
CUTR Research Reports

CUTR Publications

5-1-1991

Florida Five-Year Transportation Disadvantaged Plan 1992-1996 - Technical Memorandum No. 2: Performance Evaluation and Attitudinal Survey - Executive Summary

CUTR

Follow this and additional works at: https://scholarcommons.usf.edu/cutr_reports

Scholar Commons Citation

CUTR, "Florida Five-Year Transportation Disadvantaged Plan 1992-1996 - Technical Memorandum No. 2: Performance Evaluation and Attitudinal Survey - Executive Summary" (1991). *CUTR Research Reports*. 297.

https://scholarcommons.usf.edu/cutr_reports/297

This Technical Report is brought to you for free and open access by the CUTR Publications at Scholar Commons. It has been accepted for inclusion in CUTR Research Reports by an authorized administrator of Scholar Commons. For more information, please contact scholarcommons@usf.edu.

**FLORIDA FIVE-YEAR
TRANSPORTATION DISADVANTAGED PLAN
1992 - 1996**

**Technical Memorandum No. 2
Performance Evaluation and Attitudinal Survey**

EXECUTIVE SUMMARY

Prepared for the

**Florida Transportation Disadvantaged Commission
and the
Florida Department of Transportation**

by the

**Center for Urban Transportation Research
College of Engineering
University of South Florida**

May 1991

PREFACE

This is the executive summary for the second of five technical memoranda to be produced by the Center for Urban Transportation Research (CUTR) for the Transportation Disadvantaged Commission and the Florida Department of Transportation. These memoranda, along with a final report, will comprise the Florida Five-Year Transportation Disadvantaged Plan that is mandated by Chapter 27.013 (14), Florida Statutes.

Technical Memorandum No. 1 provided an introduction and historical perspective to transportation disadvantaged services in Florida. Technical Memorandum No. 2 reports on statewide operating data, on results of an attitudinal and needs survey, and on an evaluation of the existing transportation disadvantaged system in Florida. Technical Memorandum No. 3 will present demand forecasts for transportation disadvantaged transportation services over the next five years. Technical Memorandum No. 4 will provide estimates of the cost of meeting the demand and will explore the ability of current funding resources to meet that cost. Technical Memorandum No. 5 will discuss policy issues, goals and objectives, and implementation strategies.

The preparation of this report has been financed in part through a grant from the U.S. Department of Transportation, Urban Mass Transportation Administration, under the Urban Mass Transportation Act of 1964, as amended.

**FLORIDA FIVE-YEAR
TRANSPORTATION DISADVANTAGED PLAN
Technical Memorandum No. 2**

EXECUTIVE SUMMARY

The technical memorandum that is summarized here provides a comprehensive review and analysis of the available data on transportation services for the transportation disadvantaged in the state of Florida. While data availability, quality, and detail are less than optimal (especially for years prior to 1987), the information does provide a strong basis for understanding the performance and trends of Florida TD services. The performance evaluation described in Technical Memorandum No. 2 covers the five-year period from 1985 to 1989 and addresses transportation disadvantaged (TD) services coordinated by the Florida Transportation Disadvantaged Commission.

The commission is an independent agency serving as the policy development and implementing agency for Florida's TD program. A major responsibility of the commission is to contract with local community transportation coordinators (also referred to as local coordinators or CTCs) for the delivery of TD services. The number of counties in the coordinated system grew from 47 to 63 between 1985 and 1989. By the end of fiscal year 1989 (all years are fiscal years unless otherwise noted), the commission had entered into formal agreements with 48 local coordinators to provide service in the 63 coordinated counties.

The commission oversees a diverse system of coordinators.

Local coordinators differ by organization type, by how service is provided, and by type of service provided. As shown in Table 1, a CTC may be a private non-profit or private for-profit

EXECUTIVE SUMMARY

organization, a government agency, or a public transit agency. In 1989, 33 of the 48 coordinators were private non-profit organizations. Some coordinators operate all of the TD transportation service in their counties and are referred to as single-providers. Others contract out all of the service to other operators and are referred to as brokers. Those who do a combination of operating and contracting are referred to as multi-providers. More than half (28) of the coordinators are single-providers.

