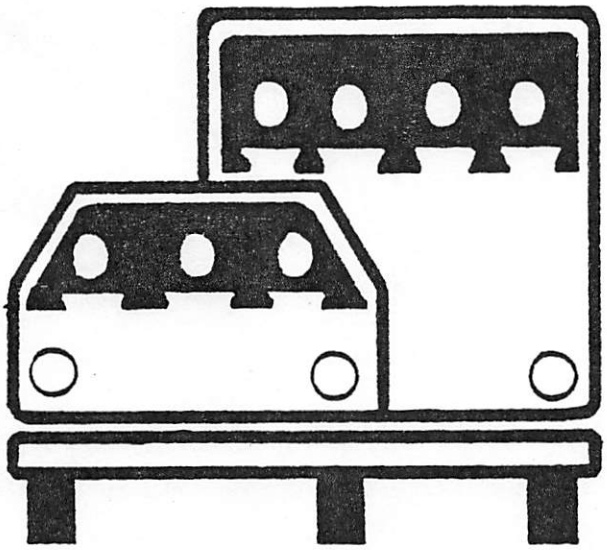
FINAL REPORT

to the

Appalachian Regional Commission

Jan. 1986

Contract No. 81-167-NY-8202-81-IR-300-0520



TOMTRAN:

TOMPKINS COUNTY TRANSPORTATION SERVICES PROJECT

TOMTRAN

Tompkins County Transportation Services Project

Final Report

to the

Appalachian Regional Commission

ARC Contract No. 81-167-NY-8202-81-IR-300-0520

January, 1986

Tompkins County Department of Planning

Tompkins County, New York

Acknowledgment and Disclaimer:

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TOMTRAN
Tompkins County Transportation Services Project

FINAL REPORT

(September 1, 1981, to October 31, 1985)

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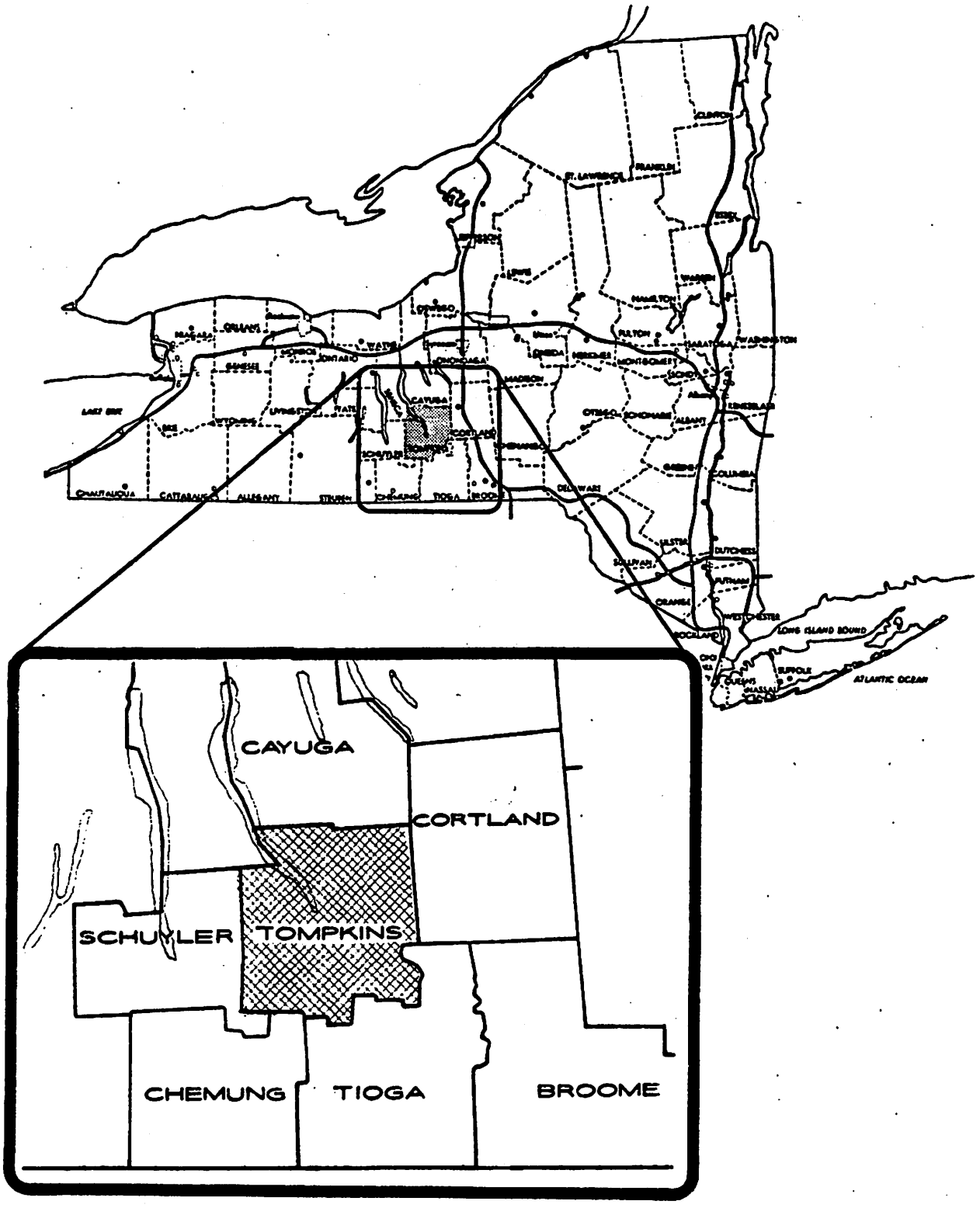
INTRODUCTION

On September 30, 1981, the Appalachian Regional Commission (ARC) awarded an Appalachian State Research, Technical Assistance, and Demonstration grant in the amount of $280,000 to Tompkins County to assist the development of a coordinated rural transportation project (ARC Contract No. 81-167-NY-8202-81-IR-300-0520). The grant provided funding for capital and operating assistance for the implementation of the Tompkins County Transportation Services Project (TOMTRAN). On September 21, 1982, ARC approved supplemental funds in the amount of $156,800 for TOMTRAN, bringing the total approved ARC funds to $436,800. The additional funds were for continuation of the project and purchase of capital equipment. Without any doubt, the ARC grants provided the incentive to develop a suburban and rural transportation system within Tompkins County which would be self-sufficient and continue to provide a high level of service for many years to come.

This is the final report on the TOMTRAN Project to the Appalachian Regional Commission. The principal purpose of this document is to report on the implementation of the TOMTRAN Project during the period of September 30, 1981 to September 30, 1985. The contents of the report are divided into four sections. The first section presents an overview of the TOMTRAN Project including: problem definition, approach, goals, objectives, and a summary of results. The second section provides information on the project budget, and discusses management elements including: the brokerage concept, marketing, technical assistance to other counties, and the use of a microcomputer system in project management. The third section details the progress made towards implementing programs and presents evaluations of the

project components. The forth section provides information on the future development of TOMTRAN and identifies technology which could be transferred to other rural counties.



Map I.1

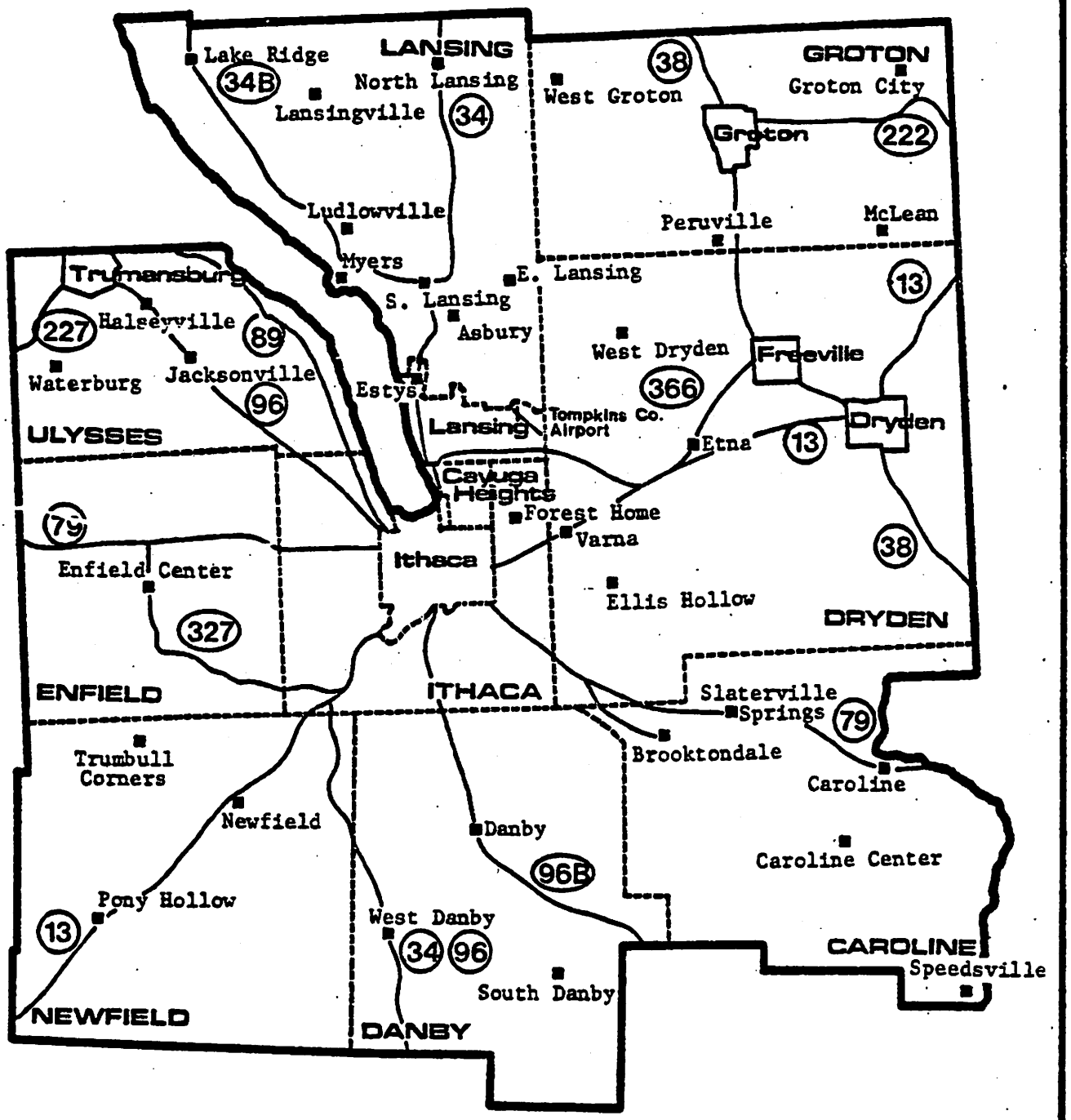
TOMPKINS COUNTY

In New York State

NORTH

KEY MAP NUMBER ____
REFERENCES
BASE MAP NYSDPS, 1967
"TOMPKINS CO. HWY. MAP - 1972
UPDATED BY TCDP, JAN. 1980

PREPARED BY
TOMPKINS COUNTY DEPT.
OF PLANNING, ITHACA, NY



Map I.2

TOMPKINS COUNTY

Prepared by
Tompkins County Dept. of Planning

Scale in miles
0 1 2 3 4 5 6

NORTH

x.

I. PROJECT OVERVIEW

A. THE PROBLEM

Tompkins County and the Ithaca urban area serve as a growth center within the southern tier region of New York State. The Ithaca urban area provides the region with employment opportunities and cultural, educational, and recreational amenities. Within the rural region that surrounds the Ithaca urban area and which extends well beyond the boundaries of Tompkins County, there exist few alternatives to the automobile as a mode of transportation. Accessibility for those without an automobile is severely circumscribed. As automobile ownership continues to become increasingly expensive, a greater percentage of real disposable income of rural residents must be paid for transportation. The absence of viable transportation alternatives in rural areas possesses considerable potential for damage to the welfare of the region's population and its economy.

Transportation needs within Tompkins County and the multi-county Tompkins County economic region have been thoroughly documented in the Tompkins County Interim County-wide Public Transportation Service Plan published in 1981. The Plan summarized these needs as follows:

1. Of the 87,000 residents of Tompkins County, about 55,000 (63%) had no access to public transportation of any kind. Population growth was greatest in rural areas with little or no service.

2. About 20 percent of county residents are "transportation disadvantaged," being elderly, disabled, or poor. Low income populations tend to reside in rural areas with no transportation services.

3. Over 25 percent of the county's population attends college. Improved access to Cornell University (16,000 students) and Ithaca College (4,500 students) could help alleviate the high rent/low vacancy housing market conditions in the urban area. Improved transportation to Tompkins-Cortland Community College (3,200 students) would help TC3 fulfill its mission.

4. Many employees within Tompkins County commute long distances to work in the Ithaca urban area from rural areas with little or no access to public transportation.

5. Tompkins County employers draw from a multi-county labor pool. In 1980, nearly 6,500 people commuted daily to work in Tompkins County from six neighboring counties. This accounted for 17% of county employment. The lack of transportation alternatives could be an important factor in maintaining and expanding employment in the multi-county region.

6. Increased commutation to and from the Ithaca urban area has created high traffic levels on county and state highways. Traffic funneling into the downtown Ithaca area during peak hours produces congestion, noise, dangerous conditions, and even pollution. These effects may be reduced by providing transportation alternatives.

7. The lack of a comprehensive transportation program undermines the local capability for contingency planning in the event of an energy crisis.

B. PROJECT APPROACH

The Tompkins County Transportation Services Project (TOMTRAN) is designed to provide a full range of transportation services as alternatives to single-passenger automobile travel. TOMTRAN uses a market-oriented approach to identify travel needs and to develop programs for transportation options. Each program of the three- to five-year project is designed to expand or initiate a specific transportation service. Together they offer a cost-effective and comprehensive approach to rural transportation. TOMTRAN is also designed to transfer the benefits of the experience acquired during the demonstration period to other rural areas with similar transportation needs.

The TOMTRAN Project includes the following programs:

1. Suburban Transit Program: To increase and upgrade the level of fixed-route transit service in the Ithaca suburban area.

2. Rural Transit Program: To initiate commuter-oriented public transit service in the Ithaca-Dryden Corridor, including the City of Ithaca; the Villages of Lansing, Dryden, Freeville, and Groton; and the Towns of Ithaca, Dryden, and Groton. To initiate service in the Ulysses-Newfield Corridor, including the Towns of Ulysses, Enfield, and Newfield.

3. Jitney Program: To develop privately owned and operated public transit service to rural areas that cannot be feasibly served by conventional fixed-route transit.

4. GADABOUT Program: To increase the use by senior citizens and handicapped of the accessible, demand-responsive transportation service provided by GADABOUT Transportation Services, Inc.

5. School Bus Utilization Program: To demonstrate ways of using existing school bus fleets as part of a comprehensive system of public transportation services.

6. Van and Carpooling Program: To demonstrate and promote van and carpooling as attractive, economical, and flexible modes of commutation within rural areas.

7. Park & Ride Program: To designate parking facilities at accessible locations to be used for ridesharing and public transit activities, and to evaluate their use in rural areas.

TOMTRAN is administered by the Tompkins County Planning Department (TCPD) staff which provides planning, coordination, public information, project management, marketing, and other functions. The Commissioner of Planning also has the responsibility as the County's federal Section 18 Coordinator to coordinate services with providers of federally assisted transportation services, public transit services, and private operators in Tompkins County and surrounding counties. In addition, TCPD prepares plans and recommendations to the County for self-sufficiency in continuing TOMTRAN programs beyond the ARC demonstration grant period.

C. Goals & Objectives

The TOMTRAN Project was developed to accomplish the expressed goals of the New York State Appalachian Development Plan and the Section 18 Program of the Urban Mass Transportation Act of 1964, as amended. The New York State Appalachian Goals & Program Emphasis - Summary (DOS, p. 6) stated the transportation goals:

- Coordinate existing human service or other transportation systems.
- Develop new comprehensive systems.
- Develop commuter-oriented systems.
- Develop transportation-based energy conservation measures.

The federal Section 18 Program goals are to enhance access of people in nonurbanized areas for purposes such as health care, shopping, education, recreation, public services, and employment by encouraging the maintenance, development, improvement, and use of passenger transportation systems. The TOMTRAN Project includes programs to specifically contribute towards the achievement of these goals of the state and federal governments for rural transportation.

In addition, Tompkins County formulated the following goals and objectives to guide the development of TOMTRAN:

TOMTRAN GOALS

1. To encourage the efficient, economical, safe, and equitable movement of people and goods within Tompkins County.
2. To conserve energy.
3. To maximize the development of local transportation services.
4. To provide transportation alternatives to reduce the impact of a severe fuel shortage.
5. To demonstrate viable approaches to satisfying rural transportation needs.
6. To complement the selective communities pattern of land use development as detailed in the Tompkins County Comprehensive Plan.

TOMTRAN OBJECTIVES

1. To improve accessibility to the Ithaca urban area for the labor force living in rural areas throughout the Tompkins County economic region.
2. To improve accessibility to Cornell University, Ithaca College, and Tompkins-Cortland Community College for students, employees, and the general public.

3. To improve accessibility to commercial, recreational, and cultural activities for residents of Tompkins County.

4. To encourage and coordinate private sector participation in providing transportation services.

5. To coordinate programs with present providers of transportation services to special populations including the elderly and handicapped.

6. To target services to maximize market penetration.

7. To improve transfer accessibility between transportation modes in Tompkins County.

8. To coordinate promotion of transportation services in Tompkins County and neighboring counties.

9. To serve residential and commercial clusters in Tompkins County.

10. To plan for self-sufficiency in continuing transportation services.

11. To improve efficient use of existing transportation resources.

12. To identify parameters for planning each of the TOMTRAN programs.

D. SUMMARY OF PROJECT RESULTS

TOMTRAN includes programs which were started before the ARC grant period and brand new programs. A listing of pre-existing programs and the implementation schedule for new programs are presented in Table I.1.

Table I.1 Program Implementation

Program	Pre-existing or New Programs	New Programs Scheduled Starting Date	New Programs Actual Starting Date
1. Suburban Transit	(P)		
2. Rural Transit	New	8/23/82	8/25/82
3. Jitney	New	4/1/82	4/1/82
4. GADABOUT	(P)		
5. School Bus Utilization	New	10/1/82	not implemented
6. Van & Car Pooling	New	1/1/82	2/15/82
7. Park & Ride	(P)		

Key: (P) Pre-existing Program (Before 9/1/81)
New - New Program (After 9/1/81)

TOMTRAN Implementation Summary

1. Suburban Transit

The Suburban Transit Program operated in limited scope before September 30, 1981. The program includes two transit services, Northeast Transit and East Ithaca Transit, which serve parts of the City and Town of Ithaca and the Villages of Cayuga Heights and Lansing. The TOMTRAN program includes operating and capital funding to expand and upgrade suburban transit service, and to buy transit buses, bus shelters, and stop signs. An important achievement was the creation of long term operator contracts, which permitted the expansion of suburban transit service while reducing the amount of federal and local subsidy.

2. Rural Transit

The Rural Transit Program includes Ithaca-Dryden Transit (IDT), which began operating on August 25, 1982, and Ulysses-Newfield Transit (UNIT), which started service on January 14, 1985. The ARC grant provided funding for operating assistance and purchase of five transit buses, bus shelters, and bus stop signs.

3. Jitney

Inquiries from private operators began in October, 1981, soon after the TOMTRAN ARC Grant was announced. The target date of April 1, 1982, was achieved for jitney (van transit) service to begin operating in Tompkins County. The ARC grant includes operating incentives for new starts and capital funds for vehicles, bus shelters, and signs. The Jitney Program has expanded to serve a multi-county area of Cortland, Tioga, Broome, and Tompkins Counties.

4. GADABOUT

GADABOUT provides accessible, demand responsive service for elderly and handicapped in Tompkins County. GADABOUT was in operation before the TOMTRAN grant. TOMTRAN provided GADABOUT with an additional operating grant to assist the county meet its commitment to Federal Section 504 requirements for accessible transportation. In addition, TOMTRAN is working with GADABOUT and other human service organizations to coordinate special paratransit services in the county.

5. School Bus Utilization

The School Bus Utilization Program was a new program to expand the use of public school buses in transportation services. The program called for the use of existing school bus services to assist the transportation of community college students to Tompkins-Cortland Community College in Dryden, New York. A local program was planned and approved. An amendment to the New York State Education Law to authorize a special demonstration program was prepared and submitted to the legislature. The Bus Association of New York, an association of private bus companies, successfully lobbied against the bill. The program will not be implemented.

6. Van & Car-pooling

The Van & Car-pooling Programs were combined into a joint ridesharing program. A demonstration ridesharing program for County employees was initiated on February 15, 1982. Information concerning local vanpooling options was collected and disseminated to interested parties, but no van pools were established. However, this program will provide assistance to employers or others who wish to initiate ridesharing.

7. Park & Ride

The Park & Ride Program designated existing parking facilities as park & ride lots for use as transit stops and for ridesharing. Six Park & Ride lots were officially designated in the county. In addition, unofficial park & ride lots have developed along transit routes. One village requested and received county assistance in paying for additional liability insurance. Other villages developed facilities on their own using County-provided signage.

TOMTRAN ridership for the transit and GADABOUT programs for the first four years (FFY 82-85) is 1,118,724 passenger-trips. Ridership statistics are presented in Table I.2 below, and by Figures I.1 and I.2 on Page I.9.

Table I.2 TOMTRAN Ridership FFY 82-85

QUARTER	SUBURBAN	RURAL	JITNEY	GADABOUT	TOTAL
FFY 82 - 1 OCT-DEC '81	37,964	0	0	5,595	43,559
2 JAN-MAR '82	45,566	0	0	5,581	51,147
3 APR-JUNE	34,558	0	668	6,586	41,812
4 JULY-SEPT	31,592	4,871	2,888	7,220	46,571
FFY 83 - 1 OCT-DEC '82	41,082	15,752	3,399	5,601	65,834
2 JAN-MAR '83	43,502	20,419	4,504	7,253	75,678
3 APR-JUNE	34,532	15,288	4,327	8,043	62,190
4 JULY-SEPT	30,679	15,746	4,435	7,198	58,058
FFY 84 - 1 OCT-DEC '83	39,180	25,803	5,709	6,964	77,656
2 JAN-MAR '84	44,886	29,884	6,301	7,422	88,493
3 APR-JUNE	33,493	23,914	4,517	8,300	75,891
4 JULY-SEPT	31,633	21,863	6,027	7,631	67,154
FFY 85 - 1 OCT-DEC '84	47,774	28,050	6,115	6,760	88,699
2 JAN-MAR '85	51,832	38,904	6,582	7,226	104,544
3 APR-JUNE	40,460	35,545	4,683	7,211	87,899
4 JULY-SEPT	39,473	38,014	4,461	7,258	89,206
TOTAL:	628,206	314,053	64,616	111,849	1,118,724
PERCENT:	56.0%	28.2%	5.8%	10.0%	100.0%

FIG. I.1 QUARTERLY TOMTRAN RIDERSHIP (FFY82-FFY85)

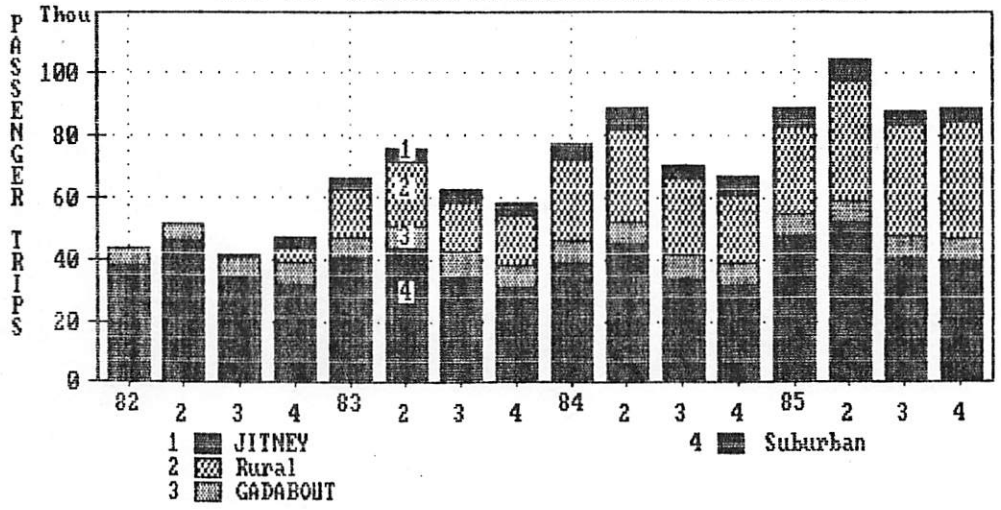
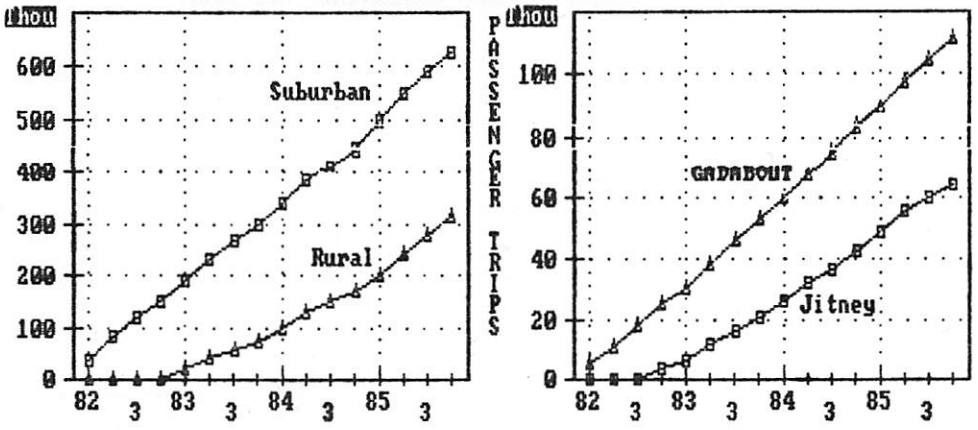


FIG. I.2 CUMULATIVE TOMTRAN RIDERSHIP (FFY82-FFY85)



Suburban Transit: 628,206
Rural Transit: 314,053

GADABOUT: 111,849
Jitney: 64,616

The Suburban Transit program accounts for the largest share of TOMTRAN ridership (628,206 or 56.1%), and clearly exhibits a cyclical ridership pattern. Rural Transit is experiencing continued ridership growth on the Ithaca-Dryden route and from the expansion of the Ulysses-Newfield route in the second quarter of FFY 85. The Jitney Program accounts for 5.8% of total TOMTRAN ridership, and reached its zenith in early in 1985. Reductions in service due to financial constraints occurred throughout 1985 which resulted in a gradual decline in riders during the year. GADABOUT sustained an overall increase of 21.4% during the three years, along with the start up of new transit services, but decreased by 6.1% in FFY 85.

TOMTRAN was developed to provide benefits to Tompkins and its neighboring counties, especially by providing new alternatives for journey to work trips. The impact of TOMTRAN programs on Tompkins and other counties is presented below.

Table I.3 TOMTRAN Project Impact Analysis

	TOMTRAN Programs:						
County	Suburban Transit	Rural Transit	Jitney	GADABOUT	School Bus	Car & Van Pooling	Park & Ride
Tompkins	+++	+++	++	++	n/a	+	+
Tioga	+	+	++	0	n/a	0	?
Cortland	+	+	++	+	n/a	0	+
Schuyler	+	+	+	0	n/a	0	+
Seneca	+	?	+	0	n/a	0	+
Cayuga	+	?	+	0	n/a	0	+

Note: The impacts are subjective and relative. The following symbols have been used:

+++ Substantial benefits for county's residents & economy.
++ Significant " " " " " "
+ Marginal " " " " " "
0 Little or no benefits " " " " " "
? Unknown benefits " " " " " "
n/a Not applicable - program not operational.

The TOMTRAN staff made an assessment of the relative benefit of the TOMTRAN programs for each county as of October, 1985. The 1985 assessment differs significantly from the TOMTRAN PROGRAM IMPACT ANALYSIS presented in the TOMTRAN Project application for ARC funding (IV. Project Narrative) in 1981.

The impact assessments of 1981 and 1985 differed significantly in the estimated benefits of the ridesharing and jitney programs. In 1981, the estimated impact of ridesharing was equal to or greater than the benefit of transit programs for Tompkins and the other counties. However, the potential benefit of the ridesharing program (van- and car-pooling) for the counties has not been achieved due to its low implementation priority and greater public interest in transit service.

In 1981, the feasibility of the Jitney Program was largely unknown. The development of multi-county jitney services provides significant benefits for Tompkins, Tioga, Cortland, and Broome Counties. In Tioga and Cortland Counties, the jitney service has provided a catalyst for planning new local transit services.

II. PROJECT BUDGET & MANAGEMENT

A. PROJECT BUDGET

1. Budget Overview

The TOMTRAN Project budget for the period of FFY 82 to FFY 85 totals $2,053,451,including the Appalachian Regional Commission (ARC) grant of $436,800 (see Table II.2 TOMTRAN Project Summary). The TOMTRAN budget is divided into to two 2-year periods, from FFY 82 to FFY 83 and a budget extension period of FFY 84 to FFY 85. A summary of the funding sources for the capital and operating budgets for the entire project are shown in Table II.1 below.

Table II.1 TOMTRAN Budget Summary (FFY 82 to FFY 85) Funding Sources

	Capital Budget		Operating Budget		Total Eligible	
ARC Grant	$325,120	56.5%	$111,680	7.6%	$436,800	21.3%
Fed. Sect. 18	158,716	27.6%	187,867	12.7%	346,583	16.9%
State Funds	29,961	5.2%	391,640	26.5%	421,601	20.5%
Local Cash	58,714	10.2%	274,226	18.5%	332,940	16.2%
Local In-Kind	$2,600	0.5%	94,947	6.4%	97,547	4.8%
Program Revenue	0	0.0%	417,980	28.3%	417,980	20.4%
Total Eligible	$575,111	100.0%	$1,478,340	100.0%	$2,053,451	100.0%

The sources of funding for the TOMTRAN Project include the ARC Grant (21%), Federal Section 18 Program (17%), New York State (21%), local cash (16%), local in-kind (5%), and program revenue (20%). The Tompkins County Board of Representatives has continually supported the TOMTRAN Project both financially and through legislative actions. The County appropriated funding in advance of receiving federal and state funding, and provided program subsidies. Itemized accounts of project budgets and expeditures for both budget periods are shown in the following tables.

TABLE II.2a - TOMTRAN PROJECT BUDGET SUMMARY (9/1/81 to 9/30/85)

Category	ARC Funds	Federal Section 18	NYS	Local Cash	Local In-Kind	Program Revenue	Total Eligible
1. Personnel	$16,614	$0	$0	$0	$69,061	$0	$85,675
2. Fringe (26%)	4,320	0	0	0	17,956	0	22,276
3. Marketing & Contractual	24,100	0	0	0	2,230	0	26,330
4. Supplies	2,046	0	0	0	2,350	0	4,396
5. Travel	400	0	0	0	550	0	950
6. Telephone	0	0	0	0	1,800	0	1,800
7. Operating Programs							
Suburban Transit	2,295	0	116,711	86,422		126,900	332,328
Rural Transit	51,905	187,867	274,929	63,338	0	257,407	835,446
Van Pooling	0	0	0	0	0	0	0
Car Pooling	0	0	0	0	0	0	0
School Bus Utilization	0	0	0	0	0	0	0
GADABOUT	5,000	0	0	124,354	0	33,673	163,027
Park & Ride	0	0	0	112	1,000	0	1,112
Jitney	5,000	0	0	0	0	0	5,000
8. Subtotal Items (1-7)	$111,680	$187,867	$391,640	$274,226	$94,947	$417,980	$1,478,340
9.0 Capital Equipment							
9.1 36' Transit Bus (IDT)	$89,355	$0	$0	$2,448	$0	$0	$91,803
9.2 36' Transit Bus (IDT)	89,355	0	0	2,448	0	0	91,803
9.3 30' Transit Bus (EIT)	0	77,744	9,718	9,718	0	0	97,180
9.4 30' Transit Bus (IDT)	47,694	0	0	9,788	0	0	57,482
9.51 30' Transit Bus (UNIT)	0	67,772	16,943	25,285	0	0	110,000
9.52 30' Transit Bus (UNIT)	57,482	0	0	0	0	0	57,482
9.6 Radio System	8,679	0	0	1,232	0	0	9,911
9.7 Fare Boxes	4,409	0	0	900	0	0	5,309
9.8 Bus Shelters	10,296	13,200	3,300	1,700	1,600	0	30,096
9.9 Micro-computer	14,750	0	0	4,245	0	0	18,995
9.10 Signs & Poles	2,960	0	0	915	1,000	0	4,875
9.11 File Cabinet	140	0	0	35	0	0	175
10. TOTAL CAPITAL COSTS	$325,120	$158,716	$29,961	$58,714	$2,600	$0	$575,111
% of Funding Sources	56.5%	27.6%	5.2%	10.2%	0.5%	0.0%	100.0%
11. TOTAL OPERATING COSTS	$111,680	$187,867	$391,640	$274,226	$94,947	$417,980	$1,478,340
% of Funding Sources	7.6%	12.7%	26.5%	18.5%	6.4%	28.3%	100.0%
12. TOTAL PROJECT COSTS	$436,800	$346,583	$421,601	$332,940	$97,547	$417,980	$2,053,451
% of Funding Sources	21.3%	16.9%	20.5%	16.2%	4.8%	20.4%	100.0%

TABLE II.3 - TOMTRAN PROJECT BUDGET (9/1/81 to 9/30/83)

Category	ARC Funds	Federal Section 18	NYS	Local Cash	Local In-Kind	Program Revenue	Total Eligible
1. Personnel	$16,614	$0	$0	$0	$69,061	$0	$85,675
2. Fringe (26%)	4,320	0	0	0	17,956	0	22,276
3. Marketing & Contractual	24,100	0	0	0	2,230	0	26,330
4. Supplies	2,046	0	0	0	2,350	0	4,396
5. Travel	400	0	0	0	550	0	950
6. Telephone	0	0	0	0	1,800	0	1,800
7. Operating Programs							
Suburban Transit	2,295	0	116,711	86,422	0	126,900	332,328
Rural Transit	41,905	60,110	73,218	28,687	0	79,899	283,819
Van Pooling	0	0	0	0	0	0	0
Car Pooling	0	0	0	0	0	0	0
School Bus Utilization	0	0	0	0	0	0	0
GADABOUT	5,000	0	0	124,354	0	33,673	163,027
Park & Ride	0	0	0	0	1,000	0	1,000
Jitney	2,000	0	0	0	0	0	2,000
8. Subtotal Items (1-7)	$98,680	$60,110	$189,929	$239,463	$94,947	$240,472	$923,601

Category	Total Eligible	ARC Funds Obligated	Other Sources Obligated	Total Obligated	Total Balance	ARC Funds Balance	Other Sources Balance
1. Personnel	$85,675	$16,614	$69,061	$85,675	$0	$0	$0
2. Fringe (26%)	22,276	4,320	17,956	22,276	0	0	0
3. Marketing & Contractual	26,330	24,100	2,230	26,330	0	0	0
4. Supplies	4,396	2,046	2,350	4,396	0	0	0
5. Travel	950	400	550	950	0	0	0
6. Telephone	1,800	0	1,800	1,800	0	0	0
7. Operating Programs							
Suburban Transit	332,328	2,295	330,033	332,328	0	0	0
Rural Transit	283,819	41,905	241,914	283,819	0	0	0
Van Pooling	0	0	0	0	0	0	0
Car Pooling	0	0	0	0	0	0	0
School Bus Utilization	0	0	0	0	0	0	0
GADABOUT	163,027	5,000	158,027	163,027	0	0	0
Park & Ride	1,000	0	0	0	1,000	0	1,000
Jitney	2,000	2,000	0	2,000	0	0	0
8. Subtotal Items (1-7)	$923,601	$98,680	$823,921	$922,601	$1,000	$0	$1,000

TABLE II.3b - TOMTRAN PROJECT BUDGET (9/1/81 to 9/30/83)

Category	ARC Funds	Federal Section 18	NYS	Local Cash	Local In-Kind	Program Revenue	Total Eligible
9.0 Capital Equipment							
9.1 36' Transit Bus (IDT)	$89,355	0	0	$2,448	0	0	$91,803
9.2 36' Transit Bus (IDT)	89,355	0	0	2,448	0	0	91,803
9.3 30' Transit Bus (EIT)	0	0	0	0	0	0	0
9.4 30' Transit Bus (IDT)	0	0	0	0	0	0	0
9.51 30' Transit Bus (UNIT)	0	0	0	0	0	0	0
9.52 30' Transit Bus (UNIT)	0	0	0	0	0	0	0
9.6 Radio System	1,589	0	0	397	0	0	1,987
9.7 Fare Boxes	2,346	0	0	586	0	0	2,932
9.8 Bus Shelters	0	0	0	0	0	0	0
9.9 Microcomputer	10,009	0	0	2,502	0	0	12,511
9.10 Signs & Poles	871	0	0	218	0	0	1,089
9.11 File Cabinet	140	0	0	35	0	0	175
10. TOTAL CAPITAL COSTS	$193,665	$0	$0	$8,634	$0	$0	$202,299

Category	Total Eligible	ARC Funds Obligated	Other Sources Obligated	Total Obligated	Total Balance	ARC Funds Balance	Other Sources Balance
9.0 Capital Equipment							
9.1 36' Transit Bus (IDT)	$91,803	$89,355	$2,448	$91,803	$0	$0	$0
9.2 36' Transit Bus (IDT)	91,803	89,355	2,448	91,803	0	0	0
9.3 30' Transit Bus (EIT)	0	0	0	0	0	0	0
9.4 30' Transit Bus (IDT)	0	0	0	0	0	0	0
9.51 30' Transit Bus (UNIT)	0	0	0	0	0	0	0
9.52 30' Transit Bus (UNIT)	0	0	0	0	0	0	0
9.6 Radio System	1,987	1,589	397	1,987	0	0	0
9.7 Fare Boxes	2,932	2,346	586	2,932	0	0	0
9.8 Bus Shelters	0	0	0	0	0	0	0
9.9 Microcomputer	12,511	10,009	2,502	12,511	0	0	0
9.10 Signs & Poles	1,089	871	218	1,089	0	0	0
9.11 File Cabinet	175	140	35	175	0	0	0
10. TOTAL CAPITAL COSTS	$202,299	$193,665	$8,634	$202,299	$0	$0	$0

