Figure III-40
Vehicle Miles (000)

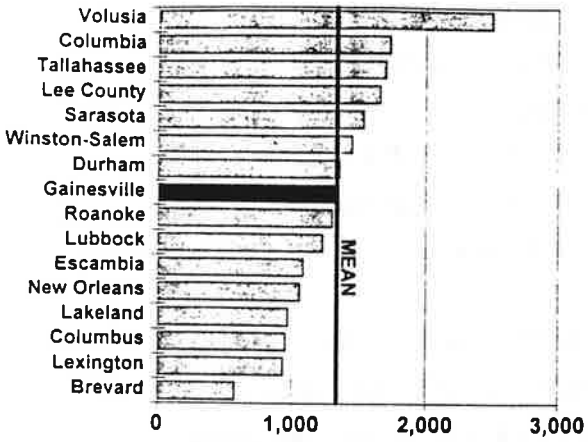


Figure III-41
Revenue Miles (000)

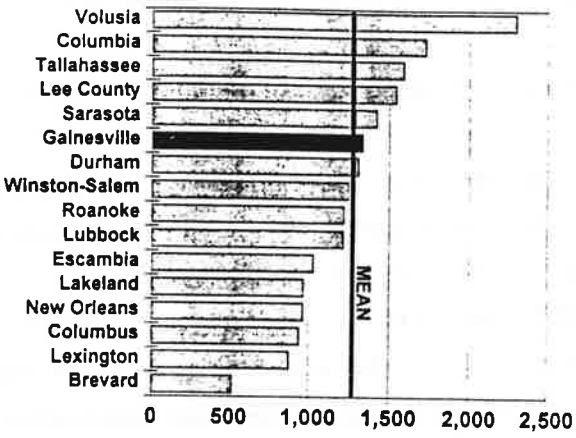


Figure III-42
Vehicle Hours (000)

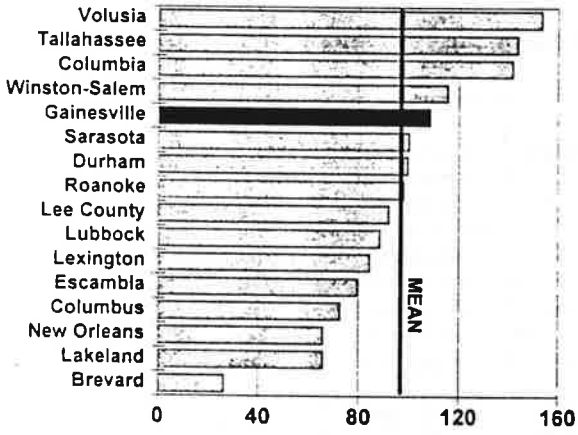
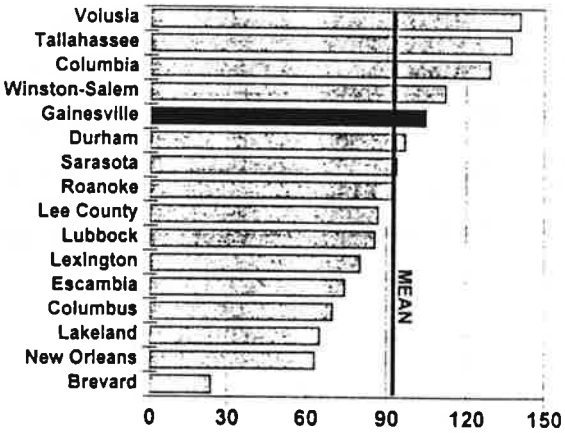


Figure III-43
Revenue Hours (000)



Operating Expenses and Revenues

Table III-16 summarizes peer group data for operating expenses and revenues. The table shows that RTS's total operating expenses are approximately four percent below the average of the peers, indicating a quite reasonable level of spending for a system of its size. RTS's maintenance expense is nearly 13 percent below the peer group mean. This is interesting considering that, in the trend analysis, maintenance expense increased significantly between 1991 and 1996. Figures III-44 and III-45 graphically represent these expenses.

Operating revenues are also outlined in Table III-16, as well as Figures III-46 through III-48. RTS's passenger fare revenue is 50 percent above the average of $1,059,042. RTS's operating revenue, of which passenger fares are a subset, is only about two percent below the peer group mean. Lastly, RTS's total local revenue, which represents all system funds acquired at the local level (including passenger fares and operating revenue, but excluding all state and federal funds), is just one percent below the peer group average. Overall, RTS's costs are below the average of its peers while, with the exception of passenger fare revenue, which is significantly above the mean, the system's revenues appear to be about average when compared to its peers.

Table III-16
FY 1996 Operating Expenses and Revenues, Fixed-Route Peer Analysis

Performance Indicator	RTS	Peer Minimum	Peer Maximum	Peer Mean	RTS: % From Mean
Total Operating Expense	$3,663,424	$1,207,730	$6,629,953	$3,797,709	-3.54%
Total Maintenance Expense	$753,031	$283,511	$1,779,694	$862,072	-12.65%
Passenger Fare Revenue	$1,588,310	$79,836	$2,001,352	$1,059,042	49.98%
Operating Revenue[1]	$1,620,814	$420,168	$4,842,163	$1,646,373	-1.55%
Total Local Revenue[1]	$3,371,152	$1,743,903	$6,237,196	$3,405,004	-1.00%

[1]The peer group means for these indicators do not include data for Space Coast Area Transit.

Figure III-44
Total Operating Expense (000)

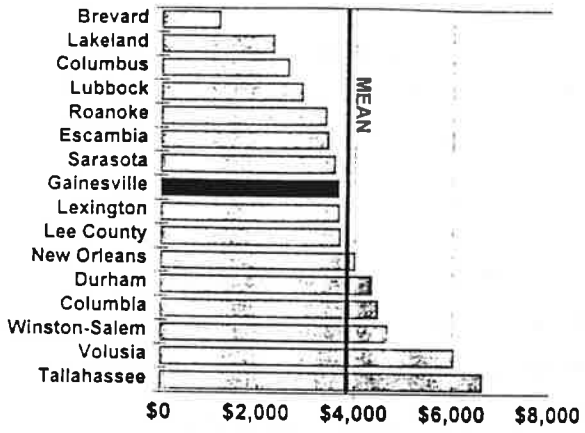


Figure III-45
Total Maintenance Expense (000)

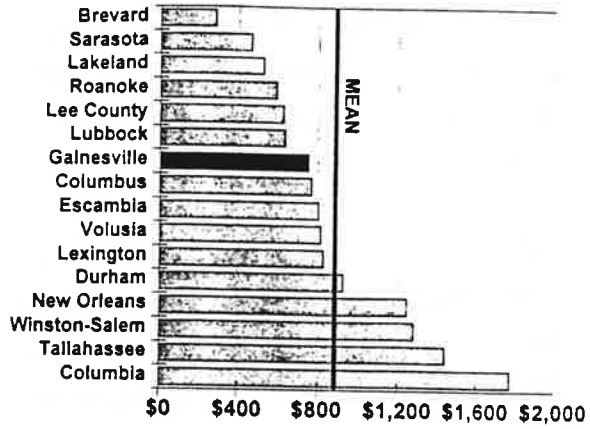


Figure III-46
Passenger Fare Revenue (000)

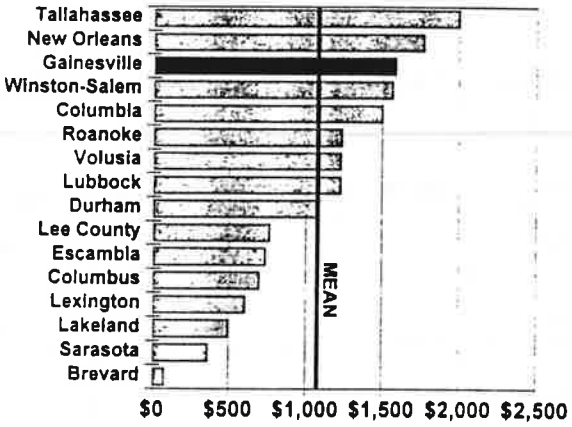


Figure III-47
Operating Revenue (000)

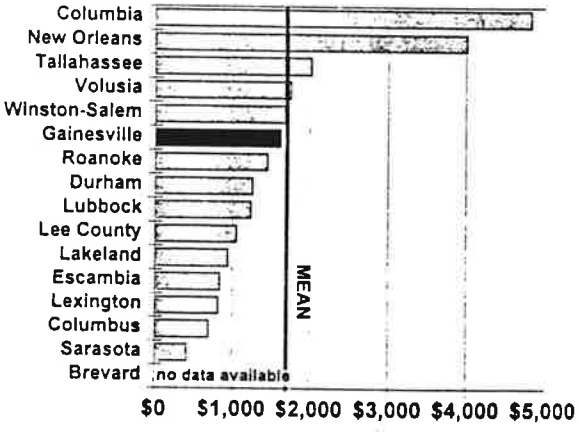
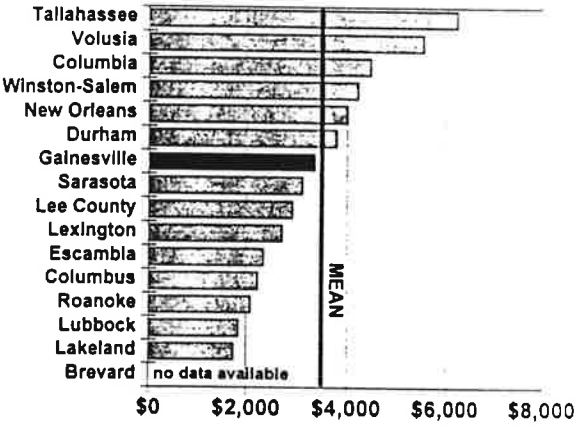


Figure III-48
Total Local Revenue (000)



Employees, Vehicles, and Fuel Consumption

RTS is below the mean of the peer group for the total number of employee full-time equivalents (FTEs), as shown in Table III-17. In FY 1996 the system utilized 72.8 FTEs, which is about 7 percent below the average of 77.9 FTEs. The total number of employee FTEs for each peer system is delineated in Figure III-49.

Also in FY 1996, RTS had 47 vehicles available for maximum service, which is 7 vehicles greater than the peer average. In the same fiscal year, the system directly-operated 33 vehicles in maximum service, which is 4 more than the peer group mean. The peer systems' numbers of vehicles available for and operated in maximum service are shown graphically in Figures III-50 and III-51. In addition, despite operating an above-average number of vehicles, RTS's vehicles used 353,624 gallons of fuel in FY 1996, which is approximately 7 percent less than the average of the peer systems, as rendered in Figure III-52.

Table III-17
FY 1996 Employees, Vehicles, and Fuel Consumption, Fixed-Route Peer Analysis

Performance Indicator	RTS	Peer Minimum	Peer Maximum	Peer Mean	RTS: % From Mean
Total Employees (FTEs)	72.8	19.7	135.3	77.9	-6.55%
Vehicles Available for Maximum Service	47	24	60	40	17.50%
Vehicles Operated in Maximum Service	33	14	44	29	13.79%
Total Gallons of Fuel Consumed[1]	353,624	239,490	700,943	375,692	-5.87%

[1]The peer group mean for this indicator does not include data for Space Coast Area Transit.

Figure III-49
Total Employees

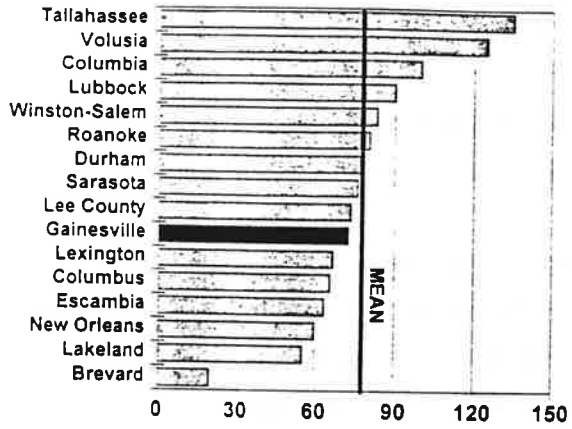


Figure III-50
Vehicles Available for Maximum Service

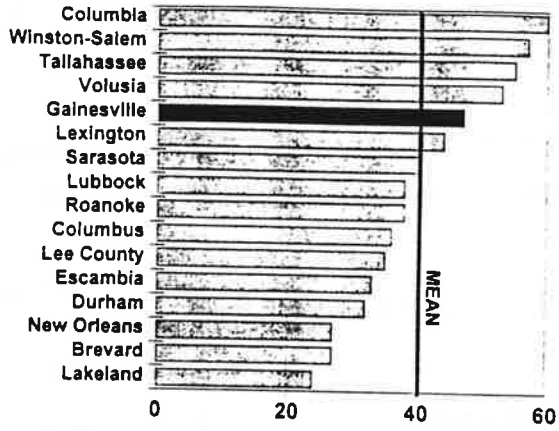


Figure III-51
Vehicles Operated in Maximum Service

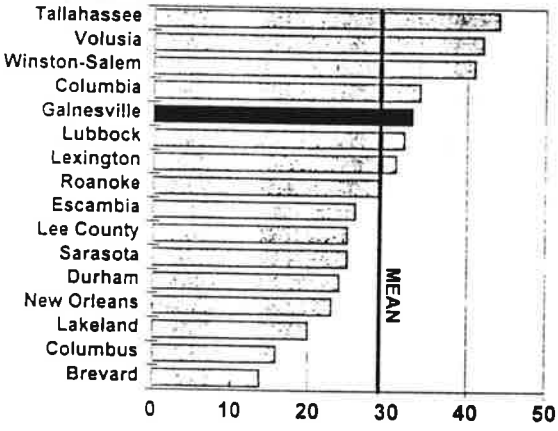
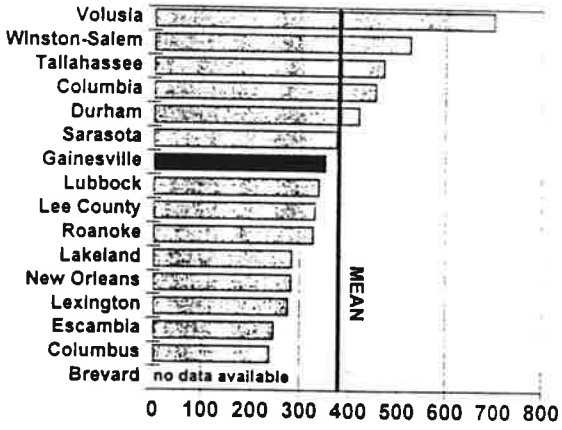


Figure III-52
Total Gallons of Fuel Consumed (000)



Effectiveness Measures

Service Supply and Service Consumption

RTS's service supply, as measured by the number of vehicle miles per capita, is equivalent to the peer group mean of 7.33, as indicated in Table III-18 and Figure III-53.

