4202 East Fowler Avenue, ENB 118
Tampa, Florida 3362-5350
(813) 974-3120

Director: Gary L. Brosch
Project Director: Rosemary G. Mathias
Project Manager: R. Benjamin Gribbon
Staff: Fredalyn Frasier
       Beverly Ward
       Joseph Hagge
       Julée Green
Reviewer: F. Ron Jones
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* TECH of Collier County, Inc.
* Southwest Florida Regional Planning Council

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CUTR would also like to thank several other organizations and people that provided input during this project, including: the Department of Veterans Affairs; the City of Naples; Bob Peacock, C.P.A.; the Department of Parks and Recreation; Girls, Inc., Tri-County Senior Services, the David Lawrence Center, the Marian E. Feathers Clinic, and The Pines.
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INTRODUCTION

In 1994, the Naples (Collier County) Metropolitan Planning Organization (MPO) contracted with the Center for Urban Transportation Research (CUTR) to conduct a Collier County Transportation Disadvantaged System Evaluation and Enhancement Study. The primary goals in this study were to determine how well the current system meets the needs of the transportation disadvantaged (TD) public and to develop alternatives to improve and enhance the system, while identifying any opportunities that these enhancements might provide for the general, non-TD public. The study was recommended following a Transit Feasibility Study conducted in 1993 during which it was suggested that enhancing the local community transportation coordinator (CTC) might help to meet some of the need for public transportation.

This final report summarizes the key approaches, findings, and recommendations presented in the three technical memoranda prepared by CUTR. The reader should refer to these documents for information regarding the details of the project. The technical memoranda address the following issues: Technical Memorandum No. 1 CTC Evaluation, Technical Memorandum No. 2 Public Input, and Technical Memorandum No. 3 Operations Analysis. The study focuses on fiscal year (FY) 1994, and was conducted during calendar year 1994.

The CTC was an active participant throughout the entire review process, taking the initiative to implement many of the recommendations presented by CUTR while the study was still underway.
I. OVERALL CTC EVALUATION

In August 1990, the Collier County Transportation Disadvantaged Local Coordinating Board (LCB) recommended the Training and Educational Center for the Handicapped, Inc. (now TECH of Collier County) to the Naples (Collier County) MPO to be the community transportation coordinator for Collier County. Following the recommendation of the MPO, the Florida Transportation Disadvantaged Commission entered into a Memorandum of Agreement with TECH to provide services for the TD population. TECH has served as the transportation coordinator and provider since 1991. This transportation service is known as Community Transportation.

The following brief overview presents the local context in which TECH operates and was evaluated. TECH is a private non-profit organization that provides transportation services directly. TECH also operates a fixed-route service for the city of Immokalee, a rural community in the county. The Community Transportation service area encompasses all of Collier County, with some out-of-county service provided for certain clients. The county/service area is unique in terms of its geographic setting. It is approximately 2,026 square miles; mostly rural with the majority of the population concentrated along the coast and primarily around the city of Naples. Consequently, there are large segments of relatively low population densities in the county.

These factors and others present an exceptional challenge in the delivery of efficient specialized transit service. Despite these challenges, Community Transportation has grown at a rapid rate. Community Transportation experienced a 73 percent increase in the number of passenger trips provided between FY 1993 and FY 1994. The impact of Community Transportation's tremendous growth and the results of the performance variables are presented in the following evaluation summary.

The Evaluation Workbook for Community Transportation Coordinators and Operators in Florida was used to complete the overall evaluation of TECH. This evaluation model was developed by CUTR for the Florida Commission for the Transportation Disadvantaged and serves as an evaluation tool to determine how well CTCs such as TECH perform from year to year and targets areas for improvement. It should be noted that, as a new
instrument, the *Evaluation Workbook* was not previously available to TECH or incorporated into its defined evaluation criteria. TECH was evaluated in the following areas:

- Competition;
- Coordination;
- Cost effectiveness and efficiency;
- Quality and training;
- Service availability;
- Funding;
- Accountability; and
- Peer Comparisons.

**Competition**

The Commission for the Transportation Disadvantaged does not *require* the involvement of private for-profit operators in the delivery of service; however, it does encourage the use of competition where it can help reduce costs and improve service quality.

In 1994 there were at least 60 other organizations in Collier County that provided transportation to the general public or to persons who are transportation disadvantaged. Included are 46 for-hire operators and 14 public and private social service organizations that provide transportation to clients. TECH, therefore, has a number of organizations that could be considered as potential contract operators, although only a handful may be appropriate.

Currently TECH provides all coordinated TD passenger trips in Collier County and at the time of the study had no transportation operators under contract. Medicaid transportation is also provided by Community Transportation, except for stretcher service. The Agency for Health Care Administration contracts directly with Maxitaxi/Handicab for Medicaid stretcher transportation. TECH has made several attempts to contract with private for-profit operators; however, the parties were unable to reach mutually acceptable terms.

The recommendations presented to TECH addressed the need to develop contracting opportunities and the need to investigate potential barriers in the existing contracting process.
The specific recommendations were:

- TECH should continue to look for services that could be contracted out, but should do so only if feasible in terms of favorable cost and quality or as necessary to ensure availability of service.

- The LCB and TECH should identify potential barriers to the use of contract operators and determine whether any changes in policy are necessary.

The LCB resolved to identify those barriers and TECH has since succeeded in bringing at least one operator under contract.

Coordination

As the CTC, TECH is responsible for ensuring that coordinated transportation services are provided to the TD population in the designated area. There are several means available to coordinate service, including purchase of service (POS) contracts, coordination contracts, and operating as a partial brokerage with operator subcontractors. Coordination also refers to communication among organizations and users of the service.

At the time of the evaluation TECH had 20 POS contracts. However, TECH has no coordination contracts with organizations that provide their own transportation to some of their clients who may be transportation disadvantaged. These agencies have not perceived sufficient incentives to enter into coordination contracts. Under a coordination contract, such agencies could continue to provide transportation to their own clients. TECH would, however, benefit from including the additional service and vehicle statistics among the total reported coordinated trips.

Transportation as a whole for the TD population in Collier County is somewhat fragmented. This is due in part to the absence of coordination contracts with other agencies. To date only Collier County public schools has entered into a cooperative agreement with TECH.

Conversely, there is some coordination and some inherent efficiencies related to TECH being a sole-provider. These efficiencies are evident in TECH's generally well-coordinated internal operations. A single telephone number for Community
Transportation directs calls as needed via a menu. The consolidated operation allows for each passenger trip request to be centrally scheduled, monitored, and reconciled.

As previously noted, TECH has 20 POS contract organizations that sponsor trips making up a significant portion of its ridership. Communication between TECH and sponsored passengers is limited, primarily because these agencies arrange transportation on behalf of clients, which excludes direct communication between the passenger and TECH. The exception applies to TD Trust Fund and rural Section 18 trips, which are booked by the passenger.

The recommendations include:

- The LCB and TECH should identify barriers to establishing coordination contracts and determine what action may be taken to reduce such barriers, in order to enter into coordination agreements.
- TECH should ensure that brochures are always available at appropriate distribution points.
- TECH should continue its quarterly and semi-annual surveys of users and agencies.

Cost Effectiveness and Efficiency

The objectives of examining cost effectiveness and efficiency were twofold. First, to identify general trends during FY 1993 and FY 1994 by examining specific measures and, second, to identify areas to target for ensuring continued system efficiency.

The impact of Community Transportation's significant growth is clearly evident in the marked increase in each of the service statistics presented below. Overall, these statistics suggest improved efficiency in operations. The number of registrants and the resulting number of trips increased while vehicle utilization improved.
Other areas that indicate improved cost-effectiveness and efficiency include: cost per trip and cost per mile, as shown on the following table.

<table>
<thead>
<tr>
<th>Service Statistics</th>
<th>FY 1993</th>
<th>FY 1994</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Trips</td>
<td>79,244</td>
<td>137,115</td>
<td>+73%</td>
</tr>
<tr>
<td>Vehicle Miles</td>
<td>665,037</td>
<td>798,375</td>
<td>+20%</td>
</tr>
<tr>
<td>Revenue Miles</td>
<td>430,267</td>
<td>525,241</td>
<td>+22%</td>
</tr>
<tr>
<td>Deadhead Miles</td>
<td>234,770</td>
<td>273,134</td>
<td>+16%</td>
</tr>
<tr>
<td>Number of Vehicles</td>
<td>17</td>
<td>27</td>
<td>+59%</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td>$776,488</td>
<td>$906,391</td>
<td>+17%</td>
</tr>
</tbody>
</table>

In general, these measures indicate that overall cost efficiency has improved. Community Transportation has experienced a significant decrease in its cost per passenger trip. The significant growth in ridership combined with a limited increase in funding is the primary factor associated with this improved cost-effectiveness. The operating cost per vehicle mile is slightly lower in FY 1994 as well. This decrease, in part, is the result of fixed costs being spread over more vehicle miles. The portion of costs attributable to administration has increased slightly.

The following recommendations for cost effectiveness and efficiency expand upon TECH's accomplishments:
• TECH should look for ways to improve scheduling efficiencies, while maintaining service quality.

• TECH should continue to control administrative costs closely and monitor the relationship between improved administration and improved efficiencies and quality.

Quality and Training

CUTR examined seven specific aspects of quality and training:

• On-time performance;
• Complaints and grievances;
• Vehicle maintenance and comfort;
• Public information and communication;
• Training;
• Safety and risk management; and
• Quality management and improvement.

The key observations from each area are summarized below.

On-Time Performance

On-time performance is a function of the scheduled pick-up time, pick-up window, driver arrival time, dwell time, the actual boarding time, actual drop-off time, and appointment time. It also is a function of scheduling, communication, the environment, and other factors.