TABLE II.4a - TOMTRAN PROJECT EXTENSION BUDGET - FFY 84 & FFY 85

Category	ARC Funds	Federal Section 18	NYS	Local Cash	Local In-Kind	Program Revenue	Total Eligible
1. Personnel	$0	$0	$0	$0	$0	$0	$0
2. Fringe (26%)	0	0	0	0	0	0	0
3. Marketing & Contractual	0	0	0	0	0	0	0
4. Supplies	0	0	0	0	0	0	0
5. Travel	0	0	0	0	0	0	0
6. Telephone	0	0	0	0	0	0	0
7. Operating Programs							
Suburban Transit	0	0	0	0	0	0	0
Rural Transit	10,000	127,757	201,711	34,651	0	177,508	551,627
Van Pooling	0	0	0	0	0	0	0
Car Pooling	0	0	0	0	0	0	0
School Bus Utilization	0	0	0	0	0	0	0
GADABOUT	0	0	0	0	0	0	0
Park & Ride	0	0	0	112	0	0	112
Jitney	3,000	0	0	0	0	0	3,000
8. Subtotal Items (1-7)	$13,000	$127,757	$201,711	$34,763	$0	$177,508	$554,739

Category	Total Eligible	ARC Funds Obligated	Other Sources Obligated	Total Obligated	Total Balance	ARC Funds Balance	Other Sources Balance
1. Personnel	$0	$0	$0	$0	$0	$0	$0
2. Fringe (26%)	0	0	0	0	0	0	0
3. Marketing & Contractual	0	0	0	0	0	0	0
4. Supplies	0	0	0	0	0	0	0
5. Travel	0	0	0	0	0	0	0
6. Telephone	0	0	0	0	0	0	0
7. Operating Programs							
Suburban Transit	0	0	0	0	0	0	0
Rural Transit	551,627	10,000	541,627	551,627	0	0	0
Van Pooling	0	0	0	0	0	0	0
Car Pooling	0	0	0	0	0	0	0
School Bus Utilization	0	0	0	0	0	0	0
GADABOUT	0	0	0	0	0	0	0
Park & Ride	112	0	112	112	0	0	0
Jitney	3,000	894	0	894	2,106	2,106	0
8. Subtotal Items (1-7)	$554,739	$10,894	$541,739	$552,633	$2,106	$2,106	$0

Table II.4b - TOMTRAN PROJECT EXTENSION BUDGET SUMMARY - FFY 84 & FFY 85

Category	ARC Funds	Federal Section 18	NYS	Local Cash	Local In-Kind	Program Revenue	Total Eligible
9.0 Capital Equipment							
9.1 36' Transit Bus (IDT)	$0	$0	$0	$0	$0	$0	$0
9.2 36' Transit Bus (IDT)	0	0	0	0	0	0	0
9.3 30' Transit Bus (EIT)	0	77,744	9,718	9,718	0	0	97,180
9.4 30' Transit Bus (IDT)	47,694	0		9,788	0	0	57,482
9.51 30' Transit Bus (UNIT)	0	67,772	16,943	25,285	0	0	110,000
9.52 30' Transit Bus (UNIT)	57,482	0	0	0	0	0	57,482
9.6 Radio System	7,090	0	0	835	0	0	7,924
9.7 Fare Boxes	2,063	0	0	314	0	0	2,377
9.8 Bus Shelters	10,296	13,200	3,300	1,700	1,600	0	30,096
9.9 Micro-computer	4,741	0	0	1,743	0	0	6,484
9.10 Signs & Poles	2,089	0	0	697	1,000	0	3,786
9.11 File Cabinet	0	0	0	0	0	0	0
10. TOTAL CAPITAL COSTS	$131,455	$158,716	$29,961	$50,080	$2,600	$0	$372,812

Category	Total Eligible	ARC Funds Obligated	Other Sources Obligated	Total Obligated	Total Balance	ARC Funds Balance	Other Sources Balance
9.0 Capital Equipment							
9.1 36' Transit Bus (IDT)	$0	$0	$0	$0	$0	$0	$0
9.2 36' Transit Bus (IDT)	0	0	0	0	0	0	0
9.3 30' Transit Bus (EIT)	97,180	0	0	0	97,180	0	97,180
9.4 30' Transit Bus (IDT)	57,482	47,694	9,788	57,482	0	0	0
9.51 30' Transit Bus (UNIT)	110,000	0	0	0	110,000	0	110,000
9.52 30' Transit Bus (UNIT)	57,482	57,482	0	57,482	0	0	0
9.6 Radio System	7,924	7,090	835	7,924	0	0	0
9.7 Fare Boxes	2,377	2,063	314	2,377	0	0	0
9.8 Bus Shelters	30,096	10,210	2,552	12,762	17,334	86	17,248
9.9 Micro-computer	6,484	4,741	1,743	6,484	0	0	0
9.10 Signs & Poles	3,786	2,089	1,167	3,256	530	0	530
9.11 File Cabinet	0	0	0	0	0	0	0
10. TOTAL CAPITAL COSTS	$372,812	$131,369	$16,399	$147,767	$225,044	$86	$224,958

Table II.3 presents the budget and expenditures for the period 9/1/81 to 9/30/83 which is summarized below:

TABLE II.5 - ARC & Non-ARC Expenditure Summary (9/1/81 to 9/30/83)

BUDGET PERIOD 9/1/81 to 9/30/83	Operating	Capital	Total
ARC Grant Funds	$98,680	$193,665	$292,345
Non-ARC Funds	$824,921	$8,634	$833,555
Subtotal Cost:	$923,601	$202,299	$1,125,900
ARC Funds Obligated	$98,680	$193,665	$292,345
Non-ARC Funds Obligated	$823,921	$8,634	$832,555
Subtotal Obligations:	$922,601	$202,299	$1,124,900
ARC Funds Balance	$0	$0	$0
Non-ARC Funds Balance	$1,000	$0	$1,000

During the first two years 67% of the ARC grant was spent. The $1,000 fund balance represents a local in-kind contribution for the installation of bus stop signs. An alternative to using public works personnel was found to install the bus stop signs along the rural transit route.

In FFY 84 and FFY 85, $144,455 of the ARC grant was expended. This results in an ARC fund balance of $2,193 to be credited against the grant.

TABLE II.6 - ARC & Non-ARC Expenditure Summary (FFY 84 to FFY 85)

BUDGET PERIOD 10/1/83 to 9/30/85	Operating	Capital	Total
ARC Grant Funds	$13,000	$131,455	$144,455
Non-ARC Funds	$541,739	$241,357	$783,095
Subtotal Cost	$554,739	$372,812	$927,550
ARC Funds Obligated	$10,894	$131,369	$142,263
Non-ARC Funds Obligated	$541,739	$16,399	$558,137
Subtotal Obligations:	$552,633	$147,767	$700,400
ARC Funds Balance	$2,106	$86	$2,193
Non-ARC Funds Balance	$0	$224,958	$224,958
Total Balance:	$2,106	$225,044	$227,150

The operating fund balance of $2,106 was designated as part of the Jitney Program ARC budget amount of $5,000.

Of the $224,958 fund balance of non-ARC funds, $222,680 is accounted for two federal Section 18 capital projects which are under the UMTA bid process at this time. Only $2,278 represents unobligated funds mostly from the bus shelter line.

Capital budget items 9.3 and 9.51, two transit buses, have been let for bids to be opened on March 14, 1986. Assuming an bid award is made and an order is placed during the regular time period of 60 days, the buses should be delivered during May of 1987. The other Section 18 project is for 3 bus shelters, which should be ordered by mid May and delivered in 90 days in August of 1986.

The combined expenditure summary is as follows:

TABLE II.7 - ARC & Non-ARC Expenditure Summary

	Operating	Capital	Total
ARC Grant Funds	$111,680	$325,120	$436,800
Non-ARC Funds	$1,366,660	$249,991	$1,616,651
Total Cost	$1,478,340	$575,111	$2,053,451
ARC Funds Obligated	$109,574	$325,034	$434,607
Non-ARC Funds Obligated	$1,365,660	$25,033	$1,390,693
Total Obligations:	$1,475,234	$350,067	$1,825,300
ARC Funds Balance	$2,106	$86	$2,193
Non-ARC Funds Balance	$1,000	$224,958	$225,958
Total Funds Balance	$3,106	$225,044	$228,151

2. Retention of Rights in Equipment

The following equipment was purchased, in part, with ARC grant funds is itemized along with an equipment life and present status of use.

TABLE II.8 - Retention of Rights in Equipment List

Budget Line	Description	Useful Life	Status 1/31/86
9.1	Thomas Transit Bus 1T7B2H507D1131908 Bus #201 Year 1983	400,000 mi or 8 Yr.	118,732 mi Start 8/83
9.2	Thomas Transit Bus 1T7B2H509D1131909 Bus #202 Year 1983	400,000 mi or 8 Yr.	130,324 mi Start 8/83
9.4	Thomas Transit Bus 1T7A2B46XB1350504 Bus #203 Year 1981	400,000 mi or 8 Yr.	53,258 mi Start 2/85
9.52	Thomas Transit Bus 1T7A2B468B1350503 Bus #204 Year 1981	400,000 mi or 8 Yr.	41,083 mi Start 11/84
9.6	6 MITREK 75 Watt Mobile Radios, 2 Portable Radios - HT 90 3 Maxar FM 40 Watt Mobile Radios	8 Yr. 8 Yr. 8 Yr	In use 9/85 In use 9/85 In use 10/82
9.7	6 Main Fareboxes, vaults & counters	8 Yr.	In use 8/82
9.8	3 Bus Shelters - Brasco, Inc. 3 Bus Shelters - HandiHut, Inc.	10 Yr.	Installation in 3/86
9.9	1 IBM PC System, 2 printers, hard disk 1 Compaq Portable, ink jet printer	5 Yr. 5 Yr.	In use 12/82 In use 10/85
9.10	125 Bus Stop Signs 4 Guide-A-Ride Schedule Signs 12 Transi-Tube Schedule Signs	10 Yr. 10 Yr. 10 Yr.	In use 9/82 In use 9/84 In use 11/85
9.11	1 File Cabinet	10 Yr.	In use 6/82

All capital equipment purchased with the ARC grant is currently in use in the operation of TOMTRAN.

3. Future Financial Report Plan

The component programs of TOMTRAN with operations budgets - rural transit, suburban transit, CARO-VAN (jitney), and GADABOUT have approved budgets through the 1986 calendar year. The local and state sources of funding are stable. The County allocation of federal Section 18 funds for FFY 86 has not yet been released.

In 1986, Tompkins County will study the financial implications for each program for the next five years, as it is anticipated that federal funds will disappear from the funding mix. Tompkins County by approving county subsidies and from legislative action is supportive of the TOMTRAN project. The County has undertaken the task of replacing loss revenue sharing funds with local funds, prefinanced state aid to the jitney program, and provided direct local funding as needed.

Below, the 1986 budgets for the four TOMTRAN programs are compared by sources of funding:

TABLE II.9 - 1986 TOMTRAN Operating Budgets

Program:	Rural	Suburban (NET)	CARO-VAN	GADABOUT
User Revenue:	$139,536	$45,600	$23,000	$22,900
Section 18:	86,000	0	30,434	0
State Aid:	141,429	48,450	67,981	0
Tompkins Co:	49,703	5,700	1,000	39,000
Other Local Govts	0	31,500	0	39,600
Misc:	0	0	1,480	11,350
Total:	$416,668	$131,250	$123,895	$112,850

The sources of funding for the combined $784,663 TOMTRAN operating budget are as follows:

Federal Aid:	$116,434	14.8%
State Aid:	257,860	32.9
User Revenue:	231,036	29.4
Local Govt's:	166,503	21.3
Misc:	12,830	1.6
Total:	$784,663	100.0%

The above budget for the Suburban Transit Program did not include the East Ithaca Transit or Northeast Transit routes operated by CU Transit, because Cornell University assumed the financial responsibility from the local municipal governments in a two stage process in 1984. In addition, the GADABOUT budget does not include an in-kind value of the volunteer drivers, office workers, and escorts upon which the feasibility of the program rests.

The most vulnerable program to reductions of federal aid is the CARO-VAN jitney service. CARO-VAN needs to increase user revenues relative to the state and federal aid it receives. Tompkins County has lessened the burden of this dependency by pre-financing delayed state aid payments to the jitney operator. The long term viability of the jitney route is under study. One benefit of the jitney service is its very low operating cost due to its low labor wage rates. Thus, if a rural jitney service will operate, then the jitney model is a very cost effective means of service delivery.

All of TOMTRAN's component programs have continued passed the ARC grant period. The ARC grant was instrumental in providing the seed funding to rapidly develop the program, but it is no longer necessary for future operating funds. However, the advantages of flexible local use of ARC funds are sorely missed, especially when compared with the burdensome administration of the UMTA Section 18 Program.

B. MANAGEMENT

1. The Brokerage Function

The TOMTRAN management approach is based on the concept of transportation brokerage: matching travel demands with available services and stimulating new innovative service where new demand exists. A transportation brokerage system:

1. Develops procedures for determining user demand (market research).
2. Identifies potential suppliers of transportation services.
3. Overcomes legal, regulatory, information, and other barriers which hinder providers and users of transportation services.
4. Performs an ombudsman role between users and suppliers of service.
5. Responds to changing transportation needs. (1)

All five elements of transportation brokerage are evident in TOMTRAN. Market research is used to identify potential users, design services, and disseminate information. TOMTRAN assists operators to resolve regulatory and financial issues hindering the development of services. Planning assistance was provided to neighboring counties to encourage and coordinate intercounty transportation services. TOMTRAN staff functions as an ombudsman for users and transit operators in addressing issues concerning fares and services. TOMTRAN demonstrates flexibility in setting priorities for program implementation. The priorities were largely determined by the expressed desires of county residents and the business interests of private operators in developing new transportation services. High priorities were placed on fully developing public transit services, especially privately owned and operated rural jitney service.

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1. Davis Jr., F.W. et al., Increased Transportation Efficiency Through Ridesharing: The Brokerage Approach., University of Tennessee, (1979). Report No. DOT-TST-77-36.

The high priority programs have the largest budgets and their program management activities require the majority share of staff resources.

Table II.10 TOMTRAN Project Priority for Implementation

Program	Rank
Rural Transit	High
Jitney	High
Suburban Transit	Medium
GADABOUT	Medium
School Bus Utilization	Low
Ridesharing (Car & Van Pooling)	Low
Park & Ride	Low

The high priority for the new public transit (rural and jitney) programs is based on requests by the public for service and from inquiries by potential operators for business opportunities. The Suburban Transit and GADABOUT Programs are well developed and require less staff time than the new transit programs. The low priority programs received an initial investment of staff resources to meet demonstration objectives. The School Bus Program was halted due to the failure to receive state legislative authorization. More attention will be given to private ridesharing options after the transit programs are fully developed. The Park & Ride Program is developed as needed, either as a response to a request by a municipality or as part of a new transit service.

2. Marketing

TOMTRAN marketing includes the use of market research, direct mail, decentralized public information, and advertising to assess public needs and to disseminate service information. Accessibility to management and responsiveness to the needs of groups and individuals has developed broad based public identity and support for TOMTRAN programs.

TOMTRAN performed marketing studies to determine levels of travel demand prior to initiating transportation services. In 1980, seven of the largest employers in the County were asked to provide information on employee residential locations aggregated by zip code. Information was provided by Cornell University, Morse Chain, NCR, Ithaca College, SCM, and TC3. The data was displayed on maps to identify locations within Tompkins County and in neighboring counties. The commuter demand data was used to develop the TOMTRAN programs, and especially to identify intercounty commuter demand for the Jitney Program. In September, 1984, the employer information was updated.

Household surveys were conducted in service areas throughout the county. The surveys used a combination of random and targeted samples within towns and along service corridors. The survey instruments were detachable, postage-paid post cards which were returned by mail. Surveys were distributed at post offices, town halls, and general stores. In addition, surveys were published in rural newspapers as coupon ads. The dates and response rates for the household surveys are as follows:

Table II.11 Household Survey Dates and Response Rates

Date	Household Survey	Response Rate
April 1981	Groton Village	23.2%
April 1982	Town of Caroline	35.1%
June 1982	Town of Dryden	22.0%
April 1983	Town of Ulysses	26.0%
" "	Town of Enfield	40.0%
" "	Town of Newfield	25.0%
July 1985	Town of Lansing	32.0%

The household surveys were used to prepare market studies and provide estimates of potential ridership, locate stops, and create a mailing list of potential riders.

Managing a computerized mailing list is an important part of the marketing program. Direct mail is used to announce new schedules, provide public information, and to conduct follow-up surveys on the use of TOMTRAN services. As of September 30, 1985, the mailing list data base contained 1,452 records, with half on the Rural Transit list. Additions to the mailing list come primarily from telephone inquiries. A record of telephone calls is provided so that inquiries, comments, criticisms, and requests for information are properly handled.

A decentralized system evolved to answer telephone inquiries about TOMTRAN services, schedules, and transfer information. The County Planning Department, Ithaca Transit Office, and the Cornell Information and Referral Center provide comprehensive schedule and transfer information for all transit systems. Transit operators provide information concerning their own transportation services. This approach has the advantage of spreading the burden among existing personnel in different organizations, but it requires more effort to coordinate than would a sole source. TOMTRAN staff prepare special schedule summaries to all of the agencies.

Since August 1983, all of the TOMTRAN and Ithaca Transit schedules has been available on a computer database operated by Cornell University (CUINFO). CUINFO can be access by all on-campus terminals or with a microcomputer and a modem. TOMTRAN will encourage the use of additional public database systems which may be developed to disseminate schedule information.

TOMTRAN uses print and radio media for advertising program services and to increase public awareness of transportation alternatives. Print advertising is primarily used to announce new transportation services and

schedule revisions. Radio was used to raise public awareness of TOMTRAN programs. TOMTRAN sponsored early morning weather reports during the winter of 1982 to encourage use of Ithaca-Dryden Transit.

TOMTRAN benefited from an innovative marketing promotion called "BUS BUCKS". "BUS BUCKS" is a booklet of retail service coupons (food, personal care, and professional services) which are given to buyers of TOMTRAN tickets and Ithaca Transit tokens. "BUS BUCKS" was created and managed by a Cornell Business School student, Mr. Kevin Lipsitz, in November of 1982. Lipsitz sold coupon space to retailers, produced the "BUS BUCKS", and bartered for $2,000 in radio advertising time. The radio ads promoted "BUS BUCKS" advertisers, TOMTRAN, and Ithaca Transit. TOMTRAN and Ithaca Transit both received free coupon space in "BUS BUCKS". In exchange, TOMTRAN and Ithaca Transit distributed "BUS BUCKS" through token and ticket outlets. The "BUS BUCKS" promotion was financed privately, at no cost to Tompkins County or the City of Ithaca. In FFY83, four editions of "BUS BUCKS" were published and were well received by advertisers and the public.

TOMTRAN and Ithaca Transit jointly participate in community events, such as the annual Tompkins County Energy Fair held in October. Transit information displays and buses are exhibited on the Ithaca Commons. In addition, TOMTRAN participates in community events in rural areas of the County.

The Village of Groton deserves special recognition in its efforts to promote the use of TOMTRAN services. The Village puts on an annual festival in August. In 1983, the Village requested that a new TOMTRAN bus join the Groton Festival Parade, which was held two days before Ithaca-Dryden Transit expanded service to the Village. In 1984, the Groton

Festival Days included a hot air balloon rally. TOMTRAN provided transit service from the City of Ithaca to the Village and was in the parade.

Another successful Groton service promotion was a two day "Breakfast on the Bus" sponsored by TOMTRAN and the Citizens' Committee for the Economic Development of Groton. All village residents working in Ithaca were invited to the "Breakfast" consisting of coffee and donuts. The promotion doubled ridership, and has resulted in a full bus of commuters since that time. The total cost to TOMTRAN was $81.71. "Breakfast on the Bus" was the most cost effective promotion of the TOMTRAN Project.

TOMTRAN promotions have sought to increase public awareness of alternate transportation services and create goodwill. TOMTRAN has been successful in projecting an image of reliable, friendly, and affordable transportation service. The main benefit of this image is widespread public support and loyalty.

The marketing program includes the evaluation of advertising effectiveness and the validity of market research analysis. Biannual ridership surveys have been conducted since 1981. The surveys provide information on TOMTRAN riders, their evaluation of the quality of service, and the popularity of various advertising media. Many people take time to write down specific comments, criticisms, and suggestions about the service. Written comments are usually the most useful part of a rider survey.

In summary, TOMTRAN has an integrated marketing program to plan, promote, and evaluate transportation services. The marketing function is a integral part of the transportation brokerage concept, in which transportation demand and supply is deliberately coordinated.

3. Technical Assistance to Neighboring Counties

TOMTRAN has successfully assisted the development of multi-county public transit services by providing technical assistance to neighboring counties. The range of technical assistance includes: providing sample documents (surveys, contracts, applications and resolutions), preparing applications for federal funding, presenting information to legislative committees, and coordinating new services.

TOMTRAN staff worked with Tioga County to support jitney service between Tioga and Tompkins Counties. The TOMTRAN staff made presentations before Tioga County legislative committees to encourage Tioga County's participation in the New York State Transit Operating Assisting Program (TOA), in which private transit operators are sponsored by the County to receive state funding. Tioga County passed the required legislation to sponsor C&D Transportation (C&D), a jitney operator, in March, 1982. In November of 1984, TOMTRAN staff and C&D made a joint presentation to the Tioga County Legislature to address a payment schedule problem for the state TOA program. C&D requested that Tioga County approve a plan to pre-finance state aid. Tompkins County endorsed a similar plan in April, 1984. Tioga County approved a $40,000 pre-financing program on November 27, 1984 (Resolution No. 293 of 1984).

In 1985, Tompkins County again took the initiative to alleviate the continuing state delayed payment problem by securing an intercounty agreement with Tioga County for the pre-financing of state aid (Resolution No. 279 of 1985). The agreement calls for Tompkins County to pre-finance state aid for the entire CARO-VAN route which C&D operates between both counties. Tioga County agrees to reimburse Tompkins County for the portion

of state aid it will receive from the route. Coordination with Tioga County continued in other areas of jitney service planning and funding.

TOMTRAN staff made presentations before the Tioga County Planning Board concerning the status of TOMTRAN and the potential for developing a similar project in Tioga County. When the Board expressed interest in using surveys to measure transit demand, TOMTRAN staff provided sample surveys, information, and studies to the Tioga Planning Director.

TOMTRAN encouraged Tioga County to participate in the UMTA Section 18 Transportation Program for nonurbanized areas. The Tioga County Section 18 Coordinator received assistance in revising the County's service plan and preparing Section 18 applications. In March of 1983, Tioga County submitted its first Section 18 application for a $66,250 capital project to the New York State Department of Transportation (NYSDOT).

In May of 1985, Tioga and Tompkins Counties and the NYSDOT Section 18 staff agreed on a plan to sponsor C&D Transportation for a Section 18 operating assistance grant of $45,000 for a two year operating period of the CARO-VAN service (Resolution No. 143 of 1985). The arrangement was unique in that Tioga County designated Tompkins County to make use of its $45,000 Section 18 allocation to support the intercounty jitney route (Tioga Co. Resolution No. 95-85). The agreement was the first of its kind in the state. Previously, counties which did not file applications to make use of Section 18 funds had their funds revert to NYSDOT for later redistribution. This agreement keeps local control over the use of the scarce Section 18 funds and is a precedent for other rural counties.

Tompkins County encouraged Cortland County to develop public transit service along the Cortland-Ithaca Corridor, which includes the

Ithaca-Dryden Transit service area. In September of 1981, Tompkins County proposed that both counties submit a joint application to the ARC for funding a Cortland-Dryden public transit service. Cortland declined and the application was revised to expand Ithaca-Dryden Transit service in Tompkins County.

In October of 1981, the Cortland County Planning Department requested information on TOMTRAN's ridesharing and park and ride programs. In 1982, Cortland County initiated a ridesharing and park and ride program.

C&D Transportation proposed to operate a Cortland-Dryden serive in December of 1982. Earlier in 1982, C&D started commuter service from Tioga County to the City of Cortland. C&D desired to expand the commuter route to include public transit service between the City and the Tompkins-Cortland Community College (TC3) in Dryden. The proposed transit service, Cortland Transit, would connect Cortland with TOMTRAN Ithaca-Dryden Transit at TC3.

In January of 1983, C&D requested Cortland County's sponsorship for the state TOA prior to starting service. TOMTRAN staff met with Cortland legislative committees on several occasions to provide information about the TOA program. In September 1983, the Cortland legislature approved TOA sponsorship and Cortland Transit began service on September 19, 1983.

In April of 1984, TOMTRAN staff was invited to appear before the Cortland County Planning Board to present information on TOMTRAN and the potential for public transportation in the county. Cortland County was encouraged to be involved in the Section 18 program and begin planning for transit service in the Cortland urban area. Cortland County continues not to participate in the federal Section 18 program.

In September of 1984, Chemung and Schuyler Counties proposed starting commuter bus service to the Ithaca urban area. TOMTRAN staff provided the counties with information on employee locations, and reviewed the schedule and fares.

In February of 1985, Tompkins and Chemung Counties agreed to an inter-municipal agreement to authorize Chemung Transit to operate the bus route in Tompkins County (Resolution No. 4 of 1985). The new Chemung Transit commuter route serves the City of Elmira (Chemung Co.), Village of Watkins Glen (Schuyler Co.), and the Ithaca urban area with four daily round trips. Furthermore, Tompkins County assisted Chemung Transit in preparing Section 18 operating assistance applications for the new expansion.

The growth of TOMTRAN and other public transportation services in the Southern Tier Region increasingly attracted the attention of NYSDOT staff. Until 1985, NYSDOT's role was primarily limited to the management of the Section 18 and state transit operating assistance programs. In early 1985, NYSDOT was invited to a series of meetings held between public transit managers and private bus operators for the purpose of coordinating routes and schedules of intercity and local services. The result was the formation of the Southern Tier Bus Network.

The Southern Tier Bus Network is the first regional coalition of public and private operators in the State. The Network focused on the task of disseminating schedule information to the general public. NYSDOT's role was to compile a data base and design a regional bus map to be published by the Network. By the end of 1985 a final version of the map was ready to be published.

In summary, Tompkins County Planning Department serves as an informal clearinghouse and technical resource on state and federal transportation programs. TOMTRAN is an example of a successful rural county transportation program and provides the staff with credibility in working with neighboring counties and the state.

4. Microcomputer System

In December of 1982, a microcomputer system, based on the IBM Personal Computer, was purchased. In 1985, TOMTRAN expanded its micro capability with the addition of a COMPAQ portable. The County was able to purchase both the IBM PC and the COMPAQ through a state contract. so that a separate

During the first quarter of 1983, the TOMTRAN staff spent a substantial amount of time learning how to use the IBM PC, selecting software, and using the system for transit management. By 1985, the need for portable computing was evident, especially when meeting with operators at their offices. In addition, schedule typesetting and other graphics needed to be produced as part of TOMTRAN management, which required purchasing a digitizer, ink jet printer and related software. Since the advent of TOMTRAN microcomputers became an integral part of project management.

Software

The following software programs in use are categorized by function:

Spreadsheet	Word Processing	Data Base Management
1-2-3 (Lotus)	EasyWriter II	dBASE II & III
	EasySpeller II	PC-FILE
	EasyMailer	Lotus 1-2-3
	WordPerfect	
	Fontrix	
Graphics	**Statistical Applications**	**Project Management**
VisiTrend/Plot	VisiTrend/Plot	Time Line Project
PC-Crayon	Abstat	Scheduling & Management
Lotus 1-2-3		

TOMTRAN Microcomputer Applications

Task	Software	Status
1. NYS Transit Operating Assistance Program		
- Applications preparation, accounting	SS,WP	***
2. Federal Section 18 Applications		
- Applications preparation	SS,WP	***
- Budgeting	SS	***
- Service Area Maps	Graphics	***
- Project Status Summary	SS	***
- Bid Specifications	WP	***
- Resolutions, Letters of Notification	WP	***
3. Transit Management - Marketing		
- County Budget Preparation	SS	***
- Monthly Contract Service Accounting	SS	***
- Ridership, Miles Data	SS	***
- TOMTRAN Mailing List, Telephone Calls	DBM	***
- Transit Evaluation	SS,Graphics	***
- Rider Surveys	WP,DBM,SS	***
- Household Surveys	WP,DBM,SS	***
- Service Area Market Study	DBM, WP	***
- Advertising Planning	SS	***
- Contract & Resolution Preparation	WP	***
- Transit Schedules & Route Planning	SS	***
- Personal Time Management	SS	***
- Project Scheduling & Management	PSM	**
- Ticket Sales Accounting	SS,DBM	**
- Paratransit Trip Scheduling	DBM	*
- Ride-matching	DBM	*
- Advertising Graphics	Graphics	***
4. Grant Management		
- Report Preparation	WP,SS,Graphics	***
- Budget Management	SS,DBM	***
5. Special Projects		
- Public Participation Campaign	WP,DBM	***
- Transit & Landuse Impact Study	DBM,SS,WP	*
- Transit Demand Forecasting	SS	*

Key ----------
Status: *** Currently Operational
** Under Developement
* 1986 Application

Software ----------
SS - Spreadsheet
WP - Word Processing
DBM - Data Base Management
PSM - Project Scheduling
Graphics

Hardware

The system is presently configured as follows:

- IBM Personal Computer with (2) 320K floppy disk drives, 1.2MB RAM, with Orchid Technologies Conquest Memory Board
- Tecmar Graphics Master Card
- Tallgrass Technologies Hard Disk 12.5 megabyte (formatted)
- Amdek Color II RGB (high resolution) Monitor
- IBM Graphics Dot Matrix Printer
- DaisyWriter (letter quality) Printer
- Diable Ink Jet Printer
- GIS switch box (for controlling the printers)
- Symtec Light Pen
- Summagraphics Summasketch Digitizer
- COMPAQ Portable 640K RAM (2) floppy drives with AST Research SixPak Plus Board

Microcomputer User Groups

TCPD is a member of the following microcomputer user groups:

1. Microcomputers in Transportation Planning, MTP Support Center, Cambridge, MA.
2. Transit Industry Microcomputer Exchange, TIME Support Center, Troy, NY
3. Microcomputers in Planning Association, American Planning Assoc.

A. SUBURBAN TRANSIT PROGRAM

OBJECTIVE: To provide public transit service in suburban areas outside of the City of Ithaca.

Abbreviations: EIT - East Ithaca Transit
NET - Northeast Transit
IT - Ithaca Transit
NYS TOA - New York State Transit Operating Assistance

Background

The TOMTRAN Suburban Transit Program includes two transit services, Northeast Transit (NET) and East Ithaca Transit (EIT). NET and EIT share similarities in their operation and organization. The transit services connect the higher density residential and commercial areas in the Villages of Lansing and Cayuga Heights, and the suburban eastern portion of the Town of Ithaca with Cornell University and the City of Ithaca, see service area map on page A.3. NET and EIT operate Monday through Friday and reduce their bus schedules during the summer months. Both services are operated by private operators. Since 1981, NET and EIT have successfully developed from ad hoc to long-term public-private partnerships.

In September of 1974, NET started when a group of apartment owners, facing high vacancy rates, contracted with a private bus company, Swarthout & Ferris of Ithaca, New York, to operate a free commuter service to Cornell University. From 1975 to 1979, NET operated only during the nine month academic year, September to May. In 1977, Cornell University joined the ad hoc group of apartment owners in support of NET. In 1979, a committee composed of Cornell University, apartment owners, Town of Ithaca, City of Ithaca, Villages of Lansing and Cayuga Heights, and Tompkins County (called

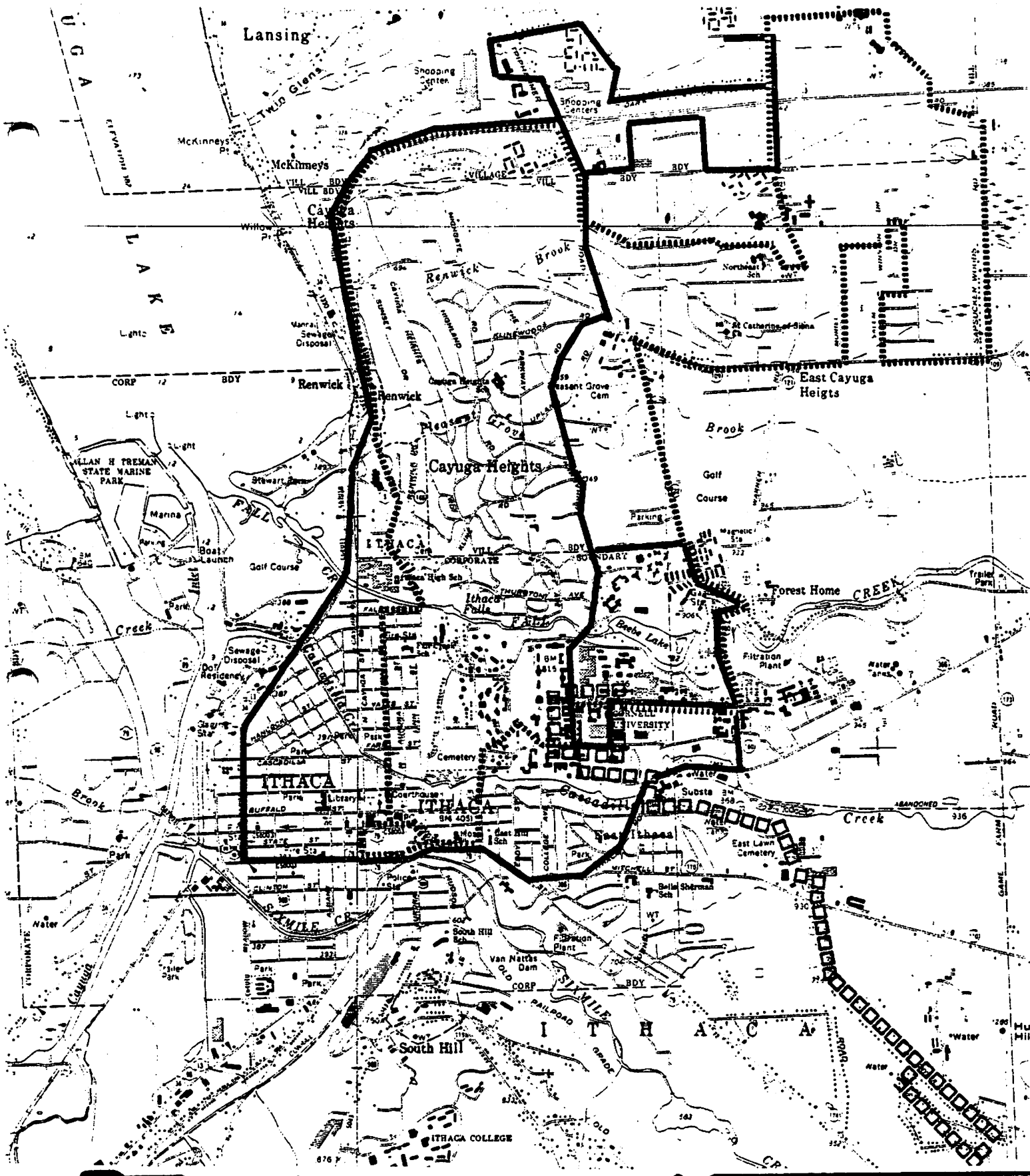
the Northeast Transit Study Committee) was formed to make recommendations on the future development of NET. As NET developed into a public transit system, the apartment owners gradually phased out their subsidy and involvement.

The Northeast Transit Study Committee issued a report recommending a contractual framework for operating NET. The City of Ithaca would act as the agent for the NET sponsors and contract directly with Swarthout & Ferris. The City would financially manage the system, including paying the operator, billing the sponsors, and applying for state transit assistance for NET. The second contract is between the NET sponsors and the City of Ithaca. The contract allocates fixed percentages of the NET deficit to the sponsors, based on the agreed upon benefit each receives from NET. The total subsidy from each sponsor is capped. State aid received for NET is credited against the system deficit. The Study Committee continues to function to recommend policy and provide oversight of NET. By 1981, NET was poised to initiate all day transit service and the Committee began to address long-term operational issues.

Planning for East Ithaca Transit began in 1980 and was included in the TOMTRAN Project application. EIT was organized and funded by the Town of Ithaca, Cornell University, and Tompkins County. The Cornell Bus Service was selected to operate EIT after Ithaca Transit and Swarthout & Ferris declined the opportunity. In January of 1981, EIT began operation between the suburban East Ithaca area and Cornell University.

Program Summary

The objectives of the TOMTRAN Suburban Transit Program includes expanding services, upgrading capital equipment, coordinating suburban transit with other transit services, and developing longer term contractual



Map A.1

TOMTRAN SUBURBAN TRANSIT SERVICE AREA

Northeast & East Ithaca Transit Routes

TOMPKINS COUNTY

NORTH

KEY:

NET

EIT

MAP NUMBER: ____

REFERENCES:
BASE MAP N.Y.S.D.P.S., 1967
TOMPKINS CO. HWY. MAP, 1972
UPDATED BY T.C.D.P., JAN., 1980

PREPARED BY:
TOMPKINS COUNTY DEPT. OF PLANNING, ITHACA, N.Y.

0 MILES 1/2

and financial arrangements. Between 1981 and 1984, there has been substantial progress made on achieving the objectives.

Program Elements

1. Increase the level of Suburban Transit Service.

Between 1981 and 1984, the level of suburban transit service was increased by the expansion of routes, operating additional hours per day, and in a demonstration of night transit service. In September of 1981, the largest single increase in service occurred when Northeast Transit began operating an all day schedule. Suburban transit service increased 32% from 22 vehicle hours to 29 vehicle hours/day. In March of 1982, total vehicle hours increased to 30.7 hours/day, and remained at that level until September of 1984 when suburban transit service increased to 39 hours/day.

Beginning in FFY85, NET did not reduce service during the Christmas holiday period for the first time. In the summer of 1985, the NET evening hours were curtailed. Monthly vehicle hours are presented in Table A.1.