Passenger trips per capita, per revenue mile, and per revenue hour can all be used as measures of service consumption. The table below and Figures III-54 through III-56 all indicate that RTS's service consumption is about average when compared to its peers. Passenger trips per capita and per revenue hour are slightly below the peer mean, while the number of passenger trips per revenue mile is slightly above the mean.

Table III-18
FY 1996 Service Supply and Service Consumption, Fixed-Route Peer Analysis

Effectiveness Measure	RTS	Peer Minimum	Peer Maximum	Peer Mean	RTS: % From Mean
Vehicle Miles Per Capita	7.33	1.32	12.23	7.33	0.00%
Passenger Trips Per Capita	11.47	0.44	26.52	11.79	-2.71%
Passenger Trips Per Revenue Mile	1.58	0.37	2.84	1.56	1.28%
Passenger Trips Per Revenue Hour	20.16	7.28	40.14	21.52	-6.32%

Figure III-53
Vehicle Miles Per Capita

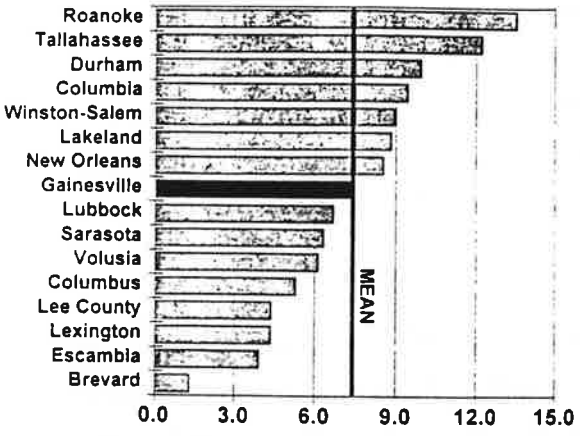


Figure III-54
Passenger Trips Per Capita

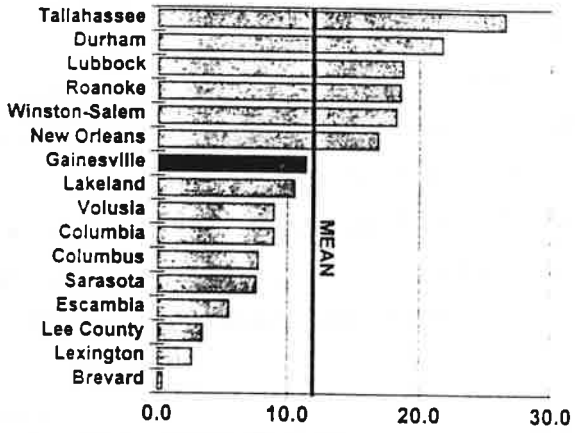


Figure III-55
Passenger Trips Per Revenue Mile

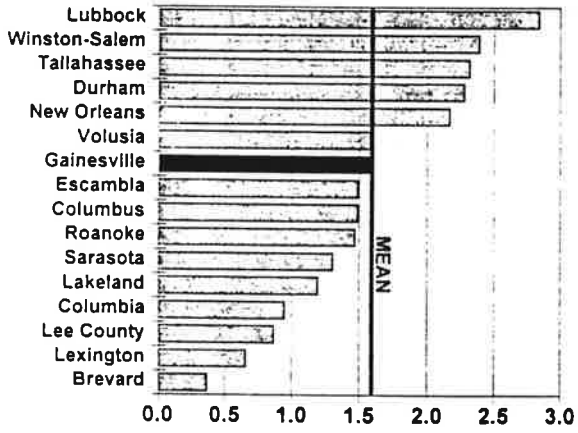
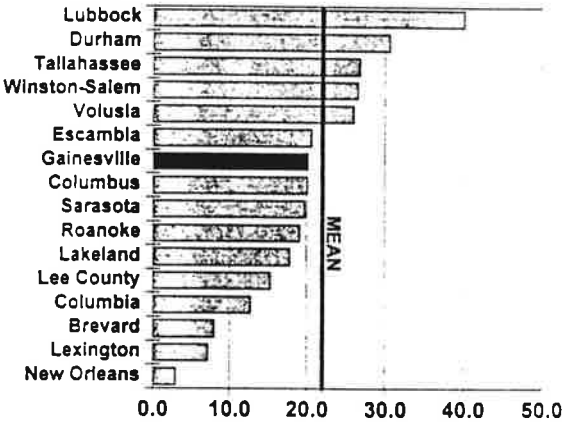


Figure III-56
Passenger Trips Per Revenue Hour



Quality of Service

One way in which the service quality can be assessed is through the examination of the average age of a system's vehicle fleet. Table III-19 indicates that the average age of RTS's vehicle fleet is 5.98 years, which is nearly 39 percent below the peer group mean. Recently, the system has been replacing its vehicles that were past their useful life with new ones. This upgrading of the fleet has helped keep RTS's average fleet age comparatively low. Figure III-57 shows the average fleet ages for all the peer systems.

Other means of defining the quality of service focus on issues of safety, such as the amount of incidents (accidents) and revenue service interruptions (roadcalls). Specifically, in this analysis, the numbers of revenue miles between incidents and between interruptions were investigated. Table III-19 and Figures III-58 and III-59 reveal that RTS has significantly fewer revenue miles between incidents and interruptions when compared to its peers. This translates to a higher number of incidents and interruptions for RTS overall.

Table III-19
FY 1996 Quality of Service, Fixed-Route Peer Analysis

Effectiveness Measure	RTS	Peer Minimum	Peer Maximum	Peer Mean	RTS: % From Mean
Average Age of Fleet (years)	5.98	4.00	19.30	9.72	-38.48%
Revenue Miles Between Incidents	22,998	23,000	606,510	124,000	-81.45%
Revenue Miles Between Interruptions	3,889	1,350	36,880	9,360	-58.45%

Figure III-57
Average Age of Fleet (years)

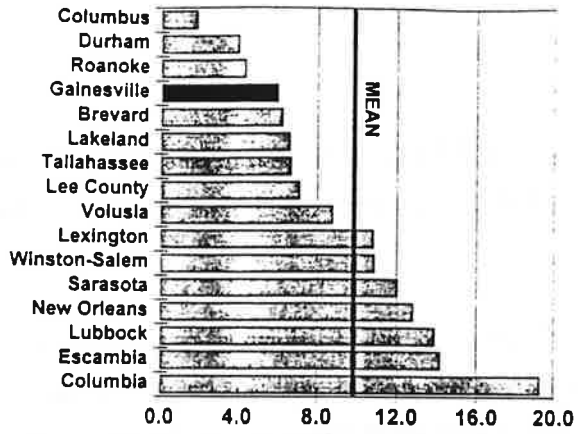


Figure III-58
Revenue Miles Between Incidents

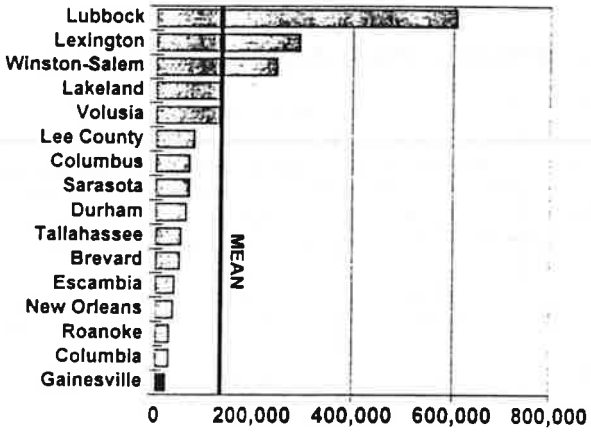
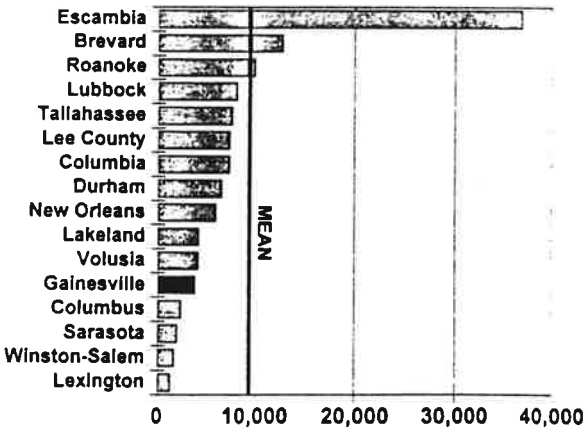


Figure III-59
Revenue Miles Between Interruptions



Efficiency Measures

Cost Efficiency

According to Figures III-60 through III-63, RTS is very cost efficient when compared to the peer systems: the system is below the mean of the peer group for each of the operating expense ratios.

RTS's values for these ratios are well below the average of its peers. As noted in the table below, the system's operating expense per capita and per passenger mile are between seven and eight percent below the mean, while operating expense per revenue mile is more than nine percent lower than the average value. Finally, RTS spends, on average, more than 28 percent less per passenger trip than its peers.

Table III-20
FY 1996 Cost Efficiency, Fixed-Route Peer Analysis

Efficiency Measure	RTS	Peer Minimum	Peer Maximum	Peer Mean	RTS: % From Mean
Operating Expense Per Capita	$19.91	$2.76	$47.74	$21.50	-7.40%
Operating Expense Per Passenger Trip	$1.74	$0.85	$6.30	$2.43	-28.40%
Operating Expense Per Passenger Mile	$0.58	$0.20	$1.97	$0.63	-7.94%
Operating Expense Per Revenue Mile	$2.75	$2.31	$4.36	$3.03	-9.24%

Figure III-60
Operating Expense Per Capita

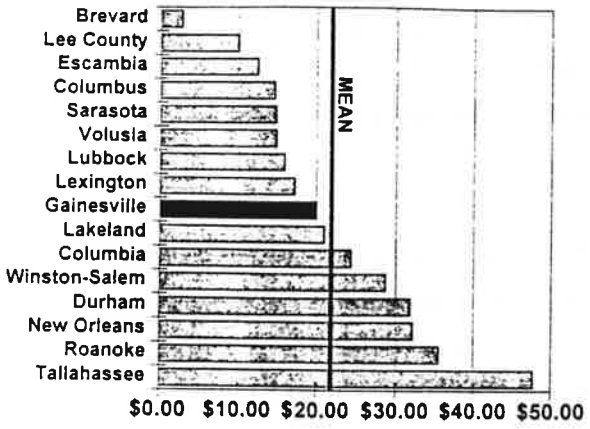


Figure III-61
Operating Expense Per Passenger Trip

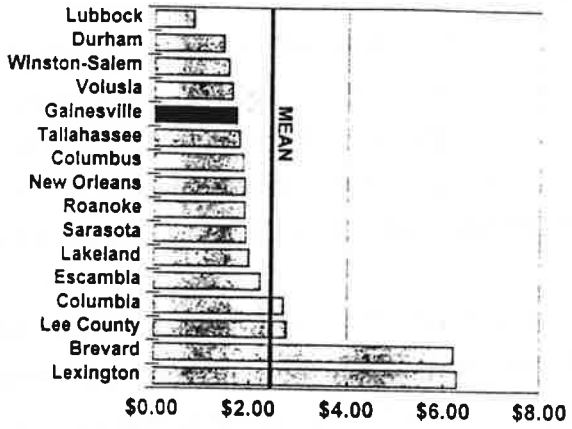


Figure III-62
Operating Expense Per Passenger Mile

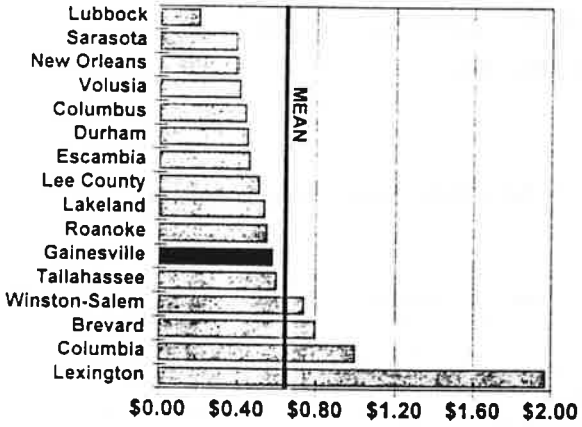
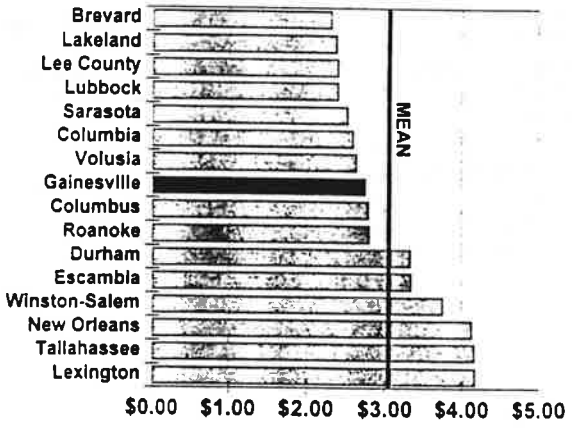


Figure III-63
Operating Expense Per Revenue Mile



Farebox Recovery, Average Fare, and Labor Productivity

RTS's reported farebox recovery ratio is 61 percent above the peer group average of 26.95 percent, as noted in Table III-21. Figure III-64 indicates that RTS has the second-highest farebox recovery ratio of this peer group (New Orleans has the highest), and is one of only two Florida systems above the group mean.

Table III-21 also indicates that RTS's average fare of $0.75 is about one-third higher than the peer group mean of $0.56. According to Figure III-65, six of the Florida systems are below the mean for this measure, while RTS is again one of only two Florida systems (along with Lee County) that have average fares above the peer group mean. Interestingly, Sarasota County Area Transit has the lowest average fare of the group with $0.20, as listed in the table. This is due to the fact that in 1994 Sarasota reduced its base fare to $0.25.

RTS's labor productivity, as measured by the numbers of revenue hours per employee and passenger trips per employee, is well above average. The number of revenue hours per employee is more than 21 percent above the average and is also the largest value for the peer group, according to Table III-21. The number of trips per employee is more than 16 percent above average, as listed in the table. Based on this information, RTS seems to be quite labor efficient in terms of both service supply and service consumption. Figures III-66 and III-67 exhibit the values of these measures for each member of the peer group.