At the time of the evaluation, TECH did not monitor on-time performance on a regular basis and only considered the actual appointment time in determining if a trip was on time.

Because of additional demand placed on the system, TECH's on-time performance decreased as a result of its significant growth. It appears that the high volume of trips and successes in efficiency and cost-effectiveness have occurred partly at the expense of on-time performance.

• On-time performance should be reported and monitored regularly, in terms of scheduled vs. actual pick-up times, and in terms of appointment vs. actual drop-off time.

• A standard for on-time performance should be developed and set as a goal. Initially, the standard for appointment
times should be high, but reasonably achievable, such as 85 percent. As on-time performance improves, a standard also should be set for pick-up times. Due to low population densities and long travel distances, it can be expected that on-time performance may not be achievable without additional cost.

Complaints and Grievances

In 1994, TECH revised its process for handling and tracking complaints and grievances to meet Commission and evaluation guidelines. The new process established by TECH is excellent.

During FY 1994, there were no actual grievances.

The evaluation revealed that most of the complaints were received from users and from Community Transportation drivers themselves. However, Community Transportation's training and driver standards suggest that these complaints may be isolated incidents, rather than patterns. The number of complaints about passenger behavior, generally from drivers, suggests a need for better communication both to drivers and passengers regarding passengers' rights and responsibilities (i.e., what passengers can expect and what is expected of passengers).

A common measure of complaints, complaints per 1,000 trips, is quite low for TECH (0.3 in FY 1994 and 0.2 in FY 1993). No changes are required related to addressing complaints, other than targeting on-time performance and communicating passengers' rights and responsibilities. The number of complaints may appear to increase because of the improved reporting methods or the increase in demand.

The recommendations regarding complaints include:

- The specific complaints in each category should continue to be examined for trends that could be targeted for improvement.

- TECH should ensure that the rights and responsibilities of passengers are well-communicated to drivers, passengers, and those who arrange transportation for passengers.
Vehicle Maintenance and Comfort

The vehicles were in good repair and are frequently cleaned although some of the fleet is aging. Standard operating procedures include a thorough pre-trip inspection of the vehicle and its equipment. Only one vehicle (a school bus) did not have air-conditioning; all vehicles had safety equipment.

Overall TECH has managed the maintenance of its vehicles well. One way to measure the effectiveness of the preventive maintenance program is by examining the average number of miles traveled between roadcalls. In FY 1994, Community Transportation achieved 42,020 vehicle miles between roadcalls, compared to 24,631 vehicle miles between roadcalls in the previous year. This trend is consistent with the addition of a mechanic in FY 1994.

Public Information and Communication

TECH has done a good job in promoting and educating the public about Community Transportation. TECH frequently makes presentations about the service, has standard information distribution sites that continue to grow in number, and communicates with passengers via direct mailings.

Passengers and/or organizations whose clients use Community Transportation are surveyed each quarter. Also, TECH communicates with local for-profit operators at least once a year.

Although some communication efforts are documented, an enhancement to TECH's current efforts could include:

- The development of a specific public information process to maintain communication, to gauge the interest of private-for-profit operators in participating, to inform social service agencies, to decrease complaints, and to explain coordination contracts.

Training

Community Transportation has an excellent driver training program. TECH requires all drivers to have a Commercial Driver's License (CDL). In addition, they are required to meet a substantial
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background check, including fingerprinting, a local records check, a Health and Rehabilitative Services (HRS) background check, an affidavit of good moral character, and a 5-year national driving records check. Some of these requirements also exceed the minimum requirements of Florida Administrative Code (FAC) Rule Chapter 14-90 for bus transit systems.

The training program in effect during most of FY 1994 provided vehicle operators with 26 hours of initial training, including orientation, wheelchair management, observation, driving under supervision, emergency and accident procedures, passenger relations, radio usage, map reading, vehicle operation, first aid, CPR, and the Special Transit and Rural Transit Driver Training Program (STARTS). As of early summer 1994, all drivers also receive 16 hours of additional defensive driving, passenger assistance techniques, and sensitivity training. In addition, drivers receive post-accident training and in-service evaluations.

Continuing education for administrative staff also is provided. Managers are able to attend relevant conferences and workshops. In addition, all other Community Transit staff generally receive supplemental training.

Safety and Risk Management

Community Transportation accident report forms, process, and review were recently improved; the current practice is excellent. The results of these proactive accident review procedures are impressive. TECH has averaged approximately one accident per 100,000 vehicle miles for the past two years. Also, the recently added defensive driving and passenger assistance training for operators, has further improved the safety program.

TECH maintains appropriate liability insurance per person, and per occurrence, as well as a general liability umbrella. TECH's liability insurance coverage exceeds the minimum coverage required for CTCs by the Florida Commission for the Transportation Disadvantaged, but it is comparable to those levels carried by other transportation systems of this size and type in the industry.

TECH has a written System Safety Program Plan (SSPP) that meets and appropriately exceeds minimum the requirements of FAC 14-90. The training requirements of FAC 14-90, for example, could technically be met with a less comprehensive training program.
Also, TECH's substantial background check on new drivers, required for some contracts, is more stringent than FAC 14-90 requires (see Operations Analysis).

FAC 14-90 would allow separate safety standards to be established for private contract bus systems (operators), provided they meet the minimum FAC 14-90 requirements.

It was recommended that:

• Community Transportation safety standards should be further analyzed to provide the LCB with sufficient information to determine what standards, if any, might be relaxed to encourage coordination and transportation operator contracts (as needed). At the same time, however, the use of TECH's high safety standards should be encouraged.

Quality Management and Improvement

Many improvements to date have been in areas such as training and maintenance, which are not directly obvious to the passenger. TECH has an informal quality improvement program that includes frequently implementing system improvements and looking for new ways to improve its operations. This process was most evident from the various improvements TECH initiated during the course of CUTR's evaluation. All employees are trained in areas that can enhance performance in their areas of responsibility.

Community Transportation has a computerized management information system (MIS) that collects and reports appropriate information for monitoring service. This system could benefit from additional special reports and calculated performance measures as indicated throughout this document.

During FY 1994, TECH did not have any specific plans in place for improvement, but continued to make improvements as they were identified through the annual evaluation prepared by the LCB, user surveys, management creativity, and other input. These improvements are then written into appropriate documents.

• As long as improvements continue to be generated system-wide and are documented, no more formal quality improvement program is necessary, except as noted.
Community Transportation does not have specific minimum performance standards. The benefit of developing performance measures, includes the ability to monitor success, especially those suggested within this report and those measures already used by TECH.

- Reports and minimum expectations should be established for measures such as: percentage of trips completed on time, missed trips, revenue miles related to vehicle miles, passenger trips per mile, cost per mile, cost per trip, average call hold and processing time, and trip lengths.

TECH is currently working on developing a quality improvement program with performance standards.

Service Availability

The overall availability of the service provided represents an important component of evaluation of Community Transportation; it also is one of the most challenging system elements to measure.

This section presents the summary of the findings from the evaluation in which several key measures recommended in the Evaluation Workbook were used to examine the availability of TD transportation in Collier County. The measures address the following four service availability components:

- Demand met for program and general trips;
- Percentage of requests met;
- Hours of operation; and
- Ability to make reservations.

CUTR estimated that in FY 1993 Community Transportation met 14% of the total estimated need for TD trips in Collier County, and met 40% of this need in FY 1994.* CUTR estimates that for FY 1995 up to 49% of this need may be met. This increase indicates that Community Transportation's increased volume of service is meeting a larger portion of the demand for TD services.

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* These figures represent a correction to figures provided in Technical Memorandum No. 1.
The number of trips provided by Community Transportation increased by 73 percent between FY 1993 and FY 1994. Seasonal variations in demand indicate that it would be helpful to distinguish summer programs from 12-month programs for the purpose of increasing the usefulness of reports in service planning and analyzing demand.

From FY 1993 to FY 1994, Community Transportation experienced a 26 percent increase in the number of trips denied. This percentage partially reflects improved tracking. It also could indicate system shortcomings, such as insufficient communication with the public regarding what trips are eligible or what services are provided or, more typically, increased awareness of the existence of service and subsequent requests for service relative to limited funding. In both years, however, TECH provided 99 percent of the trips requested.

TECH currently uses a self-certification process for all TD registrants. The level of convenience associated with access to the system is quite high. TECH has a reservation system that is clearly defined and organized, and is very responsive to its clients.

At the time of the evaluation, the total number of registered users (active and nonactive) was not monitored. The collection of such information would prove helpful in estimating yearly changes in TD registrant population, which is an indication of the number of people in the population the service is reaching. The total number of registered users would be helpful primarily for the purpose of reporting and for future evaluation of service availability.

The recommendations for improving the availability of Community Transportation to the TD population were:

- The data regarding trips provided and trips denied should be closely monitored as part of service availability measures.
- If staff would find it helpful for service planning and demand analysis, TECH should better distinguish summer programs from 12-month programs in reports.
- A simple system for tracking the total number of new registrants added each fiscal year should be implemented.
- TECH should continued to seek a high profile in its level of communication to the public.

TECH has since added new reports related to types of passengers and number of registrants.

**Funding**

The amount of service provided is a function of cost effectiveness and available funding. As a CTC, TECH is charged with significant responsibility for coordinating TD trips and in administering funds properly. A coordinator must use public funding wisely and be accountable for its actions.

In general, TECH has managed available funding in a manner that efficiently supports the services provided through Community Transportation. Community Transportation funding is outlined briefly below.

Between FY 1993 and FY 1994, Community Transportation funding increased from several sources: farebox, transit fuel tax refund, Tri-County Senior Services, other private contributors and sponsors, the TD Trust Fund, a Collier County grant, Section 18 and 16 funding, and Medicaid. However, total revenues decreased because TECH did not receive as much funding in FY 1994 in FDOT equipment grants, donated equipment, or interest income. During the same time period the farebox revenue, measured as a percentage of operating expense, increased slightly to approximately five percent. Placing the capital grants aside, funding for transportation increased from FY 1993 to FY 1994, but significantly less than the proportionate increase in ridership.