Table A.1 - Suburban Transit Hours by Month (FFY 82-85)

					Percent Change			
FFY:	1982	1983	1984	1985	82-83	83-84	84-85	82-85
Oct	638.0	644.7	644.7	895.7	1.1%	0.0%	1.1%	40.4%
Nov	569.0	633.0	633.0	802.3	11.2%	0.0%	11.2%	41.0%
Dec	511.0	540.9	505.2	666.5	5.9%	-6.6%	-1.1%	30.4%
Jan	445.0	491.7	507.0	799.7	10.5%	3.1%	13.9%	79.7%
Feb	594.0	614.0	633.0	777.0	3.4%	3.1%	6.6%	30.8%
Mar	696.1	706.1	687.1	821.9	1.4%	-2.7%	-1.3%	18.1%
Apr	675.4	644.7	644.7	823.8	-4.5%	0.0%	-4.5%	22.0%
May	568.0	639.5	591.0	825.4	12.6%	-7.6%	4.0%	45.3%
June	451.0	561.0	452.0	720.8	24.4%	-19.4%	0.2%	59.8%
July	451.5	529.0	430.0	754.1	17.2%	-18.7%	-4.8%	67.0%
Aug	492.4	639.6	530.1	793.9	29.9%	-17.1%	7.7%	61.2%
Sept	655.2	644.7	827.2	839.6	-1.6%	28.3%	26.3%	28.1%
Total	6,746.6	7,288.9	7,085.0	9,520.6	8.0%	-2.8%	5.0%	41.1%

Between FFY82 and FFY85, total suburban transit hours increased by 2,774 hours or 41%. FFY85 has the most vehicle hours due to the reorganization of NET service into two service areas separately operated by Swarthout & Ferris and CU Transit. Tompkins County and other local sponsors pay a net operating subsidy only for Swarthout & Ferris's portion of NET. The overall increase in the number of hours comes from including the CU Transit NET route for the first time.

Biannual rider surveys of NET and EIT were used to plan increases in suburban transit service. In the first survey, December 1981, riders indicated their priorities for an expanded afternoon schedule, night service, and Saturday service. In March of 1982, afternoon service was increased 1.7 hours/day. A demonstration of night suburban service took place between September and December 1983. In September of 1984, NET was reorganized to include night and Saturday service in its regular schedule.

The $5,000 in ARC funds for suburban transit was used to support suburban transit demonstrations in the summer of 1982 and in the fall of 1983. In June 1982, NET summer service was increased to provide direct service between the northeast suburban area and the City of Ithaca's Cass Park as a demonstration of recreation transit demand. Between September and December 1983, night transit service, combining suburban and Ithaca-Dryden Transit, operated 7.5 vehicle hours per night. The results of the demonstrations were mixed. Summer ridership to Cass Park was much lower than expected, however the night service experienced steady increase in ridership during the period. The success of the night service justified its inclusion in the regular NET schedule in September of 1984.

2. Upgrade Capital Equipment

The Suburban Transit Program capital budget is as follows:

Table A.2 Suburban Transit Capital Budget

Capital Equipment	ARC Funds	Federal Section 18	NYS	Local Cash	Local Inkind	Total Eligible
Transit Bus (EIT)	$ 9,718	$77,744	$9,718	$ 0	0	$ 97,180
Signs & Poles	800	0	0	200	500	1,500
Shelters (3)	12,000	0	0	500	1,600	14,100
TOTAL	$22,518	$77,744	$9,718	$ 700	$2,100	$112,780

The Suburban Transit Program uses 6.9% of the $325,120 in ARC funds designated for the TOMTRAN capital budget. In addition, a long-term operating agreement reached with Swarthout & Ferris includes the provision of two transit buses for NET by the operator. Currently NET is operated with two school buses, modified to function in transit use. Swarthout & Ferris is responsible for purchase of two transit buses and has elected not to use federal funding of any kind. The first transit bus purchased by the operator was placed in service in January, 1985. Swarthout & Ferris has 22 months to replace the second school bus with a transit bus. The capital program illustrates the local commitment to suburban transit, and improves the quality and reliability of service to the public.

3. Coordinate Suburban Transit with other Transit Services

The Suburban Transit Program has been coordinated with other TOMTRAN services and Ithaca Transit, operated by the City of Ithaca. TOMTRAN and Ithaca Transit closely coordinate marketing in print and radio media,

answer telephone inquiries about all transit services, and operate an area-wide transfer system. The coordination of schedules began with the 1982 summer suburban transit service to the City-operated Cass Park. A demonstration transfer program was put into effect between NET, EIT, and IT. Although, the transfer was discontinued in September of 1982, a new transfer system was planned and instituted in August of 1983 between all TOMTRAN transit programs and IT. The transfer removed an excessive fare disincentive inhibiting transit use in the Ithaca urban area.

Transfer riders are only counted once for state transit operating assistance and are not included in the ridership totals. The transfer rate averages 50/day. The time of day and connections of transfers are under study to determine patterns of use and potential schedule changes which could reduce the need to transfer.

4. Develop Long Term Contractual and Financial Arrangements

The Suburban Transit Program includes the objective to streamline the contractual arrangements of NET and EIT. The development of a consensus by the operators and local sponsors has taken time as circumstances and positions evolved.

In 1981, NET and EIT were operating under two contracts with separate operators and different contractual periods. NET was operated by Swarthout & Ferris, Inc. under contract with the City of Ithaca and seven additional sponsors including two villages, Cornell University, Town of Ithaca, apartment owners, and Tompkins County. The local sponsors formed the NET Study Committee which recommended NET policies. Two contracts, for nine and three months periods, were used to operate NET each year. The clumsy arrangements contributed to unnecessary work on the part of the NET

participants. EIT was organized on the calendar year and sponsored by Cornell University, Town of Ithaca, and the County. The Cornell Bus Service operated EIT and provided the same bookkeeping function as the City performed for NET.

The NET and EIT service contracts were reformed during 1982 and 1983. The budget and contract periods for NET and EIT were standardized on the calendar year in May of 1982. In January of 1983, the City of Ithaca began quarterly billing of NET local sponsors. During the fall of 1983, the Committee developed a plan to resolve the issue of selecting a long-term operator for NET.

Swarthout & Ferris had operated NET since 1974. At that time, Swarthout & Ferris was the only local bus operator with the flexibility to run NET on an ad hoc basis. The City of Ithaca and Cornell University were unable for a variety of financial and political reasons to operate NET. Swarthout & Ferris, as a large charter bus operator, is obligated under New York State Transportation Law to provide some public transit service in exchange for its charter rights. The NET service contract is desired by Swarthout & Ferris because it pays the company to fulfill its regulatory obligations.

The possibility of federal Section 18 funding for NET made the operator issue a high priority for the Committee. Swarthout & Ferris declined to participate in the federal Section 18 Program for operating assistance in 1981 and capital funding in 1983. Swarthout & Ferris decided that it was not in the company's interest to comply with federal accounting standards. Since Swarthout & Ferris was paid on a cost per hour basis to operate NET, the full burden of not using federal Section 18

operating funds fell on the local sponsors. By 1983, Ithaca Transit and Cornell University emerged as viable operators of NET and are eligible to use federal Section 18 funds.

The Committee gave Swarthout & Ferris a deadline of March 1, 1984, to complete a pre-award audit to determine its eligibility for the Section 18 Program. In March, Swarthout & Ferris reiterated its decision to not participate in the federal Section 18 Program. After a series of meetings, a resolution of the operator issue was successfully negotiated. A new five year agreement would begin in 1985 with Swarthout & Ferris as the operator. The operating budget would be approved annually as part of the budget process for each sponsor. The agreement includes the following:

1. Federal Section 18 funds would not be used for NET.
2. Swarthout & Ferris agrees to operate NET at a contract price of $26.00 per hour for a five year period starting in 1985.
3. A fuel escalation clause is added in the event of high inflation of fuel prices.
4. The operator is responsible for purchasing at least two transit buses for NET within a 22 month period starting in January of 1985.

The resolution of the NET operator issue permits the Committee to focus on the issues of service quality and coordination.

East Ithaca Transit was an important first step in the transition of the Cornell Bus Service from an campus bus line to its reorganization as a transportation corporation. Before EIT started in January of 1981, the Cornell Bus Service operated a fleet of 16 modified school buses, and primarily concerned itself with running a shuttle service between the major parking lots on the Cornell University campus. EIT expanded Cornell's role in public transit when it became an operator for the first time. In addition, EIT compelled Cornell to be involved in the state regulatory process, and initiated the chain of events which lead up to the formation

of a transportation corporation. Furthermore, the success of EIT provided Cornell with the experience to become the operator of Ithaca-Dryden Transit under contract with the County.

During the period of September 1983 to January 1984, Cornell University made decisions which would fundementally change its role in public transit. In November of 1983, Cornell University incorporated a subsidiary transportation corporation, CU Transit, Inc. At the same time, CU Transit made arrangments to replace its fleet of school buses with 17 Thomas Transit Liner Buses (1), and planned to reorganize its bus routes into a public transit system. In December of 1983, CU Transit requested the County to sponsor it for the state transit operating assistance program. On December 20, 1983, the Tompkins County Board passed a resolution to sponsor CU Transit for state operating assistance (Resolution No. 325 of 1983). On January 12, 1984, CU Transit applied to the NYS Dept. of Transportation for permanent operating authority for all of its transit services, including the TOMTRAN routes it operates for the County. In May of 1984, the State approved CU Transit's petition for permanent operating authority (Case No. 30202) after receiving many favorable public comments. (2)

The rapid transition of CU Transit provided an opportunity to reorganize EIT on a long-term basis, and to increase EIT and NET services. In January of 1984, CU Transit assumed the entire financial burden of East

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1. The Thomas buses were built in 1981 for Exxon, Inc., to be used in a Colorado shale oil project which was later cancelled. CU Transit purchased the buses at $52,000 each. Tompkins County bought two buses for the TOMTRAN Rural Transit Program.

2. CU Transit's petition for operating authority was initially opposed by Greyhound Lines, Inc. by letter of February 9, 1984, but later withdrawn on March 6, 1984. See Greyhound Issue under the Rural Transit Program.

Ithaca Transit from the Town of Ithaca and Tompkins County, and expanded the EIT route in the service area. In August of 1984, CU Transit assumed the total cost of providing service in a low density portion of the NET service area. The financial incentive for CU Transit to assume these costs was the County's sponsorship for the state transit operating assistance program, which would provide an estimated $150,000 in 1984.

CU Transit replaced Swarthout & Ferris as the operator of NET Route 2, serving a low-density residential portion of the service area, at no cost to the local sponsors. The consolidation of both operators' NET routes permitted Swarthout & Ferris to provide new evening service on weekdays, and Saturday service. The net result was an increase of 8 vehicle hours/ day of additional NET service, effective in August of 1984. The August schedule contains the same number of contract vehicle hours with Swarthout & Ferris as before, however, the contractual service is for the highest productivity routes. Therefore, user revenue is expected to pay a higher percentage of operating costs for which the NET sponsors are at risk. The successful resolution of the NET operator issue and the transition of CU Transit provided the opportunities to increase and expand suburban transit service at no additional cost to the local public and private sponsors.

5. Ridership

The TOMTRAN Program Narrative (April 1, 1981) projected suburban transit ridership at 125,000 passenger trips for the period of September, 1981, to August, 1982. Actual ridership for that period was 148,497 passenger trips. Although suburban transit ridership exceeded the original estimate by 18%, total passenger trips remained stable during the first three years FFY82 - FFY84, and grew significantly in FFY85.

Table A.3 - Suburban Transit Ridership

		EIT	NET	Total
FFY 82	Quarter			
Oct-Dec	81 1	18,220	19,744	37,964
Jan-Mar	82 2	22,227	23,339	45,566
Apr-June	82 3	16,434	18,124	34,558
July-Sept	82 4	16,719	14,873	31,592
Total		76,080	73,600	149,680
FFY 83	Quarter			
Oct-Dec	82 1	23,875	17,177	41,052
Jan-Mar	83 2	25,107	18,395	43,502
Apr-June	83 3	19,261	15,271	34,532
July-Sept	83 4	18,149	12,530	30,679
Total		63,403	86,392	149,795
FFY 84	Quarter			
Oct-Dec	83 1	15,608	23,572	39,180
Jan-Mar	84 2	20,480	24,406	44,886
Apr-June	84 3	15,246	18,666	33,912
July-Sept	84 4	11,470	20,163	31,633
Total		62,804	86,807	149,611
FFY 85	Quarter			
Oct-Dec	84 1	15,335	32,439	47,774
Jan-Mar	85 2	18,155	33,677	51,832
Apr-June	85 3	13,690	24,109	37,799
July-Sept	85 4	12,999	23,704	36,703
Total		60,179	113,929	174,108
		Percent Change		
FFY 82-83		-16.7%	17.4%	0.1%
FFY 83-84		-0.9%	0.5%	-0.1%
FFY 84-85		-4.2%	31.2%	16.4%

During the ARC project period there were dynamic shifts in Northeast and East Ithaca Transit ridership trends. Northeast and East Ithaca Transit (NET and EIT) reversed their relative ridership trends during the first two years. In FFY 82, EIT carried 76,080 passengers vs. 73,600 for NET. In FFY 83, NET became the leading system by carrying 86,392 passengers, an increase of 17.4% over the previous year. In FFY 83, EIT ridership declined 16.7% to 63,373 riders. In FFY 84, both services moderated their trends of growth and decline to less than 1%. In FFY 85, suburban transit carried 24,497 more passenger trips (16%) than in FFY 84. NET increased by 31%, while EIT declined by 4%.

The following three graphs present monthly ridership data for the total TOMTRAN suburban transit system and its component services, NET and EIT. The ridership statistics represent passenger trips originating on each service, and do not include transfers. The NET ridership counts includes routes operated by both Swarthout & Ferris and by CU Transit.

FIG. A.1 TOMTRAN SUBURBAN TRANSIT RIDERSHIP BY MONTH (FFY82-FFY85)

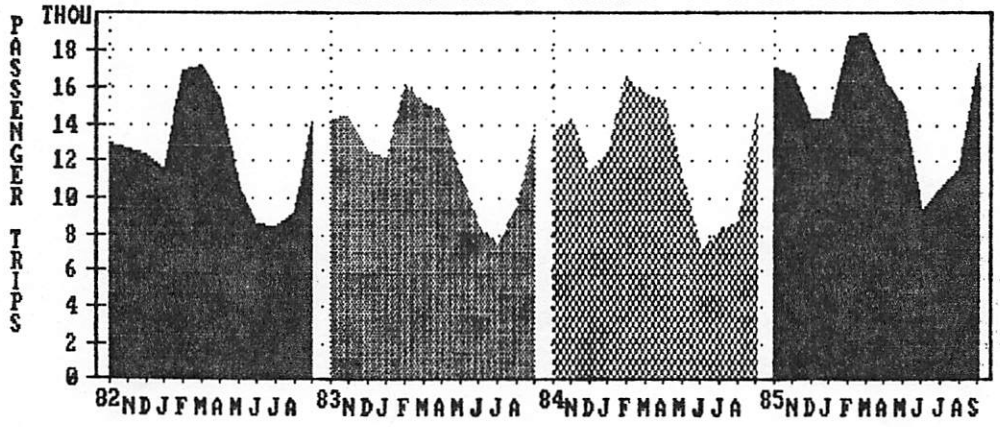


FIG. A.2 NORTHEAST TRANSIT RIDERSHIP BY MONTH (FFY82-FFY85)

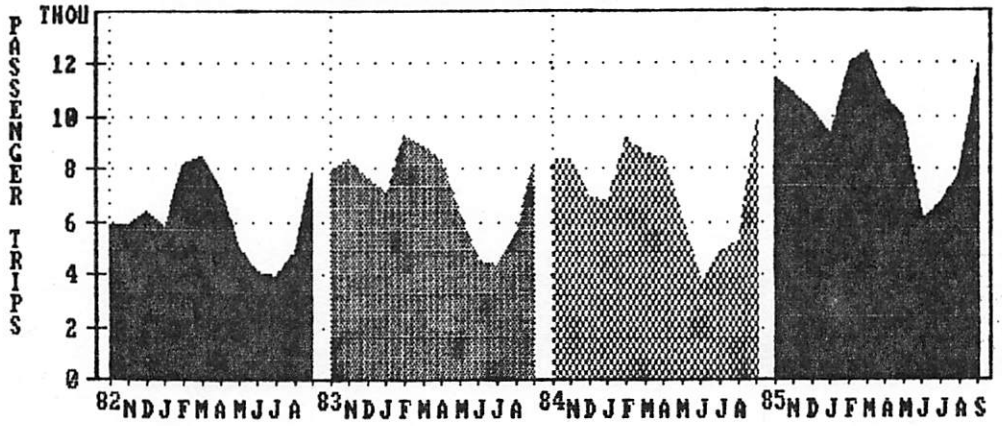
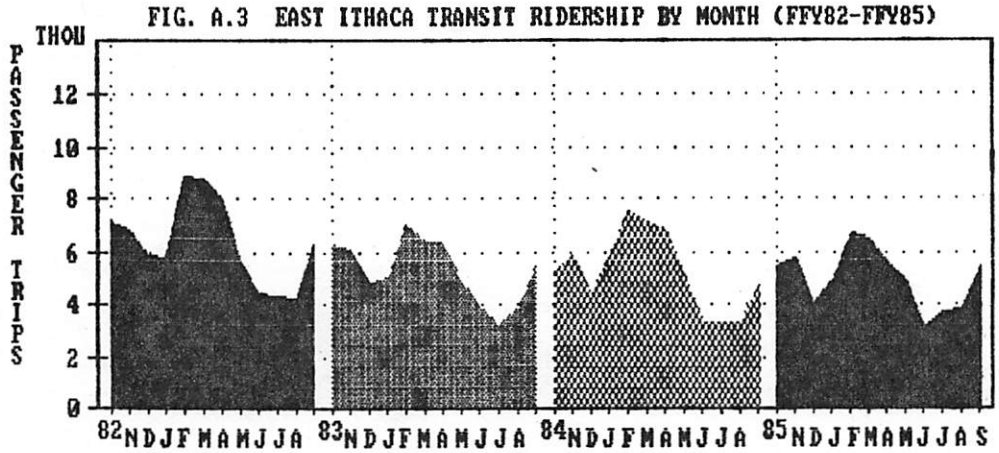


FIG. A.3 EAST ITHACA TRANSIT RIDERSHIP BY MONTH (FFY82-FFY85)



The bimodal pattern of suburban transit ridership is typical for transit service in the Ithaca urban area. Both peaks represent the nine month academic year from September to May. In general, ridership vaults from a summer low to the start of a high plateau in September. The stormy winter months of January to March are usually the period of highest ridership, followed by a steady decline through the spring and summer. The cyclical ridership pattern suggests that the best time to initiate or expand transit service is in late August, so that there is enough time to test the schedule before demand picks up again in September.

Table A.4 - Suburban Transit Ridership by Month (FFY 82-85)

FFY:	1982	1983	1984	1985	Percent Change 82-83	83-84	84-85	82-85
Oct	12,960	14,166	13,590	16,952	9.3%	-4.1%	24.7%	30.8%
Nov	12,676	14,403	14,289	16,559	13.6%	-0.8%	15.9%	30.6%
Dec	12,328	12,513	11,301	14,263	1.5%	-9.7%	26.2%	15.7%
Jan	11,511	12,145	12,690	14,216	5.5%	4.5%	12.0%	23.5%
Feb	16,890	16,197	16,624	18,694	-4.1%	2.6%	12.5%	10.7%
Mar	17,165	15,160	15,572	18,922	11.7%	2.7%	21.5%	10.2%
Apr	15,337	14,735	15,200	16,263	-3.9%	3.2%	7.0%	6.0%
May	10,690	11,347	11,210	14,916	6.1%	-1.2%	33.1%	39.5%
June	8,531	8,450	7,083	9,281	-0.9%	-16.2%	31.0%	8.8%
July	8,340	7,585	8,221	10,548	-9.1%	8.4%	28.3%	26.5%
Aug	9,092	9,394	8,653	11,570	3.3%	-7.9%	33.7%	27.3%
Sept	14,160	13,700	14,759	17,355	-3.2%	7.7%	17.6%	22.6%
Total	149,680	149,795	149,192	179,539	0.1%	-0.4%	20.3%	19.9%

Table A.5 - Suburban Transit Riders/Hour by Month (FFY 82-85)

FFY:	1982	1983	1984	1985	Percent Change 82-83	83-84	84-85	82-85
Oct	20.3	22.0	21.1	18.9	8.2%	-4.1%	-10.2%	-6.8%
Nov	22.3	22.8	22.6	20.6	2.1%	-0.8%	-8.6%	-7.3%
Dec	24.1	23.1	22.4	21.4	-4.1%	-3.3%	-4.3%	-11.3%
Jan	25.9	24.7	25.0	17.8	-4.5%	1.3%	-29.0%	-31.3%
Feb	28.4	26.4	26.3	24.1	-7.2%	-0.4%	-8.4%	-15.4%
Mar	24.7	21.5	22.7	23.0	-12.9%	5.6%	1.6%	-6.6%
Apr	22.7	22.9	23.6	19.7	0.6%	3.2%	-16.3%	-13.1%
May	18.8	17.7	19.0	18.1	-5.7%	6.9%	-4.7%	-4.0%
June	18.9	15.1	15.7	12.9	-20.4%	4.0%	-17.8%	-31.9%
July	18.5	14.3	19.1	14.0	-22.4%	33.3%	-26.8%	-24.3%
Aug	18.5	14.7	16.3	14.6	-20.5%	11.1%	-10.7%	-21.1%
Sept	21.6	21.3	17.8	20.7	-1.7%	-16.0%	15.9%	-4.4%
Average	22.1	20.5	21.0	18.8	-6.9%	2.1%	-10.2%	-14.7%

Tables A.4 and A.5 present the monthly ridership and productivity statistics for FFY 82 - FFY 84. NET and EIT statistics are shown in Table A.6 and A.7. Productivity, as measured by passenger trips/hour, declined 14.7% during the three year period. This trend is related to the proportional decline in ridership between EIT and NET, and the addition of the lower productive CU Transit NET route in FFY 85.

Table A.6 NET and EIT Vehicles Hours and Ridership by Month FFY 82-85

	Northeast Transit Hours				East Ithaca Transit Hours			
FFY:	82	83	84	85	82	83	84	85
Oct	396	399	399	636	242	246	245	259
Nov	360	399	399	576	209	234	234	226
Dec	324	342	318	497	187	199	187	169
Jan	225	256	273	551	220	235	234	248
Feb	360	380	399	551	234	234	234	226
Mar	427	437	418	585	269	269	269	237
Apr	418	399	399	586	257	246	245	237
May	337	394	346	588	230	245	245	237
June	231	319	210	483	220	242	242	237
July	220	309	210	528	231	220	220	226
Aug	249	384	275	556	243	255	255	237
Sept	409	399	560	602	245	245	266	237
Total	3,957	4,418	4,206	6,741	2,789	2,870	2,878	2,780

	Northeast Transit Ridership				East Ithaca Transit Ridership			
FFY:	82	83	84	85	82	83	84	85
Oct	5,893	7,923	8,308	11,436	7,067	6,243	5,282	5,516
Nov	5,899	8,293	8,363	10,787	6,777	6,110	5,926	5,772
Dec	6,428	7,659	6,901	10,216	5,900	4,854	4,400	4,047
Jan	5,723	7,077	6,820	9,222	5,788	5,068	5,870	4,994
Feb	8,085	9,214	9,095	12,003	8,805	6,983	7,529	6,691
Mar	8,419	8,816	8,491	12,452	8,746	6,344	7,081	6,470
Apr	7,291	8,319	8,394	10,721	8,046	6,416	6,806	5,542
May	5,024	6,377	6,100	9,934	5,666	4,970	5,110	4,982
June	4,119	4,565	3,753	6,115	4,412	3,885	3,330	3,166
July	3,962	4,358	4,865	6,776	4,378	3,227	3,356	3,772
Aug	4,891	5,532	5,308	7,777	4,201	3,862	3,345	3,793
Sept	7,866	8,259	9,990	11,921	6,294	5,441	4,769	5,434
Total:	73,600	86,392	86,388	119,360	76,080	63,403	62,804	60,179

In FFY 82, EIT carried 50.8% of suburban transit ridership over a much shorter route than NET. By FFY 84, EIT's share dropped to 33% of total suburban ridership. Between FFY 82 and 85, NET ridership increased by 62% or 45,822 riders, while vehicles increased 70%. The highest increase in NET ridership and hours occurred in FFY 85 by 38% and 60%, respectively.

Table A.7 NET and EIT Productivity (Riders/Hour) by Month FFY 82-85

	Northeast Transit Riders/Hour (FFY 82-85)				East Ithaca Transit Riders/Hour (FFY 82-85)			
	82	83	84	85	82	83	84	85
Oct	14.9	19.9	20.8	18.0	29.2	25.4	21.5	21.2
Nov	16.4	20.8	21.0	18.7	32.4	26.1	25.3	25.5
Dec	19.8	22.4	21.7	20.6	31.6	24.4	23.5	23.9
Jan	25.4	27.6	25.0	16.7	26.3	21.5	25.1	20.1
Feb	22.5	24.2	22.8	21.8	37.6	29.8	32.2	29.6
Mar	19.7	20.2	20.3	21.3	32.5	23.6	26.3	27.3
Apr	17.4	20.8	21.0	18.3	31.3	26.1	27.7	23.4
May	14.9	16.2	17.6	16.9	24.6	20.3	20.9	21.0
June	17.8	14.3	17.9	12.6	20.1	16.1	13.8	13.3
July	18.0	14.1	23.2	12.8	19.0	14.7	15.3	16.7
Aug	19.6	14.4	19.3	14.0	17.3	15.1	13.1	16.0
Sept	19.2	20.7	17.8	19.8	25.6	22.1	17.9	22.9
Average	18.6	19.6	20.5	17.7	27.3	22.1	21.8	21.6

The productivity trends relate ridership and vehicle hours of service. During the first three years, NET increased in its overall productivity. In FFY 85, the inclusion of the CU Transit NET route added more hours relative to ridership growth, resulting in an decline in the average passenger trips per hour.

A closer look at the NET routes is necessary to understand the financial implications of the ridership and service trends. As previously discussed, NET was reorganized in August of 1984 into two routes operated by Swarthout & Ferris and CU Transit. Swarthout & Ferris operates the high ridership route with a local subsidy from Tompkins County and other local sponsors. CU Transit operates the low ridership route as part of its service to the Cornell University campus with a 16-passenger minibus. Only Cornell University subsidizes the CU Transit NET route, although its total hours and ridership are included to represent all of the NET service. Therefore, the high productivity trend of the S&F route, and low local subsidy, are obscured by the CU Transit route.

NET serves a much larger service area than EIT which includes a higher population base and regional commercial centers. However, the EIT service area holds great promise for future development due to the availability of significant vacant land of close proximity to the expanding Cornell campus.

The 16.7% decrease in EIT ridership between FFY 82 and FFY 83 is attributed to specific factors affecting short term transit demand for EIT. Cornell University bought the largest local shopping center in East Ithaca. A number of University offices were moved to and from East Ithaca resulting in dynamic shifts in off-peak period ridership.

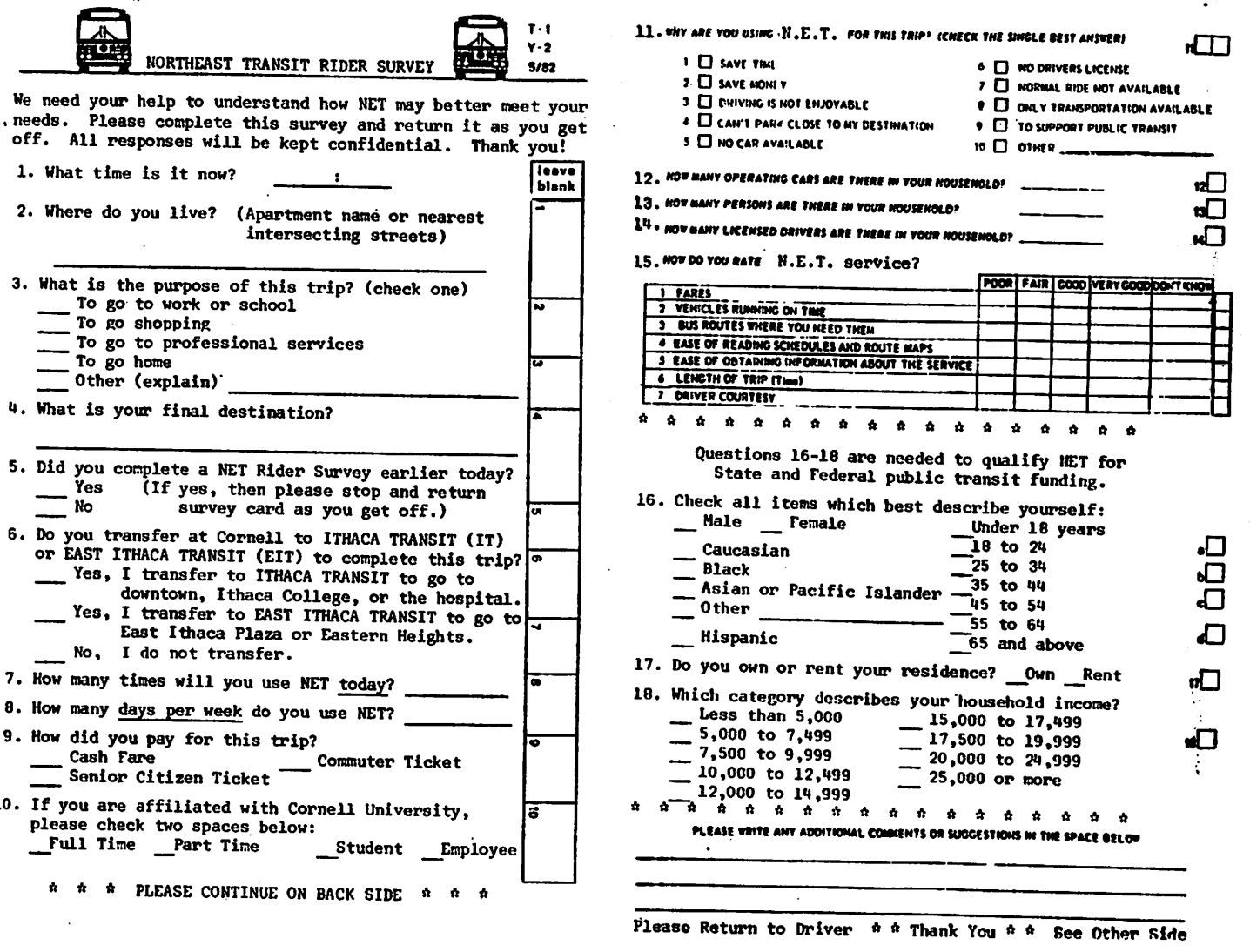
In January of 1984, CU Transit assumed full financial responsibility for EIT. The fare was lowered from $.40 to $.35 and the bus route was expanded in August of 1984. Between FFY 83 and FFY 85, EIT ridership declined about 5%.

The East Ithaca Transit service area includes large vacant parcels of land of prime residential and commercial development potential. The zoning for the area encourages medium-density residential and cluster development. EIT is an asset to residential and commercial development in the service area, because of its direct access to the central Cornell campus. EIT's contribution to suburban transit ridership will likely increase as development occurs.

6. Ridership Characteristics

Beginning in April 1981, surveys of suburban transit riders have been conducted every six to nine months. On the day of the survey, all riders are given a survey card which is filled out and returned to the bus driver. The same survey format was used for all TOMTRAN transit programs. A copy of the survey card is presented below.

Exhibit A.1 - Rider Survey Card



NORTHEAST TRANSIT RIDER SURVEY

T-1
Y-2
5/82

We need your help to understand how NET may better meet your needs. Please complete this survey and return it as you get off. All responses will be kept confidential. Thank you!

leave blank

1. What time is it now? ____ : ____

2. Where do you live? (Apartment name or nearest intersecting streets)
_____

3. What is the purpose of this trip? (check one)
___ To go to work or school
___ To go shopping
___ To go to professional services
___ To go home
___ Other (explain) _____

4. What is your final destination?
_____

5. Did you complete a NET Rider Survey earlier today?
___ Yes (If yes, then please stop and return
___ No survey card as you get off.)

6. Do you transfer at Cornell to ITHACA TRANSIT (IT) or EAST ITHACA TRANSIT (EIT) to complete this trip?
___ Yes, I transfer to ITHACA TRANSIT to go to downtown, Ithaca College, or the hospital.
___ Yes, I transfer to EAST ITHACA TRANSIT to go to East Ithaca Plaza or Eastern Heights.
___ No, I do not transfer.

7. How many times will you use NET today? _____

8. How many days per week do you use NET? _____

9. How did you pay for this trip?
___ Cash Fare ___ Commuter Ticket
___ Senior Citizen Ticket

10. If you are affiliated with Cornell University, please check two spaces below:
__Full Time __Part Time __Student __Employee

☆ ☆ ☆ PLEASE CONTINUE ON BACK SIDE ☆ ☆ ☆

11. WHY ARE YOU USING N.E.T. FOR THIS TRIP? (CHECK THE SINGLE BEST ANSWER)

1 ☐ SAVE TIME
2 ☐ SAVE MONEY
3 ☐ DRIVING IS NOT ENJOYABLE
4 ☐ CAN'T PARK CLOSE TO MY DESTINATION
5 ☐ NO CAR AVAILABLE
6 ☐ NO DRIVERS LICENSE
7 ☐ NORMAL RIDE NOT AVAILABLE
8 ☐ ONLY TRANSPORTATION AVAILABLE
9 ☐ TO SUPPORT PUBLIC TRANSIT
10 ☐ OTHER _____

11 ☐☐

12. HOW MANY OPERATING CARS ARE THERE IN YOUR HOUSEHOLD? _____ 12 ☐
13. HOW MANY PERSONS ARE THERE IN YOUR HOUSEHOLD? _____ 13 ☐
14. HOW MANY LICENSED DRIVERS ARE THERE IN YOUR HOUSEHOLD? _____ 14 ☐

15. HOW DO YOU RATE N.E.T. service?

	POOR	FAIR	GOOD	VERY GOOD	DON'T KNOW	
1 FARES						
2 VEHICLES RUNNING ON TIME						
3 BUS ROUTES WHERE YOU NEED THEM						
4 EASE OF READING SCHEDULES AND ROUTE MAPS						
5 EASE OF OBTAINING INFORMATION ABOUT THE SERVICE						
6 LENGTH OF TRIP (Time)						
7 DRIVER COURTESY						

☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆

Questions 16-18 are needed to qualify NET for State and Federal public transit funding.

16. Check all items which best describe yourself:

__ Male __ Female		Under 18 years
__ Caucasian	__	18 to 24
__ Black	__	25 to 34
__ Asian or Pacific Islander	__	35 to 44
__ Other _____	__	45 to 54
	__	55 to 64
__ Hispanic	__	65 and above

a ☐ b ☐ c ☐ d ☐

17. Do you own or rent your residence? __Own __Rent 17 ☐

18. Which category describes your household income?

__ Less than 5,000	__ 15,000 to 17,499
__ 5,000 to 7,499	__ 17,500 to 19,999
__ 7,500 to 9,999	__ 20,000 to 24,999
__ 10,000 to 12,499	__ 25,000 or more
__ 12,000 to 14,999	

18 ☐

☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆

PLEASE WRITE ANY ADDITIONAL COMMENTS OR SUGGESTIONS IN THE SPACE BELOW

_____

_____

_____

Please Return to Driver ☆ ☆ Thank You ☆ ☆ See Other Side

Statistics including household income and size, trip purpose, and rider characteristics are presented in the following tables.

Table A.8 - Income Distribution by Household Size

Income	Persons Per Household 1	2	3	4	5	6	Total Income
Under $5,000	43.5%	21.9%	18.5%	25.0%	33.3%	20.0%	28.0%
$5,000 $7,499	12.9%	11.4%	13.8%	6.3%	0.0%	0.0%	10.0%
$7,500 $9,999	8.1%	7.9%	6.2%	2.1%	0.0%	20.0%	6.1%
$10,000 $12,499	9.7%	9.6%	9.2%	4.2%	9.5%	0.0%	8.2%
$12,500 $14,999	11.3%	6.1%	12.3%	4.2%	4.8%	0.0%	8.2%
$15,000 $17,499	4.8%	8.8%	10.8%	6.3%	0.0%	0.0%	7.3%
$17,500 $19,999	1.6%	5.3%	7.7%	6.3%	0.0%	0.0%	4.9%
$20,000 $24,999	4.8%	7.0%	9.2%	6.3%	9.5%	20.0%	7.0%
$25,000 Plus	3.2%	21.9%	12.3%	39.6%	42.9%	40.0%	20.4%
Total Households:	19.7%	36.2%	20.6%	15.2%	6.7%	1.6%	100%

Read down the columns for the income distribution of the different sizes of households. The median household size is 2 persons and the median income is $10,000 to $12,499.

Table A.9 Suburban Transit Trip Purpose

1. Commuting to Work or School	74.8%
2. Shopping	20.3
3. Other	4.9

Table A.10 Reasons for Using Suburban Transit

1. Only Transportation Available	44.7%
2. No Car Available	16.8
3. Save Time	7.6
4. Normal Ride Not Available	6.1
5. Save Money	5.1
6. Can't Park Close to Destination ..	4.6
7. To Support Public Transit	4.6
8. Driving Not Enjoyable	4.0
9. No Driver's License	2.0
10. Other	4.5

Table A.11 Age & Sex Distribution of Riders

Male:	43.1%
Female:	56.9
	100.0%
Age	
Under 18	3.0%
18-24	33.1
25-34	32.0
35-44	15.7
45-54	7.3
55-64	7.0
65 +	1.9
	100.0%

The median age is between 25 and 34.

7. Evaluation

The evaluation of the Suburban Transit Program involves analyzing supply, demand, revenue, cost and subsidy statistics for a four year period of FFY 82 to FFY 85. The units of analysis are the passenger-mile, capacity-mile, and capacity-hour. The passenger-mile measurement was requested by the ARC, while the capacity-mile and hour units are used by the New York State Department of Transportation (NYS DOT) for analyzing transit system performance.(3) The passenger-mile is defined as carrying one passenger the distance of one mile. Capacity is defined as the total seating and standing capacity of the vehicle. The capacity is multiplied by the total revenue miles and hours to obtain the other two measures.