Table III-21
FY 1996 Farebox Recovery, Average Fare, and Labor Productivity, Fixed-Route Peer Analysis

Efficiency Measure	RTS	Peer Minimum	Peer Maximum	Peer Mean	RTS: % From Mean
Farebox Recovery Ratio	43.36%	6.61%	44.16%	26.95%	60.89%
Average Fare	$0.75	$0.20	$1.03	$0.56	33.93%
Revenue Hours Per Employee	1,438	950	1,438	1,180	21.86%
Passenger Trips Per Employee	28,986	8,710	38,550	24,940	16.22%

Figure III-64
Farebox Recovery

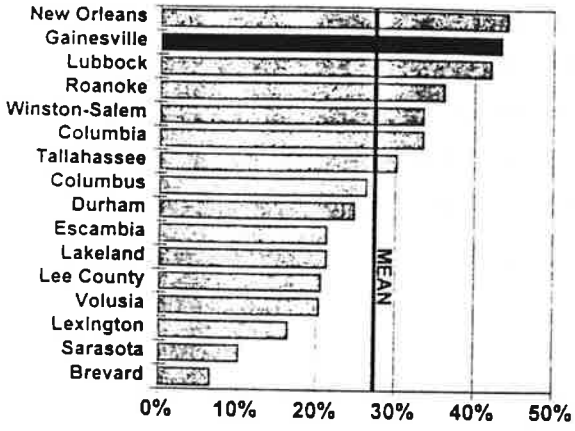


Figure III-65
Average Fare

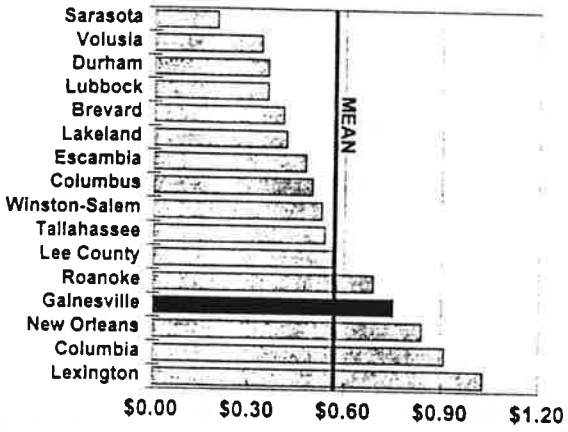


Figure III-66
Revenue Hours Per Employee

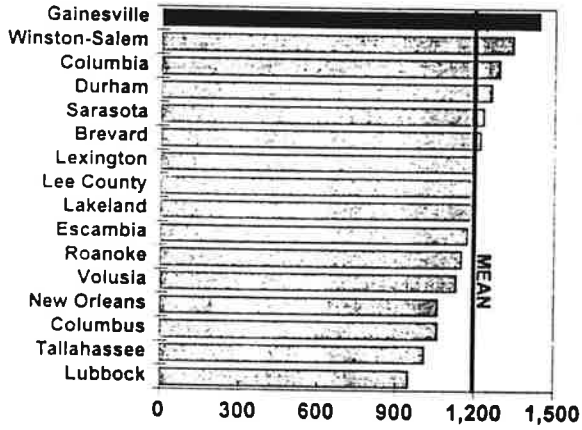
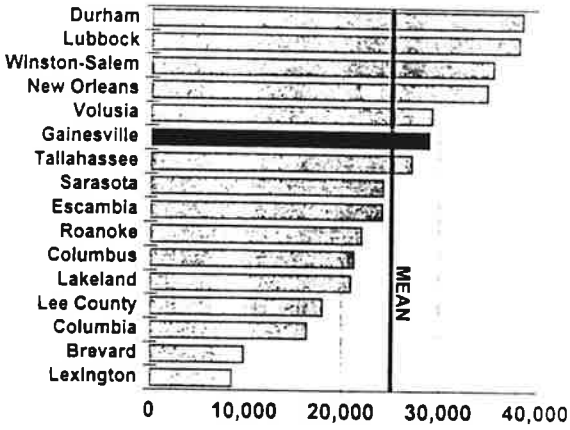


Figure III-67
Passenger Trips Per Employee



Vehicle Utilization and Energy Utilization

The number of revenue miles per vehicle mile reflects how much of the total vehicle operation is in passenger service. As seen from Table III-22 and Figure III-68, RTS's value for this measure is more than four percent above the peer group mean. The number of vehicle miles per peak vehicle is a measure of how intensively the equipment is used and is influenced by bus travel speeds as well as the levels of service in the off-peak period (the more uniform the demand for service over the day, the higher the value for this measure). Figure III-69 indicates that RTS is somewhat below the mean for this group of peer systems.

Finally, Table III-22 shows that RTS has an above-average level of fuel efficiency, with 3.81 vehicle miles per gallon in FY 1996. This is also illustrated in Figure III-70.

Table III-22
FY 1996 Vehicle Utilization and Energy Utilization, Fixed-Route Peer Analysis

Efficiency Measure	RTS	Peer Minimum	Peer Maximum	Peer Mean	RTS: % From Mean
Revenue Miles Per Vehicle Mile	0.99	0.86	1.00	0.95	4.21%
Vehicle Miles Per Peak Vehicle	40,854	27,580	66,200	47,360	-13.74%
Vehicle Miles Per Gallon[1]	3.81	2.76	4.98	3.76	1.33%

[1]The peer group mean for this indicator does not include data for Space Coast Area Transit.

Figure III-68
Revenue Miles Per Vehicle Mile

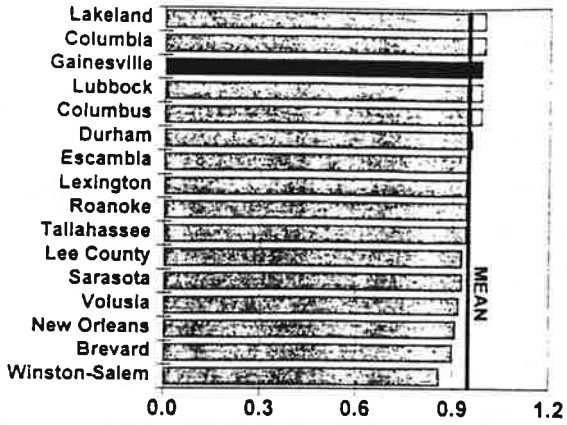


Figure III-69
Vehicle Miles Per Peak Vehicle

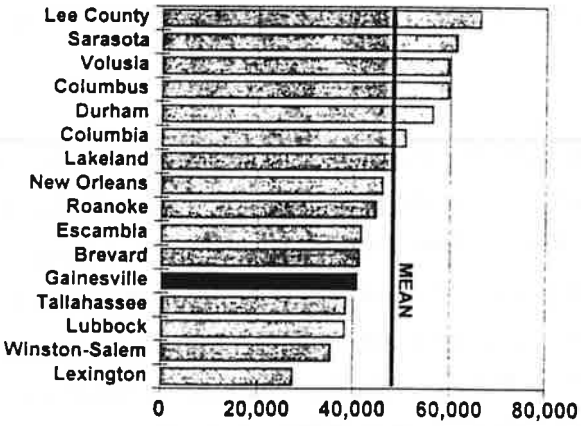
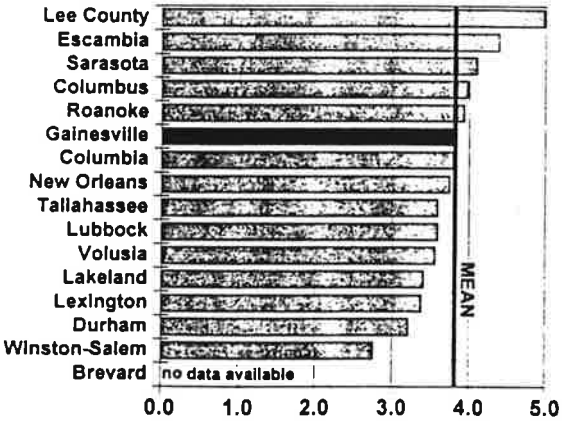


Figure III-70
Vehicle Miles Per Gallon



APPLICATION TO RTS GOALS

A useful tool for assessing the performance evaluation results is the review of the proposed system goals introduced previously in Chapter Two. Specific performance review measures can be identified that assist in the determination of the extent to which RTS is meeting each of the stated goals. The proposed goals and objectives (and related strategies) can be found in Chapter Two, while Table III-23 denotes appropriate effectiveness and efficiency measures directly relating to the assessment of RTS with respect to each of the stated goals.

Tables III-24 through III-26 specifically address the trend and peer performance measures applicable to each of the goals. For each measure, the percent change from 1991 to 1996 and from 1995 to 1996 is provided from the section containing the fixed-route trend analysis. In addition, the percent deviation from the peer group mean is given based on the fixed-route peer review analysis. These tables provide a practical overview of RTS's performance over time as well as in comparison to similar systems from within Florida and throughout the southeastern United States.

It is important to note that interpretation was purposely omitted from this section since the intent is not to suggest that this performance evaluation is the only mechanism for assessing whether system goals are being achieved. The performance measures do not comprehensively cover the objectives identified under each goal in Chapter Two. Many of the objectives cannot be analyzed through this methodology and require additional information or a more subjective evaluation. However, a consideration of the applicable measures provides a useful starting point for fully understanding the status of RTS in its efforts to achieve these goals. Therefore, the applicable measures are outlined in the tables, but the interpretation of these measures as they relate to the achievement of system goals is left to the reader.

Table III-23
Performance Measures Applied to RTS Goals

Goals		Applicable Performance Measures
Goal 1	Fulfill the newly-adopted RTS Visition for Transit in Gainesville	Service Consumption Passenger Trips Per Capita Passenger Trips Per Revenue Mile Passenger Trips Per Revenue Hour
Goal 2	Communicate the role of transit in the Gainesville Community	No applicable performance measures in NTD database. Specific actions are addressed in the recommendations as system enhancements.
Goal 3	Increase service availability	Cost Efficiency Operating Expense Per Capita Operating Expense Per Passenger Trip Operating Expense Per Passenger Mile Operating Expense Per Revenue Mile Service Supply Vehicle Miles Per Capita Operating Ratios Farebox Recovery Vehicle Utilization Revenue Miles Per Vehicle Mile Vehicle Miles Per Peak Vehicle Labor Productivity Revenue Hours Per Employee Passenger Trips Per Employee Energy Utilization Vehicle Miles Per Gallon
Goal 4	Enhance the presence of transit through Fixed Facilities and Customer Amenities	No applicable performance measures in NTD database. Specific actions are addressed in the recommendations as system enhancements.
Goal 5	Utilize technology and Innovative Approaches in the Provision of Transit Services	No applicable performance measures in NTD database.
Goal 6	Change the organizational culture of the Regional Transit System	Quality of Service Average Age of Fleet Revenue Miles Between Incidents

Table III-24
Status of Goal 1: Fulfill the Newly-adopted RTS Vision for Transit in Gainesville

Applicable Performance Measure	Trend: % Change 1991-1996	Trend: % Change 1995-1996	Peer: % Deviation From Mean
Service Consumption			
Passenger Trips Per Capita	-18.0%	-4.7%	-2.7%
Passenger Trips Per Revenue Mile	-21.5%	+8.1%	+1.3%
Passenger Trips Per Revenue Hour	-33.2%	-32.0%	-6.3%

Table III-25
Status of Goal 3: Increase Service Availability

Applicable Performance Measure	Trend: % Change 1991-1996	Trend: % Change 1995-1996	Peer: % Deviation From Mean
Cost Efficiency			
Operating Expense Per Capita	+21.5%	-10.4%	-7.4%
Operating Expense Per Passenger Trip	+48.1%	-13.1%	-28.4%
Operating Expense Per Passenger Mile	+48.7%	-13.4%	-7.9%
Operating Expense Per Revenue Mile	+16.3%	-6.0%	-9.2%
Service Supply			
Vehicle Miles Per Capita	+4.4%	-4.7%	0.0%
Operating Ratios			
Farebox Recovery	+6.5%	+22.7%	60.9%
Labor Productivity			
Revenue Hours Per Employee	+19.9%	+53.0%	+21.9%
Passenger Trips Per Employee	-19.9%	+4.5%	+16.2%
Vehicle Utilization			
Revenue Miles Per Vehicle Mile	0.0%	0.0%	+4.2%
Vehicle Miles Per Peak Vehicle	+1.4%	-10.5%	-13.7%
Energy Utilization			
Vehicle Miles Per Gallon	-14.5%	-8.2%	+1.3%

Table III-26
Status of Goal 6: Change Organizational Culture of RTS

Applicable Performance Measure	Trend: % Change 1991-1996	Trend: % Change 1995-1996	Peer: % Deviation From Mean
Quality of Service			
Average Age of Fleet	+87.5%	-4.0%	-38.5%
Revenue Miles Between Interruptions	+127.8%	+58.7%	-58.5%

CONCLUSIONS

A summary of RTS's performance strengths and weaknesses based on the fixed-route trend analysis is presented in Table III-27. This table is not intended to suggest the extent of the strength or weakness but to identify those performance areas wherein the trend has improved or worsened between 1991 and 1996. A performance strength is defined as any performance area that improved or was maintained over the trend analysis time period. A performance weakness is defined as a trend that declined over the trend period.

Table III-27
RTS Performance Strengths and Weaknesses, Fixed-Route Trend Analysis

Performance Strengths	Performance Weaknesses
Service Supply Quality of Service Operating Ratio Vehicle Utilization Cost Efficiency	Service Consumption Energy Utilization Labor Productivity

Performance strengths and weaknesses based on the fixed-route peer review analysis are outlined in Table III-28. A performance strength is defined as a performance area that is more than 10 percent better than the peer group average, while a performance weakness is defined as a performance area that is more than 10 percent worse than the peer group average. Performance areas that are within 10 percent of the peer mean are considered neither strengths nor weaknesses.

Table III-28
RTS Performance Strengths and Weaknesses, Fixed-Route Peer Analysis

Performance Strengths	Performance Weaknesses
Operating Ratios Labor Productivity Cost Efficiency (Operating expense per passenger trip)	Vehicle utilization (Vehicle miles per peak vehicle) Quality of Service (Revenue miles between interruptions)

Results from the trend analysis are generally positive, while peer results are mixed. RTS does seem to be providing an above average level of service for the city. In the peer analysis, RTS compares favorably or at about average when compared to its peers. Service consumption is the one area where RTS is most lacking in the trend analysis. This corresponds to Goal #1, which calls for RTS to develop market-driven and product approaches to stimulate ridership.

Service consumption, as measured by passenger trips per capita and passenger trips per revenue mile and per revenue hour, is slightly lower in comparison to RTS's peer systems. It is important to remember, however, that RTS's increase in service (increased frequencies) in fiscal years 1997 and 1998 has reversed the trend of declining ridership.

One area in which RTS performs better than its peers is in terms of cost efficiency (despite the fact that its operating expense ratios increased over the six-year trend period). Three operating ratios: operating expense per capita, operating expense per passenger mile, and operating expense per revenue mile are all well below the mean of the peer group for FY 1996.

Other performance strengths include the quality of service, as defined in this analysis by the average age of the fleet. RTS has been upgrading its fleet with new vehicles, thus reducing its average fleet age. The system's fleet is 39 percent newer than the average of the peers.

The remaining weakness is quality of service as measured by revenue miles between interruptions. This measure declined over the trend period in comparison with peers.