TABLE 1. CTCs by Organization and Network Type, 1989.

Type of Organization	Type of Network			Total
	Single-Provider	Multi-Provider	Broker	
Private Non-Profit	24	7	2	33
Private For-Profit	1	1	0	2
Government Agency	3	1	3	7
Public Transit Agency	0	5	1	6
Total	28	14	6	48

Specialized transportation services for transportation disadvantaged persons often are referred to as paratransit or demand-responsive services. These services provide origin-to-destination service on demand. The service usually is curb-to-curb but can be portal-to-portal for those requiring assistance from their house to the vehicle. Coordinators also have established fixed-route and subscription services in areas where trip needs among TD passengers are similar. Paratransit services are provided with a variety of vehicles, including automobiles, taxicabs, vans, and mini-buses. Medicabs, which can transport stretcher-bound persons, usually are available for those with more serious mobility limitations. In addition, the Joint Use School Bus Program has led to the use of school buses for transportation of TD persons when the buses are not in use transporting students.

TD service is operated in a variety of environments, ranging from densely populated urban areas to remote rural communities. Differences among

EXECUTIVE SUMMARY

coordinators also include factors such as years of operational experience and trip-type focus (for example, medical versus non-medical). In short, the TD program is composed of many complex and unique coordinators. The diversity found among the various CTCs and the operators within their networks will invariably lead to significant differences in operating performance.

Over 6.2 million TD trips were provided in 1989 by coordinated TD operators.

The number of passenger trips reported by the local coordinators increased from 1.6 million in 1985 to 6.2 million in 1989, as shown in Figure 1. Most of that increase is a result of