Tables A.12 and A.13 present Suburban Transit Program statistics for the four year period of FFY 82 to FFY 85. The dollar amounts represent constant 1981 dollars. The actual operating cost and user revenue amounts

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3. Keck, C., Zerrillo, R., and Schneider, N., The Development of Multimodal Performance Measures for Transit Systems in New York State. State Planning and Research Section, NYS DOT (June 1980). Report No. 22.

are as follows:	FFY 82	FFY 83	FFY 84	FFY 85
Operating Cost	($153,254)	($179,074)	($184,676)	($235,172)
User Revenue	$62,746	$64,154	$67,203	$80,661

Table A.12 TOMTRAN Suburban Transit Program Evaluation

(Constant 1981 Dollars)

	ARC YEAR 1 FFY 82	ARC YEAR 2 FFY 83	ARC YEAR 3 FFY 84	ARC YEAR 4 FFY 85
SUPPLY-STATISTICS				
Total Vehicles Miles	89,914	92,791	100,098	127,511
Hours/Period	6,769	7,289	7,085	9,521
Average MPH	13.3	12.7	14.1	13.4
Revenue Miles	89,914	92,791	100,098	127,511
Capacity-miles	5,215,012	5,381,878	5,805,684	6,188,558
Capacity-hours	392,602	422,762	410,930	464,541
DEMAND-STATISTICS				
Passenger-Trips	149,680	149,795	149,611	179,539
Average Trip Length	2.9	3.2	3.2	3.5
Passenger-miles	438,562	480,842	477,259	627,289
Passenger-trips/Pass-mile	0.341	0.312	0.313	0.286
Passenger-trips/Cap-mile	0.029	0.028	0.026	0.029
Passenger-trips/Cap-hour	0.381	0.354	0.364	0.386
Passenger-mi/Capacity-mile	0.084	0.089	0.082	0.101
Pass-Trips/Hour	22.11	20.55	21.12	18.86
REVENUE-STATISTICS				
Total Revenue	$51,654	$51,021	$51,360	$59,446
Revenue/Passenger-mile	$0.1178	$0.1061	$0.1076	$0.0948
Revenue/Capacity-mile	$0.0099	$0.0095	$0.0088	$0.0096
Revenue/Capacity-hour	$0.1316	$0.1207	$0.1250	$0.1280
Revenue/Vehicle Hr.	$7.63	$7.00	$7.25	$6.24
Average Fare	$0.3451	$0.3406	$0.3433	$0.3311
Revenue/Cost	40.94%	35.83%	36.39%	34.30%
COST-STATISTICS				
Total Operating Cost	($126,162)	($142,416)	($141,138)	($173,319)
Cost/Passenger-mile	($0.2877)	($0.2962)	($0.2957)	($0.2763)
Cost/Capacity-mile	($0.0242)	($0.0265)	($0.0243)	($0.0280)
Cost/Capacity-hour	($0.3213)	($0.3369)	($0.3435)	($0.3731)
Cost/Passenger-trip	($0.8429)	($0.9507)	($0.9434)	($0.9654)
Cost/Hour	($18.64)	($19.54)	($19.92)	($18.20)
DEFICIT STATISTICS				
Gross Deficit	($74,508)	($91,395)	($89,778)	($113,873)
Deficit/Passenger-mile	($0.170)	($0.190)	($0.188)	($0.182)
Deficit/Capacity-mile	($0.014)	($0.017)	($0.015)	($0.018)
Deficit/Capacity-hour	($0.190)	($0.216)	($0.218)	($0.245)
Deficit/Passenger-trip	($0.498)	($0.610)	($0.600)	($0.634)
Deficit/Hour	($11.01)	($12.54)	($12.67)	($11.96)

Table A.12 Suburban Transit Evaluation - Percent Change

	FFY 82-83	FFY 83-84	FFY 84-85	FFY 82-85
SUPPLY-STATISTICS				
Total Vehicles Miles	3.2%	7.9%	27.4%	41.8%
Hours/Period	7.7%	-2.8%	34.4%	40.7%
Average MPH	-4.2%	11.0%	-5.2%	0.8%
Revenue Miles	3.2%	7.9%	27.4%	41.8%
Capacity-miles	3.2%	7.9%	6.6%	18.7%
Capacity-hours	7.7%	-2.8%	13.0%	18.3%
DEMAND-STATISTICS				
Passenger-Trips	0.1%	-0.1%	20.0%	19.9%
Average Trip Length	9.6%	-0.6%	9.5%	19.2%
Passenger-miles	9.6%	-0.7%	31.4%	43.0%
Passenger-trips/Pass-mile	-8.7%	0.6%	-8.7%	-16.1%
Passenger-trips/Cap-mile	-3.0%	-7.4%	12.6%	1.1%
Passenger-trips/Cap-hour	-7.1%	2.8%	6.2%	1.4%
Passenger-mi/Capacity-mile	6.2%	-8.0%	23.3%	20.5%
Pass-Trips/Hour	-7.1%	2.8%	-10.7%	-14.7%
REVENUE-STATISTICS				
Total Revenue	-1.2%	0.7%	15.7%	15.1%
Revenue/Passenger-mile	-9.9%	1.4%	-11.9%	-19.5%
Revenue/Capacity-mile	-4.3%	-6.7%	8.6%	-3.0%
Revenue/Capacity-hour	-8.3%	3.6%	2.4%	-2.7%
Revenue/Vehicle Hr.	-8.3%	3.6%	-13.9%	-18.2%
Average Fare	-1.3%	0.8%	-3.5%	-4.1%
Revenue/Cost	-12.5%	1.6%	-5.7%	-16.2%
COST-STATISTICS				
Total Operating Cost	12.9%	-0.9%	22.8%	37.4%
Cost/Passenger-mile	3.0%	-0.2%	-6.6%	-4.0%
Cost/Capacity-mile	9.4%	-8.1%	15.2%	15.8%
Cost/Capacity-hour	4.8%	2.0%	8.6%	16.1%
Cost/Passenger-trip	12.8%	-0.8%	2.3%	14.5%
Cost/Hour	4.8%	2.0%	-8.6%	-2.3%
DEFICIT STATISTICS				
Gross Deficit	22.7%	-1.8%	26.8%	52.8%
Deficit/Passenger-mile	11.9%	-1.0%	-3.5%	6.9%
Deficit/Capacity-mile	18.9%	-8.9%	19.0%	28.8%
Deficit/Capacity-hour	13.9%	1.1%	12.2%	29.2%
Deficit/Passenger-trip	22.6%	-1.6%	5.7%	27.4%
Deficit/Hour	13.9%	1.1%	-5.6%	8.7%

In general, the productivity and overall cost effectiveness of the Suburban Transit Program declined in FFY 82 and FFY 83, but increased modestly in FFY 84 and sunk further in FFY 85 with the reorganization of routes.

The amount of suburban transit service increased by 40.7% in total hours and 43% in passenger miles during the period. From FFY 82 to FFY 84 total ridership remained virtually constant, differing not more than 100 passenger trips from the annual average of 149,695 in any year. In FFY 85 ridership increased 20% from FFY 84.

Cost effectiveness relates the cost and revenues of providing the transit service. User revenue refers to cash fares and ticket sales receipts received each year. Operating costs includes the cost of contractual suburban transit services, printing, and marketing expenses. Total user revenue increased 15% and total operating costs increased 37% during the period. The amount of user revenue per passenger mile fell 19.5% and operating cost per passenger mile dropped 4.% overall. The moderate gain in user revenue does not offset the high increase in operating costs, resulting in an 7.% increase in the gross deficit per passenger mile.

The picture would be bleak except that it reflects the overall costs and revenues of all suburban transit routes, regardless of the distribution of the local subsidy burden. During the period, Tompkins County and other local sponsors of suburban transit were able to transfer the financial burden of East Ithaca Transit and Route #2 of Northeast Transit to Cornell University. Therefore, the high productive NET route operated by Swarthout & Ferris was reorganized with added hours of service at progressively lower deficits for the local sponsors.

The S&F NET route is the core of the suburban transit program, accounting for nearly 60% of all ridership in FFY 85. In Table A.14, statistics for the S&F NET route are presented. From FFY 84 to FFY 85, vehicle hours increased 16.7%, passenger trips rose 23%, user revenue went up 15%, operating costs gained 8.5% and the net deficit was up 4.3%. The cost effectiveness of NET is expected to continue in FFY 86.

The sources of funding for the Suburban Transit Program changed significantly during the four year period (see Table A.13). The amount of federal funding was modest and is no longer used for operating assistance. New York State transit aid emerged as a growing source of funding. Local subsidies increased slightly, however, municipal subsidies were reduced when Cornell University assumed the financial risk for East Ithaca Transit and Route #2 of Northeast Transit.

Table A.13 Suburban Transit Funding Sources (FFY 82-85)

	(Constant 1981 Dollars)				Percent of Total			
	FFY 82	FFY 83	FFY 84	FFY 85	82	83	84	85
User Revenue	$51,654	$51,021	$51,360	$59,446	41%	36%	36%	34%
State Aid	42,696	51,762	52,277	67,985	34	36	37	39
ARC Grant	1,889	0	0	0	1	0	0	0
Local Subsidy	29,922	39,633	37,501	45,888	24	28	27	26
Total	$126,167	$142,416	$141,138	$173,319	100%	100%	100%	100%
Actual State Aid Received	$51,865	$65,086	$68,404	$92,247				

New York State Transit Operating Assistance (TOA) steadily increased during the four year period. The growth in TOA is due to the expansion of service and ridership, and increases in the state aid formula. The aid formula rose from $.032/rider and $.12/mile in 1981 to $.18/rider and $.47/mile in January of 1983.

Table A.14 Swarthout & Ferris NET Route Annual Reports (FFY 83-FFY 85)

	(Constant 1981 Dollars)			Percent Change		
	ARC YEAR 2 FFY 83	ARC YEAR 3 FFY 84	ARC YEAR 4 FFY 85	83-84	84-85	83-85
SUPPLY-STATISTICS						
Total Vehicles Miles	63,115	60,830	68,075	-3.6%	11.9%	7.9%
Hours/Period	4,418	4,006	4,674	-9.3%	16.7%	5.8%
Average MPH	14.3	15.2	14.6	6.3%	-4.1%	1.9%
Revenue Miles	63,115	60,830	68,075	-3.6%	11.9%	7.9%
Capacity-miles	3,660,670	3,528,140	3,948,350	-3.6%	11.9%	7.9%
Capacity-hours	256,244	232,348	271,109	-9.3%	16.7%	5.8%
DEMAND-STATISTICS						
Passenger-Trips	86,392	86,388	106,656	0.0%	23.5%	23.5%
Percent of Suburban Transit	57.7%	57.7%	59.4%			
Average Trip Length	4.6	4.6	4.6	0.0%	0.0%	0.0%
Passenger-miles	397,403	397,385	490,618	0.0%	23.5%	23.5%
Passenger-trips/Pass-mile	0.217	0.217	0.217	0.0%	0.0%	0.0%
Passenger-trips/Cap-mile	0.024	0.024	0.027	3.8%	10.3%	14.5%
Passenger-trips/Cap-hour	0.337	0.372	0.393	10.3%	5.8%	16.7%
Passenger-mi/Capacity-mile	0.109	0.113	0.124	3.8%	10.3%	14.5%
Pass-Trips/Hour	19.55	21.56	22.82	10.3%	5.8%	16.7%
REVENUE-STATISTICS						
Total Revenue	$33,856	$34,224	$39,242	1.1%	14.7%	15.9%
Revenue/Passenger-mile	$0.0852	$0.0861	$0.0800	1.1%	-7.1%	-6.1%
Revenue/Capacity-mile	$0.0092	$0.0097	$0.0099	4.9%	2.5%	7.5%
Revenue/Capacity-hour	$0.1321	$0.1473	$0.1447	11.5%	-1.7%	9.6%
Revenue/Vehicle Hr.	$7.66	$8.54	$8.40	11.5%	-1.7%	9.6%
Average Fare	$0.392	$0.396	$0.368	1.1%	-7.1%	-6.1%
Revenue/Cost	37.67%	40.63%	42.93%	7.9%	5.7%	14.0%
COST-STATISTICS						
Total Operating Cost	($89,872)	($84,225)	($91,399)	-6.3%	8.5%	1.7%
Cost/Passenger-mile	($0.2261)	($0.2119)	($0.1863)	-6.3%	-12.1%	-17.6%
Cost/Capacity-mile	($0.0246)	($0.0239)	($0.0231)	-2.8%	-3.0%	-5.7%
Cost/Capacity-hour	($0.3507)	($0.3625)	($0.3371)	3.4%	-7.0%	-3.9%
Cost/Passenger-trip	($1.0403)	($0.9750)	($0.8570)	-6.3%	-12.1%	-17.6%
Cost/Hour	($20.34)	($21.02)	($19.55)	3.4%	-7.0%	-3.9%
DEFICIT STATISTICS						
Gross Deficit	($56,016)	($50,001)	($52,157)	-10.7%	4.3%	-6.9%
Deficit/Passenger-mile	($0.141)	($0.126)	($0.106)	-10.7%	-15.5%	-24.6%
Deficit/Capacity-mile	($0.015)	($0.014)	($0.013)	-7.4%	-6.8%	-13.7%
Deficit/Capacity-hour	($0.219)	($0.215)	($0.192)	-1.6%	-10.6%	-12.0%
Deficit/Passenger-trip	($0.648)	($0.579)	($0.489)	-10.7%	-15.5%	-24.6%
Deficit/Hour	($12.68)	($12.48)	($11.16)	-1.6%	-10.6%	-12.0%

User revenue has decreased as a percentage of funding from 41% in FFY 82 to 34% in FFY 85. Fares were not increased during this period because increases in state aid offset the need to increase fares to match the rise in inflation. The net result is that TOA, as a percentage of total revenue, grew from 34% in FFY 82 to 39% in FFY 85.

Local subsidy levels have steadily decreased after reaching 28% in FFY 83. Cornell University's interest in supporting public transit removed the burden of the relatively less productive NET Route #2 and East Ithaca Transit from the other local sponsors. Consequently, the expanded suburban transit system costs local taxpayers less in FFY 85 than the smaller system did in FFY 82.

Summary

Since 1981, the TOMTRAN Suburban Transit Program made much progress in achieving the objectives: to expand services, upgrade equipment, coordinate services, and develop long-term contractual arrangements. The long-term operator contracts increase the self-sufficiency of the program by not using federal funds for operating assistance, significantly increasing Cornell University's financial support, reducing the amount of municipal subsidy, and by using private funds to purchase two transit buses for Northeast Transit.

During the four years, the overall suburban system cost effectiveness and productivity declined. But, the successful restructuring of the suburban transit financial responsibilities resulted in lowering the need for local taxpayer subsidy. Overall, the future for TOMTRAN Suburban Transit is promising.

B. RURAL TRANSIT PROGRAM

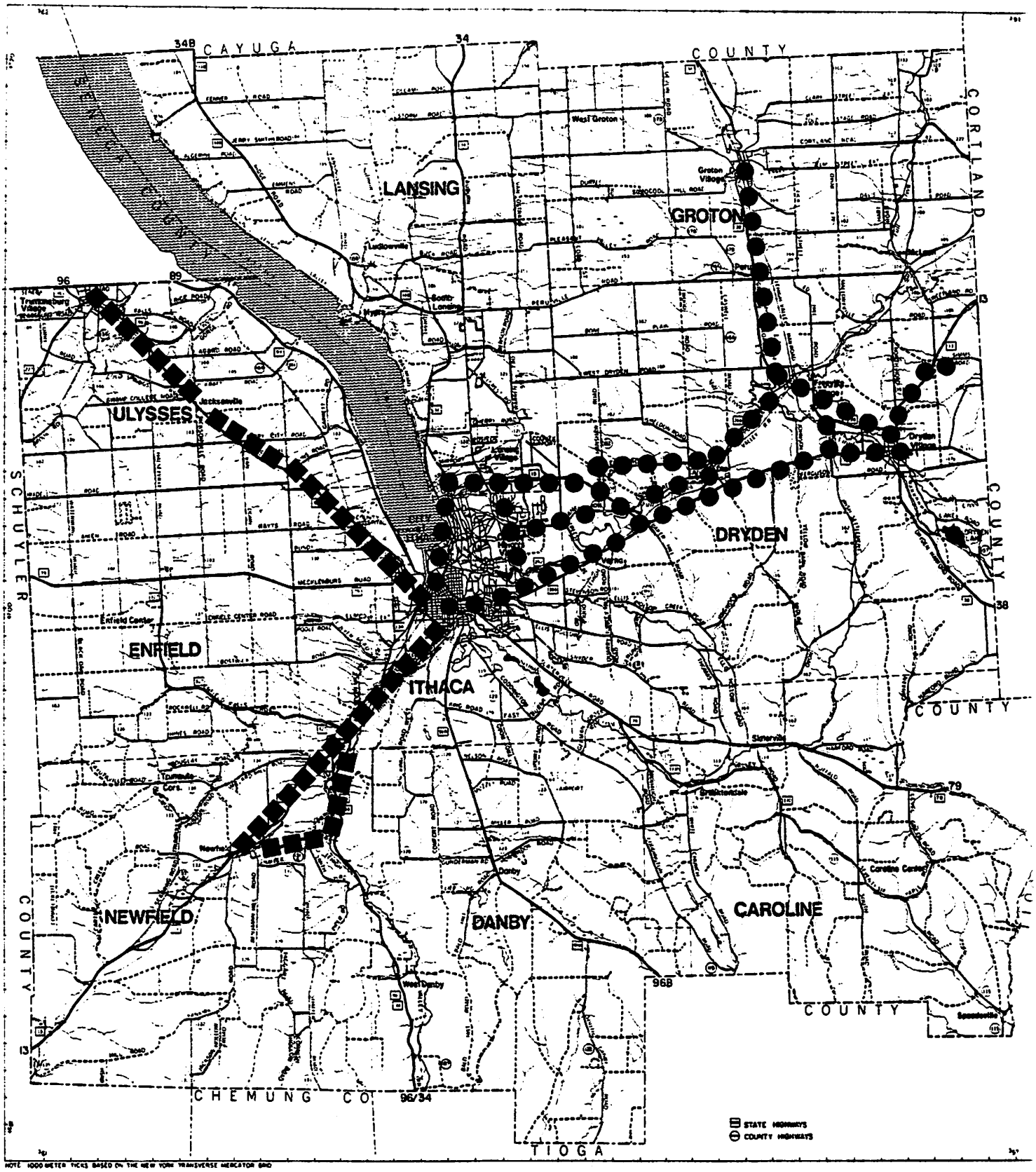
OBJECTIVE: To demonstrate the feasibility of fixed route, public transit in rural areas where sufficient demand exists.

Abbreviations: IDT - Ithaca-Dryden Transit
UNIT - Ulysses-Newfield Transit
TC3 - Tompkins-Cortland Community College

Program Summary

The TOMTRAN Rural Transit Program provides new public transit service along heavily-traveled, rural corridors in Tompkins County (see Map B.1). Rural transit is the top priority TOMTRAN program and uses the largest share of the ARC grant, $325,578 or 74.5%, for a single program. Rural transit represents the first public transit service developed by Tompkins County. The TOMTRAN staff exercises more independent control of the planning, development, and management of rural transit than it has over the suburban transit and jitney programs. Therefore, the Rural Transit Program more fully demonstrates the use of transportation brokerage in planning and managing a new transit service.

The Rural Transit Program includes the phased development of transit routes. Ithaca-Dryden Transit (IDT) was the first service developed and began operating on August 25, 1982. IDT links the City of Ithaca to the Villages of Dryden, Freeville, and Groton along state routes with the highest traffic volumes in Tompkins County. Ulysses-Newfield Transit (UNIT) was planned in 1984 and began service on January 14, 1985. UNIT connects the Towns of Ulysses and Newfield with the City of Ithaca. UNIT's first schedule concentrates on providing peak hour service from the Village of Trumansburg and hamlet of Newfield to the City of Ithaca, Cornell Univ., Emerson Morse-Chain and NCR manufacturing plants in the Ithaca urban area.



Map B.1 TOMTRAN

RURAL TRANSIT

TOMPKINS COUNTY

NORTH

KEY:

- Ithaca–Dryden
- Ulysses–Newfield

MAP NUMBER: ____

REFERENCES:
BASE MAP N.Y.S.D.P.S., 1967
TOMPKINS CO. HWY. MAP, 1972
UPDATED BY T.C.D.P., JAN., 1980

PREPARED BY
TOMPKINS COUNTY DEPT.
OF PLANNING, ITHACA, N.Y.

0 1/2 1 2 MILES
0 1/2 1 2 3 KM

Program Elements

1. Evaluate Potential for Service.

A substantial amount of TOMTRAN staff time was invested in evaluating the potential demand for rural transit service, designing routes, and planning bus schedules. Trip demand information was compiled from random household surveys, surveys of people at major destinations (such as TC3 and Pyramid Mall), and surveys of employee residential locations provided by major employers in 1980 and 1984. The trip demand information is used to identify key destination times and the spatial distribution of the demand before route designs and schedules are planned.

The route design process begins with determining travel times and distances along the road network in the service area. The trip demand data is then distributed on the network. The objective is to maximize service to the greatest number of potential bus stops (or nodes) with high trip demands, subject to the travel time needed to reach destinations at key times. Planning bus routes and schedules is an iterative process. Schedules are calculated over and over again as changes are made to the route design. A microcomputer is indispensable in the schedule planning process.

The number of buses is a major constraint in planning transit routes. On several occasions it was necessary to add a bus so that a particular route design and schedule could be operated. The number of buses is constrained by the marginal operating, leasing and insurance costs, and by the total number of buses available for transit service.

Ithaca-Dryden Transit

The route design for Ithaca-Dryden Transit is more complex than the design for Ulysses-Newfield Transit. The preliminary route design and schedule was presented in TOMTRAN Working Paper No. 2: Designing Rural Transit Routes with I.G.T.D.S. (Sept. 1980). The planning methodology was adapted from the Interactive Graphic Transit Design System (I.G.T.D.S) as developed by General Motors, Inc., in 1978. The trip demand information used in the preliminary design was the employer survey of 1980. Additional surveys were conducted in 1982, to better understand the trip demands of submarkets targeted for IDT service. (See Page B.5 for IDT Area Map.)

TOMTRAN staff identified commuters to Cornell University, downtown Ithaca, TC3, and New York State Electric & Gas (NYSEG) as high priority IDT submarkets. The IDT schedule for the peak periods was planned to serve the key destination times for commuters to the Ithaca urban area. Arrival times at TC3 and NYSEG were determined by the travel times of the buses returning from the City of Ithaca. Secondary markets include shoppers to the Lansing and Ithaca business districts, and travel needs of transit dependent persons throughout the service area.

In May of 1982, a survey of TC3 students and employees was conducted to solicit information on transit demand and scheduling. A facsimile of the survey card is presented as Exhibit B.1. In July of 1982, a random mail survey using a sample of Town of Dryden households was conducted to check travel demand assumptions used to plan the IDT schedule.

The design of IDT routes and schedule was greatly assisted by Ms. Darleen Yerdon, a graduate student in the Cornell University School of Engineering. In July of 1982, Ms. Yerdon and the TOMTRAN staff made use of

MAP B.2

TOMPKINS COUNTY

ITHACA - DRYDEN

CORRIDOR

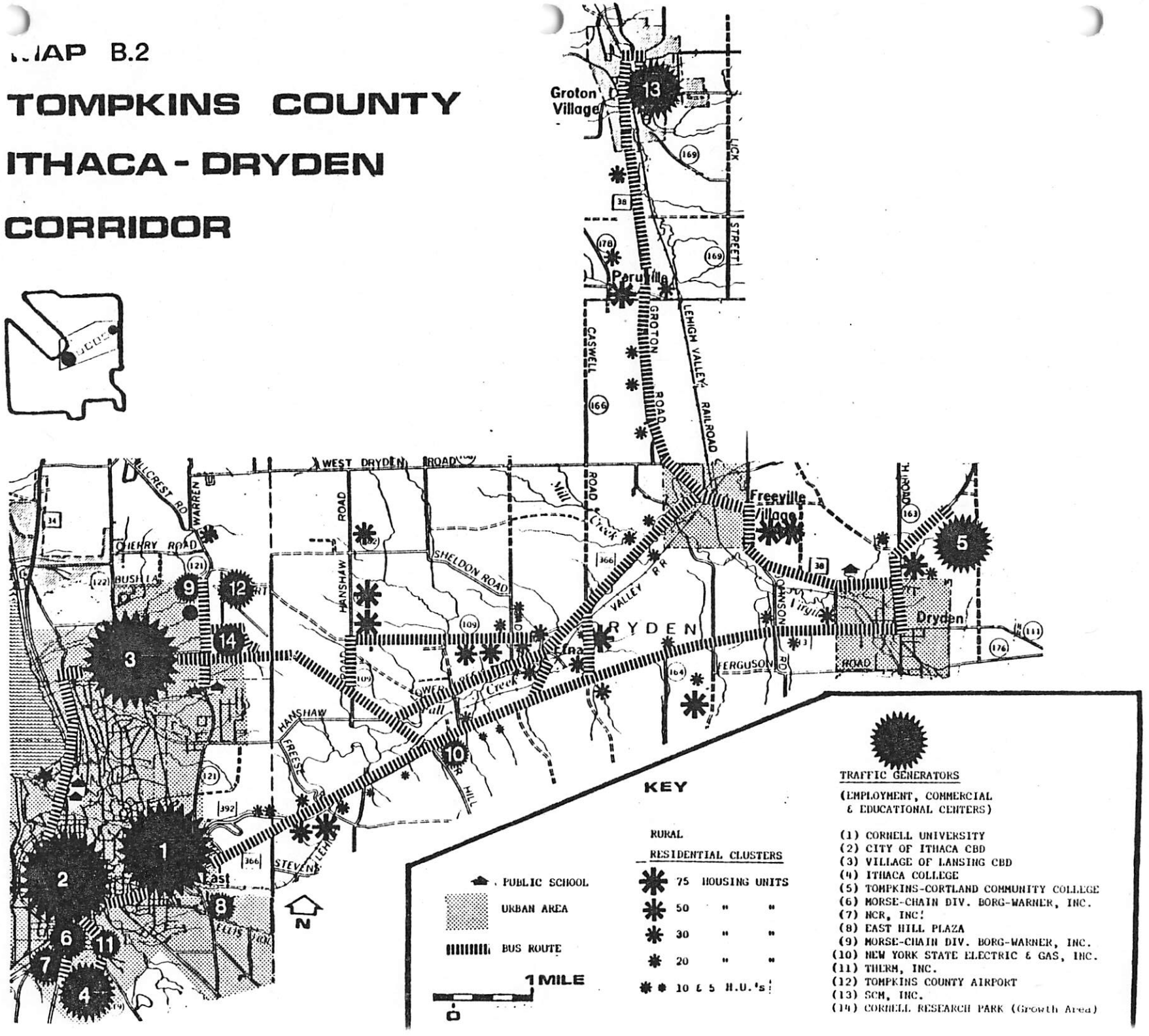


Exhibit B.1 TC3 Survey of May 1982

TC3 Transportation Survey 5/82

HAVE YOU EVER WANTED BETTER TRANSPORTATION BETWEEN TC3, ITHACA, AND GROTON?

Well then, this is your chance to speak up about it. The Tompkins County Planning Department is designing a new bus system that will begin serving Ithaca, TC3, Dryden, Groton, Freeville, and Etna in mid-August 1982.

Please take a couple minutes to answer these questions; your information will help us decide on the best route, schedule, and fare for the new bus service.

Please return this before you leave TC3 today.

leave blank

Where do you live? COUNTY _____
TOWN Ithaca
CITY/VILLAGE _____

Which intersection is nearest to your residence?
366/13

What is your commuting schedule to and from TC3?

	ARRIVE	am/pm	LEAVE	am/pm
Monday	8:45	AM	4:	PM
Tuesday	8:15	AM	4:	PM
Wednesday	8:45	AM	4:	PM
Thursday	8:00	AM	4:	PM
Friday	8:45	AM	4:	

How do you commute?
X DRIVE ALONE
__ CARPOOL WITH ___ PEOPLE
__ RIDE GREYHOUND BUS
__ HITCHHIKE
__ WALK
__ OTHER _____

How many days per week would you use daytime bus service between Ithaca, Dryden, TC3, and/or Groton?
3 DAYS/WEEK

How many days would you use evening service?
0 DAYS/WEEK

How much would you be willing to pay for a one-way trip to TC3?
$ 1.00

complete other side, too

Now, let's assume you own the new bus system. At what times would you schedule arrivals and departures at TC3 to maximize ridership?

ARRIVAL BY: (circle the times, please)			
7:00	7:30 am	3:00	3:30 pm
(8:00)	8:30	(4:00)	4:30
9:00	9:30	5:00	5:30
10:00	10:30	6:00	6:30
11:00	11:30	7:00	7:30
12:00	12:30 pm	8:00	8:30
1:00	1:30	9:00	9:30
2:00	2:30	10:00	10:30

(Departure 10 minutes after arrival)

Are you a TC3 student? __ YES ✓ NO

Will you be a TC3 student next fall? __ YES ✓ NO

Are you a TC3 employee? ✓ YES __ NO

What is your sex and age?
✓ FEMALE __ MALE 50 AGE

If you would like to receive a schedule of new bus service before it begins in mid-August, please print your name, address, and telephone number below.
NAME _____
ADDRESS _____
Ithaca NY 14850
PHONE _____

COMMENTS: Would be nice if this connected on 366 w/Cornell Commuter bus - Then Eastern Heights + East Hill Plaza could be serviced also.

Thank you for your help. If you have any other comments or questions, call the Tompkins County Planning Department at 274-5286, or write to:
Tompkins County Planning
128 East Buffalo St.
Ithaca, NY 14850

Please return this before you leave TC3 today.
complete other side

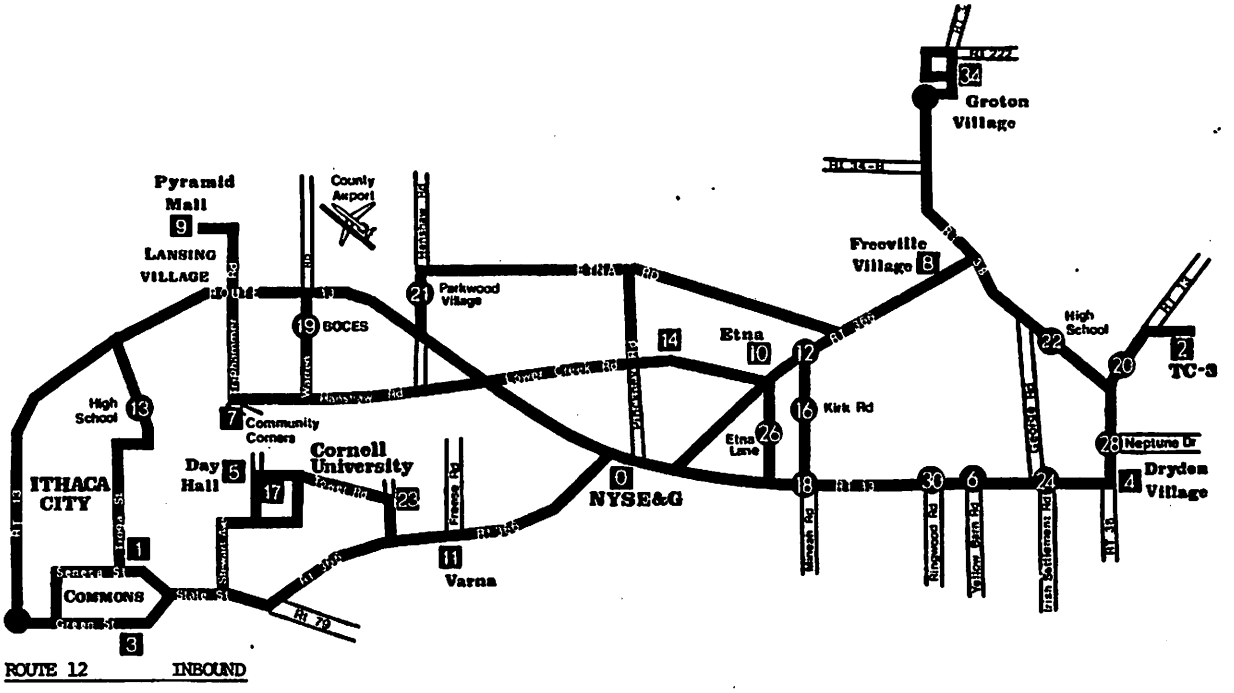
a computer program to design routes and simulate IDT operation. TNOP, Transit Network Optimization Program produced by General Motors, Inc., simulates trip demand from many origins to many destinations. The program permitted the TOMTRAN staff to test many route design schemes in a short period of time. Through the use of TNOP, the TOMTRAN staff demonstrated that IDT could not operate effectively with a single route and standard time intervals between buses. The final IDT route design included many different routes with buses traveling in both directions at irregular

headways. (How do bus drivers know where to go? See Exhibit B.2)

The final bus schedule was revised to conform with driver work rules and changes in employee work schedules. The IDT schedule was completed by August 16, 1982, and service began on August 25, 1982.

Exhibit B.2 The IDT Route Book

TOMTRAN staff created the IDT Route Book as a bus driver's guide to the IDT schedule. The book is spiral-bound and its pages are durable, heavy card-stock paper. The book contains route maps and departure times for scheduled bus stops for each one-way trip. Each driver's shift is color-coordinated by the color used to indicate the bus route. The books also contain ticket and transfer information. The Route Books are crucial for the on-time performance of rural transit service.



TC3	Dryden/ North	Dryden Village	Irish Setl'mtRd	Free- ville	KirkRd/ Rt. 366	Etna	Lower Crk.Rd	NYSEG	Varna	Dairy Bar	Day Hall
4:17	F	4:20	4:23	4:33	F	4:38	4:40	4:45	4:49	F	4:55

Seneca St Shelter	GreenSt. Shelter
5:00	5:04

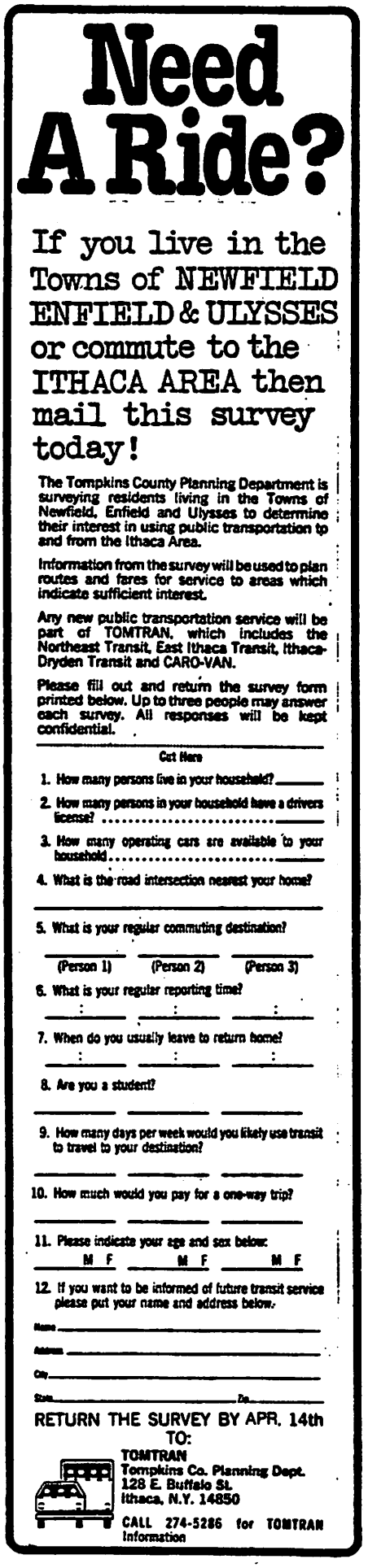
Ulysses-Newfield Transit (UNIT)

In January, 1985, Ulysses-Newfield Transit was launched as the newest rural transit route. UNIT will serve the intra-county transportation needs of commuters, youth, senior citizens, and others needing to travel to and from the Ithaca urban area from the largest population concentrations in western Tompkins County. The potential UNIT market includes commuters to Cornell University, Morse Chain Division of Emerson Electric, NCR, Ithaca College, Therm, Inc., and downtown Ithaca. In addition, the Tompkins Community Hospital is located on the Ulysses route, and transfers to IDT for TC3 employees and students are provided.

The analysis of the commuter demand was based on household and employer surveys since 1980. The employer surveys of 1980 and 1984 were used to identify the potential commuter market to the Ithaca urban area. The sample was selected from the population of registered voters for the Towns of Ulysses, Newfield, and Enfield. The addresses within a one mile area of potential routes were heavily sampled. A sample size of 25% was used. The results indicated a strong demand for public transit service. That determination was based on the positive response rate from a composite of factors.

The development of new service rests on attracting ridership which need to use transit for commuter trips. The composite rider can be described as:

- Female
- Age 25-34
- Working Spouse
- 1 car household
- Desires to use the bus 4 or 5 days/week
- Willing to pay a reasonable fare ($1.00 and up)



Need A Ride?

If you live in the Towns of NEWFIELD ENFIELD & ULYSSES or commute to the ITHACA AREA then mail this survey today!

The Tompkins County Planning Department is surveying residents living in the Towns of Newfield, Enfield and Ulysses to determine their interest in using public transportation to and from the Ithaca Area.

Information from the survey will be used to plan routes and fares for service to areas which indicate sufficient interest.

Any new public transportation service will be part of TOMTRAN, which includes the Northeast Transit, East Ithaca Transit, Ithaca-Dryden Transit and CARO-VAN.

Please fill out and return the survey form printed below. Up to three people may answer each survey. All responses will be kept confidential.

Cut Here

1. How many persons live in your household? _____
2. How many persons in your household have a drivers license? ..... _____
3. How many operating cars are available to your household ..... _____
4. What is the road intersection nearest your home? _____
5. What is your regular commuting destination? _____ _____ _____ (Person 1) (Person 2) (Person 3)
6. What is your regular reporting time? _____ _____ _____
7. When do you usually leave to return home? _____ _____ _____
8. Are you a student? _____ _____ _____
9. How many days per week would you likely use transit to travel to your destination? _____ _____ _____
10. How much would you pay for a one-way trip? _____ _____ _____
11. Please indicate your age and sex below: _____ M F _____ M F _____ M F
12. If you want to be informed of future transit service please put your name and address below.