TECH has been successful in identifying and procuring new sources of funding, primarily through new purchase of service (POS) contracts. The rate offered by TECH is equitable. These sponsors are charged a per mile rate, and the fee for each mile is split among the passengers sharing that vehicle at that time. This billing process is complex; however, multi-loading and increased efficiency results in significant cost savings for sponsors where multi-loading occurs.

Funding from the TD Trust Fund will increase from approximately $160,000 in FY 1994 to $351,108 in FY 1995, due in large part to the addition of $150,621 from a $1.00 increase on license tag fees.
The Commission has specified that these funds are to be used for additional service and related equipment, and not for planning. The additional TD Trust Fund monies will present many enhancement opportunities for Community Transportation. Considering Community Transportation's rapid growth, service availability components (such as days and hours of service, passenger information and marketing, telephone access, and, of course, increased provision of general trips) might benefit from the new TD dollars.

Recommendations made regarding funding included:

- TECH and the LCB should consider aspects of service availability, such as trip volume, hours and days of service and telephone access, as areas that would benefit from additional funding.

- TECH should continue to explore funding opportunities, potential new POS contracts, and other contracting opportunities that would enhance service and improve cost effectiveness.

Funding options, including federal and state grants for public transit, were further explored under Task 3, and are discussed in this document under Funding in Section IV.

Accountability

The amount of data a CTC must generate and maintain is extensive. Accordingly, recordkeeping and data management are fundamental to an organized and well-coordinated TD service. TECH's performance with regard to these measures of accountability is commendable.

Overall, TECH performs exceptionally well in terms of reporting service and grant information in a timely manner. TECH's level of responsiveness toward implementing previous reporting recommendations has been quite high. Additionally, the recordkeeping efforts for the organization are very comprehensive. Detailed and accurate service statistics are maintained on a regular basis; however, the information is somewhat underutilized. Such information could prove helpful with tracking system performance as it relates to on-going measures and Community Transportation's yearly goals.
The wealth of data maintained by TECH provides the basis for developing a more comprehensive monitoring system. TECH has begun to address this issue. Recent enhancements resulting from this evaluation include the generation of new reports and the reporting of vehicle/revenue hours.

- TECH should continue to explore options to maximize the usefulness of its extensive MIS database as an internal monitoring tool.
- On-time performance, registrant tracking, capacity/demand information, and other standard performance measures should be utilized, as described under Quality and Training.

Peer Comparisons

CTCs are required to submit various operating statistics to the Commission for the Transportation Disadvantaged each year via an Annual Operating Report. The information is collected according to uniform reporting procedures. Therefore, it may be used to compare certain performance measures among CTCs. These comparisons do not take into consideration specific local factors, but are useful at providing a rough idea of how well a CTC is performing when compared to the median (mid-point) for its peer groups. The peer comparison cannot substitute for a detailed evaluation of the local system itself, however.

TECH was compared with peer group members in several key measures:

- Vehicle miles and revenue miles per TD Category I population, as measures of availability;
- Passenger trips per vehicle and revenue miles, as measures of efficiency;
- Operating expense per vehicle mile, per revenue mile, and per passenger trip as measures of cost effectiveness;
- Accidents per 100,000 vehicle miles, as a measure of safety;
- Vehicle miles between roadcalls, as a measure of service quality and preventive maintenance; and
Local revenue as a percentage of operating expenses, as a measure of effective use of TD funding.

CUTR conducted peer comparisons based on the most recently completed fiscal year for which uniform data were available for all CTCs: FY 1993. The detailed comparison is presented in Technical Memorandum No. 1. TECH was compared to median statistics for other urban private-non profits, other urban sole providers, and other systems with similar ridership levels. Because Community Transportation has such a large rural service area, the system was also compared to rural peers.

TECH generally surpassed its urban peers in several measures: passenger trips per revenue mile, operating expense per vehicle mile, accidents per 100,000 miles, and local revenue as a percentage of operating expense. However, Community Transportation generally did not do as well as its urban peers in several other measures: miles per TD capita, passenger trips per vehicle mile, cost per revenue mile, cost per trip, and miles between roadcalls. Recommendations related to measures are addressed in earlier sections.

Having established the necessary baseline data for trend and peer analysis, it is recommended that TECH conduct another peer comparison as soon as statewide statistics are available for FY 1994, using the Evaluation Workbook and FY 1994 SOR.
II. PUBLIC INPUT

The second component of the evaluation involved the gathering of public input regarding Community Transportation. This task included three components: a public workshop, a survey of Community Transportation users, and interviews with key people in Collier County. The detailed results are included in Technical Memorandum No. 2.

CUTR was pleased to find that all three methods of gathering public input provided similar results, which were consistent with the findings presented in the Overall CTC Evaluation.

In general, TECH enjoys a very positive reputation. The users of Community Transportation are generally appreciative of the service available, but can identify areas they would like to see improved.

The application process was an issue for some people, although the survey indicated that people found initial registration for service relatively simple. Since completion of the public input portion of the project, Community Transportation has implemented a new registration process resulting in faster response time and, apparently, greater accuracy.

All three sources of public input indicated a need for increased service capacity. The availability of service is clearly limited. Increases in funding for Community Transportation from the Commission will certainly help to address this concern. The consistency with which this concern is expressed suggests that the total volume of trips that can be provided should remain an important criterion in any expansion and enhancement options. Capacity constraints also were reflected in the common operational concerns raised during the public input phase. These concerns included: on-time performance, the wait for return trips, long rides, and no-show issues.

Somewhat related to the availability and capacity issue was the common concern about the advance-notice requirement; however, specific concerns varied. For many, the advance-notice requirement for making trips reservations was in itself not a problem, but in combination with limited capacity was a problem (e.g., there is a perception that one has to call at just the right time to get a trip). Others expressed concern that many important trips
cannot be predicted, and the inability to arrange trips on short notice interferes with some essential service.

All three sources of public input also revealed a lot of interest in service expansion, however the suggested directions for expansion vary considerably. There is interest in expanding both the days and hours of service, and including lower priority trip purposes, although emphases varied among recreation, church, education, and employment.

All three forums revealed a lot of interest in fixed routes as a specific form of service expansion. Recommendations ranged from establishing some special paratransit runs to a complete public transit system, and included variations such as point-deviation fixed routes and service routes. (These options are described in more detail in the Part III Operations Analysis.)

An overview of the process and results associated with the public workshop, user survey, and interviews are described in the following sections. These sections faithfully document the issues raised by the public; however, it should be noted that these issues reflect perceptions. These comments have helped to inform the other elements in this project and to bring these perceptions to the attention of those concerned with transportation in Collier County. The summaries include some interpretation of this input and draw some conclusions.

Public Workshop

One of the most essential elements of any evaluation process is the collection of public input, and any solicitation of public input must include a general forum whereby any member of the public can offer an opinion.

The workshop was held on May 16, 1994 at the Golden Gate Community Center and was conducted as part of a special meeting of the LCB. The workshop was attended by 40 people — 24 members of the public, and 16 representatives from the organizations involved, including TECH, FDOT, the LCB, the Southwest Florida Regional Planning Council, (SWFRPC), the MPO, CUTR, and the Naples Daily News.
The participants were provided a brief overview of the TD Evaluation and Enhancement Study and the purpose of the workshop. An interactive exercise was then conducted to identify the major issues that would be discussed.

Although generally positive about the service provided by Community Transportation, a number of issues were raised relating to:

- Other public transportation services;
- Ongoing concerns and priorities;
- Existing service capacity;
- Improvements;
- Expansion; and
- Fixed route options.

*It must be noted that the issues described below reflect only the comments of the participants. Statements include perceptions as well as facts.*

Other Public Transportation Services

It was pointed out that some private transportation providers besides TECH offer transportation services to the general public that meet some of the needs of the transportation disadvantaged (e.g., the Naples trolley and taxis). One taxi operator indicated that he provides service anywhere in town, without advance notice required, 24 hours a day, for only $4.00 each way. This cost seems to be low; however, it also was seen to be too high by many of the attendees. The trolley in Naples was also seen as prohibitive in cost at $9.00 and appears to stop at locations that serve advertisers on the trolley.

On-going Concerns and Priorities

The large size of the county is a major issue, especially in terms of transportation and planning. One participant questioned the quality of Community Transportation's vehicles. Sufficient transportation to medical facilities still is and should remain an important concern. Also, the cost of service is an important issue.
Existing Service Capacity

Many participants described problems related to service capacity, especially requesting trips that could not be accommodated. Some described calling too far in advance of the trip to schedule it, then calling again too close to the trip to fit it into the schedule. A number of people specifically indicated that more drivers and vehicles are needed, especially lift-equipped vehicles. Others described long trips or waits that also may be related to limited capacity. The need for more service was expressed in a variety of ways such as the need for expanded hours of service and/or additional services, described below.

Improvements

Some participants were surprised to find that certain trips were not allowed (most out-of-county trips, for example). Some comments suggest that more information about the purpose and limitations of the program is needed along with clarification of eligibility requirements.

A couple of people commented that it takes too much time to get set up for the first trip. They felt that the applications should be processed within five days rather than two to three weeks.

A number of people complained about poor on-time performance, including: canceled trips, long waits, late pickups, and long rides with too many stops.

Several people complained about passenger no-shows and requested that the policies regarding no-shows be uniformly and strictly enforced. The difficulty of riding out of the way on a vehicle just to pick up a person that does not show was cited to illustrate the point.