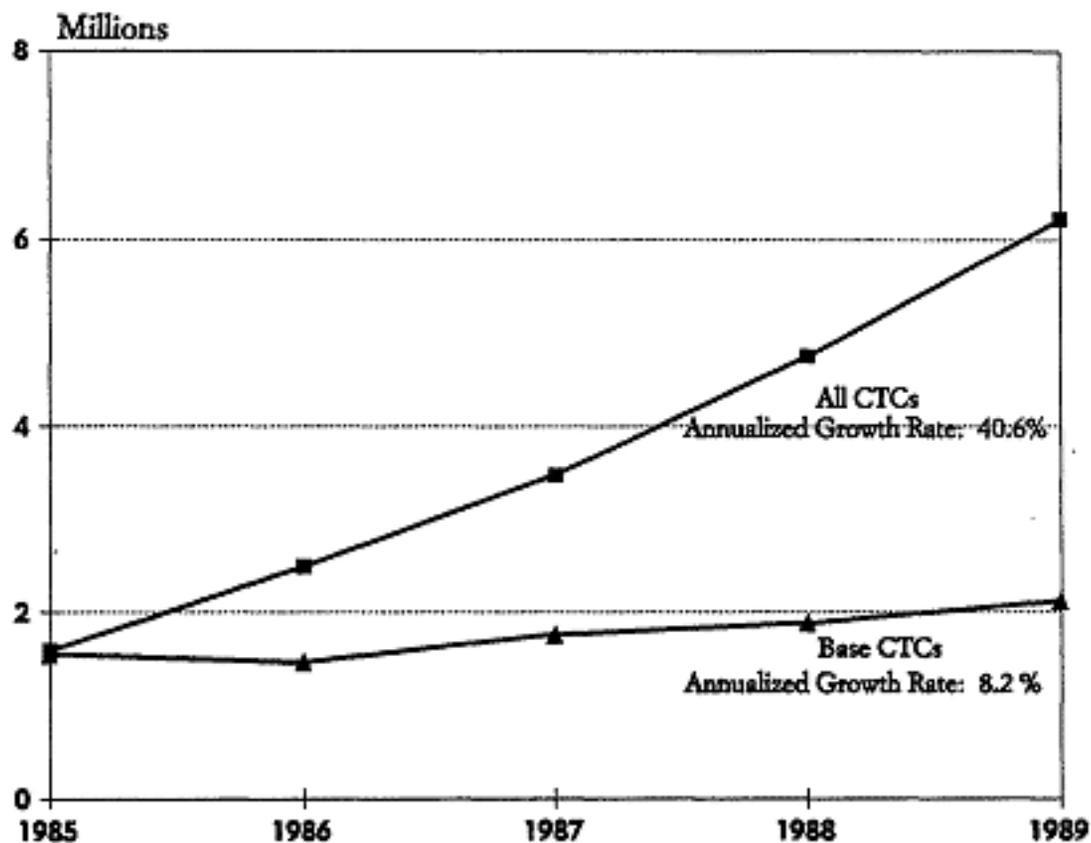


FIGURE 1. Passenger trips, 1985-1989.

increases in the number of counties and coordinators providing data to the TD Commission, rather than of actual new trips. To determine the trend for existing networks, operating statistics also were evaluated for those

EXECUTIVE SUMMARY

coordinators (25) that submitted annual operating reports in all five years. From 1985 to 1989 this base of 25 CTCs experienced an average annual growth in passenger trips of 8.2 percent.*

Total operating costs for coordinated TD service in 1989 were \$33.5 million.

Total operating costs increased from \$7 million in 1985 to \$33.5 million in 1989, as shown in Figure 2. Most of the increase, as noted previously, is due to increases in reporting. For the

25 base CTCs, expenditures increased from \$6.8 million to \$11.3 million, or 13.6 percent per year.

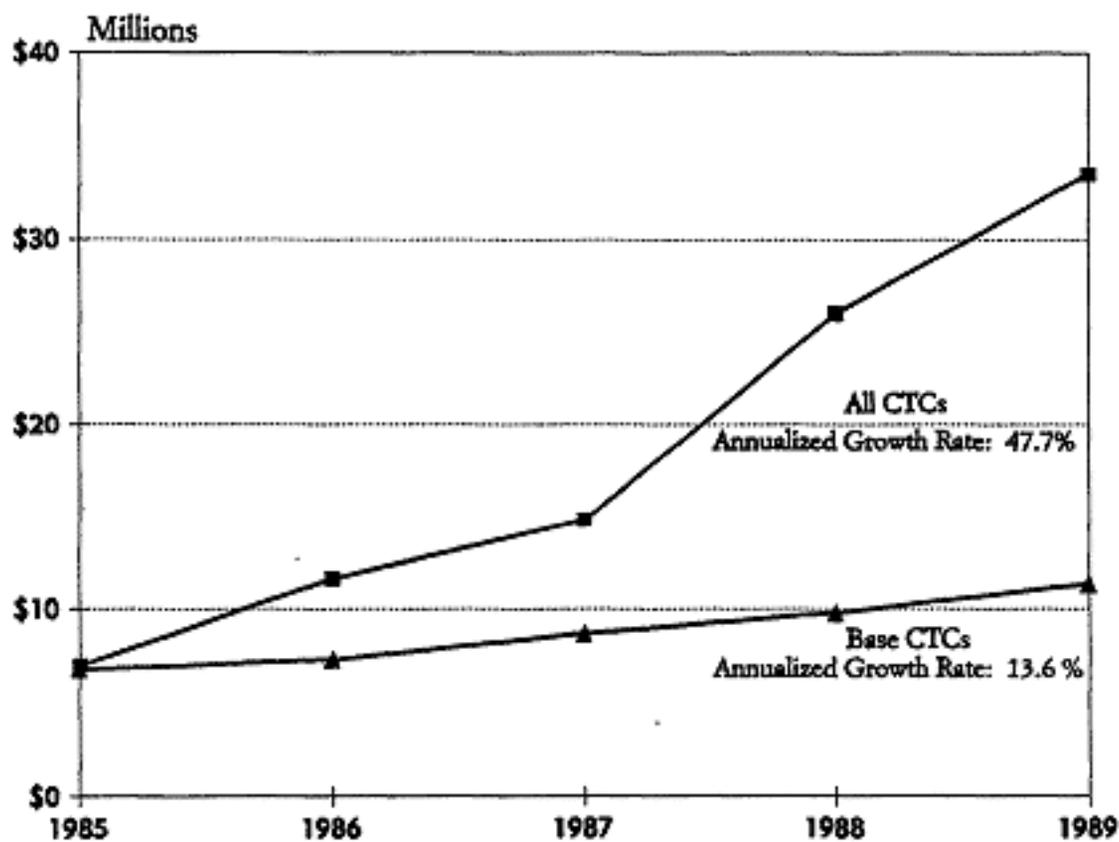


FIGURE 2. Operating costs, 1985-1989.