Trend and peer review analyses can be very valuable tools for developing a better understanding of RTS performance and for identifying target areas for additional attention and improvement. Performance evaluation measures do not comprehensively cover all of the objectives of a transit system. Many objectives cannot be measured with this mechanism and require additional information or more subjective evaluation. However, the results of the trend and peer review analyses provide a useful introduction to a full understanding of the performance of RTS and complement the other components of this study.

CHAPTER FOUR:
Demand Estimation and Needs Assessment

INTRODUCTION

One particular task in the development of this TDP includes the preparation of estimates of demand for public transit over the five-year planning period, the assessment of mobility needs in Gainesville, and a brief evaluation of alternate methods for increasing mobility through transit system improvements. This chapter summarizes the results of this effort and leads into the final task of the TDP, which will identify and evaluate alternatives and recommendations.

Various methods of estimating demand for transit service and assessing unmet mobility needs are presented and discussed in this chapter. The demand estimation techniques utilize data and findings from all previous tasks as well as operating data collected from other sources. The proposed goals and objectives from Chapter Two and the existing levels and perceptions of service are also considered in assessing the need for improved service.

A needs assessment is also included which summarizes relevant information concerning unmet demand, the service area, service span and frequency, type of service, and multimodal linkages that may contribute to improved pubic transit service and mobility for residents of Gainesville. Possible transit service alternatives were identified through the on-board survey, bus operator survey, interviews with local officials, other forms of public participation, and through CUTR's experience in other urban areas similar to Gainesville.

CURRENT AND FUTURE DEMAND FOR TRANSIT SERVICE

There are several different methodologies available to estimate the level of demand for transit service in Gainesville. Demand may be estimated through the use of trend analysis, peer review comparisons among similar Florida and non-Florida transit systems, fare and service elasticities, census tract analysis, results of interviews and other public involvement, and survey results. The following sections provide estimates for fixed-route transit demand in Gainesville.

Fixed-Route Demand Estimates

Ridership Trends

Since 1991, ridership on RTS has declined approximately 18 percent, from 2.6 million passenger trips in fiscal year 1991 to 2.1 million passenger trips in fiscal year 1996. However, between October and March in fiscal year 1997-98, ridership has increased 63.5% over the same period in FY 1996-97. Year to date ridership (October 1997 – March 1998) has increased to 868,510 passenger trips as compared to 531,194 passenger trips for the same period in 1996-97. These ridership increases can be attributed to service changes by RTS and increased levels of demand by UF students.

As discussed in Chapter Three, a regression analysis of past RTS ridership would not reflect increases over the next five years because ridership was in decline between FY 1991 and FY 1996. Therefore, CUTR used existing passengers per hour in FY 1998 in conjunction with the five year service plan to expand fixed route services discussed below in Chapter Five to estimate ridership increases over the next five years. Essentially, Table IV-1 below shows that as fixed route service hours increase, ridership per hour is assumed to increase at approximately the same rate. Fixed route service hours increase at approximately 11 to 12 percent a year in the table below.

Table IV-1
Projected Fixed-Route Ridership for Gainesville RTS
Fixed Route Revenue Hour Expansion

	FY 1997 (Actual)	FY 1998*	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Fixed Route Revenue Hours	118,515	135,850	153,185	171,494	187,729	208,765	231,704
Passengers Per Hour	20.09	23.5	23.5	23.5	23.5	23.5	22.8
Ridership	2,381,427	3,192,475	3,599,848	4,030,109	4,411,632	4,905,978	5,282,851

Fare and Service Elasticities

Another means of estimating future demand for transit is through the use of fare and service elasticities. An elasticity is a measure of the sensitivity of a dependent variable, such as passenger trips, to changes in an independent variable, such as the fare or level of service. It is also represented by the percent change in a dependent variable divided by the percent change in an independent variable. While considerable variations can occur, especially for changes at the level of individual routes, fare and service elasticities have been shown to remain relatively consistent across transit systems of all sizes at the aggregate system level.

The American Public Transit Association (APTA) has published a value of -0.43 for the elasticity of ridership with respect to fare (for systems serving areas with populations of less than one million).[1] According to an Ecosometrics, Inc., report, the elasticity of ridership with respect to level of service as measured by vehicle miles is +0.61.[2] The elasticity measures are interpreted as follows: a 10-percent increase in the transit fare would result in a 4.3-percent decrease in ridership, while a 10-percent increase in the level of service would generate a 6.1-percent increase in ridership. These elasticities show that, generally, transit riders are more sensitive to service levels than to the fare.

Table IV-2 presents the results of a fare pricing scenario given the fact that, as of October 1998, service to University students will be free (the University will subsidize the transit service by adding a small charge to students' tuition fees). This will drive RTS' average fare down from $0.45 to $0.19 (since fares and service levels are expected to remain stable between FY 1997 and FY 1998, the average fare for FY 1997 will be used as a base for this scenario since FY 1998 data are not yet available). The significant reduction in average fare will occur as a result of eliminating University of Florida student fares for an assessed per-credit hour fee. Therefore, students will no longer pay any type of established fare to board a vehicle. In the On-Board Survey in Chapter One, a total of 58.5% of RTS riders reported paying their fare with a Student Semester Pass. Therefore, the average fare of $0.19 was calculated by multiplying the FY 1997 passenger fares of $1,071,141 by 41.5 percent, assuming that 58.5 percent of the ridership would no longer pay a fare. This fare elasticity scenario predicts how ridership

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[1] American Public Transit Association, *Effects of Fare Changes On Bus Ridership* (Washington: American Public Transit Association, May 1991), 7.

[2] Ecosometrics, Inc., *Patronage Impacts of Changes in Transit Fares and Services*, report prepared for the U.S. Department of Transportation (Washington: Government Printing Office, September 1980), 65.

will be affected after the significant decrease in the average fare.

According to the elasticity measure, with an average fare of $0.19 (a 57.8 percent decrease in the average fare from 1997), RTS can expect an increase in ridership (as measured by the number of passenger trips) of approximately 25 percent, all other things being equal. Applying this percent increase to the FY 1997 number of passenger trips (since FY 1998 trips are expected to remain relatively stable), RTS should generate 592,000 passenger trips, for a total of 2,973,212 passenger trips in FY 1999, based on this change in average fare alone.

Table IV-2
Impact of Fare Change Scenario

	Average Fare	Passenger Trips
Current (FY 97, FY 98)	$0.45	2,381,427
Projected (FY 99)	$0.19	2,973,212
Change	-57.78%	+24.85%

Beginning, in FY 1999, RTS will be changing more than its fare structure for University students. The system also will be increasing service, which will also have a positive impact on ridership. Since elasticities hold all other factors constant except for that which is being analyzed, the results of service elasticities will also be examined. RTS expects the increase in service levels to range from 10 percent to 20 percent: as such, the two scenarios outlined in Table IV- show the estimated impact on ridership of both a 10 percent and a 20 percent increase in vehicle miles (Ecosometrics, Inc. used vehicle miles in its calibration of this service elasticity), all other factors being equal. As can be seen in Table IV-3, depending upon the exact magnitude of the service increase by RTS for FY 1999, ridership can grow anywhere from 6 percent to more than 12 percent, based on the increase in service alone (i.e., holding the fare constant).

Table IV-3
Impacts of Service Change Scenarios

	Vehicle Miles	Passenger Trips
Current (FY 97, FY 98)	1,362,138	2,381,427
Scenario 1 – 10% service increase – FY 99	1,498,352	2,526,694
Scenario 2 – 20% service increase – FY 99	1,634,566	2,671,961
Scenario 1 – Change	+10.00%	+6.10%
Scenario 2 – Change	+20.00%	+12.20%

As discussed previously, the results of the fare elasticity analysis do not account for any changes in service levels while, likewise, the findings from the service elasticity analysis do not consider any changes in fare. Since, in FY 1999, RTS will be altering its fare structure as well as increasing service, it will be important to consider the results of both the fare and service elasticities.

Four scenarios are outlined in Table IV-4 below which summarize the findings from the fare and service elasticity analyses and show estimates of ridership over the five-year timeframe. Estimates are based on the change in fare and increases in service levels at 10, 15 and 20 percent expected to begin in FY 1999. While FY 1999 is anticipated to be the only fiscal year within the five-year timeframe during which a fare change will take place, it is expected that the level of service supplied will increase between 10 and 20 percent for each of the five years.

Table IV-4
RTS Ridership Projections

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
FY 1999 fare decrease (only)	2,973,212	2,973,212	2,973,212	2,973,212	2,973,212
annual **10%** service increase	2,526,694	2,680,822	2,844,352	3,017,857	3,201,946
annual **15%** service increase	2,599,328	2,837,167	3,096,768	3,380,122	3,689,403
annual **20%** service increase	2,671,961	2,997,940	3,363,689	3,774,059	4,234,494

From the information in Table IV-4 above, it can be determined that, depending upon the magnitude of the increase in service, ridership is expected to grow between 25

percent and 35 percent for FY 1999, considering both the fare and service changes. For the remaining four years of the timeframe, it is likely that ridership will grow 6 percent to 12 percent each year using this method, given the corresponding service increases. If, over the next five years, the exact change(s) in vehicle miles becomes more clear, the service elasticity value of +0.61 can simply be applied as discussed previously in this section.

Traditional Transit Market Block Group Analysis

Block group data from the 1990 U.S. Census can be used to compare demographic information, particularly those characteristics that are highly correlated with a person's or household's need for transit, with Alachua County's existing transit network configuration. This type of analysis is useful for determining whether block groups with traditional transit market characteristics are adequately served by the existing transit network. For this analysis, the demographic characteristics that were used to comprise the traditional transit market included the distribution of youth (under age 18), the distribution of elderly (60 years or older) persons, low-income (less than $10,000 annual household income) households, and zero-vehicle-ownership households.

The first step in identifying the block groups that have persons or households that most fit the definition of the traditional transit market as defined herein involved the calculation of the percent distributions of the four demographic characteristics for each block group. This process resulted in a table of values indicating the percent of youth, elderly persons, low-income households, and zero-vehicle households for each of Alachua County's 123 block groups. The block groups were then sorted for each characteristic in descending order of percent distribution so that the block groups with higher percentages for each characteristic would appear at the top of their respective ranges.

From the percentage ranges, an average percent value and a standard deviation value were calculated for each characteristic. Statistically, the standard deviation may be thought of as a measure of distance from the average value. According to an empirical rule of thumb, for most moderately-sized data sets with a bell-shaped (normal) distribution, approximately 68 percent of the data values will lie within one standard deviation of their average and approximately 95 percent of the data values will lie within two standard deviations of their average. Three of the four characteristics were found to be normally distributed about their respective means (the distribution of elderly, low-income households, and zero-vehicle households). However, the fourth characteristic,

the distribution of youth, was determined to have a distribution other than the standard normal distribution. There are several statistically valid corrective measures that can be applied to the data to, in effect, "force" the data into a normal distribution. In this case, by taking the inverse of the natural logarithm of the percentages of youth in each block group, the data for this characteristic conformed to a normal distribution. This allowed the correct application of this block group analysis to include the youth characteristic.

Each of the four characteristic ranges was then stratified into four segments based on the following break points: average percent, average percent plus one standard deviation, and average percent plus two standard deviations. Thus, the block groups fell into one of the following four categories for each characteristic: below average (below the mean of all block groups for a given characteristic); above average but below one standard deviation (above the mean of all block groups for a given characteristic, but below one standard deviation above the mean); above average, but between one and two standard deviations above the mean; and far above average (more than two standard deviations above the mean for all block groups for a given characteristic).

The next step involved the assignment of discrete numerical scores to each of the four categories established for each demographic characteristic. These scores serve two basic purposes: to provide uniform ranking to all of the block groups within a particular category and to numerically differentiate among the four categories for each characteristic. A comparative probability estimation method was utilized to develop the scores. First, the probability that a block group would be part of a specific category for a given characteristic was calculated for each category. For example, four of Alachua County's 123 block groups were part of the "far above average" category for the elderly characteristic. This meant that there was a 3.3 percent probability (number of block groups in category ÷ number of total block groups × 100%) that one of Alachua County's block groups would fall within the range established for that particular category for the elderly characteristic.

After the probabilities were calculated for each characteristic's categories, they were then used to estimate the categories' scores via comparative probability ratios. That is, the probability percentage for each category was divided into the probability percentage for the "below average" category. This numerator was selected so that, for each characteristic, the block groups in the "below average" category would receive a score of one (1). Again using the "far above average" category of the elderly characteristic as an example, it was determined that the score for this category would be 15.0, since the probability for the "below average" category was 49.6 percent and this probability

divided by the "far above average" category probability of 3.3 percent equals 15.0. The probabilities and final scores for each demographic characteristic's categories are presented in tabular form in Appendix G.

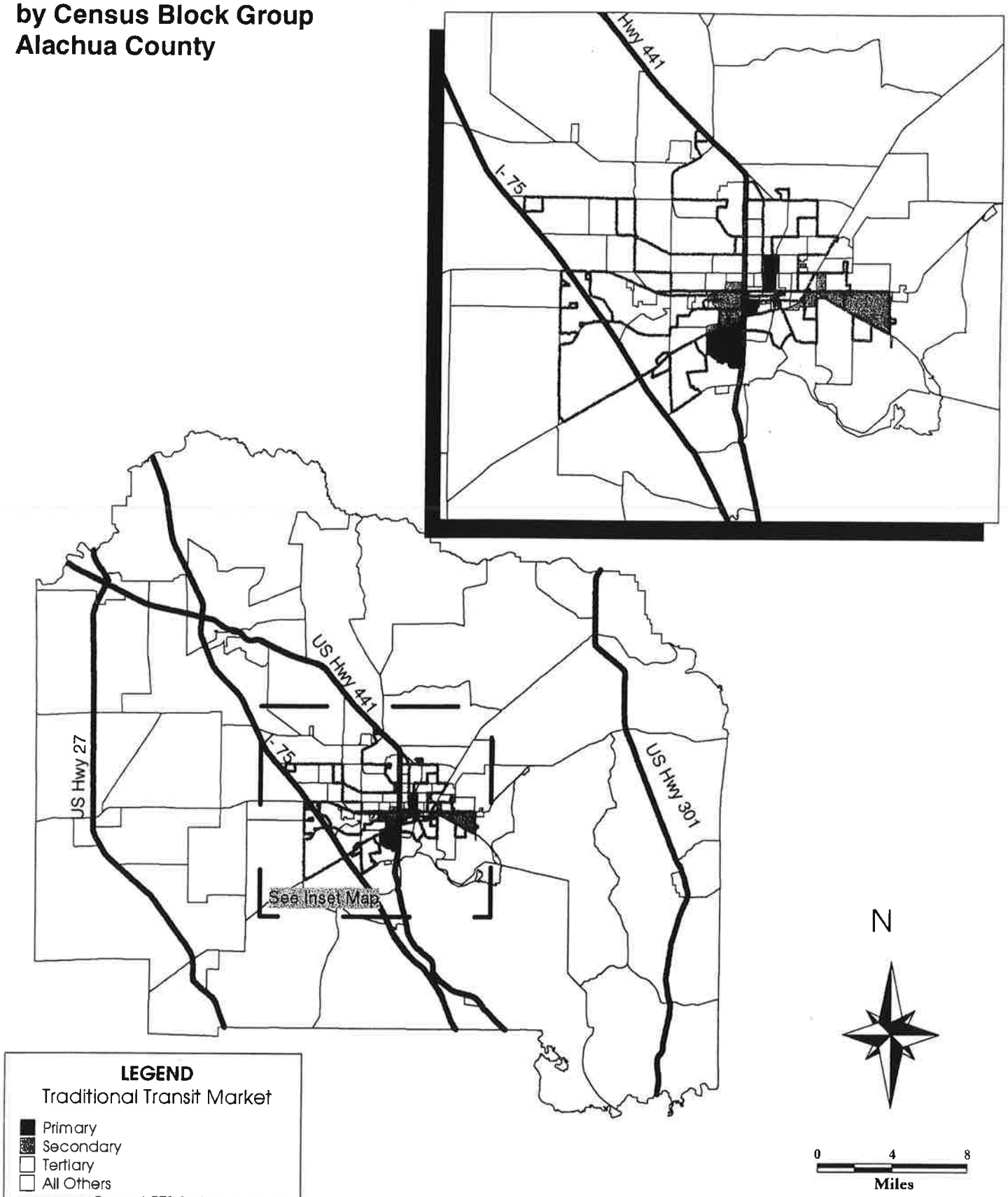
Finally, composite scores were calculated for the block groups by summing the individual category scores that they had received for each demographic characteristic. The block groups were then ranked by composite score and stratified into four levels using the same method that was utilized to develop characteristic categories. The block groups that fell into the "far above average" category were defined as primary traditional transit market block groups, i.e., block groups with the greatest propensity for traditional transit use based on the block groups' percentages of youth, elderly persons, low-income households, and zero-vehicle households. Secondary traditional transit market block groups included those that fell into the "above average" category; tertiary traditional transit market block groups included those block groups in the "average" category.