One participant suggested that Community Transportation consider an advance payment system, like a weekly or monthly pass, which could possibly reduce no-shows, in addition to other advantages.
Expansion

Many people would like to see the existing service expanded to include transportation in the evenings, on weekends, and on holidays. Similarly, many workshop participants expressed a desire to see service include transportation for lower priority trip purposes such as: social events, church, education, and shopping. A few mentioned a need for transportation for short-notice or unplanned trips, recognizing that Community Transportation does try to accommodate these, but often is unable to do so.

Several people had suggestions regarding planning for service expansion. A hope was expressed that additional funding sources and resources can be found to expand services. It also was suggested that changes and/or expanded services should be planned to allow for growth or further expansion.

Fixed Routes

There was a great deal of interest in some kind of regularly scheduled, fixed-route transportation. The participants seemed to be very flexible with regard to its actual design and seemed interested in flexible variations on fixed routes, such as community circulators and service routes, or different routes on different days.

Many of the participants had far more to say about fixed-route service than they did about the existing demand-responsive Community Transportation service. Some would like to see bus stops throughout the county. Some specific locations were suggested and it was mentioned several times that fixed routes should make it possible to shop, see a doctor, and pick up prescriptions.

These special concerns about Community Transportation were not unusual or surprising given the system's rapid growth and the type of specialized transportation that it provides. The general findings from the user survey are summarized into the following section.

User Survey

CUTR conducted a written survey of representative users of Community Transportation to get additional public input. The purpose of the survey was to elicit opinions about Community
Transportation and to identify future areas for service improvements. Community Transportation also conducts surveys of its passengers and sponsoring agencies to maintain an on-going assessment of service quality.

On June 17, 1994, a two-page survey was mailed to 426 registered users of Community Transportation. In addition, a pre-survey postcard alerting potential respondents about the survey was mailed approximately one week prior to the survey. The sample was drawn by selecting every tenth registrant listed in Community Transportation's data base. Copies of the survey were provided in English and Spanish. The complete survey is shown with responses in Technical Memorandum No. 2. The results of the survey are summarized in the remainder of this section.

Survey Respondents

Nearly three-quarters (72 percent) of the 97 survey respondents were women. Almost half (47 percent) of the respondents were in the 18- to 64-year-old age group, 44 percent were age 65 or older, and 9 percent were younger than 18.

Most respondents live in the Naples area; however, 17 percent of the respondents were from Immokalee. The majority of surveys (87 percent) were completed in English. This respondent profile very closely resembles the actual profile of Community Transportation registrants.

Trip Information

Several of the survey questions were designed to develop a general trip profile of Community Transportation users.

One question asked survey respondents to indicate how they usually booked trips when riding with Community Transportation. Nearly three-quarters (74 percent) of the respondents reported calling to book their own trips. Only 16 percent reported that a friend or relative calls to reserve trips; 11 percent reported that an agency calls to book trips on their behalf.

Survey respondents also were asked when they made their most recent trip. Responses were fairly evenly distributed among the five categories; that is, 23 percent used Community Transportation within the past week, 24 percent within the past month, 14 percent...
within the past three months, 23 percent within the past year, and 16 percent more than a year ago.

When asked about the purpose of their most recent trip, 70 percent reported traveling to a medical appointment. Work and education trips were the next most common trip types (16 percent), recreation and other trips accounted for 9 percent of the trips, and shopping for 5 percent of the trips.

Respondents also were asked whether they paid their own fares when using Community Transportation. Of those responding to the survey, more than half (54 percent) reported that they always pay their own fare. Another 20 percent reported sometimes paying a fare. The remaining 26 percent reported that they never pay a fare, indicating that their fares are paid by a sponsoring agency. For those who reported sometimes or always paying a fare, two-thirds (67 percent) reported paying the standard $3.00 fare per one-way trip, while the remaining one-third (33 percent) reported paying the discounted $1.00 fare per one-way trip for the economically disadvantaged.

Respondents who reported only sometimes or never paying a fare were asked to answer whether Medicaid pays for any of their trips. According to the responses, more than half (57 percent) reported that Medicaid pays for some or all of their trips. Medicaid trips actually account for 17 percent of all trips, or approximately 22 percent of all program sponsored trips. This indicates that riders taking Medicaid trips also use Community Transportation for other trip purposes.

Community Transportation Ratings

One goal of the survey was to analyze how well Community Transportation is performing in its role as service provider. Thus, survey respondents were asked to rate various aspects of Community Transportation's service on a scale of 1 (poor) to 5 (excellent). Although a column for "no opinion" was provided, responses reflect those respondents with a stated opinion. Further, for simplicity, the rating scale was collapsed for reporting purposes to indicate ratings of 1 as "poor," 2, 3, and 4 as "good," and 5 as "excellent."
On the whole, Community Transportation was rated highly by survey respondents. Specific findings are presented in Technical Memorandum No. 2.

It appears that Community Transportation is doing a very good job with respect to its driver skills and safety, vehicle cleanliness, pick-up and drop-off locations, and driver communication. Community Transportation also is well-regarded with respect to vehicle equipment, registering for the first trip, and courtesy on the telephone. As was seen during the Overall CTC Evaluation, areas to examine for potential improvement relate to on-time pick-up and on-time arrival.

One of the two areas cited as poorest relate to service availability, which is a function of funding and the ability to expand service hours, days, and number of vehicles. The other area receiving the poorest rating was prompt pick-up for return trip, which is a function of scheduling, dispatching, vehicle/driver availability, and communication of expectations.

Service Changes and Enhancements

Another goal of the survey was to assess opinions about possible service changes and enhancements that would increase the opportunities for using public transportation services in Collier County. Toward this goal, respondents were asked about their level of interest in using more traditional bus service, offered on fixed routes and schedules.

In particular, respondents were questioned as to whether they would be willing to use a regularly scheduled bus route that provided service every hour during the daytime, if it went where they needed to go. Two-thirds of the respondents (67 percent) answered, "yes," they would be willing to use such service. Another 28 percent answered, "maybe," they would be willing to use this service. Only 4 percent answered, "no," they would not be willing to use this type of fixed-route service.

Respondents then were asked whether they thought they would still need the service provided by Community Transportation if fixed-route bus service was available. Most respondents answered, "yes," they would still need Community Transportation (55 percent) or "maybe" they would need Community Transportation (33 percent).
Only 11 percent answered, "no," they would not need Community Transportation if bus service was available.

To assess opinions about a variety of possible service changes and enhancements, the survey listed 19 service improvements and asked respondents to check the three they would most like. The top three responses are provided below. The entire list of responses is presented in Technical Memorandum No.2.

- Providing service the same day as requested 12%
- Weekend transportation 11%
- More timely pick-ups for return trips 10%

Interviews

In June of 1994, CUTR conducted a dozen interviews with individuals representing a cross section of local interests, which included the human services sector, the business community, local government agencies, elected officials, and users.

This section provides a summary of those interviews in which the participants' impressions of the current service provided by Community Transportation were discussed as well as their general perceptions of transportation in Collier County. The highlights of the interviews are presented in the following three topics: perceptions, improvements, and policy issues.

Perceptions

As is the case with most public services, the person's perceptions varied, depending on the person's level of contact or familiarity with the service. This became very apparent throughout the course of the interviews. The majority of individuals interviewed had a general understanding of Community Transportation's role as a service provider: "to provide transportation to the TD population of Collier County." However, not all agreed that the current type of service was best at meeting their particular agency or clients' needs.

More often, each interviewee had different expectations of the level and type of service. These and other comments reflecting similar sentiments appear to indicate that some users of the system are not familiar with the actual operational aspects or service priorities of Community Transportation. Most of the respondents characterized Community Transportation's primary users as economically
disadvantaged, elderly, or Medicaid clients, although several mentioned social service programs such as STRIVE.

In addition to varying perceptions of Community Transportation's role in Collier County, two other common themes surfaced throughout the interviews. One theme centered upon demand for Community Transportation services; the second, focused on accessibility.

It was the general consensus of those interviewed that Community Transportation was straining to keep up with the demand for transportation services in the county. Despite the organization's efforts to address the growing population of eligible TD passengers, they recognized that there are service limitations inherent to specialized transportation.

It was pointed out that as a result of the high demand for Community Transportation services many potential trips such as shopping, recreation, and employment are not available because they are considered lower priority and often are preempted by medical trip requests. Although most of the individuals interviewed felt that it was necessary to establish trip priorities, they also expressed the importance of addressing the non-medical transportation needs that exist in the county.

Almost every individual interviewed could identify clients or other groups of people who could benefit from the services offered by Community Transportation. Some of the areas and special populations that were identified included Goodlette Arms, an elderly subsidized housing complex; River Park and George Washington Carver Apartments in Naples; and Summers Glen and Farm Workers' Village in Immokalee, all of which are subsidized housing complexes. Other areas suggested were Everglades City and Ochopee.

Most of the individuals interviewed agreed that the level of awareness of Community Transportation in the county was mixed. It was pointed out that most social service agencies were familiar with the services provided by Community Transportation, but not with detailed program information such as eligibility and trip priorities. The general public's awareness was considered much lower. However, it was also pointed out that most of the community was familiar with TECH (the organization through
which Community Transportation is operated) and it is an organization that is viewed favorably within the county.

In terms of registering for the service, the interviewees agreed that the application process was relatively easy, but there were several comments made that it should not take two weeks for potential clients (non-Medicaid) to get into the system.

Improvements

The ideas for improvements to Community Transportation's service were varied and keenly reflected the respondents' perceived needs of their client base or constituency. The majority of the individuals agreed that Community Transportation has put forth a strong effort to be responsive to its rapidly expanding number of clients.

Most of the individuals interviewed thought that the fares for Community Transportation services were equitable. However, several interviewees noted that the passenger no-show policy and imposition of a $5.00 fine sometimes appeared arbitrary. It was apparent that clarification of the no-show policy needed to be better communicated with client agencies and users of the system.