*Annual (or annualized) growth, as used here, refers to an annual compounded percentage change. This rate is different from a simple average rate, which is derived by dividing the percentage change over a period by the number of years in the period. For instance, a 100 percent increase over ten years is a simple average of 10 percent per year, whereas an annualized increase (which includes compounding) of 10 percent per year will result in a 100 percent increase in seven years.

EXECUTIVE SUMMARY

The unit cost of providing TD service grew moderately.

The cost of providing service was evaluated using two performance measures: operating cost per passenger trip and operating cost per vehicle mile. These measures were calculated for the

coordinated system (i.e., all CTCs) and adjusted for inflation using the national inflation rate as defined by the percentage change in the consumer price index (CPI).^{*} As shown in Figure 3, operating cost per trip for the coordinated system (all CTCs) increased from \$4.43 to \$5.39, an annualized growth rate of 5.0 percent per year.^{**} Adjusted for inflation, real operating cost per passenger trip in 1989 (expressed in 1985 dollars) was \$4.68, which is equivalent to an annualized increase of 1.4 percent per year.

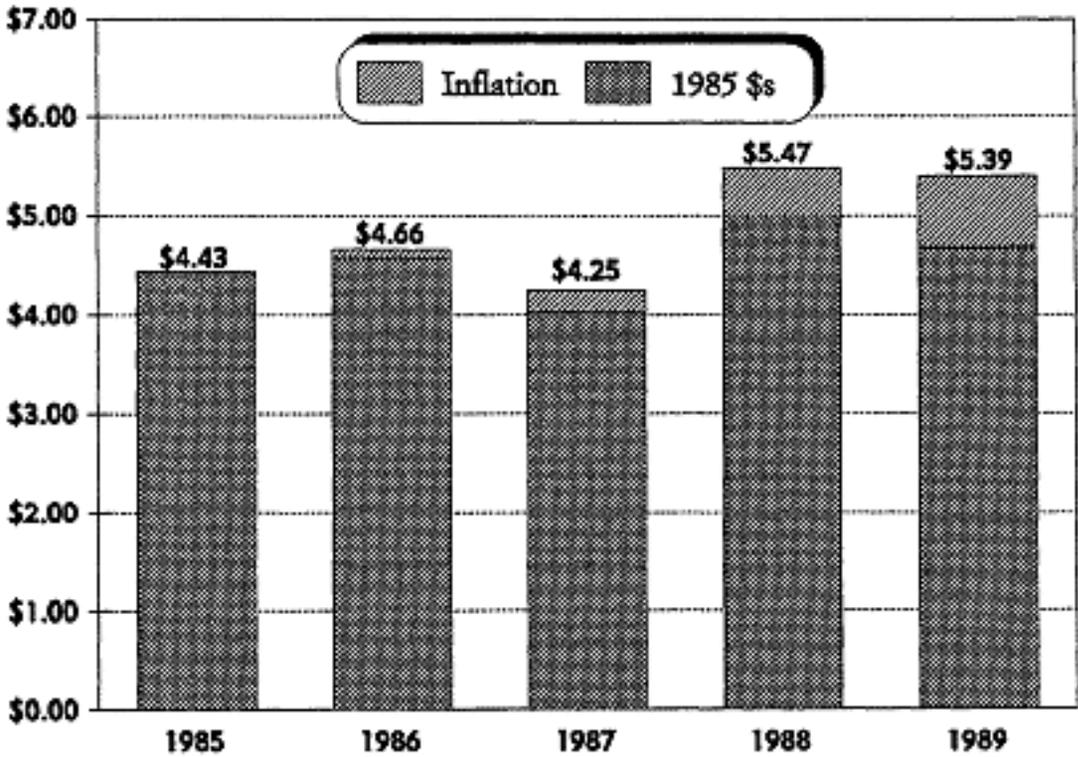


FIGURE 3. Operating cost per passenger trip, all CTCs.