Table IV-5 describes the results of the block group analysis. In the table, under the column entitled "Comments," where it is noted that a block group is "adequately served" indicates that RTS routes generally cover a majority of the particular block group. As Table IV-5 shows, all primary and secondary traditional transit market block groups are adequately served by the RTS route network (as of Fall 1997). For a few of the tertiary traditional transit market block groups, it is noted that only a portion of the block group is served. It is important to note that this does not imply that the given block group is *inadequately* served: several of the tertiary block groups are located on the fringes of the RTS service area and may not warrant additional transit service. Figure IV-1 consists of a map that depicts the primary, secondary, and tertiary traditional transit market block groups with an overlay of the RTS route network as of Fall 1997.

Table IV-5
Alachua County Block Groups with Traditional Transit Markets

Block Group/Area	Route(s) Serving Block Group	Comments
PRIMARY BLOCK GROUPS		
2.001	2	adequately served (western side)
1.004	2, 3, 10	adequately served
2.005	1, 3, 5, 6, 8, 10	adequately served
2.006	1, 3, 6, 8	adequately served
3.006	2, 3	adequately served
8.003	1, 3, 6, 8, 9	adequately served
SECONDARY BLOCK GROUPS		
10.003	5, 8, 10	adequately served
7.001	2, 7, 10	adequately served
5.009	7	adequately served (western side)
6.003	10, 11	adequately served
6.005	7, 10, 11	adequately served
1.002	1, 2, 3, 6, 7, 10	adequately served
9.001	1, 3, 4, 5, 6, 8, 9	adequately served
TERTIARY BLOCK GROUPS		
7.002	2, 7, 8	adequately served
2.002	2	adequately served (eastern side)
5.007	2, 7, 10, 11	adequately served
1.003	1, 2, 3, 6, 7, 10	adequately served
6.002	7, 10, 11	adequately served
3.005	2, 3, 8	adequately served
2.007	1, 6	adequately served
2.003	8, 10	adequately served
6.004	10, 11	southern/western portions served
7.003	7, 10	northern portion served
7.006	7, 8	northwestern portion served
5.006	2, 7, 10	adequately served
8.001	1, 3, 6, 8	adequately served
2.008	1, 3	adequately served
7.007	1, 6, 7, 8	adequately served
20.004	None	not served
18.017	None	not served
2.004	1, 3, 10	adequately served
16.004	5	northern portion served
8.002	3, 8	western/northeast portion served
15.002	1, 4, 9	adequately served
15.003	1, 4, 9	adequately served
15.004	1, 3, 9	adequately served
4.003	3, 7	adequately served
5.008	7, 10, 11	adequately served
20.003	None	not served

Figure IV - 1
Traditional Transit Market Analysis
by Census Block Group
Alachua County



Demand-Responsive Service Ridership Estimates

Americans with Disabilities Act

In addition to requiring transit agencies to provide accessible, fixed-route bus service, the Americans with Disabilities Act (ADA) of 1990 requires transit operators to provide complementary paratransit service. Federal regulations define the service criteria that must be met when implementing complementary paratransit service. The six service criteria, described in Section 37.31 of the federal regulations (49 CFR Part 37), include the following:

- Service area
- Response time
- Fares
- Trip purpose
- Hours and days of service
- Capacity constraints

Section 37.123 of the ADA regulations describes the eligibility standards for the paratransit service. To be eligible for ADA complementary paratransit services, persons must be unable to use fixed-route service for some or all of their trips because of the nature of their disabilities. A person who is blind or uses a wheelchair, for example, is not automatically eligible for ADA paratransit unless he or she is specifically unable to use the fixed-route service.

ADA requires public transit systems to prepare a *Complementary Paratransit Plan* describing the system's implementation plan for the ADA paratransit service, and to provide annual updates to the plan. Although RTS reported its full compliance with the complementary paratransit provisions as of January 1997, there have been changes in the approach to this commitment over the past year. In previous years, RTS had been providing mini-bus service that operated a mixture of ADA trips and trips assigned from CTS, the local Community Transportation Coordinator. In early 1998, RTS changed its policy and is now only providing trips for ADA eligible persons. Also in 1998 RTS contracted with the Center for Independent Living (CIL) to conduct a recertification of all eligible individuals to match the eligibility criteria as defined by the FTA. As a result of this recertification, approximately 100 individuals are currently certified to use RTS paratransit service.

In FY 1999, RTS will further refine the approach to ADA paratransit by establishing a contract with the CTS to operate trips with RTS purchasing the vehicles to lease to CTS. By contracting with the local Community Transportation Coordinator to provide this service, RTS will be in line with many other transit systems in the state that have utilized Florida's coordinated

transportation system to meet their responsibilities. Table IV-6 below provides estimates of eligible persons and ridership over the five year period based on information provided by RTS.

Table IV-6
ADA-Eligible Person and Trip Projections

Projection	Year					
	1998	1999	2000	2001	2002	2003
Number of Persons Certified ADA-Eligible	105	110	116	125	136	149
Number of ADA Paratransit Trips Provided	10,000	10,400	10,816	11,249	11,699	12,167

Source: RTS. Estimates for 1999 through 2003 based on results of a simple linear regression model.

Fixed-route service improvements such as route extensions and realignments, and lengthening of the span of service during the day have definite implications with regard to ADA requirements. Complementary paratransit service must be provided during the hours of normal fixed-route operation, and must be made available to all eligible persons within three-quarters of one mile of a fixed route. Therefore, such proposals as expanded evening or introduction of service to new areas will also expand the hours or geographic service coverage that will be required for complementary ADA service and, thus, increase the projected number of ADA trips.

NEEDS AND OPPORTUNITIES

Ridership gains in Fiscal Year 1998 clearly indicate the need for expanded fixed route service in the region as the University of Florida continues to grow in enrollment. As one UF official put it recently, "The students are voting with their feet," which has greatly impacted the comfort level of administrators in making further commitments to transit. However, RTS must continue its momentum in becoming a reliable, responsive, and meaningful resource to the community it serves. As such, there are a number of opportunities for RTS to take a more strategic approach not only in expanding services but also in capitalizing on recent events to improve overall image, meaning to the community, customer bases, and community support. As an industry, whether we like it or not, transit operates in a competitive environment. One need look no further than a Sunday newspaper or television advertising to see the images associated with automobiles and road travel. In the public sector arena, transit competes with other essential services that are often more popular to a wider audience of taxpayers. For these

reasons, transit must position itself in a competitive marketplace and integrate its products and services into the life and economy of its community.

Setting a course for capitalizing on these opportunities starts with taking a look at what gives Gainesville its life as a community. What are the significant issues? Community values in Gainesville consist of a number of social and economic interests, among them including:

- Business;
- Downtown Gainesville;
- Parks and Recreation;
- Culture and the Arts;
- Major Medical facilities;
- Environmental Advocacy Groups;
- Homebuilders and Developers;
- Established Neighborhoods;
- School System;
- University and Colleges;
- Apartment complexes;
- Social and Community Services;
- State Government facilities; and last but by no means least,
- The Gators.

The challenge for RTS is to understand the needs and interests of each of these entities for the purpose of developing partnerships and joint opportunities to promote the interests of transit in Gainesville. The challenge begins with relationships. Means by which RTS could cultivate these interests are outlined below.

Bus Advertising Program

One means of cultivating the business community while at the same time generating additional revenues for transit services is a bus advertising program. Through the miracle of art, paint, and sometimes vinyl wrap, entire buses can be transformed into moving art forms that convey a message or advertisement for a product, service or business. Strict artistic standards are usually applied and advertisements are limited to any product or service that can be purchased by a minor. This type of policy rules out advertising for tobacco, alcohol, the lottery, adult entertainment, and/or other services or products deemed objectionable to the community.

In return for advertising, RTS can accept a monthly payment for advertisements or use their relationship to promote some other aspect of transit service. For instance, media outlets such as newspapers or television and radio stations may provide time slots or space to RTS in return for bus advertising. Businesses may provide bus access to their property, construct transit amenities, or implement employer transportation packages to encourage their employees to use alternative forms of transportation.

In addition to the business community, RTS can use the bus advertising program to promote other agencies that are of importance to Gainesville. This is another aspect of forming relationship with other community jewels. For instance, RTS could paint a bus to highlight the importance of parks, the environment, neighborhoods, and social and community groups. By setting aside a percentage of the fleet dedicated to community-oriented values, RTS can build good will and support for transit as well as establish itself as a full partner in the life of Gainesville.

Community Outreach/Corporate Communications

Community outreach is another important step in getting to know the community that is getting to know transit. RTS should seize and proactively seek any and all opportunities to give presentations out in the community. Examples include the Chamber of Commerce, the Homebuilders Association, Rotary and other club gatherings, and the University of Florida Student Senate. Speaking engagements should focus on RTS' vision for transit, its desires for improvements to achieve that vision, and the importance of improvements to the community. Speaking engagements are also a great time to receive input from the public on issues of importance related to transportation and to establish contacts for potential partnerships.

Joint Promotions/Sponsorship of Community Events

Visibility for transit can be achieved through joint promotions and sponsorships wherein RTS and other partners pool resources in order to gain media exposure showing each in a positive light. As an example, RTS could join forces with a business partner and the Hippodrome to sponsor a show or season of shows. Promotions and sponsorships should further the vision of RTS to make transit a fun and enjoyable experience that is accessible to all. The goal should always be to further position transit in the marketplace without draining huge financial resources for the transit system. Care should always be taken in deciding on events and promotions to

maximize exposure and minimize financial expenditures. Events that will likely receive press coverage are good examples since the exposure would entail a mixture of paid and free media.

Facilities and Amenities

As mentioned above, RTS can use business relationships as a means of placing new transit amenities along RTS routes. However, facilities and amenities form yet another base of assets for transit that can be used to highlight issues of importance to Gainesville. Similar to the "Adopt-a-Highway" program, RTS can foster community ownership of transit facilities by having community groups sponsor shelters and facilities. As part of the sponsorship, RTS could promote clean-up days whereby the sponsor would pick up trash around the transit facility. Such sponsorship gives exposure to both RTS and the community group, which would have a plaque or other form placed on the facility.

Special Event Transportation Services

RTS currently provides transit services for park-and-ride lots associated with University of Florida football games. This type of special event transportation can be expanded to other events such as downtown art festivals and other events wherein traffic and parking are an issue. Special event transportation provides an additional benefit besides good will and exposure. It is actually a means for RTS to engage in a little product sampling for those members of the community who would otherwise never experience the inside of a bus.

Community Service

As RTS expands its fleet in coming years, there will be a number of buses that are spares available for service. Community service enables the transit system to provide one-time special transportation services for a community group as a complimentary service. As with Special Event transportation, community service can be used as a product sampling opportunity. However, it can also be used to target specific markets which RTS is attempting to expand. For instance, if RTS was seeking to expand the senior and youth markets, then it could target community service to events involving only those groups. Community service is a cost-efficient way to use spare equipment and extra-board labor when available.

EXISTING AND NEW MARKETS

Existing Customer Bases

Existing customer bases for RTS include traditional transit markets and university students. The on-board survey noted that working adults, seniors and persons with disabilities are under-represented on RTS system. In fact, RTS existing customer bases do not follow the same trends as in the rest of the State. Below is a discussion of ways RTS can continue to expand ridership with existing and new customers.

Traditional Transit Markets

As an industry, we tend to refer to traditional transit markets as the "Transit Dependent," meaning low income persons who cannot afford cars, seniors, and youth under the age of 18. The concept of transit dependency defies logic since there will always be individuals who fit the demographics that commonly define "dependency" and yet those individuals do not use transit. Everyone who boards a transit vehicle is making a choice to do so. In the case of Gainesville, RTS has an opportunity to treat its traditional transit markets as any other market segments and become more responsive to their needs and travel patterns to serve them better in the future.

The on-board survey can be used not only to determine the priorities for service improvements, but also to determine real origins and destinations for those routes serving traditional transit markets. In addition, RTS should consider conducting a full Comprehensive Operational Analysis (COA), which would consist of a weekday ridecheck to record the boardings and deboardings for every route in the system. The data yielded from a COA can result in route realignments, elimination of segments with low ridership, and re-orientation of services to reflect the actual travel patterns of its customers.

Seniors and People with Disabilities

The base demographic data provided in Chapter I indicates that seniors do not comprise a large percentage of the population in Alachua County (12.7 percent) and the largest concentrations are found in the northwest portions of the urban area. In its community outreach efforts, RTS should attempt to visit senior centers to determine ways in which seniors can be better served.

People with disabilities are more likely to live within the urban area and may be accustomed to riding paratransit services for their travel needs. However, as RTS expands its fleet there will be more buses with wheelchair and other accessibility features. As more local routes become accessible, RTS should work with the Center for Independent Living and other disability groups to identify priority routes for accessible buses. This will enable RTS to not only provide better service but actually involve people with disabilities in the process of making fixed route transit services more accessible.