Name _____
Address _____
City _____
State _____ Zip _____

RETURN THE SURVEY BY APR. 14th TO:

TOMTRAN
Tompkins Co. Planning Dept.
128 E. Buffalo St.
Ithaca, N.Y. 14850

CALL 274-5286 for TOMTRAN Information

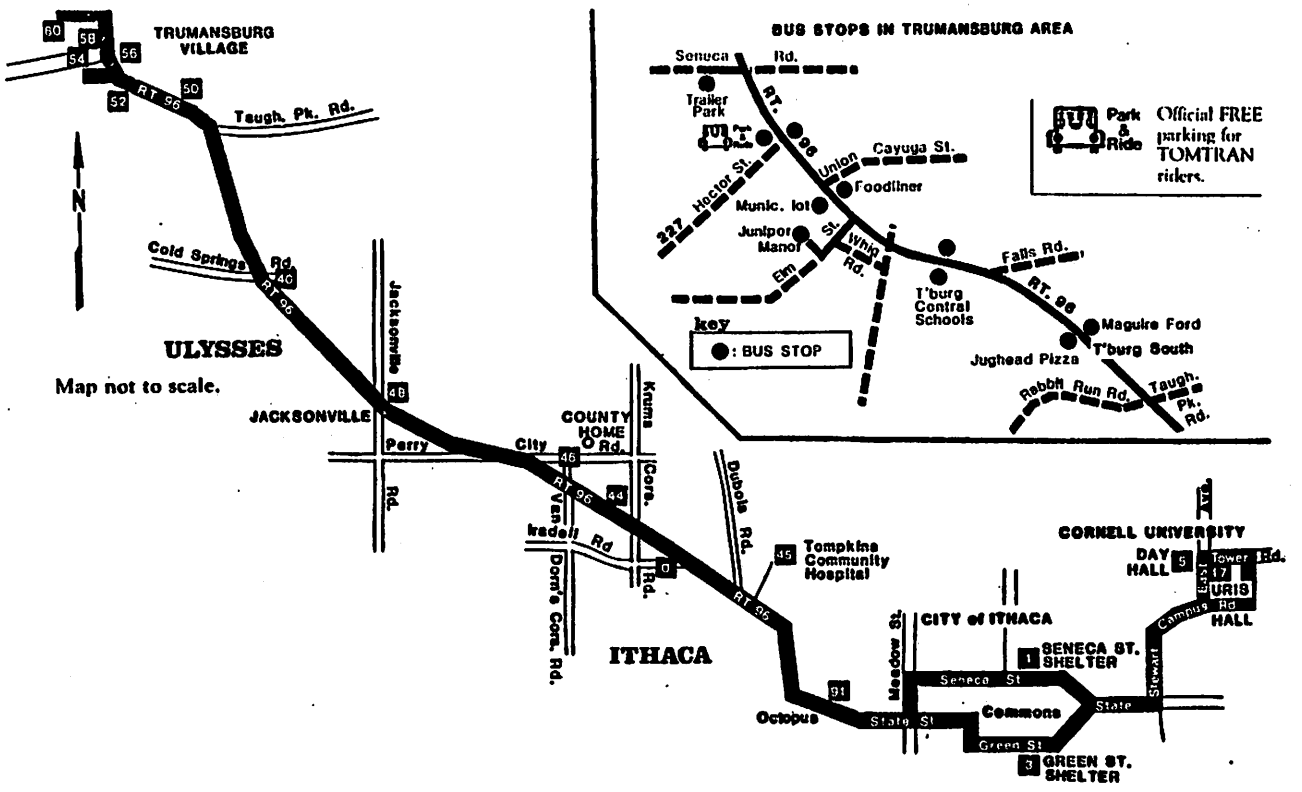
The composite rider is often an "early innovator" and is willing to try the new transit service. Approximately 35% of the households responded to the survey, of which 67% expressed a strong desire to use transit for commutation. Of greater importance is a mailing list of 350 names of persons who asked to be mailed a UNIT bus schedule.

Exibit B.3 UNIT Survey Coupon Ad

The household survey was published as a coupon ad to increase public awareness of the planning effort, and to encourage sample households to return their postage-paid survey card.

TOMTRAN Ulysses-Newfield Transit (UNIT) will provide fixed-route, public transit service in the Towns of Ulysses, Newfield and Ithaca. The initial UNIT route design will serve major residential hamlets in the Towns of Ulysses and Newfield (see Maps B.3 and B.4). The schedule offered peak hour service between 6:00 am to 10:30 am and from 1:00 pm to 7:00 pm., Monday through Friday. The first year ridership estimate was 48,195, as compared with the 43,071 riders who were actually carried.

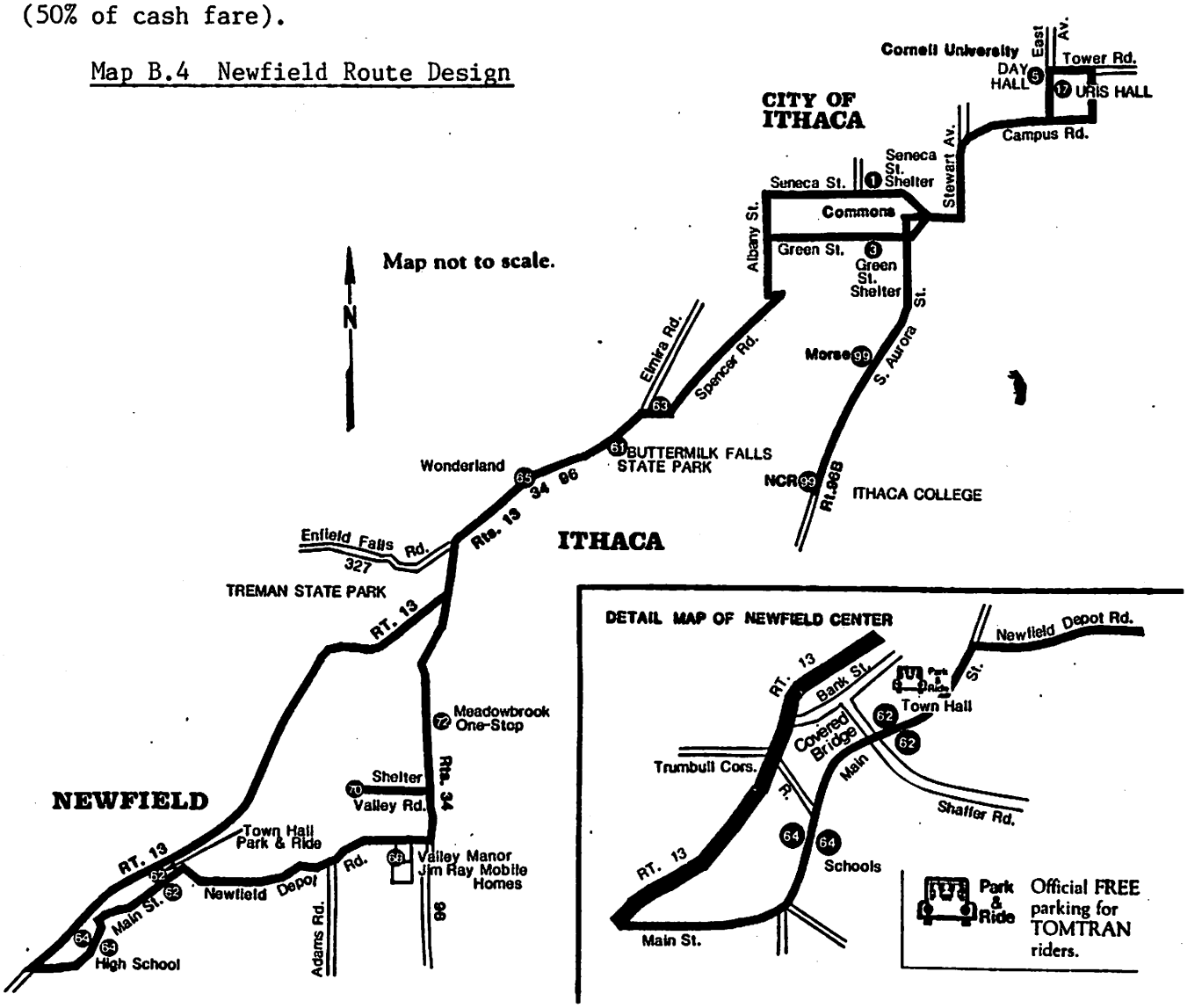
Map B.3 Ulysses Route Design



Both UNIT and IDT are based on a two zone fare system. The cash fare is $1.00 for a two-zone trip and $.50 for a one-zone trip. All passengers are required to pay a fare for each trip as they board the bus. In

addition to cash fares, discount tickets are available to commuters (95% of cash fare), youth (55% of cash fare), and senior citizen and handicapped (50% of cash fare).

Map B.4 Newfield Route Design



In general, the public regards the expansion of TOMTRAN UNIT as long overdue. The household survey of 1983 raised public expectations for transit service. In return, local municipalities and their county legislators pressed for the resolution of the operator issues so that service could be initiated. The Ithaca Journal Editorial of October, 16, 1984, (Exhibit B.4) summarizes the broad base of public support for UNIT.

Exhibit B.4 Ithaca Journal Editorial of October 16, 1984

8 ITHACA JOURNAL • Tuesday, Oct. 16, 1984

Opinion

The Ithaca JOURNAL

Ticket to ride

Kicking around the government is a national pastime with roots as deep as this country is old.

Actually, having a government, any government, to criticize is part of government's role. The people need a target to work off the pressures of everyday life.

So it comes with some measure of glee that we can offer applause to a government for taking a constructive, vital role in our lives without pressing its thumb in our eye.

We speak of the planned bus expansion by Tompkins County next year into Ulysses, Newfield and Enfield townships. This move will mean that public transportation will finally wind its way through most of the county's highways and byways.

The expansion of Tomtran will cost us money. That probably means higher taxes. Fine.

Public transportation is worth it.

For young people who aren't yet drivers, and for old people who can no longer drive, it's worth it.

For those who can't afford to buy or maintain a car, it's also worth it.

And not all of us want to own a car, either. After all, no one except the advertising copywriters in Detroit and Japan ever said that a car is absolutely necessary to American life, liberty and the pursuit of happiness.

So often, governments respond only to crises and give little thought to the future.

Whether they know it or not, the folks in Tompkins County government are exceeding expectations by matching current and future needs in public transit with what's financially feasible. It's a job well done, very well done indeed.

2. Initiate and expand Rural Transit Service.

Ithaca-Dryden Transit

Activites which preceded the start of IDT service include: procuring two transit buses, conducting surveys, designing routes and schedules, selecting an operator, planning advertising, printing and mailing schedules, and holding an opening day ceremony. A time line of IDT's capital purchasing and operating activities is itemized below:

February, 1982	- Work begins on transit bus bid specifications.
March 22, 1982	- TOMTRAN Transit Bus Specifications completed. Bid to purchase two transit buses for IDT.
March 26, 1982	- Bus specifications approved by Planning & Public Works Committee.
April 1, 1982	- Bus Specifications approved by ARC.
April 23, 1982	- Bus bid announced in the Ithaca Journal.
April 26, 1982	- Copies of bus specifications requested by six companies.
May 3-4, 1982	- TC3 survey conducted.
May 13, 1982	- Bus bid opening. Matthews Buses, Inc., distributor for Thomas Built Buses, Inc. is sole bidder.
May 21, 1982	- Planning & Public Works Committee approves bid to purchase two Thomas buses.
June 1, 1982	- Tompkins County awards bid contract to Matthews. Resolution No. 155 of 1982.
June 23, 1982	- Bus bid contract signed by Tompkins County.
June 26, 1982	- Bus bid contract received by Matthews.
June 30, 1982	- Requests for Proposals to operate IDT advertised. Copies of RPF's sent to Greyhound Lines, Inc., Ithaca Transit, Swarthout & Ferris, Inc., and Cornell Bus Service.

July 12, 1982 - IDT RFP opening. Cornell Bus Service is sole bidder.

July 13, 1982 - Tompkins County awards operating contract to Cornell University. Resolution No. 195 of 1982.

July 20, 1982 - Operating contract signed by Tompkins County.

August 16, 1982 - IDT schedule finished.

August 24, 1982 - Ceremonial first run of IDT.

August 25, 1982 - First day of IDT. Free service. 123 riders. Two school buses operate IDT. Schedule #1.

September 24, 1982 - Revised IDT schedule begins. Schedule #2.

December 23, 1982 - IDT Holiday schedule begins.

January 17, 1983 - Regular IDT schedule starts. Schedule #3.

February 21, 1983 - Morning service revised, two runs added to cope with overcrowding. Three buses operate IDT. Schedule #4.

February 28, 1983 - February sets ridership record of 8,008.

May 31, 1983 - IDT Summer schedule begins. Two-bus service.

August 24, 1983 - Two new Thomas transit buses are delivered.

August 29, 1983 - IDT expands service to Village of Groton. New Schedule #5 begins. Three-bus service.

September 1, 1983 - First Year's Ridership is 63,490.

September 6, 1983 - TOMTRAN IDT & suburban transit night service begins.

October 3-4, 1983 - Groton "Breakfast on the Bus" promotion held.

November, 1983 - CU Transit, Inc., incorporates as a transportation corporation subsidiary of Cornell University.

December 20, 1983 - County renews operating contract with CU Transit. Resolution No. 335 of 1983.

December 23, 1983 - IDT Holiday Schedule begins.

January 16, 1984 - Regular IDT schedule resumes. Schedule #6. No summer schedule in 1984.

February 21, 1984 - Tompkins County authorizes bid for one Thomas bus for IDT, Resolution No. 22 of 1984.

February 28, 1984 - Monthly ridership record set of 10,917.

July 6, 1984 - Used Thomas Bus bid for IDT advertised.

August 14, 1984 - Used Thomas Bus bid awarded to CU Transit. Resolution No. 199 of 1984.

August 14, 1984 - Revised IDT schedule #7 starts.

September 1, 1984 - Second Year's Ridership is 101,106.

November 7, 1984 - Tompkins County authorizes the purchase of 1 used Thomas Bus for UNIT. Resolution No. 284 of 1984.

November 20, 1984 - Ad for Thomas Bus bid published.

December 4, 1984 - Used Thomas Bus bid for UNIT awarded to CU Transit. Resolution No. 326 of 1984.

Tompkins County selected an operator for the rural transit service by publicly requesting proposals. On June 30, 1982, a request for proposal was advertised. The RFP described the proposed IDT service and operating requirements. The operator would be responsible for the day-to-day operation of IDT, maintain county buses, provide buses for lease until county buses are delivered, and have a spare bus available for use. The term of the operating contract ended December 31, 1983.

RFP's were sent to three potential operators: Ithaca Transit, Swarthout and Ferris, Inc., Cornell University, and Greyhound Lines, Inc., which operates an intercity route through the IDT service area. Tompkins County received one bid from Cornell University. Cornell offered to operate IDT at the contract price of $27.75/hour, lease school buses at $1,000/month, and provide a total of $20.5 million in liability insurance for $16,082/year. On July 13 1982, Tompkins County awarded the operating

contract to Cornell University (Resolution No. 195 of 1982).

The other potential operators did not submit proposals. Ithaca Transit, the municipal transit system, did not have the resources available to expand its operations. The RFP was amended on request by Swarthout & Ferris to provide for an alternative insurance plan, however, S&F did not submit a proposal. Greyhound responded with a letter, not a proposal.

In a letter of July 13, 1982, Greyhound presented several reservations about the IDT service. The company requested that the county buses not be used for charter service, and that a restriction be adopted "against handling any passenger whose entire ride is between Ithaca and Dryden." Tompkins County agreed to a prohibition of charter activity. The TOMTRAN staff was convinced that Greyhound did not fully understand the nature of TOMTRAN IDT's local transit service to be provided throughout the service area. Greyhound's hard line position against IDT precipitated the controversy that followed the start of transit service.

The five weeks between the contract award and the start of service were filled with activity. The TOMTRAN staff finalized the IDT route design, scheduled advertising, identified bus stops, developed rider policy, created a zone fare system, organized ticket outlets, and designed and produced tickets and schedules. On August 24, 1982, a ribbon-cutting ceremony was conducted at the court house, and an IDT bus filled with local politicians took a maiden trip between Ithaca and Dryden. On August 25, 123 riders took advantage of the free fare offered on the first day of regular IDT service.

A number of problems with the IDT schedule soon became apparent after two weeks of operation. Consequently, a revised schedule was put into

effect on September 24, 1982. IDT ridership exceeded its target of 1,250 riders/week in the sixth week.

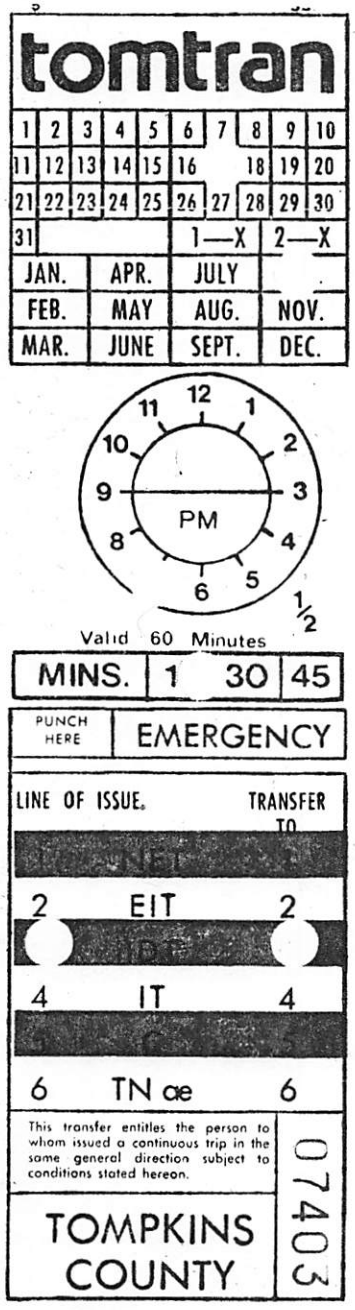
Between August, 1982, and October, 1984, the level of IDT service was increased by the expansion of routes, operating additional hours per day, and in a demonstration of night transit service. In August of 1982, IDT operated two school buses a total of 19 vehicle hours/day. After a reduced holiday schedule ended in January, 1983, IDT increased to three buses in February. IDT increased to 23.6 hours/day in March. In September, IDT expanded service to the Village of Groton and initiated a combined suburban and rural transit night service. During the fall of 1983, IDT operated 33.8 hours/day. IDT service increased by 76% by the end of its first year.

The night service demonstration ended in December, 1983, and was not resumed in 1984. Since February of 1984, IDT has operated 27.7 vehicle hours/day and no longer reduces service levels during the summer and winter holiday periods.

3. Coordination with TOMTRAN Programs and Operators

A transfer arrangement between IDT and the suburban transit services (NET and EIT) was in effect at the start of IDT. Riders may transfer for free between IDT and suburban services for trips within the Ithaca Zone. Riders who transfer from suburban transit to IDT for a 2-zone trip pay a 1-zone fare plus the transfer. The TOMTRAN transfer ticket was designed by the TOMTRAN staff and a facsimile is shown as Exhibit B.5.

Exhibit B.5 TOMTRAN Transfer Ticket



Transfers from IDT to Ithaca Transit is free. Riders who transfer from IT to IDT pay a $.15 charge for Ithaca Zone trips and a 1-zone fare for a 2-zone trip.

Transfers are good for 60 minutes from the time indicated. Only validated transfers are accepted by drivers. A valid transfer has the date, time, issuing line, and transfer line punched. Random samples of transfer tickets are made by TOMTRAN staff to ensure compliance by drivers.

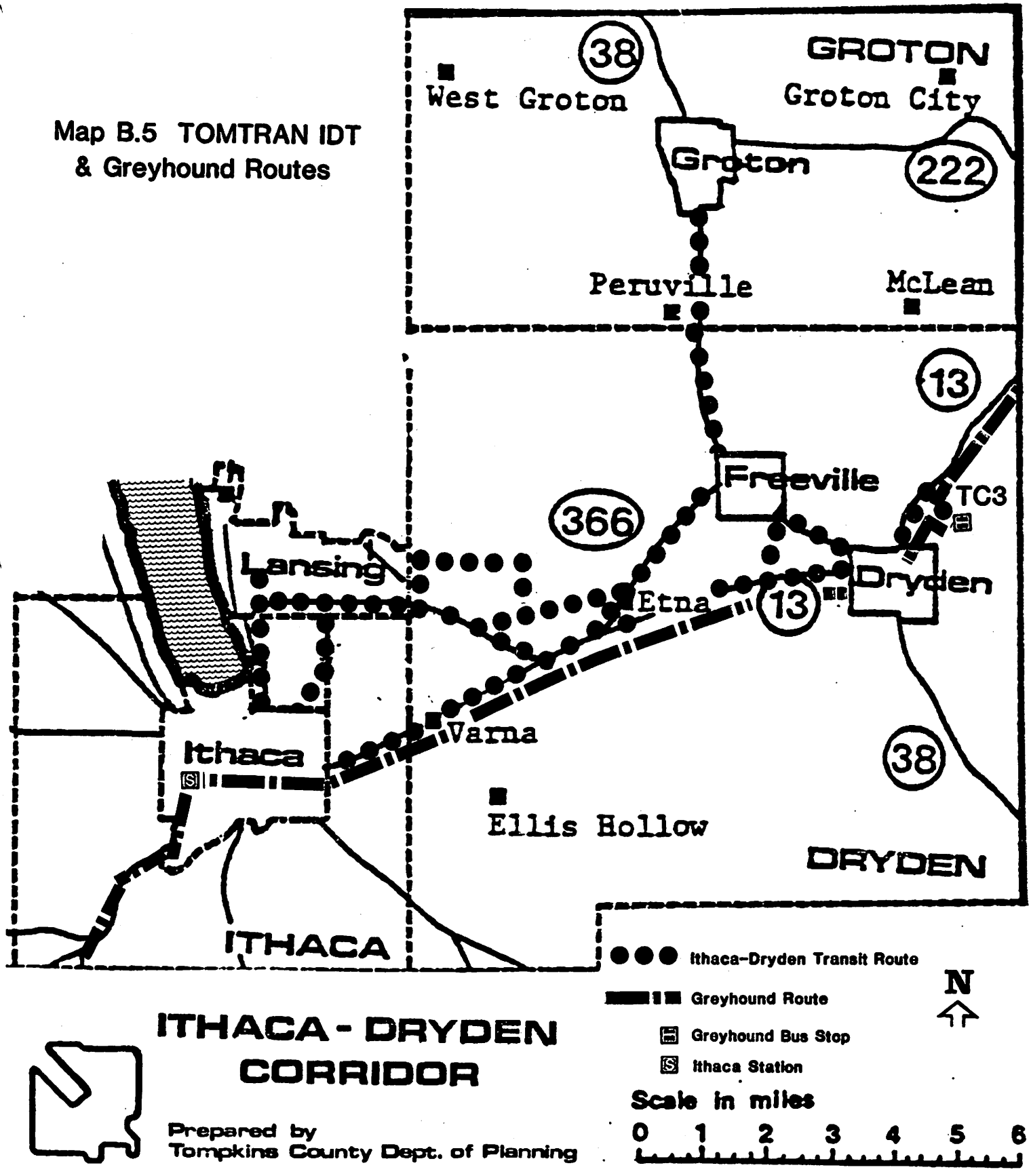
The refining IDT schedules is an ongoing activity. A file is kept of suggestions and criticisms from the public. Schedule planning takes into account peak period service needs, waiting times for reliable transfers, and the need to avoid overcrowding bus stops with buses and waiting riders. The overcrowding issue arises during the afternoon peak period at Cornell and downtown Ithaca stops.

The IDT and suburban transit schedules are coordinated with each other and Ithaca Transit. Both IDT and Northeast Transit operate between the City of Ithaca and Pyramid Mall in the Village of Lansing. Although the routes overlap, the schedules are coordinated.

4. Greyhound Controversy

The Greyhound Controversy involved a clash of private and public interests between Greyhound Lines, Inc., and Tompkins County. Greyhound's intercity bus service between Elmira and Syracuse, and Ithaca-Dryden Transit share a common route connecting the City of Ithaca, Village of Dryden, and TC3 (see Map B.5). Greyhound alleged that IDT needlessly duplicated their existing, adequate service. In 1983 and 1984, the Company filed protests with the N.Y. State Department of Transportation: (1) over the use of federal Section 18 funds by Tompkins County, and (2) the petition for operating authority by CU Transit, Inc., the IDT operator. Tompkins County countered that IDT provided local public transit service that was required by the public convenience and necessity, and Greyhound's three round trips per day simply did not serve the great majority of local travel needs. In February, 1984, Greyhound's protests became a public controversy, which drew considerable press coverage and stimulated public participation. Finally, in March of 1984 Greyhound reversed its position

Map B.5 TOMTRAN IDT & Greyhound Routes



ITHACA - DRYDEN CORRIDOR

Prepared by
Tompkins County Dept. of Planning

and withdrew its objections in the face of mounting public opposition. The importance of the Greyhound Controversy goes beyond the facts of the case to the issue of due process in the administration of the federal Section 18 Program by NYS DOT.

Before designing the IDT service, Tompkins County invited participation by local Greyhound representatives in coordinating their service with TOMTRAN. On December 5, 1980, local company officials presented information on Greyhound service before the Planning and Public Works Committee of the Tompkins County Board of Representatives. They stressed that the schedule was determined by the arrival and departure times at origins and destinations of bus routes outside of Tompkins County, and that all scheduling decisions are centralized at the Greyhound headquarters in Phoenix, Arizona.

In 1981, TOMTRAN staff evaluated the adequacy of Greyhound schedule to serve the commuting needs of Tompkins County residents. With the exception of a 7:30 am trip from the City of Ithaca to the Tompkins-Cortland Community College in Dryden the Greyhound schedule simply did not serve the travel needs of the vast majority of commuters. Greyhound's 7:30 express bus to TC3 was the only trip available to students going to TC3 for morning classes.

In 1981 and 1982, TOMTRAN staff held discussions with TC3 administrators concerning the growing transit needs of students and employees. Greyhound provides three round trips each day between Ithaca and TC3 as part of its Elmira to Syracuse intercity schedule. TC3 officials stressed that the existing Greyhound service was inadequate and inconvenient for many of TC3 students. Furthermore, a local housing shortage was forcing an

increasing number of students to find housing throughout the IDT corridor, which was not accessible by Greyhound's express intercity service. TC3's earlier requests to Greyhound for more bus service were denied, and they welcomed the expansion of IDT service to the college. IDT's local transit service to hamlets located throughout the service area create housing opportunities for transit-dependent students and employees.

The IDT schedule was designed primarily to serve the travel needs of commuters to the Ithaca urban area as its largest market. IDT's service to TC3 was determined by the travel time needed to return from inbound trips to the City of Ithaca. The TOMTRAN staff avoided direct competition with Greyhound's 7:30 am bus run from Ithaca to TC3 when developing the IDT schedule. At that time, the TOMTRAN buses were traveling in the opposite direction toward the City of Ithaca. However, IDT did provide an alternative to Greyhound's former monopoly by providing 14 daily scheduled trips between Ithaca and TC3.

Tompkins County sent the Greyhound Lines, Inc., in Phoenix, AZ, the specifications for a 'request for proposals' to operate Ithaca-Dryden Transit. In its reply of July 15, 1982, Greyhound declined to make a proposal for operating IDT but discussed its interest in "protecting those passengers traveling between Ithaca and Dryden". The company recommended two restrictions be added to the County's proposal: that TOMTRAN should not engage in charter service and that IDT not carry "any passenger whose entire trip is between Ithaca and Dryden".

In a letter of October 5, 1982, TOMTRAN staff replied that "Since IDT provides local transit service between 27 scheduled stops including: the City of Ithaca, three villages, major employers, shopping centers, schools,

Cornell University, and the Tompkins-Cortland Community College, any restriction on passenger origins or destinations is not desirable or practical." Tompkins County conceded to Greyhound's concern on charter operations. Greyhound responded that its concern in "protecting" passengers between Ithaca and Dryden was still not satisfied. The company suggested that "Perhaps traffic could be rerouted, restricted or even made financially unattractive to the traveling public ~~public~~ in order to alleviate the needless duplication of our service while allowing TOMTRAN to continue to function as a viable operation."

Tompkins County considered Greyhound's recommended prohibition against TOMTRAN carrying passengers between Ithaca and Dryden to not be in the public interest. The company was requesting that Tompkins County deny county residents access on a county-supported public transit system to the county-funded community college. Greyhound desired solely to protect the status quo that existed before TOMTRAN. After Greyhound denied TC3's requests for more service and declined the opportunity to operate IDT under contract with Tompkins County, the County did not find the company's requested restriction of IDT to be justified in the face of the public's need for local transit service.

The situation escalated in April, 1983, when Greyhound protested the use of federal Section 18 funds by Tompkins County. The County had proposed a capital project to buy one transit bus and three bus shelters for IDT. In a letter of April 27, 1983, Greyhound reiterated its position against TOMTRAN's "needless duplication of the existing and adequate regular route services of Greyhound Lines, Inc." The NYS DOT Transit Division was advised of the company's "very strong objection to TOMTRAN

receiving any funds for any purpose". Tompkins County responded to Greyhound's allegations with a detailed discussion of TOMTRAN's objectives to serve needs of commuters, the increasing urbanization of the IDT corridor, and the inadequacy of the Greyhound schedule to serve the demonstrated increasing demand for local transit service.

Since July of 1982, TOMTRAN staff repeatedly discussed the Greyhound situation with NYS DOT Transit Division staff. After Greyhound's objection to the County's Section 18 application in April, 1983, TOMTRAN staff responded to all requests for information from the Section 18 Bureau, Transit Division, and proposed that an administrative hearing be conducted to establish the facts of the case.

The basis of Greyhound's protest was TOMTRAN IDT's alleged needless duplication of its adequate service. The company's claims would ordinarily be heard by NYS DOT's Division of Regulatory Affairs. The Section 18 Bureau had no prior experience evaluating the basis of such a protest. Tompkins County desired that an administrative hearing be conducted to establish the basis of Greyhound's allegations, and to offer the public an opportunity to provide evidence of the level of transit service required by "the public convenience and necessity". Tompkins County kept requesting information on the procedure that would be used to determine the facts of the case.

In November, 1983, staff from the NYS DOT Transit Division, Regulatory Affairs Division, from Cornell University, and TOMTRAN met in Albany, NY, to discuss matters relating to the incorporation of CU Transit and the Greyhound protest. At the meeting, TOMTRAN and Cornell staff proposed that the Regulatory Affairs Division hold an administrative hearing for the

purpose of fact-finding. The Section 18 Bureau did not accept the hearing proposal.

In a letter of January 23, 1984, the Section 18 Bureau announced that Greyhound's objection was meritorious. This decision was based on "a review of service timetables, and the correspondence between the County and Greyhound." The use of Section 18 funds was suspended by the Transit Division, pending a successful resolution of the Greyhound objection by the County. A request by Tompkins County for a more detailed explanation was denied. However, activities of Cornell University's transportation corporation, CU Transit, Inc., soon required an administrative hearing on Greyhound and IDT.

On January 6, 1984, CU Transit, Inc., filed a routine petition with the Regulatory Affairs Division, NYS DOT, for permanent operating authority for its transit routes, including Ithaca-Dryden Transit. Greyhound was notified of the petition as part of the regulatory procedure. In a letter of February 9, 1984, Greyhound filed a protest to CU Transit's petition. The TOMTRAN staff was busy evaluating strategies to resolve the funding issue, when a Cornell attorney relayed the news of Greyhound's protest of CU Transit's petition for operating authority. By the end of February, 1984, the survival of IDT was at stake. Greyhound's two-prong attack on TOMTRAN blocked federal Section 18 funding and directly challenged CU Transit's right to operate IDT. A conclusive Greyhound success in either action would likely undermine IDT's viability.

Greyhound's protest of CU Transit's operating authority became the top priority for the TOMTRAN staff. Arrangements were made with the Regulatory Affairs Division to hold an administrative hearing in the City of Ithaca on

March 21, 1984, at 10:00 am. Only the operating authority issue would be directly addressed at the hearing.

The Hon. Peter Loomis, Administrative Law Judge, NYS DOT, was responsible for evaluating the operating authority issue (Case 30202). At the hearing, Judge Loomis would hear presentations from Greyhound, Cornell, Tompkins County, and the public, concerning the ability of IDT to serve the "public convenience and necessity", and the impact of IDT on the existing Greyhound service. Greyhound's allegations of service adequacy and needless duplication by IDT had to be supported by evidence. Public involvement was crucial for the Judge to determine the level of transit service required by the public convenience and necessity.

By March, 1984, TOMTRAN IDT had operated 9,048 vehicle hours of service, driven 196,490 miles, and carried 119,800 passengers. A new monthly record of 10,917 riders was set in February, 1984. The public benefited from IDT in a myriad of ways. As a part of TOMTRAN, IDT significantly contributed to achieving the Section 18 Program goals of providing access to health care, shopping, education, recreation, public services, and, especially, employment. IDT was threatened and it was time for the public to be involved. News of the controversy was presented at a meeting of the County Environmental Management Commission on February 28, 1984. Greyhound immediately became a leading news story in the print and radio media.

During the first week of March, the TOMTRAN staff was busy briefing the press and mobilizing the public. An information packet was prepared and distributed to journalists and members of the County Board. The packet contained a fact sheet on the issues and copies of all letters between

Greyhound, NYS DOT, and Tompkins County. While the press was busy telephoning Greyhound in Phoenix, AZ, and NYS DOT officials, the campaign for public support was launched. The TOMTRAN staff, through the use of the microcomputer, TOMTRAN mailing list, and a new paper folding machine in the county print room, was able to prepare, print, fold, and mail copies of a a flyer to individuals, agencies, and municipalities in 24 hours. Handouts were distributed to riders on TOMTRAN buses. The public was asked to write letters to Judge Loomis, and send copies to Greyhound and the County Planning Department.

Public reaction was swift. Many people called to discuss the controversy, offered to write letters, and volunteered to circulate petitions and attend the hearing. The first letter of support was received on February 29. In general, Greyhound's assertions were met with disbelief and outrage, particularly when commuters discovered that Greyhound's first morning bus from Dryden to Ithaca was at 11:00 am. TOMTRAN staff prepared a petition which was distributed by volunteers to IDT riders, stores, churches, community organizations, and municipal offices throughout the service area.

The press did its job well. Barrages of telephone calls from radio news departments and print journalists peppered the Greyhound headquarters in Phoenix. Initial calls from journalists got through to the Greyhound officials involved in the controversy, however, shortly thereafter, press inquiries were corralled by the Company's public relations director. The intensity of press inquiries contributed to the company's reassessment of its position.

On March 8, 1984, Greyhound announced that it was dropping the protest

to CU Transit's petition for operating assistance. Two days later, on March 10, a spokesperson stated that Greyhound's objection against the use of federal Section 18 funds by Tompkins County was discontinued as well. After consulting with a Cornell attorney, Judge Loomis cancelled the administrative hearing scheduled for March 21. The press announced that the Greyhound controversy was over (see Exhibit B.6, page B.29).

The public campaign was generating many letters, petitions, and volunteer organizing when the press began reporting Greyhound's policy changes. By March 8, volunteers were organizing special bus service for people taking time off from work to testify at the hearing. Greyhound's announcements and the cancellation of the hearing dampened campaign activity.

Tompkins County's position was vulnerable. Greyhound notified Judge Loomis confirming its withdrawal of the operating assistance protest, but neither NYS DOT or the County received a letter dropping the company's objection to Section 18 funding. There was no assurance from NYS DOT that the Section 18 funds would be freed.

The County decided to test Greyhound's position by filing two new federal Section 18 applications, to purchase three bus shelters and provide operating assistance for IDT, with NYS DOT on March 16, 1984 (Resolution No. 60 and 61 of 1984). Greyhound was sent a standard letter from the County requesting comments or proposals about TOMTRAN IDT. The public campaign was revitalized to develop a written record of public support for the application. A new information flyer was prepared and mailed to the TOMTRAN mailing list. The public was informed through the press that Tompkins County still needed their letters and petitions to document the

Exhibit B.6

8 ITHACA JOURNAL • Friday, March 16, 1984

Opinion

The Ithaca JOURNAL

A matter of independence

There is a woman who lives in Dryden, works part-time in Ithaca and is not a licensed driver.

When the Greyhound-Tomtran issue flared last month, she saw a problem for herself and the many people who ride the county-operated Tomtran system to and from Dryden.

The problem was crystal clear: Her independence was at stake if Tomtran's Dryden routes were cut back.

Tomtran is the only way she can get to work on time. Greyhound doesn't stop in Dryden when she needs transportation. No Tomtran, possibly no work and certainly no independence, was her reasoning.

This is not to diminsh the role that Greyhound plays in our transportation world. Hundreds of people, many of them college students, use the bus service to travel to points beyond Tompkins County.

However, Greyhound's stops within the county and the hours of those stops simply do not match the extensive schedule of Tomtran.

When Greyhound successfully prevented Tomtran from getting federal aid (money which the county is again seeking), Greyhound officials either neglected to mention or did not know that their firm received a $623,000 subsidy from New York state in 1983.

When that fact was pointed out to a Greyhound official, she promptly stopped talking, perhaps because she was embarrassed by the company's hypocrisy.

In any event, Greyhound withdrew its objections to a federal subsidy for Tomtran and to Cornell University's desire to operate the Dryden-Ithaca line on a permanent basis.

Tomtran is trying to expand its service to Trumansburg and Newfield. We heartily endorse the plan and hope county leaders will come to consider it more important than new windows in the courthouse.

And the reason, again, is simple: Many people, like the woman in Dryden, rely on Tomtran to give them greater independence in matters personal, professional and financial.

Tomtran is a grand example of government truly doing its job: Providing effective, intelligent service.

public need for IDT.

The public comment period for the two new federal Section 18 applications closed on April 20, 1984. Greyhound did not respond to the County's letter. Usually, a nonresponse indicates the lack of an objection, however, the Transit Division affirmed that only a written confirmation would free the Section 18 funds for county use.