^{*}Adjusting for inflation converts costs from a number of years to a base year equivalent value, in this case, 1985 dollars. Using this technique, the real change in costs over a trend period can be shown. The term "real" is used to refer to changes in costs that are due to changes in service levels or productivity rather than to inflation—or deflation.

^{**}All CTCs, rather than just the 25 base CTCs, are included in these calculations because the data interpretation problem resulting from new CTCs reporting is eliminated with the use of unit costs, or ratios.

EXECUTIVE SUMMARY

As shown in Figure 4, operating cost per vehicle mile increased from \$1.04 in 1985 to \$1.24 in 1989, or 4.5 percent per year. Operating cost per vehicle mile was \$1.08 in 1989 when adjusted for inflation. Based on this inflation-revised value, annualized growth was 0.9 percent per year.

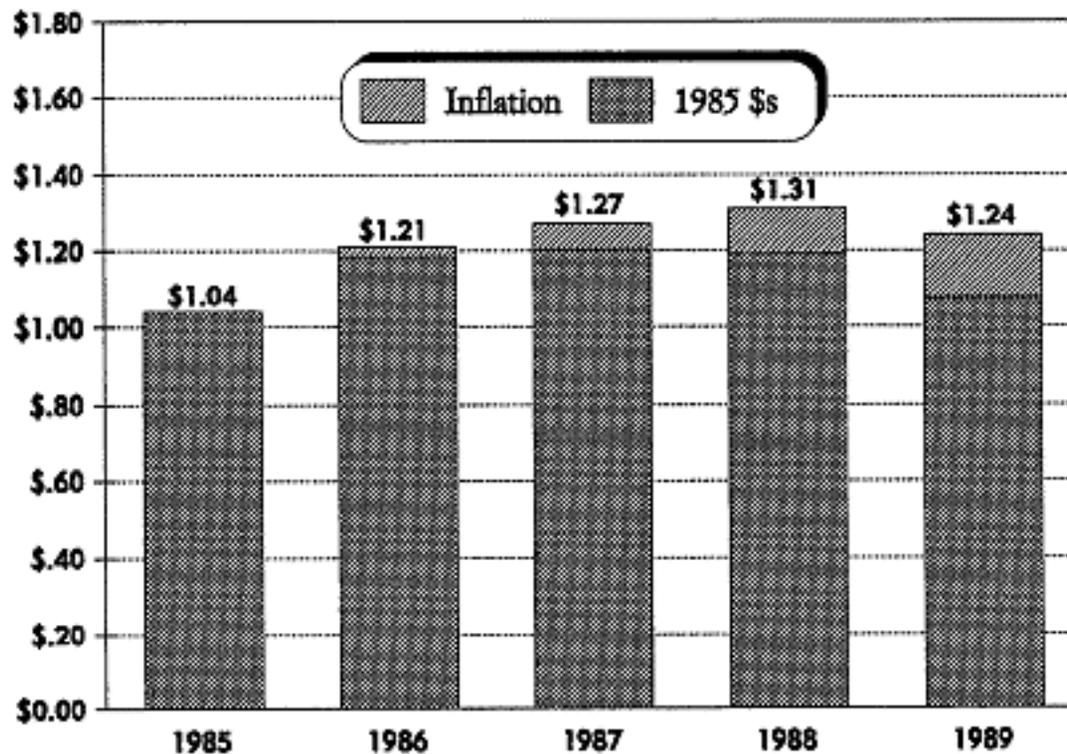


FIGURE 4. Operating cost per vehicle mile, all CTCs.

Spending on contracted services and insurance has increased dramatically.

Although the increases in the overall unit costs of providing service have been moderate, there have been significant increases in some specific expenditure categories. Figure 5

shows the percent change in individual cost categories from 1985 to 1989 for the base CTCs. The increase in the expenditures on services was nearly three times the next highest increase. This increase reflects the greater use of contracted transportation operators and outside vehicle maintenance vendors by the CTCs. Insurance, which includes casualty insurance, vehicle insurance,

and workmen's compensation, experienced the second highest increase. The decrease in the spending for supplies reflects reduced expense for vehicle parts due to the increase in the use of contracted maintenance, as well as stable fuel prices through the five-year period.