Youth under Age 18

In contrast to seniors, the under 18 segment of the population accounts for 21.7 percent of Alachua County's population. RTS currently provides service to thirteen elementary schools, four middle schools, four high schools and four private schools in the Gainesville urban area. RTS can expand ridership in this age group by working with the school board and the individual schools. Many transit systems have school programs where transit agency personnel visit classrooms once a year and discuss the benefits of transit with children. These programs are used to introduce children who may likely be adult riders to the transit system. RTS should also identify whether the School Board has an interest in increasing transit usage to alleviate capacity on regular school bus routes. For middle and high school students, RTS can market the independence and flexibility that comes with fixed route transit service.

University Students

In August 1998, all students enrolled at the University of Florida will pay a per-credit hour fee to have free (non fare-paying) access to the transit system. Students have been the largest growth market for RTS and with this change will continue to be the largest expanding market. In the on-board survey, students complained of overcrowding on some routes and lack of frequency and night service as most desired improvements. As student ridership expands, RTS needs to communicate that it is in touch with student transportation needs and is responsive to those needs. As frequency and span of service improvements are made in the coming years, RTS should go the extra mile to communicate its response to customer demand. Also, university students are by definition a dynamic market for transit because each year new freshmen move into the area and seniors graduate. Therefore, RTS needs to establish support systems for incoming freshmen who will be exposed to the transit system for the first time. Residence Hall and apartment check-in in the Fall semester should be an important component for RTS to market its services to this segment.

University of Florida Employees/Commuters

As parking becomes more inconvenient for students on campus, it is likely to also become more inconvenient for employees of the University and medical complex. Fixed route local bus service has not proven to be highly attractive to university employees in past years. However, as RTS begins to expand its product base with express services from park-and-rides, van pools, ride matching for carpooling, and guaranteed ride home programs, this largely untapped market may be ripe for RTS to cultivate with flexible and tailored services. Serving this market is yet another reason that establishing responsiveness and credibility is important to RTS in coming years. As more and more people have a positive experience with the transit agency, the more likely there will be others to follow.

RTS should work with University of Florida administrators to further their master plan efforts and either conduct a survey of all UF employees or use the results of past surveys to plan transportation services for this market.

Downtown Commuters

The City of Gainesville has long had a desire to support the growth and development of Downtown. Downtown commuters are likely to have demands and tastes for services similar to those of UF employees. Therefore, RTS should also conduct surveys of downtown employees and attempt to address their needs with flexible and tailored services.

PRODUCT APPROACH

In community leader interviews, one issue considered highly important for transit is its ease of use. Many leaders talked about a system that is straightforward and simple to use even for the occasional or non-user of transit. The use of color and number codes is employed in other systems to simplify route networks. Recently, RTS has been changing route numbers to correspond with the number of the primary street it serves (e.g. Route 75, which primarily serves S.W 75th Street). While this is a positive step, there could eventually be a limit to this practice since streets and avenues are numbered in the urban area.

Corresponding to the approach of developing existing and new markets for transit service is the approach of dealing with existing and new services as products of the transit system. The product approach not only enables the transit agency to target services to specific market segments, it also provides opportunities for developing different product names and logos for services which are offered under the umbrella of the Regional Transit System. By developing identity for each service, the customer has his/her own product with which to identify.

Product identity can also be applied to individual routes within the fixed route system. For instance, UF campus-dedicated routes could be individually named as well as regional routes that are student- and campus-oriented. This could impact the development of a new system map that incorporates colors, numbers, and names for various RTS services. Together, these steps provide RTS with possibilities for creating a more simplified and straightforward system that is easy to communicate to customers.

Below is a discussion of existing and new products for RTS in the five-year timeframe.

Fixed-Route Local Service

Fixed-route local bus service will continue to be the primary staple of RTS service in the five-year period. The on-board survey identifies customer priorities for service improvements, which formed the foundation for the Goals and Initiatives in Chapter Two. The following aspects of fixed route service are discussed below:

- Service area;
- Later evening service;
- Improved frequency;

Service Area

Based on the population densities of the Gainesville urban area, the various market segments that were analyzed, and the low transfer ratio discovered in the on-board survey, the service area for RTS is currently effective in serving a majority of its customer bases. Development in the urban area continues to bring growth in the southern and western urban areas. In coming years, additional high density residential development in both the Downtown and southwest areas will indicate expansion of the service area. However, the clear mandate from current RTS customers is for increased reliability, frequency and evening service.

Improved Frequency

Customer feedback in the on-board survey indicated that buses are often overcrowded, not on time, and do not come often enough. Travel periods for workers corresponded to the traditional a.m. and p.m. peak; however, for students there was a continuous peak throughout the day. From the customer's perspective, improved frequency during peak travel times provides greater flexibility and convenience when traveling. It means that transit service revolves around their lives as opposed to planning their lives around transit. From the transit agency's perspective, improving frequency resolves the issues of overcrowding and allows the building of solid running times for each trip in order to maintain frequency.

RTS has been making frequency improvements on heavily traveled routes without increasing the span of service and the result has been a 63 percent increase in ridership. Therefore, frequency improvements during peak and off-peak times should continue to receive high priority.

Evening Service

Improvements to weekday evening service will likely have the greatest positive impact on the student market since it enables them to study later on campus or hold a job in the evening whereby transit usage is feasible for both school and work. However, improvements to evening service may also have an impact on the non-student market for those who hold service jobs that do not correspond to the traditional a.m. and p.m. peak periods. RTS should focus evening service improvements gradually and to even out the service span at the systemwide level. For customers who require a transfer in traveling, it would be frustrating to have one route operating later in the evening only to discover that the second route ended earlier.

New Products

Support for new products has come from sources outside of RTS. For instance, express services from park-and-ride lots is a significant component of the 2020 Long Range Transportation Plan. The Florida Department of Transportation has supported the establishment of a commuter assistance program by entering into a partnership with RTS through a service development grant. Below is a discussion of new products for RTS.

Commuter Assistance Program

The Commuter Assistance Program is an umbrella program designed to provide a set of flexible and tailored services to meet the demands of commuters with busy lifestyles. A central service is the provision of van pools wherein a group of commuters who live close to each other and travel to the same employer lease a van on a monthly basis and share expenses and driving duties. Vans are usually purchased through federal grants and then either administered by the transit agency or a private contractor. The cost of leasing turned over to the customers covers insurance, maintenance, and depreciation on the vehicle. Customers are then directly responsible for fuel costs on a monthly basis.

Vanpools have been known to form as a result of the transit agency soliciting companies and as a result of customers themselves forming a group and soliciting the transit agency. The success of vanpools is usually tied to major employment sites wherein employees live some distance away from the employer. In those instances, vanpools are more economical and convenient to the customers who use them. Vanpools are beneficial when it is not as feasible or convenient for commuters to use fixed-route express services.

Another service is ride matching, whereby there is a central advertised telephone number for customers to call and provide information on their home and work addresses. Through GIS-based softwares available on the market, the information is fed into a system and matched with other commuters in the area who are seeking a carpool situation. The demographic data in Chapter One indicates that there is a significant amount of carpooling already occurring in the county without any services from RTS. Therefore, the potential to expand services to this market is great.

In addition to the services themselves, a commuter assistance program usually has a number of supportive services including a Guaranteed Ride Home Program, which provides vouchers for customers to receive a limited number of taxi trips when an emergency arises causing them to leave work early. Other supportive services include Employee Transportation Coordinator training within companies, pass programs for bus service, and other services tailored to the needs of a customer or customer group.

Express Service

As the largest employer in the region, and the largest generator of trips on the road network in the a.m. and p.m. peak periods, the University of Florida campus is the prime candidate for express services. RTS should approach this type of service with an understanding of customer needs and demands since this will be a new market segment. For instance, park-and-ride locations, number of trips, direct travel, and alternatives for emergencies (e.g. a guaranteed ride home program) are likely to be important issues for potential customers for this service.

In general, RTS should consider the western urban area as the prime locations for originating express service. To the degree possible, RTS should focus on joint use agreements to use established parking lots as locations for park-and-rides, such as a dedicated area of the Oaks Mall. Churches have also been prime candidates for park-and-rides in other communities because their parking lots are primarily used on weekend days.

In the future, as express routes become more popular and widely used, RTS should consider Downtown Gainesville for express services. Express routes to Downtown could be efficiently operated from the same park-and-rides as University of Florida express routes if there is sufficient demand to warrant this service.

MARKETING AND COMMUNICATIONS

Marketing and communications are an important opportunity for RTS to fulfill its vision and to address issues raised in community leader interviews, especially in the areas of:

- Improving image;
- Positioning transit in the marketplace;
- Building customer confidence and trust;
- Building community support;
- Increasing ridership; and
- Fostering partnerships.

There exists an opportunity for RTS to gain increased involvement from University of Florida students, to provide practical experience in an educational setting, and to develop a marketing and communications plan in a cost effective manner. All of the components of a marketing and

communications plan are major areas of study at the University of Florida including Marketing, Public Relations, Mass Communications, Broadcasting, Fine Art, Journalism, Business Administration, Graphic Arts and Music. In addition, Gainesville has a business community that must conduct the same activities for their companies. RTS should utilize the rich array of students, professors, and business people to develop a plan that can be implemented over the next five years. One opportunity that exists would be to enlist an interested professor to offer a semester seminar course for students in each of the major areas. The course would be designed to provide exposure to all of the major areas and to hear guest speakers from the transit industry. Groups of students from the major areas would be grouped with professors and business professionals for a contest that would in the end yield two or three Marketing and Communications Plans for RTS.

RTS would establish the parameters of the contest by providing the framework for a plan addressing the following areas:

- Transit logos and packaging
- Corporate Communications
- Promotions
- Target Markets
- Community Relations
- Transit Alliances
- Marketing
- Media/Advertising

The contest would have prize money for the three teams based on their final presentations. RTS could then use the best elements of each plan to implement based on budgetary and qualitative components.

CHAPTER FIVE:
Five Year Transportation Services Plan

INTRODUCTION

This final chapter represents a synthesis of all analyses, public involvement, and evaluation activities that taken together form the basis of a five-year transportation services plan. Previous chapters have described the existing conditions for transit and have examined factors such population growth, development patterns, and the county's demographic characteristics have been analyzed in terms of their impacts on RTS's ability to provide quality transit service. Participation in the form of the TDP Review Committee has produced goals and objectives for RTS. In addition, community involvement in the form of interviews, on-board surveys, and meetings of groups such as the RTS Advisory Board have also impacted the recommendations presented herein.

At this point in the TDP process, the focus shifts from an analytical approach to a more future-oriented perspective. The findings presented earlier in the document are now brought together and used to make recommendations for transit and transportation improvements in Gainesville. However, the dramatic changes that have taken place since Fall 1997 warrant significant discussion below as a foundation for the five year plan.

To aid RTS in fulfilling its newly-adopted vision and achieving its initiatives, the last section of this chapter presents a series of recommendations to be implemented over the next five years. The recommendations are prioritized according to the time frame for action: within one year; within the next one to two years; and within the next three to five years. An outline of the current budget projections for RTS over the five-year period and estimates of the costs associated with each recommendation are also provided.

RTS SERVICE CHANGES: FALL 1997; SPRING AND SUMMER 1998

Chapter One outlined the dramatic changes that have occurred in Gainesville's transit landscape since the Fall of 1997. The Fall semester began with a typical schedule of bus routes as had been the case in previous years. However, in the initial months that semester many routes serving student residential areas were experiencing overloads during peak periods. In fact, many would be RTS customers were turned away from riding the bus due to

lack of room. RTS management responded by building a funding partnership consisting of the Florida Department of Transportation, the City of Gainesville, Alachua County, and the University of Florida to significantly expand frequency of service on many routes in late Fall and Spring 1998. Below is a description of the route level changes that occurred:

Route #	Service Change Description
Route 4 – Oaks Mall to Shands via S.W. 20th Avenue	Increase frequency from 30 minutes to 15 minutes from 7:00 a.m. to 11:00 and 2:30 p.m. to 6:00 p.m.
Route 9 – Campus Club Apts. to UF via S.W 23rd Boulevard	Increase frequency from 30 minutes to 15 minutes from 7:10 a.m. to 10:10 a.m. and 2:15 p.m. to 5:00 p.m.; increase frequency from 30 minutes to 20 minutes from 10:40 a.m. to 2:00 p.m. and from 5:00 p.m. to 8:00 p.m.
Route 9 – Lexington Park to UF via S.W 23rd Avenue (Spring)	Terminate Route at Lexington Parke; eliminate all segments west to create new route 12. Frequency same as above.
Route 12 – Butler Plaza/Campus Club Apts. To UF via S.W. 34th St/Archer Road (Spring)	Create new Route 12 from Butler Plaza to UF serving Campus Club Apartments with 15 minute frequencies from 6:45 a.m. to 11:00 a.m. and 2:00 p.m. to 5:00 p.m.; 20 minute frequencies from 11:00 a.m. to 2:00 p.m. and 5:00 p.m. to 8:20 p.m.
Route 3B – S.W. 13th Street (Spring)	Short turn segment of regular Route 3 between UF Commuter Lot and Williston Road/South U.S. 441 (S.W. 13th Street) with 30 minute frequencies.

Service changes as outlined above had a significant positive impact on ridership. In fact, between the period October 1997 to April 1998, RTS ridership was up 63 percent on the regional system (excluding campus routes) with the Route 9 experiencing an individual ridership increase greater than 300 percent. Table V-1 below compares year-to-date ridership with the same period in Fiscal Year 1997:

Table V-1
RTS Ridership Comparison
FY 1997- FY 1998 (Year-to-Date)

Route #	Total Ridership October 96-March 1997	Total Ridership October 1997 – March 1998	Percent Change
1	69,396	91,162	31.4%
2	28,465	50,647	77.9%
3	52,391	79,412	51.6%
4	80,126	125,371	56.5%
5	101,305	96,281	-4.9%
6	37,895	48,791	28.8%
7	36,098	45,785	26.8%
8	55,639	83,070	49.3%
9	26,935	126,312	368.9%
10	42,945	44,268	3.0%
11	0	30,229	N/A
12	0	34,189	N/A
Special Services	0	13,093	N/A
TOTAL	***531,194***	***868,510***	***63.5%***

Summer 1998 Seasonal Schedule

In Summer 1998, RTS made several changes to the system schedule to adjust service levels based on seasonal fluctuations in ridership and to further refine the route network in preparation for the Fall 1998 schedule. Below is a summary of the routing changes made:

Route #	Service Change Description
Route 1 – Tower Center to Shands via Archer Road	Eliminate Tower Road segment between Cedar Ridge and Tower Center (segment to be covered by new Route 75).
Route 2 – Kennedy Homes – Robinson Heights	Eliminate segment from Downtown to Gainesville Mall (primarily along N.W. 6th Street); add southern segment on S.E. 15th Street to Robinson Heights. Increase frequency from 45 minutes to 30 minutes.
Route 4 – Oaks Mall to Shands via S.W. 20th Avenue	Change Route number to Route 20; eliminate segment serving Sugar Foot and incorporate into new Route #75.
New Route 4 – Shands to Downtown	Create new Route 4 as a frequent shuttle service between Downtown and the University of Florida Campus. Establish frequency of 30 minutes.
Route 5 – Oaks Mall to Downtown via University Avenue	Eliminate segment between Oaks Mall and Cedar Ridge; incorporate segment into new Route 75.
Route 6 – SFCC to Downtown	Create new route segment operating south on S.W. 6th Street, east on S.W. 16th Avenue and north on Main Street to Downtown.
Route 7 – Downtown – Job Corps – Eastwood Meadows	Eliminate segment north of Downtown to create new Route 24.
Route 8 – Sugar Hill to Pine Ridge	Eliminate segment south of Shands Hospital to Sugar Hill.
New Route 13 – Job Services to Gainesville Mall	Create new Route 13 to serve S.W. 13th Street from Job Services to Gainesville Mall on N.W. 13th Street. Establish 30 minute frequencies.
New Route 15 – Gainesville Mall – Downtown	Create new Route 15 to cover segments previously covered by Route 3 between Downtown and the Gainesville Mall. Establish 60 minute frequencies.
New Route 24 – Downtown to Job Corps	Create new Route 24 to cover segments of previous Route 7 from Downtown to Job Corps. Establish 60 minute frequencies.
Route 75 – S.W. 13th Street (Spring)	Create new Route 75 to cover segments previously covered by Routes 1, 4 and 5. Service from Oaks Mall to Tower Center along Tower Road (75th Street). Establish 60 minute frequencies.