In a letter of April 17, 1984, the Transit Division notified the County that Greyhound's objection to Section 18 funding was still applicable. Tompkins County was strongly advised to contact Greyhound and request the company to identify the specific routes, stops, and times which were their primary concern. Furthermore, Greyhound should be invited to determine the IDT schedule. County agreement to Greyhound's modifications would resolve funding issue. An alternative to changing the IDT schedule was to invite Greyhound to propose to operate portions of the IDT route and to be subsidized with Section 18 funds. The Transit Division's proposed approach to resolve the funding issue presented Tompkins County with a Hobson's choice, but it did affirm the earlier decision to continue the public campaign in support of TOMTRAN.

Tompkins County modified the approach recommended by the Transit Division. On May 9, 1984, a letter requesting written confirmation of Greyhound's position, an IDT schedule, and a bound copy of all of the public comments, municipal resolutions, and petitions received by TCPD were mailed to Greyhound (see TOMTRAN Project Appendix A.) A response from Greyhound was requested by June 8, 1984.

Greyhound responded with a written clarification concerning TOMTRAN in a letter of June 6, 1984. Mr. Henry Mitchell, Director of Traffic, stated

that Greyhound "... has no objections to TOMTRAN receiving Section 18 funds for the Ithaca-Dryden Transit regular route service, bus shelters, or any other items pertinent to that operation." Mitchell explained, "Greyhound's objections were based on the fact that it did not appreciate its federal tax dollars subsidizing its competition. Greyhound has since realized that while duplication of our regular route operations has been detrimental to our company, we believe that the benefits to the traveling public outweigh this concern and thus we have relaxed our objection ...." The record of public comments reinforced Greyhound's decision to withdraw its protest of TOMTRAN Section 18 funding, and was a factor in the findings of Judge Loomis concerning CU Transit's petition for operating authority.

On May 29, 1984, Judge Peter Loomis published his report on CU Transit's petition for operating authority. In the report, the judge noted two conditions which must be satisfied before permanent operating authority could be granted. (Section 154 (1) (b) and (2) of the New York State Transportation Law.) The propose service must be required by the present or future public convenience and necessity. In the case of IDT, Judge Loomis stated, "There has been a considerable outpouring of public support for the service, and it is clear that the services are needed by the commuting public in the area." Judge Loomis mentioned the second condition concerning the adequacy of existing transportation services, and the impact that the proposed service may have on existing services. The withdrawal of Greyhound's protest removed the need for determining IDT's impact on the company's service. In summary, the granting of operating authority to CU Transit was recommended and issued on June 11, 1984.

The end of the Greyhound Controversy was officially certified in a

letter of June 12, 1984, from the Section 18 Bureau to Tompkins County. The controversy does raise issues of policy and procedure in the administration federal Section 18 Program.

The Greyhound Controversy is unique in the history of the Section 18 Program in New York State. The Section 18 Bureau, Transit Division, had the flexibility to guide the process to resolve the matter which insured that minimum standards of due process would be followed. Instead, the Section 18 Bureau reacted to Greyhound's protest in a manner which undermined the public confidence in its objectivity.

The Section 18 Bureau based their decisions on the UMTA regulation to insure participation by private enterprise. The rule was published as follows:

4. Participation of Private Enterprise

"Private transit and paratransit operators shall be allowed to participate in the provision of service to the maximum extent feasible. In order to insure this process, each local project must fulfill the following requirements.

a. Make a good faith effort to notify all private providers in the service area to inform them of the intended service plan and ascertain whether they could participate in the provision of service.

b. Establish a process by which private providers may have disputes or conflicts arising out of this program properly heard and settled."

(Federal Register, Vol. 43, No. 240 - Wed., December 13, 1978, page 58309)

The bases of Greyhound's allegations were regulatory in nature which suggests that the Regulatory Affairs Division could have had a useful role in resolving the issue. One option would be for the Section 18 Bureau to invite Greyhound and Tompkins County to mediation or arbitration under the auspices of an administrative law judge. Another option, proposed by Tompkins County, was for a judge to conduct a public hearing, and prepare a

report of findings for the Section 18 Bureau to use to interpret federal requirements. In either option, minimum standards of due process would be preserved. Tompkins County was willing to accept a decision on the Section 18 issue that was based on openly assessed evidence of Greyhound's claims and which allowed substantive public participation.

In conclusion, Greyhound's hard line position of July 13, 1982, dissuaded Tompkins County from immediately addressing the issue. The company's recommended restriction for IDT not to carry any passenger whose entire trip was between Ithaca & Dryden was unreasonable, given the local type of transit service and the identified demand from county residents and TC3. The need for local transit service was demonstrated by surveys, requests, and IDT ridership. TOMTRAN staff decided to operate IDT under Greyhound's protest because if IDT failed then the issue was moot, however, if IDT succeeded then public support would grow and defend it. TOMTRAN was amenable to Greyhound restriction not to operate charter services. A limited amount of activity is permitted by Section 18 rules, but Tompkins County agreed on a blanket prohibition.

5. Ridership

The TOMTRAN Program Narrative (April 1, 1981) projected rural transit ridership at 60,000 passenger trips in the first year. Ithaca-Dryden Transit ridership for the first twelve months was 63,490, exceeding the target of 60,000 by 3,490 or 5.8%. IDT ridership was projected at 90,000 passenger trips in the second year. IDT carried 101,106 riders in the period of September, 1983 to August, 1984, an 12% increase over the estimate. Monthly IDT ridership for the period of FFY 82 and FFY 85, and UNIT ridership for FFY 85 is presented below.

Table B.1 Rural Transit Monthly Ridership (FFY 82-FFY 85)

					IDT Percent Change		
FFY:	IDT 82	IDT 83	IDT 84	IDT 85	83-84	84-85	UNIT 85
October	---	5,473	8,795	10,721	60.7%	21.9%	---
November	---	5,299	9,124	9,592	72.2	5.1	---
December	---	4,980	7,884	7,737	58.3	-1.9	---
January	---	5,672	9,497	10,454	67.4	10.1	1,696
February	---	8,008	10,917	11,082	36.3	1.5	3,073
March	---	6,739	9,710	9,302	44.1	-4.2	3,297
April	---	6,593	9,667	10,347	46.6	7.0	3,593
May	---	5,149	7,960	8,503	54.6	6.8	3,403
June	---	3,546	6,287	6,697	77.3	6.5	3,022
July	---	3,392	5,989	7,622	76.7	27.3	4,199
August	---	3,768	6,930	7,714	83.9	11.3	3,959
September	4,871	8,586	8,949	10,478	4.2	17.1	4,042
Total:	4,871	67,205	101,709	110,249	51.3%	8.4%	30,264

IDT sustained an overall increase of 51.3% from FFY 83 to FFY 84. The dramatic increase in ridership is attributed to IDT expansion to the Village of Groton in August, 1983; the location of transit dependent households to the service area; increase in IDT use by public agencies; and better penetration of the potential commuter market. Ridership rose at a healthy 8.4% in FFY 85, indicating a moderate growth trend.

UNIT ridership grew more slowly than projected in FFY 85. The monthly ridership target was 4,000 passenger-trips, which was not reached until July. The Ulysses route exceeded projections, while the Newfield route was not as responsive as originally expected. Consequently, the Newfield route was trimmed by 1 hour per day in June.

Both routes will be evaluated after the first year of operation in February of 1986. Transit demand for the Newfield route will be restudied and recommendations made regarding alternative methods to deliver service. One option is to convert it to a jitney route depending on demonstrated demand. Total rural transit ridership is shown in Figure B.1 below.

FIG. B.1 RURAL TRANSIT RIDERSHIP (FFY 83 - FFY 85)

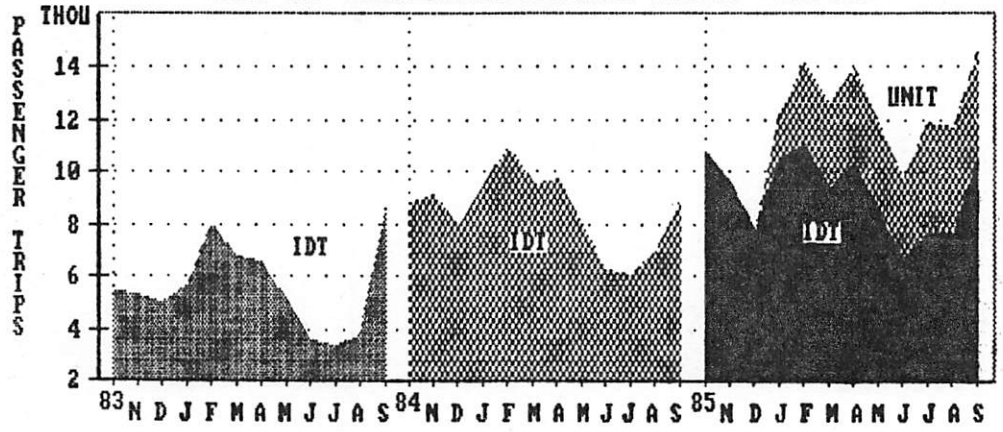


Table B.2 Rural Transit Vehicle Hours by Month (FFY 82-FFY 85)

FFY:	IDT 82	IDT 83	IDT 84	IDT 85	UNIT 85	IDT Percent Change 83-84	IDT Percent Change 84-85
Oct	---	438.9	717.9	637.1	---	64%	-11%
Nov	---	438.9	717.7	581.7	---	64%	-19%
Dec	---	410.0	665.7	554.0	---	62%	-17%
Jan	---	341.2	539.4	609.4	316.4	58%	13%
Feb	---	438.4	581.7	554.0	442.0	33%	-5%
Mar	---	521.2	597.9	581.7	464.1	15%	-3%
Apr	---	495.6	581.7	609.4	486.2	17%	5%
May	---	466.2	609.4	609.4	486.2	31%	0%
June	---	400.4	581.7	550.0	400.0	45%	-5%
July	---	371.0	581.7	605.0	454.4	57%	4%
Aug	---	442.0	643.3	618.1	461.6	46%	-4%
Sept	512.8	710.7	526.3	550.0	400.0	-26%	5%
Total:	512.8	5,474.5	7,344.5	7,059.8	3,910.9	34%	-4%

Key: IDT - Ithaca-Dryden Transit
UNIT - Ulysses-Newfield Transit

Ithaca-Dryden Transit increased the number of hours by 34% in FFY 84 with the expansion of service to the Village of Groton and a demonstration of night service from September to December of 1983. In FFY 85, overall service hours were trimmed by 4%. The reduction in hours plus the increase in ridership resulted in higher system productivity, as shown in Fig. B.2.

FIG. B.2 RURAL TRANSIT PRODUCTIVITY (FFY 83 - FFY 85)

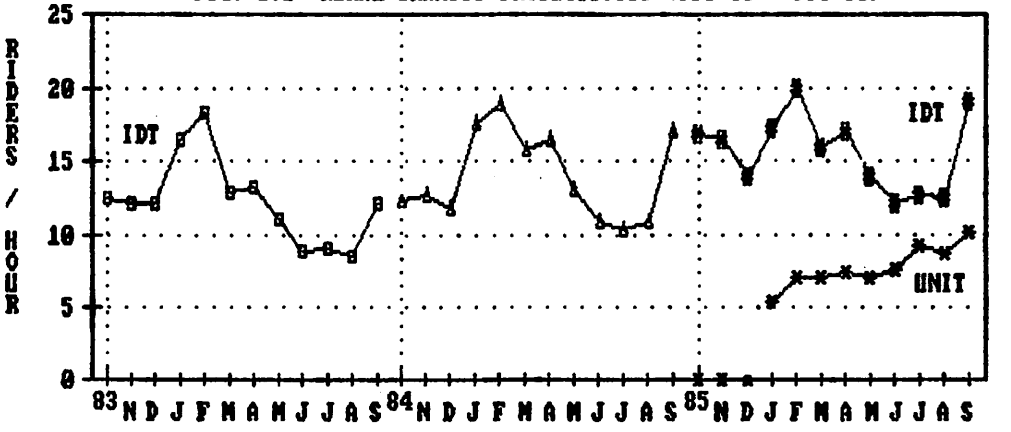


Table B.3 Rural Transit Productivity (IDT & UNIT)
Passenger Trips/Hour by Month (FFY 82-85)

FFY:	IDT 82	IDT 83	IDT 84	IDT 85	IDT Percent Change 83-84	IDT Percent Change 84-85	UNIT 85
October	--	12.5	12.3	16.8	-1.6%	36.8%	--
November	--	12.1	12.7	16.5	5.0	29.8	--
December	--	12.1	11.8	14.0	-2.5	18.4	--
January	--	16.6	17.6	17.2	6.0	-2.5	5.4
February	--	18.3	18.8	20.0	2.7	6.4	7.0
March	--	12.9	15.8	16.0	22.5	1.2	7.1
April	--	13.3	16.6	17.0	24.8	2.3	7.4
May	--	11.0	13.1	14.0	19.1	6.5	7.0
June	--	8.9	10.8	12.2	21.3	12.7	7.5
July	--	9.1	10.3	12.6	13.2	22.3	9.2
August	--	8.5	10.8	12.5	27.1	15.6	8.6
September	9.5	12.1	17.0	19.1	40.5	12.1	10.1
Average:	9.5	12.3	13.9	15.6	12.8%	12.0%	7.8

IDT productivity increased 12.8% between FFY 83 and FFY 84, and rose by 12% in FFY 85. Summertime, from June to August, is the least productive quarter for all three years. In FFY 83, the IDT schedule was cut back for the summer, however, in FFY 84 full IDT service was provided. The increase in productivity during the summers of FFY 84 and FFY 85 supported the decision to maintain the regular IDT service.

UNIT productivity followed increasing ridership trends since July. The fact that ridership and productivity rose through the summer months indicates that UNIT is at an early stage of building ridership when normal cyclical patterns are not evident. Beginning UNIT in mid winter was not as desirable as introducing it in the fall.

Ridership Characteristics

Bi-annual rider surveys are conducted for IDT. Statistics including trip purpose, household income and size, and rider characteristics are presented in the following tables.

Table B.4 Rural Transit Trip Purpose

1. Commuting to Work, School & Home	92.1%
2. Shopping	2.4
3. Medical Services	3.4
4. Other	2.1
	100.0%

Table B.5 Income Distribution by Household Size

Income		Persons Per Household 1	2	3	4	5	6	Total Income
Under	$5,000	13.3%	22.9%	12.1%	17.9%	11.8%	8.8%	15.4%
$5,000	$7,499	20.0	10.4	15.2	14.3	5.9	0.0	10.3
$7,500	$9,999	26.7	18.8	12.1	14.3	29.4	2.9	15.4
$10,000	$12,499	6.7	10.4	9.1	3.6	11.8	2.9	7.4
$12,500	$14,999	13.3	4.2	0.0	10.7	11.8	8.8	6.8
$15,000	$17,499	0.0	10.4	6.1	3.6	0.0	8.8	6.4
$17,500	$19,999	0.0	6.3	24.2	7.1	11.8	8.8	10.3
$20,000	$24,999	6.7	10.4	18.2	14.3	17.6	23.5	14.3
$25,000	Plus	13.3	6.3	3.0	14.3	0.0	35.3	13.7
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Households:		8.6%	27.4%	18.9%	16.0%	9.7%	19.4%	100.0%

Read down the columns for the income distribution of the different sizes of households. The median household size is 3 persons and the median income is $12,500 to $14,999.

Table B.6 Age & Sex Distribution of Riders

Male:	39.5%
Female:	60.5
	100.0%
Age	
Under 18 years	6.6%
18-24	46.2
25-34	28.7
35-44	8.0
45-54	4.9
55-64	2.1
65+	3.5
	100.0%

Table B.7 Reasons for Using Ithaca-Dryden Transit

1. Only Transportation Available	33.6%
2. No Car Available	20.3
3. Save Money	16.2
4. Don't Like to Drive	8.1
5. Save Time	6.3
6. Regular Ride Unavailable	6.3%
7. Support Public Transit	5.2
8. No Driver's License	3.3
9. Can't Park Close to Destination	0.7%

7. Evaluation

The evaluation of the Rural Transit Program involves analyzing supply, demand, cost, and revenue statistics for the Ithaca-Dryden Transit System during the period of FFY 82 to FFY 85 (see Table B.8). The changes between FFY 83 and FFY 85 illustrates the successful cost-effective development of IDT.

The actual amounts of user revenue and operating costs are as follows:

	FFY 82	FFY 83	FFY 84	FFY 85
Total User Revenue	$4,234	$55,433	$81,814	$86,400
Total Operating Cost	($18,087)	($190,493)	($238,990)	($213,730)

User revenue includes all fares and ticket sales revenue. The operating costs include the following expenses: hourly bus operating costs, bus lease costs, and liability insurance.

During FFY 84, major emphasis was placed on reducing bus lease and insurance costs for IDT. IDT began operations using two buses leased from Cornell at the price of $1,000 per bus per month. In February 1983, a third bus was leased to provide additional morning peak service. The lease for the third bus was pro rated by vehicle hour. During FFY 83, leasing costs were $23,014 or 12.1% of annual operating costs.

In FFY 84, the arrival of two county-owned transit buses resulted in the need to lease only one bus for IDT. When CU Transit purchased its Thomas bus fleet, the lease price for a new transit bus was increased to $1,500/month. In FFY 84, a total of $18,321 was spent on leasing costs. In October, 1984, Tompkins County took delivery of its third transit bus for IDT, eliminating all future lease costs for IDT and contributed to lower operating costs in FFY 85.

Table B.8 - TOMTRAN Ithaca-Dryden Transit Annual Reports

	(Constant 1981 Dollars)				Percent Change		
	ARC YEAR 1 FFY 82	ARC YEAR 2 FFY 83	ARC YEAR 3 FFY 84	ARC YEAR 4 FFY 85	FFY 83-84	FFY 84-85	FFY 83-85
SUPPLY-STATISTICS							
Total Vehicles Miles	10,684	119,213	159,819	152,031	34.1%	-4.9%	27.5%
Hours/Period	513	5,475	7,344	7,060	34.2%	-3.9%	29.0%
Average MPH	20.8	21.8	21.8	21.5	-0.1%	-1.0%	-1.1%
Revenue Miles	10,684	119,213	159,819	152,031	34.1%	-4.9%	27.5%
Capacity-miles	619,672	6,914,354	9,269,502	8,817,798	34.1%	-4.9%	27.5%
Capacity-hours	29,742	317,521	425,978	409,468	34.2%	-3.9%	29.0%
DEMAND-STATISTICS							
Passenger-Trips	4,871	67,205	101,709	109,642	51.3%	7.8%	63.1%
Average Trip Length	9.7	9.6	11.8	11.2	22.4%	-4.9%	16.4%
Passenger-miles	47,235	647,497	1,199,734	1,230,059	85.3%	2.5%	90.0%
Passenger-trips/Pass-mile	0.103	0.104	0.085	0.089	-18.3%	5.1%	-14.1%
Passenger-trips/Cap-mile	0.008	0.010	0.011	0.012	12.9%	13.3%	27.9%
Passenger-trips/Cap-hour	0.164	0.212	0.239	0.268	12.8%	12.1%	26.5%
Passenger-mi/Capacity-mile	0.076	0.094	0.129	0.139	38.2%	7.8%	49.0%
Pass-Trips/Hour	9.50	12.28	13.85	15.53	12.8%	12.1%	26.5%
REVENUE-STATISTICS							
Total Revenue	$3,485	$44,086	$62,526	$63,675	41.8%	1.8%	44.4%
Revenue/Passenger-mile	$0.074	$0.068	$0.052	$0.052	-23.5%	-0.7%	-24.0%
Revenue/Capacity-mile	$0.006	$0.006	$0.007	$0.007	5.8%	7.1%	13.3%
Revenue/Capacity-hour	$0.117	$0.139	$0.147	$0.156	5.7%	5.9%	12.0%
Revenue/Vehicle Hr.	$6.80	$8.05	$8.51	$9.02	5.7%	5.9%	12.0%
Average Fare	$0.72	$0.66	$0.61	$0.58	-6.3%	-5.5%	-11.5%
Revenue/Cost	23.41%	29.10%	34.23%	40.42%	17.6%	18.1%	38.9%
COST-STATISTICS							
Total Operating Cost	($14,890)	($151,498)	($182,647)	($157,516)	20.6%	-13.8%	4.0%
Cost/Passenger-mile	($0.315)	($0.234)	($0.152)	($0.128)	-34.9%	-15.9%	-45.3%
Cost/Capacity-mile	($0.024)	($0.022)	($0.020)	($0.018)	-10.1%	-9.3%	-18.5%
Cost/Capacity-hour	($0.501)	($0.477)	($0.429)	($0.385)	-10.1%	-10.3%	-19.4%
Cost/Passenger-trip	($3.06)	($2.25)	($1.80)	($1.44)	-20.3%	-20.0%	-36.3%
Cost/Hour	($29.04)	($27.67)	($24.87)	($22.31)	-10.1%	-10.3%	-19.4%
DEFICIT STATISTICS							
Gross Deficit	($11,405)	($107,412)	($120,121)	($93,841)	11.8%	-21.9%	-12.6%
Deficit/Passenger-mile	($0.241)	($0.166)	($0.100)	($0.076)	-39.6%	-23.8%	-54.0%
Deficit/Capacity-mile	($0.018)	($0.016)	($0.013)	($0.011)	-16.6%	-17.9%	-31.5%
Deficit/Capacity-hour	($0.383)	($0.338)	($0.282)	($0.229)	-16.6%	-18.7%	-32.3%
Deficit/Passenger-trip	($2.34)	($1.60)	($1.18)	($0.86)	-26.1%	-27.5%	-46.4%
Deficit/Hour	($22.24)	($19.62)	($16.36)	($13.29)	-16.6%	-18.7%	-32.3%

The cost of liability insurance is another area where significant savings were achieved. Initially, Cornell viewed the IDT transit service as a significant source of new risk. Unlike most private bus operators, Cornell would not be able to go out of business if a catastrophic bus accident occurred. The University's insurance office requested that the County be responsible for paying for the first $20 million in liability coverage, at the cost of $16,082/year.

Ultimately, Cornell's insurance office was able to develop a $30 million liability coverage at a premium of $14,785 for two buses. When the third bus was added for the morning in January, 1983, the insurance premium was pro rated based on vehicle hours. During the first year, IDT insurance costs was $.26/passenger trip. In August, 1983, the full time lease of the third bus increased the premium by $7,392.50, for an annual premium of $22,177.50. Insurance costs were undermining the financial feasibility of expanding IDT service.

The reorganization of the Cornell Bus Service as CU Transit, Inc., provided an opportunity to evaluate insurance options. CU Transit and Tompkins County reassessed the insurance needs for IDT. The County agreed to finance the premium for $5 million of liability insurance coverage. The insurance premium for IDT was reduced to $10,784/year in January, 1984, or $.11/passenger trip. In FFY 85, the reduction in lease and insurance costs combined for a savings of $29,715.

The reduction in lease and insurance costs are evident in FFY 84 & 85 statistics. In FFY 84, the number of vehicle hours increased by 34%, while operating costs increased by only 21%. The costs savings continued in FFY 85 when vehicle hours were cut by 4% and overall costs by 14%.

The revenue, cost, and deficit statistics all improved in the last two years. Since FFY 83, user revenue has increased 44.4%, while raising the revenue recovery ratio to 40.4% of operating costs. The gross deficit declined 12.6%, while the overall cost effectiveness of IDT improved significantly. The trends of increasing user revenue and decreasing costs are expected to continue in FFY 86.

Table B.9 Rural Transit Funding Sources (1982-85)

Actual Dollars

	1982	1983	1984	1985
User Revenue	$17,171	$62,728	$82,560	$123,386
State Aid	5,091	68,127	75,717	153,768
ARC Grant	29,200	12,295	0	10,000
Federal Sect. 18	8,544	51,566	51,158	80,739
County Subsidy	5,936	22,751	19,900	20,757
Total	$ 65,942	$217,467	$229,335	$388,652

Percent of Total

	1982	1983	1984	1985
User Revenue	26%	29%	36%	32%
State Aid	8	31	33	40
ARC Grant	44	6	0	3
Federal Sect. 18	13	24	22	21
County Subsidy	9	10	9	5
Total	100%	100%	100%	100%

Source: Federal Section 18 Applications for calendar years 1982-85

Table B.10 shows the complete rural transit expenditures for the calendar years 1982 to 1985. The 1985 amounts include the combined Ithaca-Dryden and Ulysses-Newfield routes. From 1982 to 1984, only IDT was in operation.

The sources of rural transit funding have changed significantly since 1982. The percentage of federal funding from all sources decreased from 57% in 1982 to 24% in 1985. New York State funding increased from 8% to 40%. County support declined from a high of 10% to 5% of total revenue in 1985. User revenue increased from 26% in 1982 to 36% in 1984 and back down to 32% in 1985. In 1986, user revenue should increase as ridership grows in the second year of Ulysses-Newfield Transit.

In summary, the TOMTRAN Rural Transit Program has progressed in achieving its objectives: to initiate and expand rural transit service, purchase transit buses, coordinate with local transit services, and develop grassroots community support. The Greyhound Controversy was resolved to the satisfaction of Tompkins County when the Company withdrew its two objections and recognized the public benefit of Ithaca-Dryden Transit. In conclusion, the Rural Transit Program successfully demonstrates the use of the transportation brokerage concept in market-oriented transit planning. The cost effectiveness of the program should improve with increased ridership and user revenue, and the reduction of leasing costs.

In 1986, insurance costs will increase 25% and will likely be the fastest growing cost component in the rural transit budget. When compared to the steep insurance costs and hardships faced by other transit operators the 1986 increase looks modest, however, in the near future insurance costs could again threaten the long term viability of the program.

C. SCHOOL BUS UTILIZATION PROGRAM

OBJECTIVE: To demonstrate ways to use existing school bus fleets as part of a comprehensive system of publicly sponsored transportation services.

SUMMARY

The School Bus Utilization Program envisioned creating opportunities to expand the use of school buses in providing transportation in New York State. The first phase of the program would permit school districts, regional boards of cooperative educational services (BOCES), and community colleges to contract among themselves to provide transportation for community college students. The second phase would expand the use school buses for commutation by school district employees, and eventually the public.

The Program developed from discussions with member school districts of the Tompkins-Seneca-Tioga BOCES and the Tompkins-Cortland Community College (TC3) in April and June of 1980. At that time, a program was developed which would have TC3 students from rural areas using school district buses bound for BOCES in Ithaca for morning and afternoon trips to the TC3 campus in Dryden. College students could use the system on a space available basis.

The BOCES - TC3 shuttle was conceived in advance of the Ithaca-Dryden Corridor Transit Program. After implementing IDT, the school bus program could be modified to provide feeder service for IDT. The school districts estimated that the additional bus operating costs of the program consisted of one bus traveling an additional two miles from Dryden High School to the TC3 campus. The marginal costs were low because community college students would use empty seats available on existing school bus services.

Program Elements

1. Remove legislative obstacles

State Education Law restricts the use of school buses to transporting school district pupils, with additional purposes of permitting elderly, handicapped and municipal youth programs to charter buses from school districts. The School Bus Program would provide the missing pieces of contractual authority for school districts, BOCES and TC3 to establish the shuttle bus service for community college students.

Discussions between TCPD and Assemblyman Hugh S. MacNeil (125th District) produced a draft bill (#10606) in July 1981, which was introduced on March 2, 1982 in the Assembly (see Exhibit 1). Before its introduction the scope of the bill was limited to school districts of the Tompkins-Seneca-Tioga BOCES and TC3. Assemblyman MacNeil expressed concerns that the bill could be opposed by private bus operators desiring to protect their potential markets. The bill was not reported out of the Assembly Education Committee during the spring session.

In January 1983, three local legislators, Assemblymen H.S. MacNeil and M.A. Siegel and Senator L.S. Riford Jr., reintroduced the bill in the Assembly (#3342) and Senate (#2593). Soon thereafter, the bill attracted opposition from the Bus Association of New York State and reaction from the New York State Transportation Department (NYS DOT).

In April 1983, the Bus Association, composed of private bus operators, voiced opposition to the School Bus Program to NYS DOT and the legislators. Following the Association's protest, NYS DOT contacted TCPD for details of the program. NYS DOT's position on the proposed bill was discussed in their letter of June 9th and expressed the following concerns:

1. Assurance that all capital and operating costs associated with this service are included in the contract.

2. Potential adverse impact on other transit services.

3. Potential precedent since the college student market makes up a significant percent of bus riders; and

4. Authorizing a board of cooperative education services to enter the charter bus business.

In addressing these concerns, NYS DOT suggested the following amendments to the program:

1. The contract authority should be limited to prevent all special charter type service to sports events, etc.

2. Require that all authorized carriers be afforded every opportunity to contract for carrying students from high schools (or BOCES center) to the community college.

3. Require that the (public or private) bus service be used whenever it is available to reasonably meet demand of college students. This could require the use of collection points other than high schools or BOCES. If fares are too high, then students could be subsidized directly by the college.

4. In order to ensure that these requirements are met, the Commissioner of Transportation should review the plan for the pilot program and approve it prior to implementation.

The letter illustrates a significantly different perception of the school bus program than what was proposed by the County. NYS DOT's amendments suggest that the program consisted of a valuable exclusive service contract requiring a competitive bid and generating revenue from a captive pool of community college students, with fares subsidized by TC3. The County's actual school bus program proposed to increase the productivity of existing school bus services at a low marginal cost. This concept was lost in the review process and apparently never considered. The State Education Department and Transportation Department were both unenthusiastic about the program, as they perceived it. The Bus Association's opposition

was enough to tip the balance of forces against the bill.

The development of IDT and other TOMTRAN transit programs has reduced the pressing need for transportation alternatives for many TC3 students who live in Tompkins County. However, the potential benefit for students from neighboring counties to use the BOCES bus program has not been tested. The School Bus Program remains a meritorious concept, but it is not a high priority for Tompkins County to pursue legislative action in the forseeable future.

Exhibit C.1 School Bus Program Authorization Bill

STATE OF NEW YORK

10606

IN ASSEMBLY

March 2, 1982

Introduced by M. of A. MacNEIL—read once and referred to the Committee on Higher Education

AN ACT to amend the education law, in relation to authorizing certain contracts for the Tompkins, Seneca, Tioga Transportation Pilot Program

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. The education law is amended by adding a new section nineteen hundred fifty-two to read as follows:

§ 1952. Tompkins, Seneca, Tioga Transportation Pilot Program. Notwithstanding any provision of law, rule or regulation to the contrary, the Tompkins, Seneca, Tioga board of cooperative educational services, with the approval of the commissioner of education, may enter into contracts with the Tompkins-Cortland community college to transport students of such community college, as a pilot program, as part of the county-wide transportation system. Any moneys received for the transportation of each such pupil using such board's buses shall not be used in determining the transportation quota.

§ 2. Such law is amended by adding a new section sixty-three hundred nine to read as follows:

§ 6309. Tompkins, Seneca, Tioga Transportation Pilot Program. Subject to the approval of the local sponsor, acting through its local legislative body, board or other appropriate governing agency, the board of trustees of the Tompkins-Cortland community college may enter into contracts with the Tompkins, Seneca, Tioga board of cooperative educational services to transport students of such college as a pilot program as part of a county-wide transportation system.

§ 3. This act shall take effect immediately.

EXPLANATION—Matter in *italics* (underscored) is new; matter in brackets [ ] is old law to be omitted.

LBD2-25-34-207

The above bill to authorize the School Bus Program was not passed by the state legislature.

D. JITNEY PROGRAM

OBJECTIVE: To assist private entrepreneurs in developing rural transportation services.

Program Summary

The Jitney Program was designed to assist private entrepreneurs in developing public transportation service in rural areas where conventional bus service was not considered feasible. Under TOMTRAN, jitney service developed as commuter-oriented, fixed-route (and route-deviation) public transit service operated with vans. Jitney service originated with long distance commuter service between Tioga and Tompkins Counties. The commuter-oriented runs provided the revenue base for expanding service to meet local travel needs. The Jitney Program provides operators with technical assistance, a start-up operating grant, coordination with TOMTRAN programs, and county sponsorship for state transit aid.

Technical assistance includes a wide range of activities necessary for planning, financing, and operating jitney services. Potential operators received information on state regulations, financial assistance, market studies, and assistance in planning routes and schedules. In addition, TCPD provides schedule information to the public, includes jitney services in TOMTRAN marketing, and acts as an ombudsman between users and the operator when needed.

The start-up operating grant assists operators in the first three months of their operation. The start-up grant was needed to supplement the state transit operating assistance program (NYSTOA). New operators receive no state aid during the first quarter of operation, because the ridership and revenue miles statistics from the first quarter are used to calculate the

first payment in the second quarter. The TOMTRAN jitney grant paid the operator for the first quarter, after monthly operating statistics were received, at the prevailing NYSTOA formula. The grant provides crucial funding during the start-up period while ridership is growing.

Jitney services are coordinated with other TOMTRAN programs and operations. Telephone inquiries for new service are referred to the jitney operator. Transfers between jitney service and other public transit programs are instituted where feasible. TCPD coordinates planning new routes and schedules, avoiding duplication of services.

Tompkins County sponsors jitney services for the state transit aid (NYSTOA) and considers their capital and operating needs in setting county priorities for Federal Section 18 funding applications. Tompkins County provided information and served as an example for Tioga and Cortland Counties to assist C&D through county sponsorship for state aid. Tompkins County was able to assist the expansion and operation of jitney service without a direct local cash subsidy until April 1984. A problem of delay in NYSTOA payments which began in October 1983 created a critical cash flow problem for the jitney services. In April 1984, Tompkins County initiated a prefinancing program for the jitney program, to pay the anticipated state aid on a monthly basis.

Program Elements

1. Provide technical assistance and marketing information to potential jitney operators.

Since October 1981, TCPD assisted six potential operators (four individuals, a community coalition, and a nonprofit community action agency) to assess their capabilities and resources to start, operate, and

maintain public transportation services. Only one out of six potential operators became a TOMTRAN jitney operator. For the most part, the TOMTRAN Jitney Program involves the successful creation and development of C&D Transportation (Berkshire, Tioga Co.). Before addressing the C&D case, the situations of the other potential operators are summarized.

Omni Electromotive

In October 1981, TCPD was contacted by the owner of Omni Electromotive (Candor, Tioga Co.) for information on the TOMTRAN Jitney Program. Omni desired to start a commuter subscription bus service from Candor to Morse Chain factories in the Ithaca urban area. They requested information on TOMTRAN and state regulations, and met with us briefly to discuss possible financial assistance. The company received state authority to operate its proposed service, but failed to begin operations. Omni did not contact TCPD after November 11, 1981.

Tompkins County EOC

On November 20, 1981, the Tompkins County Economic Opportunity Corporation (EOC), a nonprofit community action agency, contacted TCPD about initiating jitney services as part of their rural services. In the course of operating its antipoverty programs, EOC recognized the transportation needs of many low-income rural residents.

EOC's problem centered on its lack of additional operating funds for their two late model 14-passenger vans, purchased in 1979 through the Community Services Administration. EOC desired to join the Jitney Program to provide regular transportation service for their rural clients and to

reduce the total staff mileage allowance. TCPD met twice with EOC staff to evaluate the feasibility of their participation.

After evaluating EOC's budget resources, proposed operation, and the characteristics of their clients, TCPD recommended against EOC's participation in the Jitney Program. Four factors weighed against EOC's involvement:

1. High start up and operating costs would be incurred. EOC would have to set up a subsidiary transportation corporation to be granted state operating authority as a public transportation operator. Vehicles would be subject to state inspection every six months. Insurance costs would increase. Reports and tariffs would regularly need to be filed with the state. EOC did not have the management or financial resources to operate a subsidiary transportation corporation.

2. EOC could make better use of existing transportation services by coordinating with other agencies. Nearly 70% of EOC's clients were eligible, as elderly or handicapped, to use the GADABOUT paratransit service. EOC staff could be trained as GADABOUT volunteer drivers and use GADABOUT vehicles to perform the majority of EOC's transportation.

3. EOC's use of its staff and individual cars to provide transportation was the lowest cost option. Although EOC's present transportation system made inefficient use of staff time, it costs much less than operating a public transit service. EOC pays its staff a mileage allowance, but requires each staff member to pay for additional liability insurance for using their private automobiles. The EOC staff subsidizes the agency's total transportation costs. After comparing the current mileage budget with the increased costs of initiating a public transit service (including: legal, insurance, operations management, drivers, and maintenance costs), EOC decided that the financial burden far exceeded the present costs.

4. Community Services Administration (CSA) regulations precluded using the vans in revenue service. Although CSA was disbanded there is still some question concerning the regulations affecting the use of the CSA-funded vans. Prior CSA regulations prohibited using the vans in revenue service.

EOC's transportation problem is common to many nonprofit human service organizations. EOC's clients live in rural areas, and many lack or are unable to drive an automobile. Therefore, the staff spends a significant

amount of time driving clients to and from appointments. Since EOC's mileage allowance does not cover all of the costs, the staff involuntarily subsidizes the service. The federal program with which EOC obtained the vans did not have operating funds and prohibited their use in revenue service. The jitney option creates the problems inherent in setting up a public transportation service. Paid drivers, insurance costs, preventative maintenance programs, radio communications, and service planning are some of the activities that EOC did not have the staff or budget resources to cope with.

Eventually, EOC decided to direct some clients to GADABOUT and make use of the growing TOMTRAN services. EOC sold one van to the city youth board. The second van is used for group trips and is available for rent by other human service organizations.

Newfield Coalition of Churches

In December 1981, a request for TCPD to study the option for a community based jitney service was made by a coalition of churches in the Town of Newfield. On March 17, 1982, a report was sent to the community organization describing transportation options for Newfield. The report summarized issues that residents should consider in assessing the feasibility of transportation service and its organization. The report described the Jitney Program, the range of services offered by TCPD and issues for preliminary consideration before moving past the discussion stage.

The community organization was asked to assess their capabilities to organize and manage a new program. Three possible operator options were discussed: municipal, private entrepreneur, and nonprofit transportation

corporation. The community organization could solicit the Newfield Town Board to become a municipal operator, assist a private entrepreneur, or organize a community-based transportation corporation. TCPD would assist the community in pursuing an option, if it was able to organize the effort. The Newfield organization did not request further assistance.