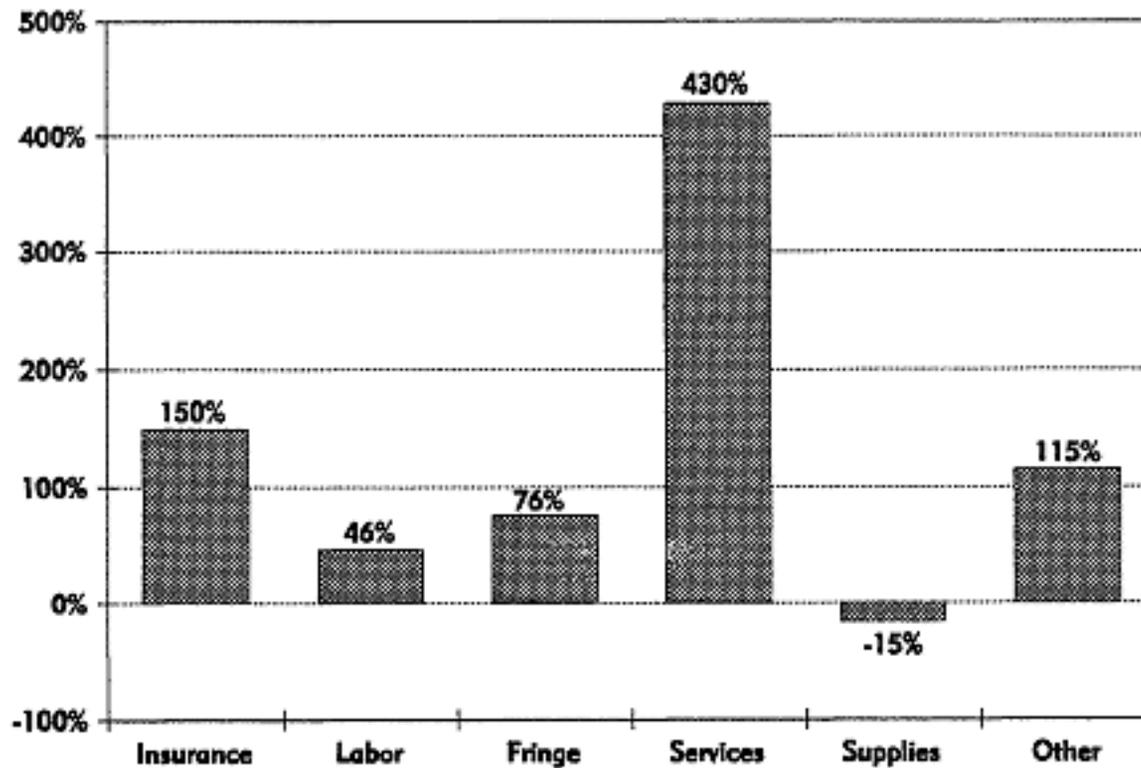


FIGURE 5. Changes in cost for base CTCs, 1985-1989.

Insurance is a small portion of total trip costs.

The changes in the individual expenditure categories were further evaluated to determine how these changes have affected TD trip costs. Table 2 shows operating cost per trip for the

base CTCs (i.e., the 25 CTCs that submitted data in all five years), which is only slightly different from all CTCs. Insurance costs per trip increased from \$0.19 in 1985 to \$0.34 in 1989, or, discounting for inflation, to \$0.30. Thus, the dollar increase in insurance cost per trip is small, adding only \$0.15 per trip in current dollars over the five year period, or \$0.11 per trip in 1985 dollars.

TABLE 2. Average Operating Cost per Trip for Base CTCs.

Category	1985	1989 ('89 \$s)	1989 ('85 \$s)
Labor	\$2.22	\$2.36	\$2.05
Fringe	.49	.63	.55
Services	.21	.82	.71
Supplies	.88	.54	.47
Insurance	.19	.34	.30
Other	.42	.66	.57
Total	\$4.41	\$5.35	\$4.65

The share of total operating funds provided by local sources increased substantially.