RTS anticipates that these summer service changes, with minor modifications, will continue into the Fall 1998 schedule, albeit with several frequency improvements in August.

FIVE-YEAR TRANSIT SERVICES PLAN AND STRATEGIC INITIATIVES

In this section, as well as the following section entitled, "RTS Capital and Operating Plan," findings and recommendations are presented for the overall Five Year Transit Services Plan and Strategic Initiatives to be undertaken based on the Goals and Initiatives listed in Chapter Two. Since the Goals and Initiatives outlined in Chapter II related to service, strategic initiatives, and capital projects, each section provides references to the individual goal and initiative for which it implements.

Five Year Transit Services Plan

The Goals and Initiatives in Chapter Two call for RTS to conduct the following activities related to transit services in the five year timeframe:

- Focus service enhancements on greater system frequency, reliability (on-time performance), and weekday evening service. (Goal 3, Initiative A)
- Focus on the University of Florida campus as the major regional generator of transit trips. (Goal 1, Initiative D)
- Establish direct routings between high-density residential areas and the University of Florida campus. (Goal 3, Initiative C)
- Establish seasonal schedules corresponding to University of Florida sessions. (Goal 3, Initiative B)
- Continue to replace existing fleet with buses that meet all Federal Americans with Disabilities Act standards. (Goal 3, Initiative F)
- Establish market-driven approaches to increase ridership. (Goal 1, Initiative B)
- Develop a product approach to give distinction to transit services. (Goal 1, Initiative C)
- Utilize smaller buses on lower ridership routes. (Goal 5, Initiative B)

Table V-2 below summarizes service enhancements to existing RTS routes and new services to be implemented to achieve these initiatives from Fiscal Year 1998 through 2003. Detailed tables showing the annualized revenue miles, revenue hours, operating costs, vehicle requirements, frequencies and spans of service are included in Appendix H.

Table V-2
Five Year Transit Services Plan
Enhancement and New Service Summary

Year	FY1999	FY 2000	FY 2001	FY 2002	FY2003
Frequency Improvements	**Routes**	**Routes**	**Routes**	**Routes**	**Routes**
Peak: 30 minutes	10, 11			6, 7, 15, 24, 39	
Peak: 15 min. or less			1, 5, 75		
Off Peak: 30 minutes	1, 8, 75	8			
Off Peak: 15 min. or less	4	9, 12, 16, 20			
Span of Service					
Weekday evenings					
...until 8:00 p.m.	15		39		
...until 9:00 p.m.	8, 13		6, 7, 10, 15, 24		
...until 10:00 p.m.	1, 4, 5, 9 12, 20, 75		2, 8, 13, 16		
...until 11:00 p.m.			1, 4, 5, 9, 11 12, 20, 75		
Saturday/Holiday evenings					
...until 7:00 p.m.					10, 11, 13, 15,39
...until 8:00 p.m.					1, 2, 4, 5, 7, 8, 9 16, 20, 24, 75
...until 9:00 p.m.					12
New Service	39, PNR 2 UF Exp.		Haile-UF	New R1	New R2
Annual Vehicle Requirement*					
Enhanced & New Service	11 buses	7 buses	8 buses	8 buses	1 bus

* Vehicle requirement reflects the overall fleet expansion required to operate all enhancements and new service.

New Fixed Route Services

UF Express: This route will be RTS's first effort at attracting the commuter market. The service will include a dedicated park-and-ride area at the Oaks Mall and will serve the University of Florida campus in the morning and afternoon peaks, to correspond with University

employment shifts.

Route 39: This is a new local route to serve segments of the northeastearn urban area previously served by Route 2.

Park-and-Ride Two: This will be a UF campus-dedicated route that will serve the parking facility currently under construction west of Hull Road (north of S.W. 34th Street) and serving the core of campus.

Haile Plantation to UF Express: This express service will specifically serve residents of Haile Plantation and surrounding residential development from Tower Road to the UF campus. A park-and-ride area will be designated at Haile Plantation through a joint use agreement. Service will operate in the morning and afternoon peaks to correspond with University employment shifts.

New Routes 1 and 2: These new routes will provide for expansion of local service in southwest portions of the urban area as new student residential development is constructed.

Service Hours And Operating Base Program

Based on improvements outlined above for improvements to and expansion of new services, RTS will aggressively expand service hours over the five year period. Table V-3 below shows the trend in service hour growth with the corresponding operating costs associated.

Table V-3
Service Hours and Operating Base Program
FY 1999-2003

	FY 1999	FY 2000	FY 2001	FY2002	FY 2003
RTS Scheduled Service Hours	171,194	187,729	208,765	231,704	236,047
Operating Costs	$5,006,176	$5,492,936	$6,163,792	$6,892,532	$7,027,071
ADA Service Costs	$100,000	$100,000	$120,000	$120,000	$120,000
TOTAL OPERATING COSTS	**$5,106,176**	**$5,592,936**	**$6,283,792**	**$7,012,532**	**$7,147,071**

FLEET REQUIREMENTS

RTS has an existing fleet of 60 buses in 1998, of which 23 are scheduled to be retired subject to the acquisition of replacement and expansion buses in FY 98-99. For the five year period, there will be a total of 33 buses retired and 57 new buses purchased for a total fleet size of 84 buses. The total Peak Vehicle Requirement Table V-4 below outlines the vehicle replacement schedule for RTS over the five year period.

Table V-4
Fleet Replacement Plan
FY 1998-2003

Model Year	Manufacturer	Size	Actual Fleet	98-99	99-00	00-01	01-02	02-03
1982	GMC Bus	40 ft.	1	0				
1982	GMC Bus	35 ft.	2	0				
1983	GMC Bus	35 ft.	5	0				
1985	Flxible Bus	35 ft.	3	0				
1987	Bluebird	30 ft.	12	0				
1989	Orion Bus	30 ft.	9	9	9	9	9	
1989	Orion Bus	35 ft.	10	10	10	10	9	9
1995	Gillig	40 ft.	12	12	12	12	12	12
1996	Bluebird	27 ft.	6	6	6	6	6	6
			60	37	37	37	27	27
1999	Replacement Buses *	40 ft.		23	23	23	23	23
1999	Expansion Buses **	40 ft.		7	7	7	7	7
2000	Expansion Buses - Alt. Fuel				5	5	5	5
2001	Expansion Buses - Alt. Fuel					3	3	3
2002	Replacement Buses	40 ft.					10	10
2003	Replacement Buses	40 ft.						9
	TOTAL			67	72	75	84	84
	Peak Vehicle Requirement			53	53	61	69	70

STRATEGIC INITIATIVES

Goal #1: Fulfilling the Vision (Initiative A)

1. **Activities for Fall and Spring Semesters**. Set up tables at Hub, UF residence hall check-in, and downtown with personnel to give information and provide assistance. Work with the UF Music Department to establish 3-piece instrument "Traveling Troubadours" to float on system bus routes during the first two weeks of the semester. Establish transit information materials and a free gift as part of apartment check-in for all student-oriented apartment complexes. (*Years One and Two)*

2. **Identify other actions to incorporate fun into transit service in Marketing and Communications Plan discussed below**. Actions could include "tongue in cheek" advertising campaigns, rider promotions, community level promotions, and partnerships with other businesses. (*Years Two through Five)*

Goal #2: Communicating the Role of Transit (Initiatives A through E)

1. **Apply for a three-year Service Development Grant with FDOT for a "Marketing and Communications Program" for RTS**. Begin working with University of Florida and Santa Fe Community College officials to establish a contest to develop the program. Initial phases of the contest will consist of a three-hour semester seminar in Spring 1999 wherein students majoring in Marketing, Communications, Public Relations, Broadcasting, Fine Art, Journalism, Business Administration, Graphic Arts, and Music would come together to hear guest speakers from the transit industry and the industries listed above. Local business community leaders will be enlisted to act as sponsors for groups entering the contest. The contest will yield a comprehensive program for RTS addressing the areas of:

   - Transit logos and packaging
   - Corporate Communications
   - Promotions
   - Target Markets
   - Community Relations
   - Transit Alliances
   - Marketing
   - Media/Advertising *(Years Two through Five)*

2. **Conduct 30 Community Outreach presentations annually**. RTS staff should proactively seek community groups and organizations to conduct speaking engagements about the vision, improvements, and needs for transit in the Gainesville community. *(Years One through Five)*

3. **Establish a bus advertising program to market to businesses in the region.** Establish strict artistic standards for business advertising and set aside a percentage of fleet to highlight community interests. *(Years One through Five)*

4. **Conduct 24 Community Service transportation events annually.** Establish criteria for a community service program and provide approximately two per month. *(Years One through Five)*

Goal #3: Increase Service Availability (Initiatives D and E)

1. **Develop one partnership annually with a private sector or public sector entity**. Great flexibility exists for building partnerships and seizing opportunities for the purposes of funding transit service improvements, generating new revenues from bus advertising, media trades, increasing ridership, placing passenger amenities, conducting a joint sponsorship or promotional event, and developing new markets and/or new products. *(Years One through Five)*

2. **Establish a service review process consisting of RTS staff and bus operators.** As services are modified and new services are implemented, it is extremely important for RTS to have a mechanism to internally evaluate the effectiveness of service. Responsiveness to customers is a large part of such a process as there will also be public requests for service expansions that will be addressed as part of this process. *(Year One)*

Goal #4: Enhancing Transit's Presence (Initiatives C, D and F)

1. **Establish RTS as a partner in the Comprehensive Planning and Land Development Code updates, and rezoning petitions for the City of Gainesville and Alachua County.** As a means of incorporating transit circulation, urban design, transit stops, shelters and other amenities into the new development process, RTS needs to review existing regulations, propose modifications to those regulations, and become a partner in the review of individual rezoning petitions. These actions establish a

"jurisdictional" role for RTS during the development proposal stage as well as establish standards for new development when building permits are issued. *(Year Two)*

2. **Continue to work with the MTPO to incorporate transit design and amenities when road improvements are made to state, county, and local road segments**. This initiative follows a recent charette that was held for improvements to the S.W. 20th Avenue corridor in which road improvement, transit, bicycle, and pedestrian improvements were considered as part of an overall solution to traffic congestion in the corridor. RTS should review the annual TIP to determine opportunities to continue this practice. *(Years One through Five)*

3. **Continue to work with the University of Florida to incorporate transit design and amenities into new parking lot construction**. As remote lots are constructed in the perimeter areas around campus, transit design and amenities will be a crucial component for the mobility of customers into the central campus area. *(Years One through Five)*

Goal #5: Utilizing Technology and Innovation (Initiative F)

1. **Expand Commuter Assistance Program**. Included in this initiative are the purchase of vans for vanpools, a ridematching software, and support services to cultivate the commuter market. This program should be highly tailored to meeting individual transportation needs and demands. *(Years One through Five)*

Goal #6: Changing the Organizational Culture (Initiatives A through C)

1. **Commence necessary activities to investigate creation of a regional transit authority**. A number of activities must occur in the investigation process, among them support from local elected officials, legal review, legislative delegation buy-in, enabling legislation, legal documentation and transfer of assets. The process can take many years to complete and the steps for implementation should be carefully considered. *(Years One through Five)*

2. **Improve telephone information and create a complaint processing and resolution process**. Whereas a Marketing and Communications program facilitates public trust and confidence in the transit system, improved telephone information and complaint resolution play a major role in creating customer trust and confidence in the transit

system. These two improvements should be the beginning of long term commitments from RTS to improve its customer-orientation efforts.

3. **Conduct a management-bargaining employee retreat once annually**. Retreats should center around RTS' vision, progress in meeting that vision, role that employees play in meeting and exceeding the goals and initiatives of the agency, and issues as raised by employees.

Five-Year Operating and Capital Improvement Program

Tables V-5 below presents the Five-Year Operating and Capital Improvement Program to implement the Goals and Initiatives for RTS. In addition, Table V-6 presents the Summary Operating and Capital Financial Plan and includes costs, revenues and current unfunded amounts for the five-year period.

The following descriptions provide an explanation of each project in the FY 1999-2003 Operating and Capital Improvement Program of the TDP. Each project carries a reference to the goal and when appropriate, the initiative that establishes the project's inclusion:

1. **Operating Expenses** – This line is directly related to fixed route, paratransit and the commuter assistance program improvements planned for the next five years. A description of the programmed operational improvements to the system is summarized in projects 5-7 below.