Ulysses, Newfield, and Enfield Service

During March and April of 1983, TCPD conducted a transportation market study of the western part of Tompkins County (Towns of Ulysses, Newfield, and Enfield. On September 13, 1983, a resident of the Town of Enfield contacted TCPD for assistance in evaluating the potential for demand responsive jitney service in the study area.

The individual was experienced with demand responsive transportation service and mobile radio communications in Tompkins County. The individual did not have the minimum financial resources necessary to initiate service, but his experience would be an asset to any new service.

In November 1983, a partnership approached TCPD for information on the Jitney Program. The partnership desired to initiate service in the Towns of Ulysses, Enfield, and Newfield and seemed to possess sufficient financial resources to initiate service. The Enfield resident was referred to the partners to see if he could join them in some capacity. TCPD met with the partners to plan the service during the first six months of 1984. Ultimately, the partners could not agree to make the financial and time committments to the project and discussions ceased.

The household survey and service planning efforts resulted in raised expectations for many residents of Ulysses, Newfield, and Enfield. During the summer of 1984, county legislators and a growing number of individual

residents strongly encouraged progress in initiating transit service in the western part of the County. In September, TCPD fashioned a plan to extend Ithaca-Dryden Transit to the western service area in January 1985, under contract with CU Transit, Inc. The extension of rural corridor service to the three western towns is discussed further in the Ithaca-Dryden Transit section.

The development of the TOMTRAN Jitney Program is primarily based on the experience of C&D Transportation in establishing public transportation service in Tompkins and neighboring counties. C&D is the focus of the remaining Jitney Program narrative.

C&D Transportation

On October 5, 1981, Mr. Charles Chapman contacted TCPD about joining the TOMTRAN Jitney Program. In July of 1981, Chapman and a partner had started a rural "taxi" service with two vans. After operating a few months, C&D was notified by a New York State Department of Transportation inspector that it was not a "taxi", but an illegal common and contract carrier and needed to comply with state regulations (inspection, authority and tariffs) under the Transportation Law. After reading a newspaper article on TOMTRAN published in September, C&D contacted TCPD for information on state regulations and assistance in starting commuter van service to Cornell University from Tioga County. During the next four years, C&D grew in the scale of its operations, increased its fleet to 11 vans, initiated eight routes serving four counties, and hired fourteen part-time and full-time employees with a 1985 payroll of $130,000.

A timeline of C&D's development is itemized below:

October 5, 1981 - C&D contacts TCPD for assistance on starting van transit service to Tompkins County. First meeting was held on October 13.

January 12, 1982 - C&D receives temporary operating authority by New York State to provide van transit service to Cornell University and Ithaca from Tioga County.

February 22, 1982 - C&D petitions the City of Ithaca for permission to operate on city streets.

March 1982 - Tioga Co. approves a resolution to sponsor C&D for state aid (NYSTOA).

March 22, 1982 - Service from Newark Valley to Cornell begins. (Later consolidated with local service to be CARO-VAN on 7/6).

April 7, 1982 - Tompkins Co. approves Resolution #85 of 1982 to sponsor C&D for NYSTOA.

April 15, 1982 - Town of Caroline household survey is conducted from 4/15 to 4/30/82.

April 19, 1982 - Commuter service to New York State Electric & Gas (NYSEG) from Tioga Co. starts.

May 5, 1982 - City of Ithaca passes a resolution setting forth conditions for C&D's operation in the city.

June 29, 1982 - NYSDOT grants C&D authority to provide service between Tioga Co. and NYSEG and SCM (Smith Corona Corp.) in Cortland, N.Y.

July 6, 1982 - CARO-VAN (local public transit service in the Town of Caroline) begins.

July 15, 1982 - Tompkins Co. and C&D execute contract for participating in NYSTOA Program and for giving C&D TOMTRAN grant for C&D's first quarter of operation.

August 1982 - TOMTRAN grant of $2,000.01 given to C&D.

January 3, 1983 - Owego-SCM (Cortland) commuter van service starts.

January 18, 1983 - C&D contacts Cortland County, requesting sponsorship for NYSTOA in order to start local transit service between Cortland City and Tompkins-Cortland Community College (TC3) in Dryden.

January 25, 1983 - NYSDOT renews C&D's authority until 1/4/84.

March 9, 1983 - Meeting with Cortland Co. Legislative Committee (Planning Committee) concerning NYSTOA sponsorship.

March-April 1983 - TCPD conducts market study for jitney service in the Towns of Newfield, Enfield, and Ulysses.

April 15, 1983 - Tioga Co.'s first Section 18 application submitted to NYSDOT for $65,000 project, to buy 1 minibus and 1 van for C&D service.

April 25, 1983 - Owego-Ithaca (public transit service from Owego, Berkshire, Candor to Ithaca) starts.

June 20, 1983 - Dryden-IBM Owego commuter van service starts.

September 9, 1983 - Owego-Ithaca service ends due to low ridership.

September 1983 - Cortland Co. approves legislation to sponsor C&D for NYSTOA.

September 19, 1983 - C-Transit service from Cortland to TC3 (Tompkins-Cortland Community College) in Dryden begins.

September 26, 1983 - Cortland-Cornell commuter van service starts.

March 1984 - Cortland-Cornell commuter van service ends. First reduction in service due to delays in state aid payments.

March 15, 1984 - NYSDOT conducts regulatory hearing concerning reauthorizing C&D's operating authority.

April 3, 1984 - Tompkins County Legislature authorizes amending the 7/15/82 contract to permit the County to prefinance state aid to C&D on a monthly basis.

April 18, 1984 - Contract amendment executed between C&D and Tompkins Co.

June 19, 1984 - NYSDOT renews C&D's operating authority.

July, 1984 - C&D expands service in Tioga County by adding an Owego to Waverly run.

April, 1985 - C&D reduces service, eliminates Waverly route.

May 7, 1985 - Tompkins County approves two year, Section 18 operating assistance application for $45,000 for CARO-VAN. Res. No. 143 of 1985.

October 8, 1985 - Tompkins County agrees to prefinance state aid for Tioga County's portion of CARO-VAN. Tioga Co. agrees to pay state aid to Tompkins Co. Res. No. 279 of 1985.

October 8, 1985 - CARO-VAN contract approved with C&D. Effective date was July 1, 1985. Res. No. 280 of 1985.

C&D Service Summary

In 1982, C&D Transportation began public transit service between Tompkins, Tioga, and Broome Counties, and expanded to Cortland County the following year. A map of the service area is shown on page D.11. The jitney services are primarily designed to serve commuters who are employed in or traveling to neighboring counties.

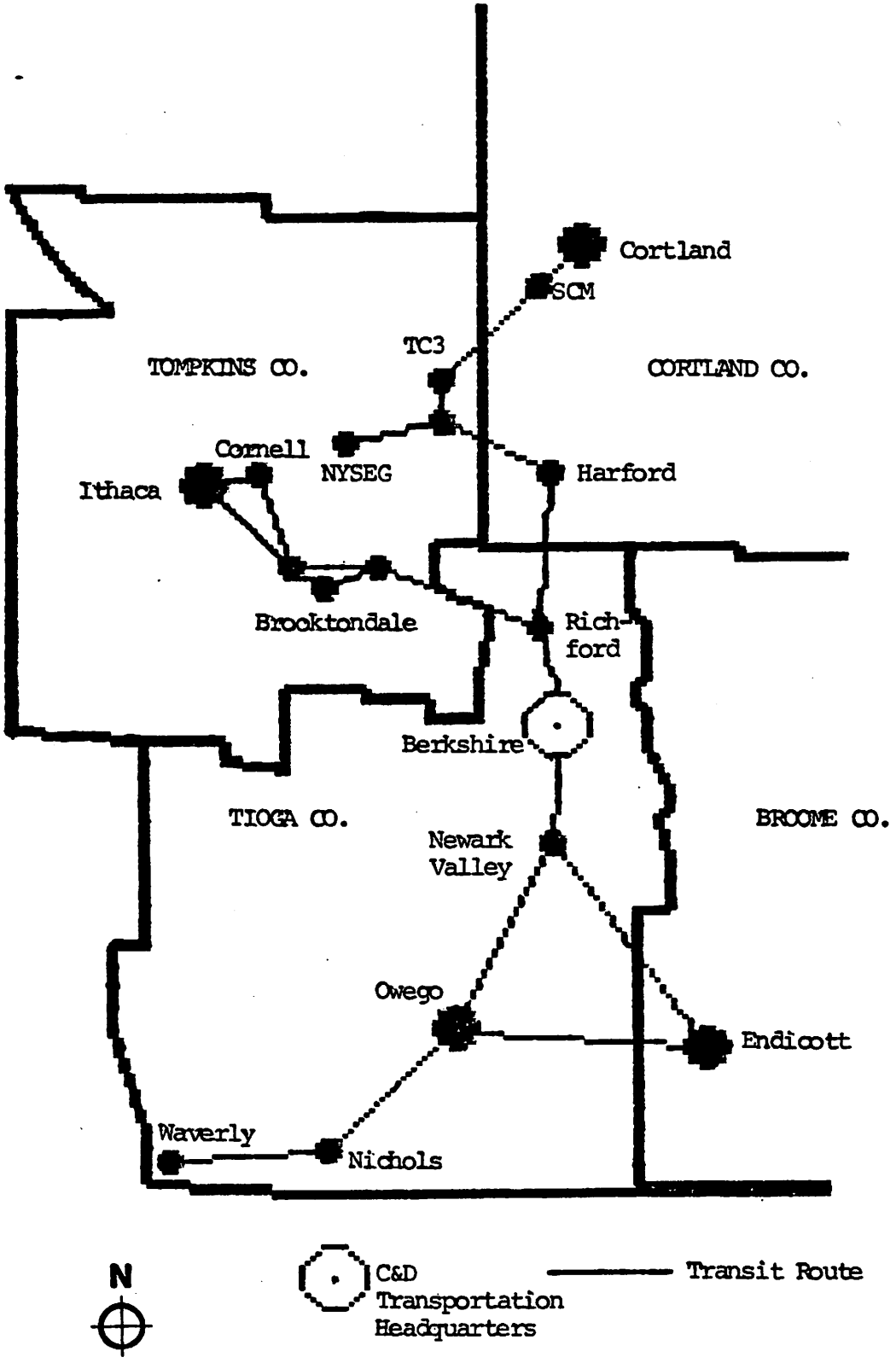
Since April 1982, C&D has carried 130,528 passenger trips, of which approximately 45% were by Tioga County residents. Major employers and urban areas served by C&D routes include:

County	Urban Area / Employer
Tioga	- Villages of Newark Valley, Owego - IBM plant in Owego
Cortland	- City of Cortland - SCM plant
Tompkins	- City of Ithaca - Cornell University - New York State Electric & Gas - Tompkins-Cortland Community College
Broome	- Villages of Endicott & Johnson City - IBM and General Electric plants

1a. Regulatory Issues

The first area of technical assistance TCPD provided C&D concerned state regulation under the Transportation Law. TCPD assisted C&D in

Map D.1 C&D Transportation Service Area



10/84

Scale: 1" equals 7 miles

preparing a petition for operating authority to provide public transit service between Newark Valley (Tioga Co.) and Ithaca. In January 1982, the state granted C&D temporary operating authority to operate four routes. After receiving the state authority, C&D had to petition the City of Ithaca for permission to operate on city streets.

C&D's proposal included operating between Cornell University, Ithaca College, and the downtown Ithaca Commons. Ithaca Transit serves the same destinations and opposed C&D's service in the city. Although intracity service would be incidental to C&D's service, Ithaca Transit expressed concern about setting a precedent which could undermine its ridership.

The City of Ithaca had no recent experience granting a private transit petition, and was predisposed to regulation. TCPD considered the City's options to be narrowly defined by state law. The Council faced a choice in regulating C&D, either to ban or to set a high minimum fare for intracity trips. On May 5, 1982, the Common Council approved the petition subject to a minimum fare of 200% of the Ithaca Transit fare.

1b. Marketing and Service Planning

In April 1982, TCPD conducted a survey of households located in the Town of Caroline to assess the level of interest in starting peak-period transit service to and from the Ithaca urban area. The sample included all of the post office box holders along the route. About 25% of the Town's housing units were surveyed, and the response rate was 35%.

The 91 responding households constitutes 9% of all households in the town. A summary of the survey analysis follows:

1. Nearly one-third of the households were transportation disadvantaged (6.5% with no access to a car and the rest having a greater number of licensed drivers than available cars).

2. About 80% of the travel demand was to either downtown Ithaca (45%) or Cornell University (35.1%).

3. 67% of the morning peak hour demand occurred from 8:00 - 9:00 am.

4. 62% of the afternoon peak hour demand occurred from 4:00 to 5:00 pm.

5. The survey indicated a high demand for regular commuters to downtown Ithaca and Cornell; nearly 75% desired to use the service 4 or 5 days per week.

6. Respondents indicated a willingness to pay fares which increased with distance from the Ithaca urban area; from an average of $.65 to Brooktondale, $.84 to Slaterville Springs, and $1.00 to Caroline.

The survey was used to plan local transit service in the Town of Caroline which was coordinated with the long distance commuter trips from Tioga County to Cornell University. The new combined service was called CARO-VAN, after the Town of Caroline, and started on July 6, 1982.

The survey identified the distribution of demand by stops in the Town of Caroline. The reporting time and departure times for commuters to Cornell and Ithaca became the critical times in planning the schedule. The suggested fare levels were used to set the initial fares. The concept of a zone fare was reinforced by the data which identified public acceptance of a higher fare with increased distance from Ithaca. Finally, the survey yielded a mailing list of persons interested in receiving more information about CARO-VAN and increased the community's awareness of impending new transit service.

The CARO-VAN schedule provided morning service from 5:00 am to 9:50 am and afternoon service from 1:25 pm to 6:20 pm. On September 1, 1982, a revised schedule, extending the morning and afternoon routes, was put into effect to serve the growing ridership to Cornell and the City of Ithaca.

In August 1983, additional vans were put into service during afternoon peak-period runs to accommodate the increased demand from Cornell commuters

and increased trips from downtown Ithaca. Many riders use CARO-VAN for one-way trips home during the afternoon. Revised CARO-VAN schedules were put in effect in January and November of 1984, and April of 1985.

2. Assist jitney operators be sponsored for New York State Transit Operating Assistance (TOA) by Tompkins and other counties.

The state TOA program provides support to transit operators based on quarterly ridership and total service miles. Since 1981, the formula for state aid has increased significantly.

Table D.1 NYS Transit Operating Assistance Formula

Date	Subsidy Per Passenger-trip	Subsidy Per Service Mile
1/81	$.032	$.12
4/81	$.10	$.30
4/82	$.135	$.415
1/83	$.18	$.47

Nearly 75% of the subsidy funds are raised by a 0.75% gross receipts tax on oil and gasoline revenues which became effective in July 1981.

C&D Transportation is sponsored by Tioga, Cortland, and Tompkins Counties to receive state transit operating assistance. The state makes quarterly payments which require a 13% local matching share. C&D provides the local match to the counties, which return it to the operator along with the state funds. State aid grew from $30,128 in 1982 to $117,149 in 1983, to a peak of $176,102 in 1984. In 1985, state aid stabilized at $173,298, which accounts for 66% of C&D's total income for public transit services.

During SFY 83-84, the state transit aid program began experiencing delays in the quarterly payments to the counties and the operators. The NYSTOA payment delays, which began in October 1983, continued through the rest of the 1983-84 state fiscal year and into the current year. By March

1984, the payment problem reached a critical stage. C&D was forced to borrow increasingly larger amounts in short-term loans at high interest rates to meet its cash flow needs. In March 1984, the Cortland-Cornell commuter run was suspended to reduce costs. C&D stated that it needed some type of relief to keep operating.

In April 1984, the state legislature passed an annual guarantee for the TOA program in SFY 84-85. Counties and operators would experience delays throughout the year, but the annual appropriation was guaranteed with a make up payment in April 1985. Although the problem was adversely affecting approximately 80 transit operators across upstate New York, the small private operators, such as C&D, were at the greatest risk.

On the basis of the state guarantee, Tompkins County developed a program to prefinance state aid to C&D on a monthly basis at the NYSTOA formula. The prefinance program would continue at the County's discretion or until the delays are alleviated. The County's new role, to ensure timely state aid payments to the operator, is unique in New York State. Tompkins County prefinanced $60,385 in 1984 and a total of $75,666 in 1985. In November of 1984, C&D requested a similar program in Tioga County. Tioga County agreed to one time payment up to a limit of $40,000.

In August of 1985, C&D requested that Tioga County provide a monthly prefinance program. Tioga County has delayed in making a decision since that time, however, Tioga did agree to assist Tompkins County to prefinance the Tioga portion of state aid for the CARO-VAN route. Tioga's overall refusal is likely to result in the cessation of C&D operations in the county.

3. Provide start-up operating grant to jitney operators.

The Jitney Program includes a budget item for incentive grants for new jitney services. Tompkins County decided to match the state aid received for the first three months of operating. On this basis, the County paid C&D Transportation a grant of $2,000.01 in July 1982.

4. Ridership

From April, 1982 to October, 1985, C&D carried 128,476 riders. County ridership indicates the county of origin for each passenger trip.

Table D.2 C&D Transportation Ridership by County

County	FFY 82	FFY 83	FFY 84	FFY 85	Total	Percent Change 83-84	Percent Change 84-85
Tompkins	3,556	16,665	21,423	21,869	63,513	29%	2%
Tioga	2,039	9,714	13,559	15,657	38,969	40%	15%
Cortland	-	2,627	8,863	7,810	19,300	237%	-12%
Broome	741	1,700	2,332	1,921	6,694	37%	-18%
Total	6,336	30,706	46,177	47,257	128,476	50%	2%

Tompkins County exceeds other counties because many riders are headed to destinations in Tompkins from Tioga and Cortland Counties.

The CARO-VAN service is the longest operating jitney route serving

Table D.3 CARO-VAN Ridership by Month (FFY 82-85)

Month	FFY 82	FFY 83	FFY 84	FFY 85	Percent Change 83-84	Percent Change 84-85
October	--	1,143	1,515	1,945	32.5%	28.4%
November	--	1,202	1,266	1,562	5.3%	23.4%
December	--	1,198	1,219	1,419	1.8%	16.4%
January	--	1,413	1,643	1,840	16.3%	12.0%
February	--	1,448	1,624	1,530	12.2%	-5.8%
March	--	1,574	1,651	1,435	4.9%	-13.1%
April	--	1,462	1,426	1,160	-2.5%	-18.7%
May	--	1,446	1,358	1,286	-6.1%	-5.3%
June	--	1,497	1,267	1,022	-15.4%	-19.3%
July	738	1,126	1,314	1,113	16.7%	-15.3%
August	908	1,499	1,493	1,086	-0.4%	-27.3%
September	1,013	1,482	1,551	1,087	4.7%	-29.9%
Total:	2,659	16,490	17,327	16,485	5.1%	-4.9%

local transit needs in Tompkins County. But, CARO-VAN accounts for a decreasing share of C&D's total ridership, from high of 54% in FFY 83 to a low of 35% in FFY 85. Ridership trends for CAROVAN and total C&D ridership is shown in Fig. D.1.

FIG. D.1 JITNEY RIDERSHIP BY MONTH (FFY 82 - FFY 85)

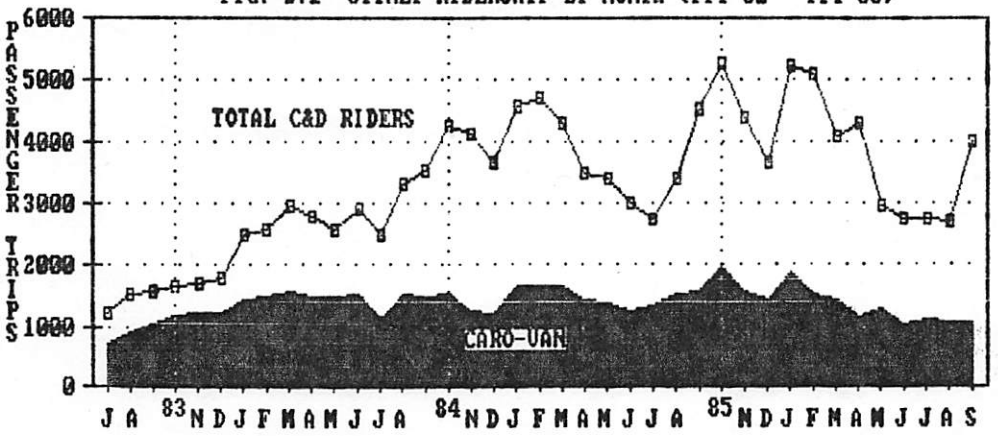


Table D.4 C&D Ridership by Month (FFY 82-85)

Month	FFY 82	FFY 83	FFY 84	FFY 85	Percent Change 83-84	Percent Change 84-85
October	--	1,625	4,284	5,290	163.6%	23.5%
November	--	1,681	4,133	4,400	145.9%	6.5%
December	--	1,777	3,665	3,637	106.2%	-0.8%
January	--	2,477	4,560	5,244	84.1%	15.0%
February	--	2,565	4,703	5,109	83.4%	8.6%
March	--	2,975	4,322	4,101	45.3%	-5.1%
April	703	2,780	3,475	4,318	25.0%	24.3%
May	627	2,576	3,373	2,977	30.9%	-11.7%
June	738	2,927	2,984	2,720	1.9%	-8.8%
July	1,189	2,461	2,747	2,727	11.6%	-0.7%
August	1,529	3,319	3,382	2,714	1.9%	-19.8%
September	1,567	3,543	4,549	4,020	28.4%	-11.6%
Total:	6,353	30,706	46,177	47,257	50.4%	2.3%

CARO-VAN ridership increased only 5.1% between FFY 83 and FFY 84, while total C&D ridership increased 50.4% during the same period. The expansion of service in Cortland and Tioga Counties resulted in the new increases in ridership.

Between FFY 84 and FFY 85, CARO-VAN ridership declined by 5%, while overall C&D ridership increased only 2.3%. The fall off in ridership growth can be attributed to declining public confidence in C&D's future. Beginning in April 1985, C&D made repeated pronouncements foretelling reductions in service. Although the worse case did not materialize, C&D did scare off regular users from continuing to ride.

Ridership Characteristics

Rider surveys were conducted for CARO-VAN to revise schedules and evaluate the service. Statistics including trip purpose, household income and size, and rider characteristics are presented in the following tables.

Table D.5 CARO-VAN Trip Purpose

1. Commuting to Work, School & Home	80.3%
2. Shopping	7.8
3. Medical Services	9.8
4. Other	2.1
	100.0%

Table D.6 Age & Sex Distribution of CARO-VAN Riders

Male:	46.4%
Female:	53.6
	100.0%
Age	
Under 18 years	10.7%
18-24	30.4
25-34	33.9
35-44	14.3
45-54	3.6
55-64	3.6
65+	3.5
	100.0%

Table D.7 - Income Distribution by Household Size for CARO-VAN Riders

Income		Persons Per Household 1	2	3	4	5	6	Total Income
Under	$5,000	38.1%	16.7%	14.8%	16.7%	14.3%	13.3%	19.2%
$5,000	$7,499	19.0	20.0	25.9	22.2	21.4	33.3	23.2
$7,500	$9,999	9.5	26.7	7.4	11.1	42.9	13.3	17.6
$10,000	$12,499	14.3	3.3	7.4	5.6	14.3	20.0	9.6
$12,500	$14,999	9.5	6.7	3.7	5.6	7.1	6.7	6.4
$15,000	$17,499	4.8	3.3	3.7	11.1	0.0	0.0	4.0
$17,500	$19,999	4.8	6.7	14.8	0.0	0.0	0.0	5.6
$20,000	$24,999	0.0	10.0	3.7	22.2	0.0	0.0	6.4
$25,000	Plus	0.0	6.7	18.5	5.6	0.0	13.3	8.0
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Households:		16.8%	24.0%	21.6%	14.4%	11.2%	12.0%	100.0%

Read down the columns for the income distribution for each household size. The median household size is 3 persons and the median income is $7,500 to $9,999.

Table D.8 Reasons for Using CARO-VAN

1. Only Transportation Available	33.3%
2. Save Money.....	23.5
3. Don't Like to Drive	19.6
4. No Car Available	7.8
5. To Support Public Transit	5.9
6. Save Time	3.9
7. No Driver's License	3.9
8. Regular Ride Not Available.....	2.0
	100.0%

5. Evaluation

The evaluation of the Jitney Program involves reviewing the supply, demand, revenue, and cost statistics of C&D Transportation for the calendar years of 1982-1984. Between 1982 and 1983, C&D's dramatic rate of growth is illustrated by a 211% increase in revenue miles and similar increases in operating costs (174%) and user revenue (165%).

Table D.9 C&D Transportation - Evaluation

(1981 Dollars)

				Percent Change	
	1982	1983	1984	1983-84	1984-85
SUPPLY/DEMAND					
Passenger Trips	11,052	37,705	47,422	241.2%	25.8%
Revenue Miles	101,610	316,668	356,525	211.7%	12.6%
Deadhead Miles	4,623	14,424	21,392	212.0%	48.3%
Passenger Miles	2,032,200	5,098,355	5,740,053	150.9%	12.6%
Pass. Trips/Pass-mile	0.0054	0.0074	0.0083	36.0%	11.7%
TOTAL COST	($56,372)	($145,627)	($215,604)	158.3%	48.1%
Cost/ Passenger-mile	($0.0277)	($0.0286)	($0.0376)	3.0%	31.5%
Cost / Passenger Trip	($5.10)	($3.86)	($4.55)	-24.3%	17.7%
USER REVENUE	$17,357	$43,292	$56,278	149.4%	30.0%
Revenue / Pass-mile	$0.0085	$0.0085	$0.0098	-0.6%	15.5%
Revenue / Pass. Trip	$1.5705	$1.1482	$1.1867	-26.9%	3.4%
Revenue/Cost	30.8%	29.7%	26.1%	-3.4%	-12.2%
FEDERAL/STATE AID	$30,128	$110,355	$160,721	266.3%	45.6%
Aid / Passenger-mile	$0.0148	$0.0216	$0.0280	46.0%	29.4%
Aid / Passenger Trip	$2.7260	$2.9268	$3.3892	7.4%	15.8%
DEFICIT/SURPLUS					
Net (Deficit)/Surplus	($8,887)	$8,020	$1,395	90.2%	-82.6%
(Deficit)/Surplus Pass-mile	($0.0044)	$0.0016	$0.0002	36.0%	-84.6%
(Deficit)/Surplus Pass. Trip	($0.80)	$0.21	$0.03	26.5%	-86.2%

C&D rapidly expanded the scale of its jitney services, costs, and revenues between 1982 and 1983. C&D carried 37,705 riders, an increase of 241% over 1982. Productivity, as measured by passenger trips per passenger mile, improved 36%. The cost per passenger trip declined 24% to $3.86 per trip. However, user revenue per passenger trip declined by 27% in 1983. In the second year, C&D carried a higher percentage of riders for a shorter distance than in 1982. In 1983, C&D posted a surplus of $8,020.

In 1984, C&D ridership, costs and revenues increased at a high, but more moderate rate than 1983. Productivity, as measured by passenger trips

per mile increased 12%, while ridership was up 26%. Revenue per passenger trip and per trip increased in 1984 over 1983 by 15% and 3%, respectively. The user revenue recovery ratio (revenue/cost) declined 12% from a high of 31% in 1982 to 26% in 1984 indicating an erosion of self-sufficiency. In 1984, C&D earned a small surplus of $1,395 and needed careful cash management to sustain its operations.

The actual costs, revenues and sources of C&D funding were as follows:

Table D.10 Sources of C&D Funding

	1982	1983	1984
Actual Cost:	($56,372)	($145,627)	($215,604)
Sources of Funding			
User Revenue	$17,357	$43,292	$56,278
ARC funding	$2,000	$0	$0
State Aid	$28,128	$110,355	$160,721
Total	$47,485	$153,647	$216,998
User Revenue	30.8%	28.2%	25.9%
ARC funding	3.5%	0.0%	0.0%
State Aid	49.9%	71.8%	74.1%

Significant future increases in income will have to come from user revenues, since C&D became subject to a cap on the amount of state aid it received in 1984.

Furthermore, 1984 is a transition year for C&D. The payment problems in the state transit aid program required prefinancing by counties for C&D to continue to operate. C&D curtailed several routes and was forced to consolidate its operations. By December 1984, C&D began to rationalize its fare structure and create uniform fare rates based on distance for all services. The delayed state aid payments continued through 1985.

The Jitney Program succeeded in initiating multicounty service to low-income rural areas, previously without any public transportation. C&D expanded from two vans to a fleet of eleven vans in two years. The company presently is the forth largest employer in the Town of Berkshire in Tioga County, with 13 full and part time employees. The challenge to C&D is to improve the self-sufficiency of its services by increasing user revenue through raising fares, generating higher ridership through improved marketing, and curtailing unproductive services.

Tompkins County reassessed its relationship with C&D in 1985. CARO-VAN provides a useful service in Tompkins County, but it is less cost-effective than C&D's other commuter routes. The Tioga-Tompkins agreement to use federal Section 18 funding to subsidize CARO-VAN stabilized the route in 1985. In the fall of 1985, TCPD staff undertook a survey of Town of Caroline residents about their attitudes toward CARO-VAN and C&D Transportation. While there is an overall positive image of the service, the survey did identify an erosion in the reliability of the service. A concentrated effort to maximize CARO-VAN ridership will be undertaken by improving driver training, service reliability, and advertising.

E. RIDESHARING PROGRAM
(Van & Car pooling)

OBJECTIVE: To extend ride-matching services to commuters traveling to and from Tompkins County and to promote van and car pools as attractive and efficient modes of transportation.

Summary

The TOMTRAN Ridesharing and Park & Ride Programs were two early county programs developed to address the energy crisis of 1979. In June of 1979, Tompkins County began developing its car-pooling program, which culminated in the publication of the Tompkins County Ridesharing Mannual for Employers (October, 1979).

The TOMTRAN Budget of 1982 included $10,000 in ARC funds to provide incentives for van pooling, and no operating funds earmarked for car pooling. A van pooling program was not developed. In 1984, the $10,000 was allocated to the Rural Transit Program. The car pooling effort by the TOMTRAN staff consisted of establishing a ridesharing program for 1,218 employees of the Tompkins County and the Tompkins Community Hospital.

Program Elements

1. Implement a ridesharing program for employees of Tompkins County and the Tompkins Community Hospital.

In January of 1982, the County Planning Department initiated a ride-sharing program for 443 county employees and 775 employees of the Tompkins Community Hospital. The voluntary program was to serve as a demonstration of the County's Ridesharing Manual for Employers (October, 1979).

In February of 1982, survey cards were distributed and collected with employee time cards. A facsimile of the survey card is shown in Exhibit E.1. TOMTRAN staff sorted the responses, made matches, and notified

Exhibit E.1 Ridesharing Survey Card

Please Print Clearly

TOMPKINS COUNTY RIDESHARING PROGRAM

MAP LOCATION CODES: home ____ work ____

NAME (last) (first) — HOME PHONE

HOME ADDRESS (no. & street) (city/village/town) (zip) — WORK PHONE

WORK ADDRESS — EMPLOYER

HOW DO YOU GET TO WORK? ☐ Auto - drive alone ☐ Auto - with _____ others ☐ Bus ☐ Taxi ☐ Other How? _____

WHEN DO YOU LEAVE HOME? ☐ AM ☐ PM

WHEN DO YOU ARRIVE AT WORK? ☐ AM ☐ PM

WHEN DO YOU LEAVE WORK? ☐ AM ☐ PM

WHICH MAJOR ROUTES DO YOU NOW TRAVEL TO WORK? ☐ 13 ☐ 34 ☐ 34B ☐ 38 ☐ 79 ☐ 89 ☐ 96 ☐ 96B ☐ 96/34 ☐ 366 ☐ other (explain) _____

HAVE YOU EVER CARPOOLED? ☐ YES ☐ NO

DISTANCE TO WORK? _____ miles

TIME TO WORK? _____ min.

WOULD YOU LIKE TO RIDESHARE? ☐ YES ☐ NO ☐ MAYBE

DO YOU HAVE ROOM IN AN ACTIVE CARPOOL? ☐ YES ☐ NO ☐ MAYBE

NOTES: (problems and/or special considerations)

ARE YOU INTERESTED IN:

- ☐ Driving Only
- ☐ Riding Only
- ☐ Sharing Driving
- ☐ Bus Service
- ☐ Pooling from a Park & Ride Lot
- ☐ Vanpooling
- ☐ Other _____ (specify)

interested employees of potential matches in March. In June, a follow-up survey was conducted to determine the impact of the ride matching program. The evaluative survey was completed and returned by 111 (14%) Hospital employees and 141 (31%) County employees. The survey findings are presented in Table E.1.

Table E.1 - Ridesharing Survey of County and Hospital Employees

Question	Hospital Responses	Hospital Percent	County Responses	County Percent
1. Received Ridesharing Card (February 1982).	105	94%	126	89%
2. Completed Survey Card.	75	67	126	89
3. Returned " "	72	64	113	80
4. Interested in car pooling.	32	28	43	30
5. Previously in a car pool.	20	18	33	23
6. Currently in a car pool.	20	18	24	17
7. Received a ride matching list.	32	28	70	49
8. Contacted a person from list.	11	9	19	13
9. Joined a new car pool.	1	1	16	11
10. Satisfied with car pool.	20	18	21	14

A total of 30% of the employees expressed interest in car pooling. All interested respondents received a ride matching list. Only 9% of hospital employees and 13% of county employees attempted to form a car pool using the list. The program resulted in the formation of new car pools by 1% of hospital employees and 11% of county employees.

2. Encourage employers to initiate ridesharing programs.

In 1980, TOMTRAN staff sent the Ridesharing Manual to major employers in the Ithaca urban area and offered assistance in establishing ridesharing programs. The employers who were contacted include: Cornell University, Ithaca College, Morse-Chain, NCR, and the Tompkins-Cortland Community College. All of the employers used informal approaches to ridesharing. Employees used bulletin boards to arrange rides. In 1981, Cornell University formally established a ridesharing program.

Cornell University employs approximately 10,000 persons and is the largest single employer in Tompkins County. On-campus parking is heavily regulated through the use of a permit system enforced by Cornell Police. The allocation of parking permits is controlled by eligibility standards and a sliding scale of prices. Parking permits prices range from free to $158/year. The Cornell ridesharing program uses parking permit incentives to encourage car pooling.

Cornell has two different programs for car pooling and ridesharing. The car pool program is open to three or more persons who register as a permanent car pool. They are eligible to buy a group parking permit of their choice. The eligibility standards for individuals do not apply to car pools. In return, individuals are excluded from receiving their own parking permits, except for six daily permits to use for emergencies. The Transportation Office receives 250 inquiries about the program each year, and an average of 35 car pools are actually registered.

Cornell's ridesharing program is less restrictive than the car pool program. A group of two or more persons may purchase a parking permit for which one member must be eligible. Up to six vehicles may be registered for the group permit. All members receive a free "AB" parking permit, to park at a peripheral lot, for their own use. Many more people are ridesharing than the car pooling, although participation statistics are not recorded. The Transportation Office does not provide ride matching. People form their own car pools by posting notices of car pool information in offices. Another source is the classified ads in the employee newsletter, Networking.

The Cornell program was based in part on a study by a Cornell engineering student in 1980, Ridesharing at Cornell: Present Attitudes and Future Prospects. (4) The study featured a random survey of 500 Cornell parking permit holders. The study confirmed that the percentage of commuters who prefer ridesharing rises regularly from 23% for persons who commmute less than 5 miles to 92% of those who commute 20 miles or more. A larger percentage of clerical and maintenance employees favored car pooling (55%) than management (41%) and faculty (32%) employees. Respondents listed their commuting preferences in Table E.2.

Table E.2 Commuting Preferences of Cornell Employees

Alternative	First Choice	Second Choice	Third Choice
1. Car pooling	40%	65%	72%
2. Van pooling	2	14	21
3. Bus Service	34	15	6
4. Walk, cycle	24	12	2
Total	100%	100%	100%

Car pooling included three options: shared driving, being a rider, or being a driver in a shared riding pool. The shared driving was the most favored option, in which members take turns driving by the day or by the week.

People who choose van pooling would rather ride than drive. Many people choose van pooling as a third alternative. The van pooling demand includes potential demand for jitney and rural transit service.

The bus alternative was described as a local bus service. The survey made no assumption of a county-wide bus service, yet it received the highest number of additional comments submitted on the surveys.

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4. Bradley, Mark A., Ridesharing at Cornell: Present Attitudes and Future Prospects, Cornell University School of Civil and Environmental Engineering, April 22, 1980. Unpublished paper.

The preference for walking and cycling declines as the distance from the campus increases. The alternatives were most popular with respondents living within 5 miles of Cornell.

In summary, the study of Cornell employees' attitudes and preferences for ridesharing alternatives provides an information base for 1980. The low interest in van pooling supported the program's low priority. The interest in longer distance transit service confirmed the decision to invest project resources in rural transit and jitney programs.

3. Provide technical assistance and information to individuals and groups interested in ride matching, car pooling and van pooling.

A notice of the Tompkins County Ridesharing Manual for Employers was published in the January 1981 issue of the American Planning Association's Magazine. The Planning Department distributed 30 copies of the manual in 1981.

The County ridesharing program continues to function for county employees. An average of six requests for matches are received annually.

TOMTRAN staff received two inquiries for van pooling during 1982. A survey of local leasing companies was performed and a listing of quotes was compiled for public information. One inquiry was from a group of employees of New York State Gas and Electric Corp. The group compared the alternatives of van pooling and jitney service, and elected to use a new jitney route operated by C&D Transportation.

4. Develop a van pool program.

The inclusion of van pooling as a TOMTRAN program was based on the assumption that people would be interested in van pooling if they were aware of its advantages and knew how to get started. The van pool program

included promotion, a demonstration for county employees, third party leasing of vans, and providing incentives. The ARC budget was $10,000. The van pool program was not implemented during the grant period because of low public demand, the lack of interest from large employers, potential financial costs to the County above $10,000, and the growing popularity of rural transit and jitney service.

The majority of the public expressed interest in transit service and not in van pooling. Individuals who considered van pooling identified disadvantages of that approach, particularly the high level of individual responsibility required for a van pool to be an operational and financial success. Transit and jitney service have attracted many potential van pool users.