A number of improvements suggested by the individuals interviewed were more logistical in nature. It was the consensus of those interviewed that Community Transportation needed to examine issues of coordination internally and externally. They noted that the services currently offered and how they are delivered should be closely examined as well as coordination with external providers and agencies (i.e., existing and potential transportation providers). Some respondents said that as Community Transportation reaches a point of "critical mass," its use of subcontractors would have to adjust accordingly, particularly if transportation needs other than medical trips were to be addressed in the county.

Most considered the issue of coordination as being the integral component of a successful and efficient TD system. Several interviewees noted that some of their more common concerns with Community Transportation's services such as reliability, timeliness, and level of service were indirect by-products of minimal efforts toward coordination within the organization. Several of the individuals interviewed stated that clients sometimes have to wait for what they consider to be an extended period of time before they
are picked up. It was pointed out that many individuals who use the TD service are physically frail and cannot endure long waits for return trips especially after receiving medical treatment. As a result, timeliness is an important issue.

The level of service currently provided by Community Transportation was discussed extensively. Most of the respondents felt that there were areas and special populations within the county that could greatly benefit from TD services. Several others suggested that the level of service could be improved for areas such as Immokalee. It was pointed out by one social agency representative that there was enough need for medical transportation between Immokalee and Naples to warrant a regular bus. The coordination of trips with other social agencies to common destinations, particularly out-of-county trips, also was discussed as an area for improvement.

Most of the respondents felt that there were areas within the county that could definitely benefit from some type of modified fixed-route service similar to that offered in Immokalee. It was pointed out that such a service did not have to be operated by Community Transportation, but perhaps could serve as a pilot program for a public transit system.

Policy Issues

Among the majority of individuals interviewed, TD services and public transportation were seen as low-ranking policy issues within the county. Several interviewees noted that although Community Transportation had a number of supporters, transportation service was not considered a funding priority in the local political arena.

The need for enhanced coordination with other transportation providers was seen as an important policy issue that needs to be addressed within Community Transportation's organization.

The analysis of the public input was used by Community Transportation to refine its registration process and seek out new subcontractors to meet the demands of their growing clientele.
III. OPERATIONS ANALYSIS

The final component of this study was designed as an operations and enhancement analysis. Whereas the previous elements evaluated TECH as a CTC, and gathered public input about Community Transportation, this final element examines several specific aspects of operations in light of information from the first two tasks.

Operations

The operations analysis included an on-site visit by CUTR to analyze the current registration, reservations, scheduling, and routing practices of Community Transportation. The purpose of this detailed observation was to assess whether there were areas where increased efficiency could be obtained. Indeed, many improvements have since been implemented, as the operation analysis progressed.

Registration Process

A recent system enhancement is the automation of the registration application process. The new process has greatly improved the accuracy and completeness of applications received by Community Transportation. However, the actual turn-around time for an individual to become active in the system still varies from several hours to three weeks. During that time they are not able to use the TD system, unless they are funded by Medicaid or another program sponsor. A drawback to the on-line preregistration is the extended amount of time reservationists are on the phone collecting the necessary client information.

The following recommendations regarding registration were made.

- Community Transportation’s brochures should outline the information potential clients need to have available when they call to register for the service. This will expedite the on-line registration process.

- Community Transportation should consider allowing a temporary eligibility period, pending successful completion of the registration process.
Reservations Process

The reservationists handle all trip requests for riders regardless of the type of trip. Currently, when reservationists receive calls they are responsible for identifying the programs (i.e., funding sources) available to each client, understanding restrictions associated with each program, and applying this information to the trip that is being requested. The current computer reservations software is not programmed to provide any information regarding funding or eligibility criteria, and the reservationists must rely on their own knowledge of each client's funding source(s).

- An on-line enhancement, such as a verification screen to provide program and funding information, would assist in reducing the potential for human error. Some software may also be able to test information about the trip requested against funding limitations.

Strong communication with the client is important when providing paratransit services. Here the reservationist is key to the client-provider relationship. The reservationist is the client’s principal contact with the service other than the driver. The reservationists serve as the first point of information for the client.

The recent expansion of reservationists' duties to include inputting final applications, assigning identification cards, and updating the vehicle maintenance logs during down time is an effective use of personnel. This multi-task arrangement does not appear to interfere with primary call-taking duties of the reservationists.

As the scheduling process is currently practiced, pick-up times are only rough estimates. Reservationists attempt to make it clear that the stated pick-up time is approximate, but the fact that Community Transportation uses an extended pick-up window between 20 minutes before and 20 minutes after the stated pick-up time is not always clearly communicated to clients on a consistent basis when they make their appointments.
• A specific and reliable pick-up window should be communicated to clients at the time a reservation is placed. The public input collected by CUTR as part of this study reflected several of these operational concerns with on-time pick up and on-time arrival, part of which can be attributed to unclear communication with the client.

Although Community Transportation has had difficulty meeting its current on-time window, ultimately the pick-up window should be somewhat shorter to provide more convenient service.

Although not required, each reservationist keeps a daily log of calls taken. Reservationists also handle the trip cancellations, which appear to be significant in number. Most of these cancellations occur on the day of the trip. Community Transportation currently requires one-hour prior notice to cancel a trip without the client incurring a penalty. If the cancellation is within one hour of the scheduled pick-up time the trip is considered a no-show and the client is assessed the $5.00 no-show fine.

• Strategies should be developed to reduce the number of no-shows and last-minute cancellations, and to increase the amount of notice required for cancellations. Many systems use a two-hour notice period for cancellations, after which a late cancel penalty is assessed. By reducing the number of no shows and late cancels, Community Transportation will be able to provide more trips by being more productive.

Scheduling and Routing Process

The scheduling function is the crucial component of the TD delivery system. Enhancements to the scheduling process can result in improved on-time performance, which includes pick-up and drop-off times, and shorter trips for users.

As with most scheduling operations, Community Transportation relies heavily on the individual scheduler’s knowledge of the system, the physical geography of the area, the drivers, and the equipment. The task of compiling daily reservations is daunting. The customized computer system developed by Community Transportation has provided some assistance in streamlining the scheduling process. Nonetheless, the current process has the scheduler operating nearly beyond the capacity of one individual, frequently creating very long work days.
Although the current system provides the scheduler with vital trip and appointment information, there are several areas in which software enhancements could increase the efficiency in the scheduling process and development of the trip manifest.

One on-line enhancement that would prove helpful during the actual scheduling would be the ability to view multiple screens. The current system does not provide a toggle function to switch among viewing screens such as the trip ("line item") screen, the route assignment screen, or the customer menu. Similarly, the current system does not allow the reservationist to pull down detailed address information from the client file or a common address file, which would speed the reservation process and increase the accuracy of information for drivers and reporting purposes.

Currently, subscription trips that are cancelled before the day of the trip cannot be removed from the schedule until the master manifest has been generated for the next day. Although these cancellations have the effect of freeing up room in the schedule for the unscheduled will-calls, they force reservationists to schedule around known cancellations. Community Transportation has recently taken steps to correct this process.

The last step in preparing the trip manifest is to reconcile trip scheduling conflicts and riders' needs by updating the final route assignment after all the information is compiled into the manifest. Some changes are made by hand after the complete manifest is printed, so some changes may not be reflected in the computer if the manifest is reprinted.

Further, some of the information regarding subscription trips cannot be edited to reflect a temporary change. For example, if someone only occasionally requires a wheelchair, the current trip record does not include a field that would allow this variable information to be noted. The permanent record may include or a Y or N to indicate whether a wheelchair is needed, but that code cannot be changed for just one trip. Therefore, the scheduler must remember that the particular client does or does not need a wheelchair for a given trip. This information is kept informally as part of the scheduler's personal notes and on a self-made scheduling form.

- Community Transportation needs to develop a means of inserting temporary information about clients needs.
Trip Denials

Community Transportation does not provide every trip that is requested because of limitations imposed by service rules, eligibility, or vehicle capacity. It is useful to track and examine the trips that are denied in order to identify why trips are most often denied and where demand most exceeds supply. It is also useful to compare these denials to service actually provided and to trip priority policies. Trips are prioritized based on trip purpose, and medical trips have priority over shopping and recreation, for example. Priorities usually are assigned only to subscription trips. If a subscription trip is requested that cannot be fit into the schedule, the scheduler will look for a lower priority trip that can be bumped. With regard to one-time trips, if the number of trips requested for a particular day begins to get close to the maximum capacity of the system, the office manager will instruct the reservationist to begin denying the lower priority trips.

Some trip purposes may be denied categorically, based on the prioritization scale, as needed. The priorities are explained in the brochure distributed to passengers; there are no written procedures for how these priorities are applied.

- A more specific trip priorities policy should be developed by Community Transportation.*

When a user calls to request a trip, and a reservationist or scheduler determines that the trip cannot be provided, he or she records the request as a trip denial in the computer. Community Transportation staff attempt to record, on the computer, any available information about the denied trip, including all of the same information that is associated with a trip to be provided. To save time of both staff and users, reservationists do not request all the details of trip information if they know the trip cannot be provided. The one exception, however, is the reason the trip was denied is always recorded.

The specific reasons trips are denied are recorded as a one-letter code. Community Transportation had a total of 850 recorded trip denials during FY 1994. CUTR has grouped these reasons into three

major categories: 1) capacity constraints, 2) the trip request did not meet the rules of the program, or 3) the person or trip was ineligible.

Capacity Constraints

Fifty-one percent of all trips denied were because of insufficient capacity or funding to provide the amount of service demanded. At Community Transportation, most trip denials in this category are associated with unavailable or full vehicles. Such constraints usually are the result of group trips. In these cases, no other vehicle was available to pick up those patrons that could not fit on the most appropriate vehicle. This scenario accounts for 35 percent of all trips denied, the greatest single reason for trip denials.