From 1985 to 1989, there was a dramatic increase in local funding of TD trips. As shown in Table 3, funding provided by local sources increased from 11.8 percent of total operating funds

to 36.6 percent. These funds include local government subsidies and operating revenue (e.g., passenger fares and charter revenue). This increase is partially the result of new CTCs reporting. Among the base CTCs, funds provided from local sources increased from 12.1 percent of total operating funds to 25.7 percent.

Operating funds provided by the federal and state departments of Transportation have not kept pace with growth in the TD program. Although funds received from these sources increased slightly since 1985, the percent of total funds received from both sources dropped from 31.6 percent of total operating funds in 1985 to 7.6 percent in 1989. The TD program's largest contributors of funds are the departments of Health and Human Services (federal) and Health and Rehabilitative Services (state). These sources have increased slightly their share of total funds provided, from 46.2 percent of total operating funds in 1985 to 49.6 percent in 1989.

EXECUTIVE SUMMARY

TABLE 3. TD Operating Funds by Source as Reported in AORs, 1985 and 1989.

Funding Source	1985	Percent of Total	1989	Percent of Total
Departments of Transportation *	\$ 2,256,909	31.6%	\$ 2,323,435	7.6%
Departments of HHS and HRS	3,302,191	46.2%	15,215,952	49.6%
Department of Education (state)	166,420	2.3%	141,224	0.5%
Department of Community Affairs	516,235	7.2%	506,331	1.6%
Departments of Labor *	41,080	0.6%	250,945	0.8%
Other Federal Programs	22,228	0.3%	1,000,520	3.3%
Local Government	12,248	0.2%	7,623,170	24.8%
Other Local	827,836	11.6%	3,623,333	11.8%
Total	\$ 7,145,147	100.0%	\$ 30,684,910	100.0%

* Includes federal and state

In addition to the annual operating reports, TD funding data are available in the annual budget estimates (ABEs) prepared by various state government departments. The ABEs contain the estimated amounts that these departments expect to spend during the coming year on TD transportation throughout the state. The estimates do not include projected local spending. In 1989, \$50.2 million in federal and state funding was reported in the ABEs, compared with \$30.7 million reported in the AORs, which includes \$11.2 million in local funds. The primary difference between the ABE and the AOR totals is that the ABE total includes funds spent on TD transportation provided by operators who are not part of the coordinated system. The AOR data are only for operators who have signed agreements with the local CTCs. (For more information, see Technical Memorandum No. 1.)

Trends in other areas of performance are mixed.

Other areas of performance that were evaluated include reliability, safety, and resource utilization. Table 4 summarizes the trends for the coordinated system. In some areas, such as service

EXECUTIVE SUMMARY

reliability, vehicle utilization, and labor productivity, performance trends have been favorable. The trend in TD service safety, as measured by accidents per 100,000 vehicle miles, was unfavorable, which may account for some of the increase in insurance costs.

TABLE 4. Summary of Other Performance Trends.

Performance Category	Performance Measure	Five-Year Trend (1985-1989)
Reliability	Vehicle Miles between Roadcalls	Favorable. Increased from 9,120 to 21,312, for a total increase of 134 percent.
Safety	Accidents per 100,000 Vehicle Miles	Unfavorable. Increased from 1.68 in 1987 (first year data collected) to 2.53 in 1989, for a total increase of 51 percent.
Vehicle Utilization	Vehicle Miles per Vehicle	Favorable. Increased from 18,191 to 25,414, for a total increase of 40 percent.
Labor Productivity	Passenger Trips per Employee	Favorable. Increased from 3,641 to 4,242, for a total increase of 17 percent.

The size of the Florida coordinated transportation disadvantaged program increased significantly from 1985 to 1989. The data suggest that real growth in service delivery, measured by passenger trips, was approximately eight percent per year. The cost of TD service per trip grew about five percent per year. There also has been a significant shift in funding sources, with the funding provided by local sources increasing from 12 percent of total funding in 1985 to 37 percent in 1989.