Tompkins County declined to provide a demonstration van pool project for county employees. The County did not desire to become directly involve in the leasing of vans or the operation of a van pool which benefited a relatively small number of county employees. Van pools raised a concern of management that they could become a bargaining chip in negotiating the employees' benefit package. Finally, Tompkins County awaited progress in Broome County's van pooling effort before reconsidering the program.

In 1981, Leaseway, Inc., proposed to the Broome Metropolitan Transportation Study and Broome County to initiate a self-sufficient van pool program in the county. Leaseway would provide the market research, coordinate van pools, lease vans, and administer the program. The costs to the County would be minimal. By 1982, Leaseway realized that it had underestimated the initial administrative costs, which would not be recouped by program revenue. Leaseway asked Broome County to assume the up front costs of approximately $50,000. Broome County declined and the

proposal died.

Broome County's experience dampened Tompkins County's interest in a van pool program. Leaseway's proposal removed the potential for a low cost program operated by a third party. The alternative was for TOMTRAN staff to perform the management tasks and for the County to lease vans from dealers to the public. After considering the low public demand, expansion of rural transit and jitney service, and the management costs and risks of operating a van pool program, Tompkins County decided not to pursue the program. The $10,000 was earmarked for the expansion of jitney or rural transit service to the western half of the county, the Towns of Ulysses, Enfield, and Newfield. In 1983, TOMTRAN staff worked with several potential jitney operators, however, a proposal could not be finalized. In 1984, Tompkins County decided to expand the Rural Transit Program to the service area.

5. Provide a county-wide ride matching service.

The TOMTRAN Ridesharing Program included the development of a county-wide ride matching service. A specific ride matching program for car pooling has not yet been developed because staff resources are allocated to higher priority programs. However, the market research activity for planning new transit and jitney services includes a collective ride matching function. Trip demand information, gathered from household surveys, is aggregated in the planning process to design routes and schedules. Individuals interested in the new transit service are mailed schedules. The same computer database program used in analyzing survey information can be adapted to perform ride matching for individuals. Revising the database program for car pooling is part of the 1985 work plan.

6. Evaluation

The TOMTRAN Ridesharing Program has made limited progress in achieving its objectives. Van pooling was evaluated, but not implemented. The public, when given the choice between van pooling and transit, supported new transit service. Several persons expressed the opinion that public funds should be used to develop open-to-the-public services and not those for select private groups. Rural transit and jitney services were maximized instead of ridesharing.

The car pooling program achieved limited success. TOMTRAN staff conducted a demonstration for county and hospital employees. The follow-up evaluation showed that 11% of county employees and 1% of hospital employees formed new car pools as a result of the program. The Cornell program uses parking incentives for their ridesharing program, however, it does not provide a ride matching service. While the number of participants can not be measured, the Cornell Transportation Department states that the net impact of all transit and ridesharing programs is a 5% reduction per year in the number of registered parking permits.

The development of a county-wide matching system would assist persons who live outside of transit service areas or are unable to use transit services. The TOMTRAN Project is progressing to the point where additional staff resources can be allocated to developing a county ride matching system in 1985.

F. GADABOUT PROGRAM

OBJECTIVE: To assist GADABOUT Transportation Services, Inc. to increase transportation service to senior citizen and handicapped populations in Tompkins County.

Background

The GADABOUT idea was triggered by passage of a 1974 amendment to the Urban Mass Transportation Act of 1964, Section 16(b)(2), which authorized grants of federal funds to private, nonprofit organizations for the purchase of vehicles and other equipment for transportation of the elderly and handicapped. In 1974, a coalition of public agencies and private organizations (including the County Planning Department) formed a committee to develop a county-wide paratransit service for the elderly and handicapped, and to find a local sponsor eligible for UMTA 16(b)(2) funding. The Tompkins County Chapter of the American Red Cross agreed to sponsor the new service on the condition that an independent governing group would be responsible for managing the entire project including all fund raising.

The first capital application was submitted to New York State DOT in January 1975. In November of 1976, the first 16(b)(2)-funded vehicle, a 14-passenger van, was delivered. The second van was equipped with a wheelchair lift and arrived in February of 1977. Four additional vans were acquired in 1980; followed by a 14-passenger, lift-equipped minibus in 1981. GADABOUT established a satellite office in the Village of Groton with two vans in 1981. The Groton based vans improves the service efficiency and accessibility for residents of the Towns of Groton and Dryden.

After 1976, GADABOUT's operating budget, ridership, management experience and community support increased with the expansion of service. The original relationship between GADABOUT and the Red Cross came under increasing strain during this period. In 1981, the GADABOUT Committee and the Red Cross both agreed to end the Red Cross sponsorship. In July of 1981, GADABOUT was reorganized as a nonprofit corporation, GADABOUT Transportation Services, Inc.

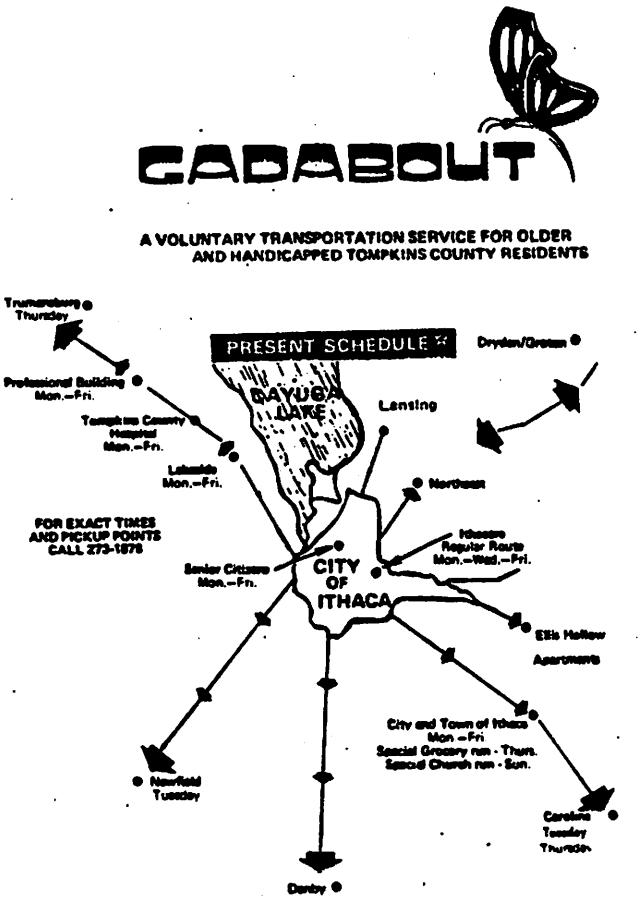
The relationship between Tompkins County and GADABOUT evolved with the expansion of GADABOUT services. The County Planning Department and the Office of the Aging were members of the initial GADABOUT Committee and have representatives on the GADABOUT Board of Directors. Since 1979, Tompkins County has provided operating grants to GADABOUT, and is the largest single contributor. In 1981, the relationship between GADABOUT and Tompkins County strengthened with the inclusion of the service as part of TOMTRAN, and by the County's final certification of GADABOUT as the local option in compliance with Section 504 of the Rehabilitation Act of 1973, as it relates to accessible transportation services.

Service Summary

GADABOUT provides demand-responsive paratransit service for the elderly and handicapped in Tompkins County. A 24-hour advance notification is required. GADABOUT service to rural towns is rotated on a regular daily schedule (see map on page F.3). The service is provided Monday through Friday, with Saturday service available by prior arrangement. Group use of GADABOUT vehicles is permitted on weekends and evenings. Organizations are charged $.88 per mile, and must supply a qualified GADABOUT volunteer as the driver. Regular GADABOUT service is available at the same time of day

in TOMTRAN and Ithaca Transit service areas, in fulfillment of Section 504 obligations.

Map F.1 GADABOUT Service Area & Schedule



The use of volunteer drivers and escorts form the foundation of the GADABOUT service. Since 1976, there has been a growing group of volunteer drivers, approximately 50 are currently active. A driver may donate time from an occasional hour up to one or two days per week. The average volunteer driver donates about 20 hours of service per month, consisting usually of 5 hour shifts each week. Each volunteer completes eight hours

of defensive driving training, passes a reflex coordination and road tests, and has their license checked by the N.Y. Department of Motor Vehicles before they can drive for GADABOUT. Although GADABOUT relies on volunteer drivers, one person is employed as a driver/escort to drive during early morning and other periods when volunteers are usually unavailable. GADABOUT's use of volunteers has been further documented in the UMTA publication, Use of Volunteers in the Transportation of Elderly and Handicapped Persons, (January 1984) DOT-1-84-02.

Program Elements

1. Assess GADABOUT's services and market potential in Tompkins County.

In January of 1983, Tompkins County Department of Planning requested the Human Services Coalition of Tompkins County, Inc., to conduct an assessment of GADABOUT services. The study program includes the following:

1. Analyze rider statistics for 1980, 1981, and 1982, and identify any significant trends.

2. Conduct a random sample survey of GADABOUT riders to gather socio-economic data, frequency of use, trip purpose, level of awareness, transportation alternatives, comments, and suggestions.

3. Conduct a random sample survey of the elderly and handicapped in Tompkins County who do not use GADABOUT to gather the same information as the rider survey.

The Human Services Coalition conducted all data collection and analysis during January through May of 1983.

The final report (May 3, 1983) concluded that the continued and expanded use of GADABOUT was supported by the following findings:

1. The amount of service provided to the handicapped population increased substantially since 1980 and resulted in corresponding increases in ridership.

2. The survey results of both GADABOUT riders and eligible nonriders are overwhelming supportive and complementary of the quality of service and the continued need for it.

3. The increased need for GADABOUT's services is evidenced in the increasing number of trips and in the number of riders desiring to use GADABOUT more.

4. The supply of volunteer escorts has not kept up with the increasing demand for this service.

5. The use of public transportation is low for eligible non-riders due to the availability of private cars.

6. The majority of eligible nonriders of GADABOUT were in higher income brackets and lower age categories than riders. Of the nonriders 65% will use GADABOUT when they find it necessary.

The report confirmed that the potential market for GADABOUT services was increasing. The need for additional escorts was addressed by recruiting people as part of a work experience program operated by the County Dept. of Social Services.

In May of 1985, evening GADABOUT service for the City of Ithaca was arranged through assistance of Cornell student volunteers and CU Transit. CU Transit pays for the operating cost of basing a van at the Cornell campus with trained student volunteer drivers. The evening van provides equal service to evening public transit in Ithaca.

2. Provide GADABOUT an operating grant to target services and outreach promotional efforts in TOMTRAN service areas.

In July of 1982, GADABOUT received a $5,000 grant from the County which was funded by the ARC grant. GADABOUT used the grant to support its satellite operation in the Towns of Groton and Dryden. The following is a breakdown of how the grant was used:

Vehicle Insurance	$1,000
Vehicle Operation	2,000
Salary for Groton/Dryden Coordinator	1,500
Office Expense	500
	$5,000

3. To coordinate GADABOUT's services with other federally-funded transportation programs for human services.

From the beginning GADABOUT has coordinated aspects of its operations and services with other human services agencies. GADABOUT and the Special Childrens' Center of Tompkins County, Inc. both share the cost of a mechanic and lease a former service station to provide for their vehicle maintenance.

Since 1982, GADABOUT has been the only one out of four applicants to receive UMTA 16(b)(2) vehicle capital grants in Tompkins County. Other humans service organizations have shown greater interest in coordinating services as they face tightening budgetary constraints and higher transportation costs. GADABOUT is willing to increase service to eligible clients of other agencies, but it does not have the financial resources or a sufficient number of vehicles to supply the transportation demands of other agencies.

In August of 1984, the Tompkins County Planning Department, GADABOUT and other public and non-profit agencies primarily involved in mental health services formed an ad hoc committee to study options for coordinating or consolidating transportation services. The initial study was conducted by two Cornell University students who presented their findings in August of 1985.

The coordination study evaluated the supply and demand for special transportation and proposed alternatives for coordination. State regulations, work rules, and other barriers to coordination were identified. The committee discussed potential operational problems and cost savings for coordination. The coordination committee is preparing recommendations for the County and agencies in early 1986.

4. Include GADABOUT in the TOMTRAN marketing program.

GADABOUT has been included in the marketing of TOMTRAN transit service programs by including GADABOUT in print advertising and by providing information on TOMTRAN schedules. In September of 1984, a mailing list database of financial contributors was created on the TCPD microcomputer for fundraising efforts.

5. Ridership

FIG. F.1 GADABOUT RIDERSHIP 1976-1985

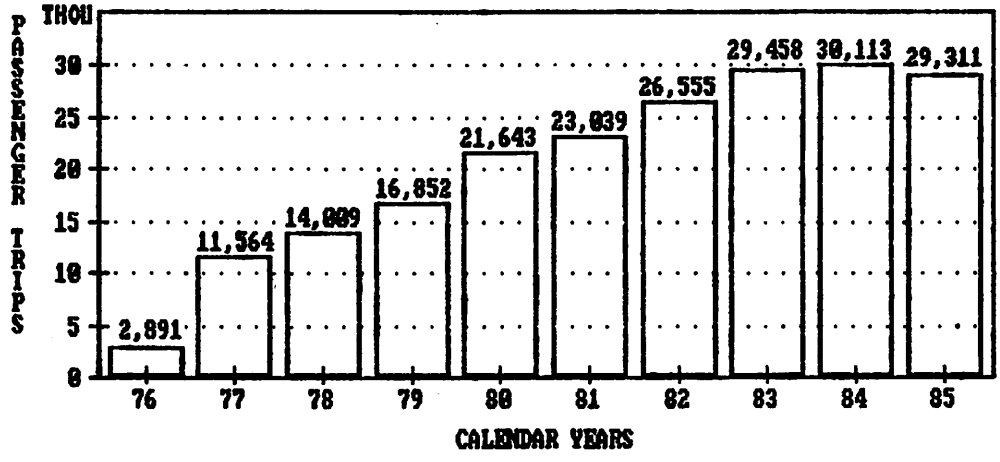


FIG.F.2 GADABOUT RIDERSHIP BY QUARTER (FFY82-85)

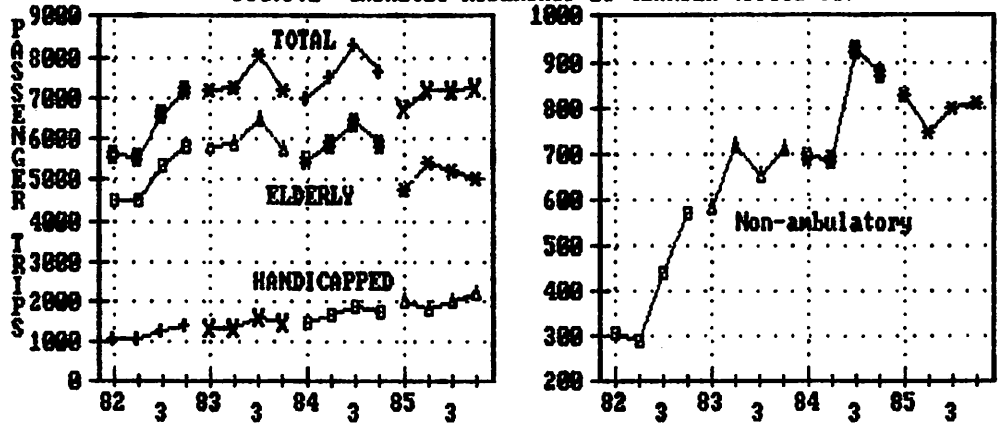


Table F.1 GADABOUT Quarterly Ridership FFY 82 to FFY 85

		Elderly	Handicapped	Total	Non-ambulatory (1)
FFY 1982	1	4,521	1,074	5,595	309
	2	4,497	1,084	5,581	288
	3	5,332	1,254	6,586	445
	4	5,799	1,421	7,220	573
	Total:	20,149	4,833	24,982	1,615
FFY 1983	1	5,817	1,351	7,168	582
	2	5,874	1,379	7,253	715
	3	6,442	1,601	8,043	650
	4	5,721	1,477	7,198	711
	Total:	23,854	5,808	29,662	2,658
FFY 1984	1	5,484	1,480	6,964	695
	2	5,867	1,655	7,522	687
	3	6,417	1,883	8,300	928
	4	5,896	1,735	7,631	873
	Total:	23,664	6,753	30,417	3,183
FFY 1985	1	4,736	2,024	6,760	829
	2	5,393	1,833	7,226	744
	3	5,226	1,985	7,211	798
	4	5,046	2,212	7,258	811
	Total:	20,401	8,054	28,455	3,182
			Percent Change		
FFY 82-83		18.4%	20.2%	18.7%	64.6%
FFY 83-84		-.8	16.3	2.6	19.8
FFY 84-85		-13.8	19.3	-6.5	0.0
FFY 82-85		1.3	66.7	13.9	97.0

(1) Non-ambulatory trips are counted as elderly and handicapped trips.

Elderly trips increased by 18.4% from FFY 82 to FFY 83, leveled off in FFY 84, and dropped nearly 14% in FFY 85. The main reason for the decrease in FFY 85 has been identified as a drop in group use from the prior year. Handicapped trips grew 66.7% during the four years, including a 97% increase in non-ambulatory trips. Overall, GADABOUT ridership increased nearly 14% from FFY 82 to FFY 85.

GADABOUT's highest priority is to serve non-ambulatory trips, which increased 97% over the four years. Since non-ambulatory trips take more time than other trips, GADABOUT encourages able bodied senior citizens to use public transit whenever it is more convenient. The statistics reflects GADABOUT's success in serving a growing number of handicapped riders.

Table F.2 GADABOUT Rider Characteristics

Sex:	Female 93% Male 7%
Median Age:	65 to 74

Median Income: $5,000 to $7,000
48% respondents reported income of less than $5,000.

(64% of respondents answered the income question.)

Source: Human Services Coalition Survey, Feb. 1983.

Table F.3 GADABOUT Trip Purposes

Trip Purpose	Percent
1. Shopping / Personal Business	24.7%
2. Social / Recreation	17.8
3. Medical Services	15.5
4. Employment	12.2
5. Education	4.8
6. Nutrition	3.1
7. Other	21.9
	100.0%

Source: GADABOUT Quarterly Reports

Trip purpose is identified by the driver for each passenger. The "other" category includes those trips for which the driver does not know the trip purpose. The dominant trip purpose is shopping / personal business which includes regular group trips to buy groceries. Medical services trips are a very high priority for GADABOUT and are increasing relative to social/recreational trips.

6. Evaluation

Table F.4 GADABOUT Costs & Revenues (1981-84)

	Actual Dollar Amount		*	Constant 1981 Dollars		*		Percent Change	
Year	Operating Cost	User Revenue	*	Operating Cost	User Revenue	*		Oper. Cost	User Revenue
1981	($65,730)	$13,089		($65,730)	$13,089		81-82	11.3%	10.7%
1982	($77,645)	$15,385		($73,142)	$14,493		82-83	6.5%	15.2%
1983	($85,328)	$18,288		($77,875)	$16,691		83-84	5.9%	6.8%
1984	($94,238)	$20,356		($82,502)	$17,821				

Source: GADABOUT Annual Audits 1981, 1982, 1983, 1984.

Operating Costs includes personnel services, vehicle operations and maintenance, and contractual services. Capital costs for equipment are not included in the operating costs in Table F.4. User revenue includes all rider contributions and group use income. The donated value of volunteer labor is not included in the costs and revenue information.

GADABOUT's total sources of revenue are as follows:

Table F.5 - GADABOUT Sources of Revenue (1984)

Source	Percent
Fund Raising	6%
User Revenue	10%
Tompkins County	19%
Other Municipalities	19%
Volunteer Services	44%
Misc. Income	2%
Total	100%

GADABOUT's sources of funding has been stable during the ARC grant period, however, changes are likely in the future. Until 1986, the source of county funds for GADABOUT was exclusively federal revenue sharing funds. In 1986, the first round of revenue sharing cutbacks were experienced by the County. Initially, GADABOUT was to receive 25% less from the County

share of $39,000 in revenue sharing, however, the reduction was made up by local tax revenue. In 1987, GADABOUT will likely receive 100% local funding from the County.

Table F.6 - GADABOUT Evaluation (1981-84)
(Constant 1981 Dollars)

	1981	1982	1983	1984
Passenger Trips	23,039	26,555	29,458	30,113
Total Vehicle Miles	63,880	68,358	81,546	81,138
Passenger Miles	153,901	177,387	196,779	195,794
Total Operating Costs	($65,730)	($73,142)	($77,875)	($82,502)
Cost/Passenger-mile	($0.427)	($0.412)	($0.396)	($0.423)
Cost/Passenger Trip	($2.85)	($2.75)	($2.64)	($2.79)
Cost/Vehicle Mile	($1.03)	($1.07)	($0.95)	($1.02)
User Revenue	$13,089	$14,493	$16,691	$17,821
Revenue/Passenger-mile	$0.085	$0.082	$0.085	$0.091
Revenue/Passenger Trip	$0.57	$0.55	$0.57	$0.59
User Revenue/Cost	19.9%	19.8%	21.4%	21.6%

	Percent Change			
	81-82	82-83	83-84	81-84
Passenger Trips	15.3%	10.9%	2.2%	30.7%
Total Vehicle Miles	7.0	19.3	-.5	27.0
Passenger Miles	15.3	10.9	-.5	27.2
Total Operating Costs	11.3	6.5	5.9	25.5
Cost/Passenger-mile	-3.5	-3.9	6.8	-.9
Cost/Passenger Trip	-3.5	-4.0	5.7	-2.1
Cost/Vehicle Mile	3.9	-11.2	7.4	-1.0
User Revenue	10.7	15.2	6.8	36.1
Revenue/Passenger-mile	-3.5	3.7	7.1	7.1
Revenue/Passenger Trip	-3.5	3.6	3.5	3.5
User Revenue/Cost	-.5	8.1	.9	8.5

Since 1982, GADABOUT has successfully expanded its services in Tompkins County in a cost effective and productive manner. In 1984, GADABOUT carried 31% additional passengers at a 2.% lower cost/passenger-mile when compared to 1981. User revenue increased 36% overall and was up

7.1% in user revenue/passenger mile. In 1984, GADABOUT's user revenue paid for 21.6% of its operating cost, a 8.5% increase from 1981. In summary, GADABOUT's outlook is promising as these trends of increasing cost effectiveness and local self-sufficiency continue. In 1985, two issues arose which challenge GADABOUT's financial viability - the demise of revenue sharing and skyrocketing insurance premiums.

Both the City of Ithaca and Tompkins County use revenue sharing funds for their local contribution to GADABOUT. In 1984, the combined amount of $53,600 represented 54.5% of GADABOUT's revenue. In 1985, the County had to supplement its revenue sharing allocation with an additional $9,500 in county general funding in order to fully fund its share of GADABOUT. The City made use of revenue sharing funds for GADABOUT. It is likely that there will be a 100% replacement of revenue sharing with local tax revenues, however, the future growth in the local share is likely to lag behind rising costs.

In 1985, the insurance problem began to affect local organizations like GADABOUT. GADABOUT is fortunate that it was able to renew coverage with a 40% increase in premium. In 1986, the insurance problem looks worse. Escalating insurance premiums is predicted for the near term.

G. PARK & RIDE PROGRAM

OBJECTIVE: To provide parking facilities at accessible locations for bus stops and ridesharing, and to evaluate their use for rural transportation.

Summary

In 1979, the Park & Ride Program was created to encourage ridesharing throughout Tompkins County in response to national and local concerns to conserve energy. Park & Ride was the first county-wide transportation program that set the stage for development of TOMTRAN. The program encouraged local governments and the private sector to designate parking space for park & ride use. The County approved a matching grant program to offset the cost of any additional liability insurance and purchased signs to designate park & ride lots. A secondary aspect of the program was to study ways to include park & ride lot incentives in local land development ordinances and to disseminate transit design standards for site planning review.

Program Elements

1. Designate municipal and private parking spaces for park & ride use.

Since 1980, a total of six park & ride lots have been officially designated and signed (see Table G.1 on page G.2). The Village of Dryden was the only applicant for a County matching grant to pay for additional liability insurance. The Village negotiated with a local volunteer fire company to use the company's excess parking spaces as a park & ride lot. In return, the Village agreed to plow the lot in the winter and pay $224 per year for additional liability insurance. In January of 1984, the County paid $112 to the Village of Dryden as a matching grant.

Table G.1 - Inventory of Park & Ride Lots

Official Park & Ride Lots

Name	Location	Transit Connections	Capacity
1. Pyramid Mall	Village of Lansing	NET,IDT	50
2. Newfield Town Hall	Newfield	UNIT	15
3. Trumansburg	Village of Trumansburg	UNIT	10
4. Caroline Town Hall	Slaterville Springs	CARO-VAN	15
5. Fire Co. Lot	Village of Dryden	IDT,Jitney	30
6. Tompkins-Cortland Community College	Town of Dryden	IDT	125
		Total Spaces:	245

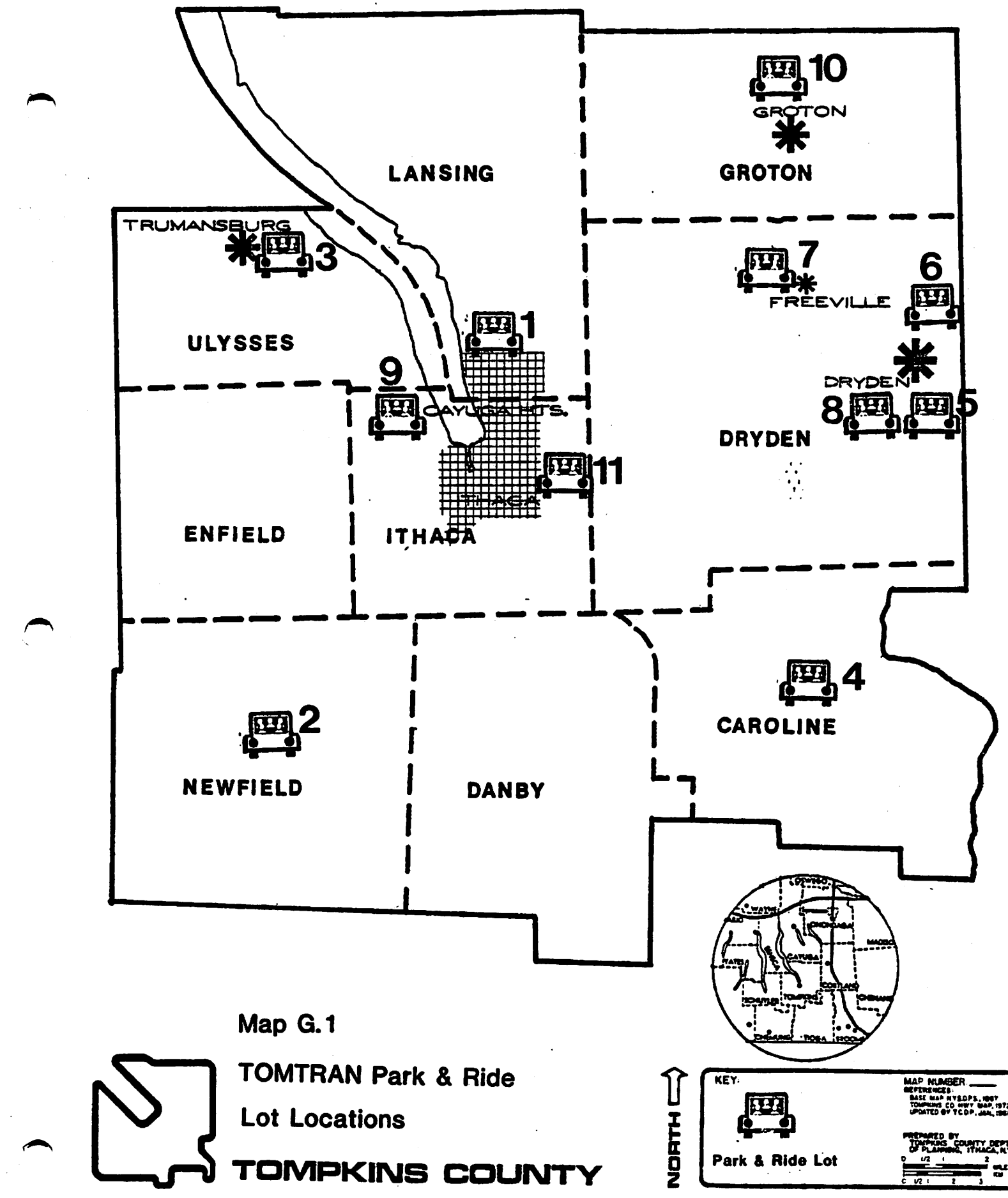
Unofficial Park & Ride Lots

Name	Location	Transit Connections	Capacity
7. Methodist Church Lot	Freeville Village	IDT,Jitney	10
8. Municipal Lot	Village of Dryden	IDT,Jitney	12
9. Tompkins Comm. Hospital	Town of Ithaca	UNIT,IT	50
10. Town of Groton Lot	Village of Groton	IDT	15
11. East Hill Plaza	Town of Ithaca	EIT	50
		Total Spaces:	137

Grand Total of 382 parking spaces

Key: NET & EIT = Suburban Transit Jitney & CARO-VAN = Jitney Service
IDT & UNIT= Rural Transit IT = Ithaca Transit (City of Ithaca)

In general, parking regulation is a low priority in most parts of the County except for the City of Ithaca, college campuses, and villages. People use private and public property along transit routes for park & ride purposes. The list of unofficial park & ride lots in Table G.1 is not exhaustive, but it includes the larger parking areas known to the County Planning Department to be used by the public. In one case, the property owner preferred the informal park & ride use rather than an official designation, which was perceived to impinge on property rights. The Planning Department has not been informed of any complaints from property owners stemming from public park & ride use.



Map G.1

TOMTRAN Park & Ride

Lot Locations

TOMPKINS COUNTY

2. Encourage provision of park & ride spaces, bus stops, and bus shelters as part of new residential and commercial development.

The Tompkins County Planning Department serves as a consultant to municipal governments in the areas of zoning, site development controls and other land use regulation. The Park & Ride Program stimulated interest in exploring the use of regulatory incentives to encourage park & ride lots. A concept to allow larger business signs as an incentive to create park & ride lots was developed, but not tested.

The Planning Department researched issues of land use planning and site development policies to complement public transit service. The following publications and papers were reviewed:

Development & Transit, Capital District Transit Authority, Albany, N.Y.

Guide for Including Public Transit in Land Use Planning, Alameda-Contra Costa Transit District, Oakland, CA

Planning with Transit: Land Use Considerations, Wentworth, Douglas and Arrington, G.B., Tri-Met Planning and Development Division.

The publications are primarily concerned with development policies in large urban areas and standards for developing transit compatible site plans. In general, they discuss ways to encourage higher residential and commercial densities along transit corridors, and describe standards for bus turning movements, passenger shelters, and bus stops in site planning.

Many of the subjects are applicable to transit services in small urban and rural areas. Copies of Development and Transit were sent to the Town of Ithaca and the Village of Lansing, which are urbanizing at a steady rate. The objective is to produce a Tompkins County-specific guide for developers and planning boards to include transit compatibility issues in site planning review.

3. Evaluation

The Park & Ride Program is primarily intended to enhance other TOMTRAN programs. Initially, park & ride lots were intended to be used for carpool collection points. As transit services became more widely available, park & ride lots were established and the public use increased.

The use of park & ride lots has increased from 1981-1984. In the first year, public use of park & ride sites was minimal. Rider surveys for suburban transit indicated that 3% of bus riders were parking and using transit, mostly for commuting to the Cornell University campus. In 1982, the advent of jitney and rural transit service generated more interest in park & ride activity. Sites in the Ithaca-Dryden Transit and CARO-VAN service areas were officially designated. In addition, unofficial park & ride activity developed along both transit routes. Rider surveys for both rural transit and jitney services indicate that 3%-5% of transit riders were parking and riding transit. At the 3% level, an average of 6,723 transit passenger-trips made use of park & ride lots each year. Although the measured participation in park & ride activity is low, it is not a comprehensive survey of the program's usefulness.

The TOMTRAN Park & Ride Program developed at a very low cost to Tompkins County. The costs to the County include $1,050 to purchase signs in 1980, and $112 for a grant to the Village of Dryden in 1984. Since 1980, the annual average cost of the program is $.04 per transit passenger-trip making use of park & ride lots. In summary, the TOMTRAN Park & Ride Program is a low cost activity which improves the public convenience to use transit services, and has a supporting role in providing rural transportation.

IV. CONCLUSIONS

A. Technology Transfer

1. Privatization of Service

Public/Private Partnerships in public transit is a "hot" topic at the federal level today (1). The Urban Mass Transportation Administration is about to issue regulations encouraging privatization or private sector participation in operating public transit services. TOMTRAN is a 100% public/private partnership. TOMTRAN's development provides rural counties with experiences of the obstacles to implementing this approach.

At the outset of TOMTRAN in 1981, Tompkins County decided that it would not operate transportation services with county employees. The basic reason was that if TOMTRAN proved to be short lived then halting the County's participation would be far easier with a short term contract with a private operator. There would be no county employees to layoff or new county investment in maintenance facilities. Since the Northeast Transit service, operated by Swarthout & Ferris, preceded the development of TOMTRAN, the County had experience with contracting with a private operator as a guide.

The major benefits of contracting with private operators include:

1. The private operator has flexibility in obtaining, through purchase or lease, necessary vehicles and equipment, and in managing personnel.

2. The private operator usually has lower labor costs.

3. A reliable and well managed private operator can remove the day to day problems of operating services from the attention of the County.

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1. Public/Private Partnerships in Transit, DOT-I-85-30, UMTA, April 1985.

Major drawbacks in contracting with private operators may include:

1. Private operator may be financially weak. This is especially true when a new small scale operator, i.e. C&D Transportation, begins operating.

2. Experienced, reliable, responsible operators can be scarce, especially in a rural county. TOMTRAN was lucky to have more than one possible operator for any of the transit services. No operator had a monopoly as to command a monopoly price from the County.

3. Private operators may be inexperienced and extremely hesitant to participate in programs involving federal funding. S&F refused to be involved with the Section 18 program due to their perception of intrusive federal auditing requirements that would have access to charter bus records. Ultimately, S&F's position worked to the benefit of the company and the public sponsors when a long term agreement was worked out.

4. A private operator may have lower standards of responsiveness to the public, and overall quality control of the service. The County is vigilant in upholding standards and insisting on high quality service.

5. A private operator who operates County vehicles may short change on vehicle maintenance, if the contract expires before the vehicle's life.

2. Institution as Operator

TOMTRAN was fortunate to spearhead the evolution of the Cornell Bus Service into a private transportation corporation, CU Transit, Inc. The increasing involvement of Cornell University as a private operator combines may of the advantages and avoids common pitfalls discussed above. CU Transit, as part of Cornell University, is committed to providing a high quality service to the general public.

TOMTRAN demonstrates that an educational institution may be able to overcome regulatory obstacles to provide transit service. TOMTRAN created an opportunity for Cornell University to expand its role as a transit operator in the Rural Transit Program. However, the School Bus Program failed in its attempt to enlarge the role of public school districts in rural transportation. The legal obstacle was insurmountable due to lobbying activity of private bus operators at the state level.

3. Developing New Private Operators

The Jitney Program demonstrates that new private operators can develop multi-county, rural transit services. Although the jitney program developed without direct local aid, a substantial amount of state subsidy is necessary. On the other hand, a jitney operator can operate a service at a low cost when compared with major established private bus companies or the public sector. In 1984, C&D Transportation had among the lowest cost per mile for a private operator in the state.

The private jitney operator will require a significant amount of technical assistance in planning, developing, and marketing new services. It is important that the public sector does not overextend technical assistance into the direct management of the service. The fundamental business decisions must lie with the operator who has at risk their own investment.

4. Transportation Brokerage

Transportation brokerage emphasizes a market-oriented approach to transportation planning. Potential demand is determined through surveys. Transportation resources are inventoried and new services developed as feasible. The objective is to target the delivery of services to meet the needs of major markets, especially journey-to-work trips. The brokerage concept includes the role of public ombudsman which is needed to address user problems.

Transportation brokerage is assisted in a rural county when it is allied with the social network of local communities. TOMTRAN programs have succeeded best when grassroots groups organized to influence actions. Although the activity concerning the Greyhound Controversy illustrates this

concept in the extreme, the normal situation is for groups to circulate petitions to add service or to protest a schedule change. These grass-roots efforts are welcomed, especially critical feedback which ultimately reduce the costs of planning errors. An assertive constituency is committed to the overall program and is a formidable source of support.

4. Role of County Planning Department

TOMTRAN demonstrates the use of a county planning department in rural transportation developement. One and a half staff members of the Tompkins County Planning Department are devoted to TOMTRAN. Planners often have the educational background and experience to perform market research, plan services, and deal effectively with legislators, state agencies, and the general public. However, the availability of staff resources in rural county planning agencies is often severely constrained. High productivity is absolutely necessary and should be supported through the use of a microcomputer.

5. Microcomputer in Transit Management

The use of a microcomputer was absolutely essential in the development and management of TOMTRAN. Transportation brokerage and transit management activities readily benefit from the use of a microcomputer. Since rural transportation projects frequently rely on small staffs, a microcomputer is an essential productivity tool for any scale of project. A transportable micro is especially useful since it can be used outside of the office.

In summary, The TOMTRAN Project demonstrates at least five elements which have the potential to be transferred to other similar programs. The privatization of service, institutional transit operators, development

of new private operators, transportation brokerage, expanded role of a county planning department and the use of microcomputers in transit management are models that could be applied to other rural counties.

In 1986, TOMTRAN staff will revise the Countywide Transportation Services Plan adopted in 1981 at the outset of the ARC Grant. The plan was formally required by the New York State Department of Transportation for eligibility in the federal Section 18 Program. However, Tompkins County was one of the few counties which approved a plan and the requirement was ultimately dropped by the state.

The plan will prepare an inventory of all public and private transportation services and will discuss the impact of TOMTRAN development. In addition to reviewing the changes in countywide services since 1981, the plan will identify the projected operating and capital costs for TOMTRAN and Ithaca Transit for the next five years. In light of the continuing diminished federal funding role, alternative funding plans will be prepared which maximizes local self-sufficiency. Planning now for the next five years is necessary to make the timely decision critical for survival.

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