For a number of denials, no vehicle was available at the time and place requested. If the vehicle tours (routes) are generally static, these denials may be permanent. Some trips are denied because the patron was unable or unwilling to reschedule, meaning that no vehicle was available in the area at the time the patron requested, but would be available in the area at another time. Patrons are asked if they can reschedule. If they cannot, the request is recorded as a trip denial. Patrons are informed if the situation seems to be on-going and if there is a time when their request usually could be accommodated.

Trip Requests That Did Not Meet Program Rules

Trip requests that did not meet the program rules accounted for 37 percent of all trips denied. Most of these denied trips were requested by eligible riders after the 1:00 p.m. cut-off for the following day (especially for the following morning), after the scheduling process had begun. Those who call after the cut-off time are informed that they cannot reserve a ride, but if they call the following morning the trip might be inserted if the schedule permits. The uncertainty of getting the desired ride encourages advance reservations. Medical trips, which are given the highest priority, usually can be accommodated. Some denials are requests for non-medical same-day service.

Some trips are denied to passengers who are currently suspended from service due to a high number of no-shows or unpaid no-show fines. Although the passengers usually are aware that they are suspended, others who call to reserve trips for them are not always aware that the person has been suspended. These no-show denials
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accounted for only three percent of denied trips. The proportion of trips denied because of the cut-off time is expected to decrease with the new 4:00 p.m. cut-off time.

A very small number of trips (3) were denied because the rider required emergency medical attention (i.e., an ambulance), or the trip could not be provided safely given the staff, equipment, and level of service provided (e.g., no wheelchair access to rider's home).

Person or Trip Ineligible

Twelve percent of trip denials were cases where the passenger or the trip requested was not eligible for service. Given that Community Transportation provided more than 137,000 trips during FY 1994, the number type of trip denials for this reason is surprising low (less than 1 percent of all trip requests), and suggests that efforts to disseminate information about program eligibility requirements for the program are effective and should be continued. Apparently, most who call to register are eligible or do not request a trip once they learn that services are not available to them (at subsidized rates).

Other trip denials related to eligibility had to do with the service area. A few trip denials were for people who do not reside in Collier County and, therefore, are not eligible. More denials come from those who are eligible under a program, but the program will not sponsor the out-of-county trips requested. Community Transportation does not provide out-of-county "non-sponsored" trips under the TD Trust Fund. Combined, these service area denials amount to only 6 percent of trip denials.

Discussion

Although a significant amount of information on trip denials is recorded, it is not easily retrieved. The use of this and other information is limited by the reports that the computer is programmed to generate, a limitation of the whole system. The report available for this analysis included: passenger status, pick-up date, trip-purpose (if known), and reason for denial. The trip denial file has recently been upgraded to allow staff to obtain additional reports.
Reservationists record the trip purpose for trips that are denied whenever possible. Fifty-six percent of the trips that were denied have a trip purpose code recorded.

It is important to recognize that many trip denials may represent multiple trips that could not be provided. The various ways in which service is constrained all discourage attempts to request trips that cannot be provided. For this reason, trip denial statistics should not be relied on for an accurate estimate of latent demand.

Two-thirds of all trip denials for which the trip purpose is known were for medical trips. This figure is in proportion to the purposes of trips actually provided, suggesting that trip purpose is not a major factor in trip denials. Community Transportation does, however, place a priority on medical trips and endeavors to fit them into the schedule if possible.

Even with a priority placed on medical trips, there still are medical trips that cannot be provided, reflecting the fact that demand (in FY 1994) exceeded supply even in this high-priority area. Cross tabulations revealed that medical trips are denied in roughly the same proportions as all trips combined; that is, usually because the available vehicle was full, the patron called too late, no vehicle was available, or the patron was not eligible.

Location of Denied Trips

The origin and destination information is recorded for many of the denied trip requests, which makes it possible to analyze where trips are being denied.

Because half of all trip denials are the result of capacity constraints related to the availability of vehicles at a given time and place, the visual depiction of where trips are denied would provide insight for redesigning tours and developing new tours.

• A new report should be developed that lists trip denials with address information. These locations should be plotted on a map (this can be done through a computerized geographic information system (GIS), or more simply by a reservationist or scheduler with pen and map).

It may be necessary to redesign tours if the existing routing is too strongly based on historic trip demand, even though tours always
have been subject to some daily revision. Note that the identified locations of denied trips does not necessarily reflect the location of all latent demand, only where particular trips have been denied in the past.

- The trip denial locations should be compared to the distribution of the TD population, as described under Transportation Disadvantaged Population in this report to determine whether Community Transportation is serving the expected population.

The locations of denied trips also may suggest areas in which organizations could be targeted for coordination contracts, in order to help meet demand.

Computer Software Options

The process of introducing new technology to a paratransit operation is essentially the same as what is done in any other organization. The organization's data needs, data structure, the flow of information, and how it is used are key issues that must be defined and examined. The goal of such an exercise is to ensure that the software application(s) selected are flexible in addressing the data flow within the organization. Careful assessment of future software purchases will help Community Transportation avoid its current restricted-access data environment. Clearly there are benefits to having database management expertise in-house; particularly in terms of cost effectiveness and increased efficiency.

Recognizing this fact, Community Transportation has recently added to its staff a computer expert who will be responsible for database management.

There are relatively few "full service" paratransit software applications on the market. Full service in this case refers to applications that address the total operation of a paratransit system from aspects of scheduling to vehicle maintenance. However, the current software market is rapidly expanding. Many of the packages offer features that can be interfaced with other "off-the-shelf" software. The increased number of automation options has left many providers wrestling with the issue of how to best apply this new technology, particularly in an economical manner. A list of written resources on paratransit software along with information on several paratransit software packages and vendors available is
provided in Technical Memorandum No. 3; CUTR has recommended several of these documents to Community Transportation staff in discussions about software needs.

Should Community Transportation pursue upgrading its current computer system, the CTCs listed could provide valuable insight into the day-to-day functionality of the software. Also, the Florida Commission for the Transportation Disadvantaged is completing a survey of CTCs as part of a comprehensive MIS project. The information in that report may be helpful in assisting with the future coordination and/or implementation/development of software for CTCs throughout the state.

Community Transportation staff have recently made significant progress in identifying paratransit software that would suit the needs of the system.

Demographics

The locations of the TD population, and the common origins and destinations from and to which they travel were examined in order to determine whether Community Transportation was effectively and efficiently serving the target population.

Transportation Disadvantaged Population

The 1990 U.S. Census of Population provides detailed information on the number of people in distinct areas that fall into certain demographic categories. Although the census does not specifically count the number of people who were "transportation disadvantaged" or qualified for sponsoring programs, information is provided at the block group level on the number of people in particular age brackets, the number of people having a mobility or self-care limitation (disability), and the number of households within particular income ranges. Using this information, we can map the locations in Collier County where the highest numbers of residents live that might be eligible for service on Community Transportation.

Several specific population categories were examined, including:

- Persons aged 65 and older;
- Persons aged 16-64 with a mobility or self-care limitation; and
- Households with income less than $20,000.
The census ranges are not always equivalent to TD criteria, hence the particular categories were selected to approximate the target population served by Community Transportation based on census data ranges available.

Because we were interested in these population segments as a group, the populations can be combined in order to describe where the Community Transportation target population tends to reside. Technical Memorandum No. 3 includes a list of the block groups in Collier County with the highest combined total of these special populations.

These areas, each containing large numbers of the persons who Community Transportation is designed to serve, are widely scattered around the Naples area in western Collier County. These areas are located as far north as Palm River (close to Lee County), and as far south as Belle Meade. Other concentrations are scattered among North Naples, East Naples, City of Naples, and Golden Gate. This dispersed population tends to make efficient paratransit or fixed routes difficult to design. Most areas in between these high-density areas do contain at least a moderate number of senior, disabled, or low-income residents, improving the potential for efficiency somewhat.

Trip Origin and Destination Analysis

An analysis of the locations served by a transportation provider serves several purposes. Most importantly, it serves to create a picture, for planners and policy-makers alike, of the service being delivered by the transportation provider. This picture helps in understanding travel patterns, performance measures, and other important issues, by showing how service is distributed within the service area.

Methods

At the time the operations analysis of this study was begun, the best option for reporting origin and destination data was a software function that allows the user to query the database for specific locations, and report the number of trips to or from that location during a given period. As this query must be done one location at a time, and responds only to the exact address locations requested, CUTR instead extracted a sample of trips to analyze.
The trip data were converted into a form usable for analysis geographically, where each origin and destination could be interpreted and displayed as a fixed point, or combined in information about an area.

Ninety-five percent of the origins and destinations were successfully geocoded.

In December 1994, Community Transportation was able to work with its programmer to design a subroutine to search the database for the most frequently occurring origins and destinations that may more accurately reflect the distribution of trips for future analysis.

**Locations Served**

Due to the variety of eligibility criteria and sponsoring agencies, Community Transportation could potentially serve virtually every address in Collier County. The locations actually served are more limited. The sample (the information extracted for CUTR) includes more than 400 unique origins and destinations.

As geographic data, origins and destinations in the same area may be grouped to identify the general areas that generate the most trips. The most heavily shaded tracts, primarily in the Naples area, have the highest concentrations of origins and destinations. Technical Memorandum No. 3 provides details on the primary locations served by Community Transportation.

**Most Common Origins and Destinations**

Many of the origins and destinations in the sample account for multiple trips, and some trips include multiple passengers. The areas with high target populations but few origins and destinations may be attributed to possible underuse of Community Transportation by residents in these areas or lesser need for service. In some of these areas trips may reflect residents there to generate trips (origins), but there are no destinations (e.g., medical offices) to attract trips.

Similarly, several areas included many trip origins and destinations without very high concentration of the target population, primarily downtown Naples, part of East Naples, just north of the airport, and along Tamiami Trail. In these areas, goods and services are provided, including government centers and numerous medical facilities.
Otherwise, Community Transportation appears to be providing high volumes of service where there are high numbers of transportation disadvantaged residents.
IV. FIXED-ROUTE TYPE SERVICE

The population that Community Transportation serves — the elderly, low-income, persons with disabilities, and children-at-risk who do not have other means of transportation — represents persons who depend most on public transportation services. The following section discusses the fixed-route service provided in Immokalee, and the potential for developing similar strategies elsewhere in Collier County.

Immokalee Bus Route

Community Transportation operates fixed-route bus service in Immokalee, which is located approximately 40 miles north east of Naples. The Naples urban area has no fixed-route public transportation system.

Community Transportation has provided paratransit service in Immokalee since it began serving Collier County. The Immokalee bus route evolved from the paratransit service. In 1993, a major health clinic was moved three miles to the northern edge of town. Recognizing that transportation would be an issue, the clinic convinced the Immokalee Foundation (a charitable organization) to fund transportation for the first year. The hospital donated a vehicle. Community Transportation organized a route to circulate passengers among the medical center in this hospital, pharmacy, and residences. The route has been modified from time to time.

Currently, the Immokalee bus route operates on a fixed schedule and route. Service is offered on an hourly basis, from 8:00 a.m. to 5:00 p.m. weekdays, using a 1988 body-on-chassis school-bus-type 24-passenger vehicle.

- Because of its age and lack of a wheelchair lift, the bus should be replaced with a newer, lift- or ramp-equipped vehicle that is in compliance with the ADA.

The Immokalee bus route is open to the general public. The driver records the number of passengers boarding at each stop, but does not collect a fare. The possibility of collecting a fare has been discussed by TECH and the local coordinating board, but has been dismissed, primarily due to concern over the security of the driver and the collection costs relative to potential revenue.
Staff at the Marian E. Fethers Medical Center record information about passengers visiting the center whose trips are eligible for Medicaid reimbursement. Medicaid billing information is submitted to Community Transportation, which bills Medicaid for eligible trips.

ADA Requirements

In its current configuration, the Immokalee bus route meets the federal definition of a fixed-route for the purposes of the transportation requirements of the Americans with Disabilities Act of 1990 (ADA). Although the Immokalee bus will deviate from the route to pick up passengers who are unable to get to the fixed-route, this service is only provided to persons who are TD eligible, not the general public passengers which define the type of service.

Therefore, to be in compliance with ADA, specific paratransit services must be made available as a complement to the fixed-route for those persons who, because of the nature of their disability, are unable to use the fixed-route service.

- If the Immokalee bus route remains as it is currently operated, then TECH would need to develop an ADA Complementary Paratransit Plan for submission to FDOT. Failure to submit a plan could result in a loss of federal funding.

- Another approach would be to transform the fixed-route bus service into a "route deviation" system available to all persons, in which case ADA complementary paratransit requirements would not apply.

Under a route-deviation system the bus is allowed to depart several blocks from its assigned route to pick up any passengers in response to requests for pick-ups or drop-offs that are off of the normal route. This system also would require acquisition of a lift-equipped bus. Presumably, TD paratransit service would continue to be offered for trips that do not coincide with the service area of the bus route or are required for trips into other areas of the county.
Potential for Offering Fixed-Route Service in Naples

As part of this study, CUTR was asked to consider whether the Immokalee bus service could be replicated elsewhere in Collier County. Although locally successful, the Immokalee bus route is facing a number of challenges with respect to ADA complementary paratransit requirements and vehicle replacement needs.

Several unique aspects of the Immokalee Bus route would prevent its exact replication in the Naples area.

1) Section 18 funding, which subsidizes operating costs for rural public transportation service, cannot be used in the Naples urbanized area.

2) The up-front capital costs to purchase, lease, or contract for new vehicles may be expensive, unless Section 9 (similar to Section 18 but for urban areas) or other federal funds were used to subsidize the purchase of capital equipment.

3) A fixed route serving Naples also would require additional ADA complementary paratransit service, which, as in the Immokalee model, would require modifications to existing TD paratransit services.

Although Section 18 monies would not be available, Section 9 and other state and federal funds are available after the development of a Transit Development Plan.

Proposed Fixed Routes

Two potential fixed routes for the Naples area have been proposed by Community Transportation staff. The proposed routes would connect Coastland Mall and Lely, generally running north/south on Tamiami Trail, and provide a transfer to a route connecting Coastland Mall and Golden Gate, generally running in a circular fashion.

Based on the trip origins and destinations examined in this study, and a review of current paratransit routing patterns, the locations that would be served by the proposed routes generally appear to be targeting the correct areas.
CUTR assessed the potential for implementing fixed-route type services in Collier County as a means of meeting some of the demand for general public transportation and to augment paratransit service. Several options for Community Transportation, and a recommended course of action are presented in the following section.

Other Options

A variety of service options exist that could be considered (either for the Immokalee bus route or for a new service design in the Naples area). These models are variations of the basic design and operation of fixed-route and demand-responsive paratransit services. They are each described briefly.

- General public dial-a-ride service
- Service routes/community bus service
- Route or point deviation service
- Shuttle service
- Feeder service

*General public dial-a-ride service* is demand-responsive, door-to-door paratransit service, much like the type of service already offered by Community Transportation. In this context, however, the general public also would be able to use the service. Other low-density areas have found that providing dial-a-ride services can satisfy some of the general public demand for service in lieu of fixed-route service.

*Service routes/community bus service* is typically provided with smaller buses, and the vehicles are routed through neighborhoods to minimize the distance a passenger has to walk to board the bus. The routes are designed with the characteristics of the community and potential passengers in mind.

*Route- or point-deviation services* operate on a fixed-route; however, the buses are allowed to deviate from the route to allow for greater flexibility. Route-deviation means that the bus has a specified route, and that after deviating from the route to pick-up a passenger, it returns to the route and continues along. After picking up a passenger, the bus returns to the next scheduled checkpoint along the route.
Shuttle service is a hybrid service that provides service between designated points. For example, shopper shuttles could be instituted that would provide service between Golden Gate and Coastland Mall. Shuttles may either operate frequently over very short distances or may run less frequently over longer distances.

Feeder service is similar to shuttle service. Feeder service is most often used to gather passengers who are scattered around the service area and to bring them into one location, where they continue their trip to a common destination. Several vehicles may be used to pick-up passengers located throughout the Naples area. Passengers could then be transferred onto one vehicle to make the long distance trip, freeing the other vehicles to continue providing local service. This option might be applicable for out-of-county medical trips, for example.

Funding

Although it may appear to be easy to shift passengers from paratransit to fixed-route service that is provided in the areas in which they wish to travel, practice elsewhere has shown that this shift is relatively difficult to accomplish.

The costs associated with any type of fixed-route transportation service are significant, particularly start-up costs. New service must be designed, vehicles have to be purchased, drivers must be hired and trained, and the service must be publicized to attract riders. Three general potential funding sources may be considered for capital and/or operating revenues.

Federal Funding Sources

There are several potential funding sources for subsidizing public transportation in the Naples area; however, given the current uncertainty at the federal level, care should be taken when estimating the amount of federal funding likely to be available. Federal transportation law provide for several categories of relevant funding: Section 9, Section 16, and Section 18i funding.

Section 9 Funds. Collier County is eligible to apply for Section 9 funding for the Naples Urbanized Area. TECH is not eligible to receive these funds directly; the funds would be available only through the MPO. A transit feasibility study completed prior to this study was a step in this direction; however, FDOT requires
Section 9 funds would not preclude the use of Section 18 funds for rural areas of the county. Services provided using Section 9 (and Section 18) funds must be made available to the general public.

Section 16 Funds. Section 16 grants and loans are made available to state and local public entities, as well as not-for-profits, for the planning, design, and provision of transportation services. TECH is eligible for Section 16 funds for the purchase of vehicles and related capital equipment. In Florida, Section 16 funds are administered by FDOT.

Section 18i. Section 18i funding has been set aside to provide resources for intercity transportation for rural areas. Since FY 1992, Florida's reserve allocation for this program has grown to $963,216. The state of Florida has established three programs under Section 18i: 1) a voucher program to purchase intercity bus tickets, 2) special projects to develop various intercity bus programs, and 3) development or enhancement of intermodal facilities.

1) Effective in FY 1996, the Commission for the Transportation Disadvantaged has been allocated $400,000 for a two-year period to institute a user-side subsidy program, available to CTC's through local demonstration projects. These demonstration projects provide vouchers to purchase intercity bus tickets for use on Greyhound.

2) During the regular Section 18 application process, applicants may request Section 18i dollars to fund various types of intercity bus program. Questions concerning possible uses of these dollars should be directed to the Section 18 administrator at FDOT.

3) Finally, any money left over will go toward development or enhancement of intermodal facilities, as determined by FDOT.

Community Transportation's recent application for Section 18i funding to connect rural areas to the intercity bus station in Naples was denied.

State Funding Sources

TD Trust Fund. In 1994, the Florida Legislature approved a $1.00 increase in license tag fees, earmarked for the TD Trust Fund, which
is managed by the Florida Commission for the Transportation Disadvantaged.

This increase in funding allows TECH to provide additional "non-sponsored" TD trips. In FY 1995, TECH's TD Trust Fund allocation was more than doubled to nearly $351,108, and was used to provide more trips, especially medical. TECH can use these funds to provide additional TD "non-sponsored" trips or to replace its aging vehicle fleet. These funds could be used to fund additional TD trips under new service designs (e.g., shopping shuttles).

**Public Transit Block Grants.** The State of Florida supports public transportation by means of a public transportation trust fund, from which Public Transit Block Grants are apportioned to recognized transit systems based on population, ridership, and mileage. The block grant is primarily used for operating assistance, however, there is an option for capital. Florida Statutes require that recipients prepare a transit development plan to be eligible. A newly established transit system would be entitled to a minimum level of funding, currently set at $20,000.

**Other Funding Sources**

Two other funding sources also might be a possibility for TECH.

**Project ACTION.** Funded by the National Easter Seal Society and the Federal Transit Administration, Project ACTION awards demonstration grants to agencies proposing innovative transportation programs for senior citizens, children, and persons with disabilities. TECH could submit a proposal, but funding is expected to become increasingly competitive. Such funding would likely address demonstration start-up costs (and documentation) only.

**Project Independence.** Through the U.S. Department of Health and Human Services (DHHS), Project Independence provided financial assistance for the provision of transportation to training programs for persons who are recipients of Aid to Families with Dependent Children (AFDC). In addition, Project Independence will fund the cost of transporting children to day care for persons participating in these training programs. The state of Florida has an allocation of $33 million, available on a 50-50 match basis. Information is available from the Commission for the Transportation Disadvantaged, in coordination with local Project Independence program staff.
V. SUMMARY AND CONCLUSIONS

The evaluation of the CTC, the public input gathered, and the analysis of operations conducted during this study are briefly summarized in this section, and presented with recommendations regarding enhancement options and future directions.

To the credit of Collier County, TECH of Collier County and Community Transportation staff have performed well as a CTC. In particular, Community Transportation has done well in:

- establishing purchase of service contracts,
- coordinating services provided,
- surveying users and organizations,
- speaking to organizations about service,
- increasing the amount of transportation provided with relatively little increase in expenses and funding,
- establishing a new fixed-route in Immokalee,
- administering a complex but equitable fare structure,
- reducing deadhead mileage,
- tracking complaints and trip denials,
- maintaining vehicles,
- training drivers and staff,
- managing risk,
- collecting data,
- handling reservations and calls, and
- identifying and using funding.

CUTR recommended continued activities in many of these areas and, also based on the evaluation, recommended a number of improvements. In particular CUTR suggested that TECH:

- identify and possibly reduce barriers to the use of contract operators and coordination contracts,
- establish coordination contracts,
- maintain stocks of distributed brochures,
- monitor administrative costs relative to expenses and service improvements,
- publish information required for registration and consider temporary eligibility,
- look for opportunities to improve scheduling efficiencies,
- monitor and improve on-time performance,
- consistently communicate and use the established pick-up window,
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- clearly communicate the rights and responsibilities of passengers,
- consider establishing separate safety standards for contract operators,
- establish performance standards,
- create regular MIS reports that track additional performance measures,
- consider specific areas of service availability that might be upgraded with additional TD funding,
- track the number of registrants,
- improve access to collected data,
- conduct future evaluations using baseline data established by this study, and
- continue to seek additional funding sources.

Community Transportation has, as a result of this study and its own initiative, implemented a number of improvements over the past year.

- A model system for handling and tracking complaints was established and maintained.
- Driver training was supplemented with 16 additional hours of defensive driving, passenger assistance techniques, and sensitivity training.
- Staff attended several workshops on paratransit management, operations, and evaluation techniques.
- The registration process was enhanced to collect the necessary client information over the phone, greatly increasing the speed and accuracy of the registration process.
- Staff began to monitor aspects of on-time performance and report these measures to the LCB.
- A number of new computer reports were added to the software and generated as needed. New management reports were also created, including statistics on passenger demographics and trip types.
- A computer specialist was added to the staff to improve access to the collected data.
Other changes have been made to the software to better assist the scheduling process.

Barriers to the use of contract operators were identified and a private operator was brought under contract.

Staff is currently developing performance standards and establishing a more formal quality improvement process.

Staff is looking into new paratransit computer software with automated scheduling capabilities.

TECH is currently pursuing the possible use of Section 18i funding.

Public input collected through the public workshop, rider survey, and interviews with key people in Collier County shows that TECH enjoys a positive reputation. The public is pleased with the drivers and staff, and generally appreciative of Community Transportation service.

CUTR's review of specific aspects of operations, trip denials, software, demographics, trip origins and destinations, fixed-route type service options, and potential funding sources revealed several important issues.

The volume of trips being scheduled is almost beyond the capacity that can be handled by a single person. An improved paratransit software program with automated scheduling capabilities will be needed in the very near future. CUTR has suggested a number of software improvements and considerations, as well as information that would be helpful in evaluating potential software. TECH is currently planning to purchase software that should meet the needs of Community Transportation. Operationally, no-shows and cancellations will continue to affect efficient scheduling.

The volume of passengers carried on the Immokalee bus route makes it a productive and relatively efficient operation. Several unique aspects of this service, however, including its rural service area and donated start-up funding, would make it difficult to replicate in the Naples area. The vehicle used will soon need replacing, and TECH will need to reconfigure the service or else submit and implement a detailed plan for ADA paratransit service to complement the fixed
route. A similar service in Naples would be subject to the same requirements.

Public input and demand estimates consistently indicate a need for increased service capacity, which suggests that the total volume of trips that can be provided will need to remain an important criterion in any service expansion and enhancement options. Even the demand for medical trips, which receive a high priority, cannot be fully met. Capacity constraints have also been reflected in common operational concerns, including: trip priorities, on-time performance, the wait for return trips, and long rides, which also will need to be addressed. CUTR's analysis of trip denials reveals that more than half of all trips denied were due to capacity constraints, which are related to funding limits.

The number of trips provided by Community Transportation has grown dramatically over recent years. More than 160,000 passenger trips may be delivered in FY 1995, more than doubling the volume of service provided within two years. This increase in service has been significantly greater than increases in funding, resulting in a system that is currently very efficient, primarily at the expense of on-time performance. Even at this level, however, CUTR estimates that Community Transportation will meet less than half the total need for TD transportation. It is unlikely that Community Transportation will be able to provide any additional service for the transportation disadvantaged or the general public without a significant increase in funding.

TECH has been progressive in identifying and putting to use available financial resources. Any additional service for general TD trips would need to come from federal Section 9, Section 16, or Section 18i funding; the Commission for the Transportation Disadvantaged; the county; private donations; or from Project ACTION, Project Independence, or other unique grants. Each of these sources has certain limitations that affect their feasibility.

The most significant potential revenue source to support new service in the Naples urbanized area is federal Section 9 funding. This funding is available for service provided for the general public and requires preparation of a five-year transit development plan (TDP) to ensure that the provision of public transportation service is consistent with the travel needs and mobility goals of the community. This funding would also pay for the preparation of a
TDP (although the preparation of a TDP would not commit the MPO to the development of a transit system).

In the short term, Community Transportation staff will be busy with the implementation of improvements begun during the course of this study, such as developing a continuous quality improvement program, developing performance standards and endeavoring to meet them, implementing new software, modifying the Immokalee bus route and/or developing ADA paratransit service, and replacing aging vehicles. These are substantial service enhancements, and will require significant administrative resources. Many of these enhancements will depend upon the considerable skills and abilities of a limited number of key staff people.

In addition to existing service, public input revealed significant interest in various forms of service expansion, including: adding same-day service, expanding the days and hours of service, and expanding service for lower priority trip purposes. Public input also reveals a relatively large interest in adding various forms of regularly scheduled or fixed-route service.

Several of these requests might be accommodated with experimental shuttles. Shuttles would be easier to implement than other fixed-route type services. Under this arrangement, Community Transportation would arrange and offer a point-to-point or many-to-one group type trip between known locations serving TD passengers. For example, Community Transportation would offer a "shopper shuttle" on Saturday from Golden Gate to Coastland Mall. The pick-up times would be set by Community Transportation before the service is offered, and the special trip could be announced over the course of a couple weeks. Trips that might otherwise be denied, low-priority, or inefficient would be funneled to this shuttle service.

Additional vehicles should be acquired, and when available the shuttle might serve other locations on alternating days. Shuttles designed specifically for medical needs (e.g., to common medical facilities and pharmacies) also might be offered. A fair amount of efficient service might thereby be provided by encouraging passengers to schedule lower-priority trips (and even medical trips) around the availability of this service. Section 16, TD funds, county funds, private sponsors, occasionally even specific sponsoring agencies would be appropriate funding sources for this service.
When Community Transportation staff are prepared to undertake additional service improvements, variations of regularly scheduled or fixed-route type services should be pursued. There still is a significant amount of unmet TD demand and a high level of interest in regularly scheduled services.

Community Transportation staff have proposed two potential fixed routes. Based on an analysis of current service patterns, the distribution of the TD population, and origins and destinations served during FY 1994, the areas and corridors that would be served by such routes are appropriate for fixed-route type service, although the specific design of the routes might require modifying.

Until such a time as the MPO determines that it wishes to implement general public transportation, Community Transportation should focus its efforts on services designed for the TD population. With adequate funding for start-up costs, service routes in these areas would be appropriate for the TD population. Once implemented, it would likely be necessary to maintain the means of billing the agencies that would sponsor each TD passenger. Private sponsors might be approached for start-up costs as well, in particular the communities or commercial centers that might benefit from such an arrangement.

Any of the regularly scheduled fixed-route type service enhancements have the potential to benefit the general public, if appropriate funding is provided. However, due to the significant level of unmet need for services for the TD population, such services would do little to meet the demand for general public transportation. Furthermore, until funding for general public ridership is identified, all service enhancements should consider only TD-type ridership, regardless of the potential for use by the general public. If and where service is feasible, the excluded general public may help seek the financial means to expand service to all.

Closing

The many service improvements undertaken by TECH combined with the service enhancements outlined above, under the guidance of the local coordinating board, should serve the transportation disadvantaged well over the next several years as Community Transportation continues to grow.