2. **Transit Coaches (Replacement)** – This line reflects the fleet replacement needs as referenced previously in Table V-4. This includes the purchase of 40 foot ADA compliant heavy-duty diesel buses during the five-year period. *(Goal 3 – All)*

3. **Transit Coaches (Expansion)** – This line reflects the fleet expansion needs for service improvements and new service programmed for the five year period. The programmed expansion vehicles will be ADA compliant heavy duty 40 foot diesel buses needed to carry the increased passenger loads projected in the system. *(Goal 3 – All)*

4. **Alternative Fuel Transit Coaches (Expansion)** – This line includes the purchase of 8 alternative-fueled expansion vehicles. Due to the reduced range of these vehicles they are programmed for use on routes with lower daily operating miles. *(Goal 5, Initiative A)*

5. **Enhanced Frequency/Span of Service** – As detailed previously in Table V-2, these improvements include increasing frequency of service on 10 routes in the peak periods, and 9 routes in the off-peak periods during the

five years of this plan. Also, later evening Weekday and Saturday service is programmed for all of the routes in the system. *(Goal 3, Initiative A)*

6. **Express Service** – This line includes costs to implement three new express routes serving the corridors from Oaks Mall to the University of Florida campus, Hull Road parking facility to UF campus, and the Haile Plantation and surrounding residential development to the UF campus. *(Goal 1, Initiative B)*

7. **New Local Service** – This improvement includes two new local routes serving new student residential developments in the southwest portions of the urban area. *(Goal 3 – All)*

8. **Vans (Paratransit)** – These lift-equipped vans will be leased to the local CTC for the operation of RTS's required ADA complementary paratransit service. *(Goal 3, Initiative G)*

9. **Vans (Commuter Assistance)** – These 5 vans will be used as the capital investment in initiating the start of a vanpool and commuter assistance program in Alachua County. *(Goal 5, Initiative F)*

10. **Marketing and Communication** – This will be a service development grant designed to implement the Marketing and Communications program as detailed in Chapter Four (Needs and Opportunities) and in Chapter Five (Strategic Initiatives). *(Goal 2, All)*

11. **Passenger Information System** – This project represents the implementation of four passenger information systems at major destination/transfer facilities. These information systems include kiosks displaying bus routing, next bus scheduled arrival and other computerized transit information/marketing information. *(Goal 5)*

12. **AVL Equipment/Radio System Upgrade** – This line item includes the purchase of an Automated Vehicle Location (AVL) system and a radio system upgrade, which in combination will provide RTS the ability to better monitor on-time performance (service reliability), gather data to improve

system performance, react to emergency situations, and improve the quality and quantity of voice communication s between operators and dispatch. *(Goal 5)*

13. **Supervisory Support Vehicles** – This line item is for the purchase of 8 replacement and expansion autos/vans for supervisory personnel monitoring service on the street. *(Goals 3 and 6)*

14. **Supervisory Vehicle Radios** – This line item includes the purchase of new radios and upgraded radio equipment in conjunction with the implementation of system radio upgrades for the large bus fleet. *(Goals 3 and 6)*

15. **ADA Contract with CTC** – This project shows the expenditures necessary to contract with the local CTC to provide RTS's required ADA paratransit service. *(Goal 3, Initiative G)*

16. **Operating Base Rehabilitation/Expansion** – This project includes the expansion of maintenance bays and acquisition of additional property north of the existing site for vehicle storage as the fleet expands. *(Goal 5, Initiative G)*

17. **Regional Transfer Center** – This project will establish a regional transfer center for system routes to connect with campus-oriented routes on or near the University of Florida campus. As regional routes continue to expand with additional buses connecting with campus buses, there is likely to be congestion on campus requiring this facility. *(Goal 4, Initiative B)*

18. **Passenger Amenities** – This line item includes the purchase and installation of shelters, benches, and bus stop signage throughout the RTS service area. *(Goal 4)*

19. **Commuter Assistance Program** – This project which will be implemented through assistance of the FDOT includes the establishment

of vanpooling and carpooling programs and additional support services to commuters throughout Alachua County. *(Goal 5, Initiative F)*

20. **Ridematching Software** – In conjunction with the implementation of the commuter assistance program, ridematching software is necessary in order to aid in efficiently matching prospective carpool users. *(Goal 5, Initiative F)*

21. **Associated Capital Maintenance** – This line item includes the labor associated with the preventive maintenance of the system's vehicles. *(Goal 5, Initiative G)*

22. **Shop Equipment** – This line item includes the purchase of physical plant equipment, and maintenance and shop tools. *(Goal 5, Initiative G)*

23. **Employee Training** – This project envisions the training of bus operators, supervisors and customer service personnel for improving customer service skills. *(Goal 6, Initiative B)*

24. **Maintenance Training** – This project will be for initial and refresher training for mechanics as fleet expansions require additional maintenance skills. *(Goal 5, Initiative G)*

25. **Automatic Passenger Counters** – Automatic Passenger Counters (APCs) are used to track boardings and deboardings by stop and time of day, to aid in identifying shelter locations, monitoring route running time, and for identifying bus overload situations. The APCs can also be used to reduce or eliminate the personpower needed to collect FTA required National Transit Database (formerly Section 15) ridership data. *(Goal 5, Initiative D)*

26. **Transit Design/Amenity Manual** – The Gainesville community is unique in nature and this should be reflected in the design of passenger amenities and transfer facilities located through the county. This line item is to develop a manual that will aid developers and government planners in incorporating transit design elements in new residential and commercial

developments, road improvements, transfer facilities, bus stops, and parking facilities on the UF campus. *(Goal 4, Initiative E)*

27. **Point/Route Deviation** – This project would be for implementing route deviation techniques on lower performing routes in the less dense areas of the county. *(Goal 5, Initiative C)*

28. **Furniture/Office Equipment** – This line item is for the purchase of replacement and upgraded office equipment and furniture and the RTS operating bases. *(Goal 6)*

29. **Computer Equipment** – This line item includes hardware and software upgrades to the system's computers system, PCs, and the purchase of an automated scheduling package to aid in increasing system efficiencies through improved running time and reduced deadhead miles and hours. *(Goal 6, Goal 5, Initiative E)*

Table V-5
Five-Year Operating and Capital Improvement Program

PROJECT ITEM	PROJECT DESCRIPTION		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FIVE YEAR TOTAL	FUND SOURCE
1	Operating Assistance		$351,000 $590,832 $500,000 $990,000 $1,850,000 $500,000 $200,000	$351,000 $599,307 $500,000 $1,195,200 $1,850,000 $500,000 $200,000	$351,000 $659,971 $500,000 $1,400,400 $1,850,000 $500,000 $200,000	$351,000 $712,516 $500,000 $1,605,600 $1,850,000 $500,000 $200,000	$351,000 $777,282 $500,000 $1,810,000 $1,850,000 $500,000 $200,000	$1,755,000 $3,339,908 $2,500,000 $7,001,200 $9,250,000 $2,500,000 $1,000,000	FTA FDOT UF Campus Dev. UF Contract Svc. City of Gainesville Alachua County Other Local
		Total:	$4,981,832	$5,195,507	$5,461,371	$5,719,116	$5,988,282	$27,346,108	
2	Transit Coaches: # Replacement		25 $6,875,000			10 $2,750,000	9 $2,475,000	$5,225,000	FTA Section 5307 FTA Section 5309
3	Transit Coaches: # Expansion	Total:	5 $1,250,000					$1,250,000	FTA Section 5307 FTA Section 5309
4	Transit Coaches: # Expansion: Alternative Fuel	Total:		5 $1,625,000	3 $975,000			$2,600,000	FTA Section 5307 FTA Section 5309
5	Enhanced Frequency/Span Running Time Improvements	Total:	$131,218	$617,978	$1,122,222	$1,680,092	$1,719,633	$5,271,143	Local Funds
6	Express Service UF Express Park-and-Ride 2 Haile Plantation - UF	Total:	$395,134	$395,134	$561,746	$561,746	$561,746	$2,475,506	FDOT Corridor; Local Funds

PROJECT ITEM	PROJECT DESCRIPTION		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FIVE YEAR TOTAL	FUND SOURCE
7	New Local Service New Route 1 New Route 2	Total:				$170,870	$265,868	$436,738	Local Funds
8	Vans: # Lift Equipped - Paratransit	Total:	5 $200,000					$200,000	FTA Section 5307
9	Vans: # Commuter Assistance	Total:	3 $75,000	4 $100,000	5 $125,000	4 $100,000	5 $125,000	$525,000	FTA Section 5307
10	Marketing and Communications	Total:	$150,000	$150,000	$150,000	$150,000	$150,000	$750,000	FDOT Service Development; Local Funds
11	Passenger Information System: # (Oaks Mall, Downtown, Shands, UF)	Total:		4 $200,000				$200,000	FTA Section 5307
12	AVL Equipment Hardware and Software Radio System Upgrade	Total:	$50,000	$900,000		$150,000	$250,000	$1,350,000	FTA Section 5307
13	Support Vehicles - Supervisors: #	Total:	3 $75,000		2 $50,000	1 $30,000	2 $60,000	$215,000	FTA Section 5307
14	Radios for supervisor vehicles	Total:		$226,000				$226,000	FTA Section 5307

PROJECT ITEM	PROJECT DESCRIPTION		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FIVE YEAR TOTAL	FUND SOURCE
15	Contract with CTC - ADA Complementary Paratransit	Total:	$100,000	$100,000	$100,000	$100,000	$100,000	$500,000	Local Funds
16	Operating Base Rehab/Expansion Land Acquisition Planning, Design, Engineering Construction		 $200,000 $50,000	 $200,000	 $300,000	 	 $300,000	 $200,000 $50,000 $800,000	 FTA Section 5307 FTA Section 5307 FTA Section 5307
17	Regional Transfer Center Land Acquisition Planning, Design, Engineering Construction		 $400,000	 $200,000	 $2,750,000	 	 	 $400,000 $200,000 $2,750,000	 FTA Section 5307 FTA Section 5307 FTA Section 5307
18	Shelters and Passenger Amenities Benches, Shelters, Signs, Logos	Total:	$100,000	$125,000	$125,000	$150,000	$200,000	$700,000	FTA Section 5307
19	Commuter Assistance Program	Total:	$60,000	$60,000	$60,000	$60,000	$60,000	$300,000	FDOT; local funds
20	Ride Matching Software	Total:	$20,000					$20,000	FDOT
21	Associated Capital Maintenance	Total:	$300,000	$325,000	$375,000	$450,000	$600,000	$2,050,000	FTA Section 5307
22	Shop Equipment	Total:	$75,000	$100,000	$100,000	$100,000	$150,000	$525,000	FTA Section 5307

PROJECT ITEM	PROJECT DESCRIPTION		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FIVE YEAR TOTAL	FUND SOURCE
23	Employee Training	Total:	$40,000	$60,000	$60,000	$70,000	$80,000	$310,000	FTA Section 5307 FDOT Service Dev. Candidate
24	Maintenance Training	Total:	$50,000	$50,000	$50,000	$50,000	$50,000	$250,000	Local Funds
25	Automatic Passenger Counters	Total:	$30,000	$30,000		$30,000		$90,000	FTA Section 5307
26	Transit Design/Amenity Manual	Total:		$30,000				$30,000	FDOT Service Development
27	Point/Route Deviation Project	Total:		$100,000	$100,000	$100,000		$300,000	FDOT Service Development
28	Furniture/Office Equipment	Total:	$50,000	$25,000		$40,000	$70,000	$185,000	FTA Section 5307
29	Computer Equipment	Total:	$50,000	$26,000				$76,000	FTA Section 5307

Subtotal by Funding Type by Year					
Total Operating	$5,166,176	$5,652,936	$6,323,792	$7,052,532	$7,187,071
Total Capital - FTA 5309	$6,875,000				
Total Capital - FTA 5307	$2,945,000	$3,916,000	$4,860,000	$3,870,000	$4,310,000
FDOT Service Development	$95,000	$170,000	$170,000	$170,000	
FDOT Urban Corridor	$395,134	$395,134	$561,746	$561,746	$561,746
Local Funds	$1,838,102	$386,000	$130,000	$130,000	$200,000

Table V-6
Summary Operating and Capital Financial Plan

Item	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Operating Expenses & Revenues					
Expenses					
Existing Operating Costs	$5,006,176	$5,492,936	$6,163,792	$6,892,532	$7,027,071
ADA Paratransit Operations	$100,000	$100,000	$100,000	$100,000	$100,000
Commuter Assistance Program	$60,000	$60,000	$60,000	$60,000	$60,000
Total Operating Expenses	**$5,166,176**	**$5,652,936**	**$6,323,792**	**$7,052,532**	**$7,187,071**
Revenues					
FTA Funding	$351,000	$351,000	$351,000	$351,000	$351,000
FDOT Funding	$590,832	$599,307	$659,971	$712,516	$777,282
UF Campus Development	$500,000	$500,000	$500,000	$500,000	$500,000
UF Contract Service	$990,000	$1,195,200	$1,400,400	$1,605,600	$1,810,000
City of Gainesville	$1,850,000	$1,850,000	$1,850,000	$1,850,000	$1,850,000
Alachua County	$500,000	$500,000	$500,000	$500,000	$500,000
Other Local	$200,000	$200,000	$200,000	$200,000	$200,000
Total Revenues	**$4,981,832**	**$5,195,507**	**$5,461,371**	**$5,719,116**	**$5,988,282**
Current Unfunded Operating	**$184,344**	**$457,429**	**$862,421**	**$1,333,416**	**$1,198,789**
Capital Expenses & Revenues					
Expenses					
Transit Coaches	$8,125,000	$1,625,000	$975,000	$2,750,000	$2,475,000
Express Services	$395,134	$395,134	$561,746	$561,746	$561,746
Vans - Lift-equipped	$200,000				
Vans - Commuter Assistance	$75,000	$100,000	$125,000	$100,000	$125,000
Marketing & Communications	$150,000	$150,000	$150,000	$150,000	$150,000
Passenger Information System		$200,000			
AVL Equipment	$50,000	$900,000		$150,000	$250,000
Support Vehicles	$75,000		$50,000	$30,000	$60,000
Radios		$226,000			
Operating Base Rehab	$250,000	$200,000	$300,000		$300,000
Regional Transfer Center	$400,000	$200,000	$2,750,000		
Shelters & Passenger Amenities	$100,000	$125,000	$125,000	$150,000	$200,000
Ride Matching Software	$20,000				
Associated Capital Maintenance	$300,000	$325,000	$375,000	$450,000	$600,000
Shop Equipment	$75,000	$100,000	$100,000	$100,000	$150,000
Employee Training	$40,000	$60,000	$60,000	$70,000	$80,000
Maintenance Training	$50,000	$50,000	$50,000	$50,000	$50,000
Automatic Passenger Counters	$30,000	$30,000		$30,000	
Transit Design/Amenity Manual		$30,000			
Point/Route Deviation Project		$100,000	$100,000	$100,000	
Furniture/Office Equipment	$50,000	$25,000		$40,000	$70,000
Computer Equipment	$50,000	$26,000			
Total Expenses	**$10,435,134**	**$4,867,134**	**$5,721,746**	**$4,731,746**	**$5,071,746**
Revenues					
FTA Section 5309*	$6,875,000				
FTA Section 5307	$1,231,898	$1,231,198	$1,231,198	$1,231,198	$1,231,198
FDOT Service Development**	$95,000	$170,000	$170,000	$170,000	
FDOT Corridor Funds**	$395,134	$395,134	$561,746	$561,746	$561,746
Total Revenues	**$8,597,032**	**$1,796,332**	**$1,962,944**	**$1,962,944**	**$1,792,944**
Current Unfunded Capital	**$1,838,102**	**$3,070,802**	**$3,758,802**	**$2,768,802**	**$3,278,802**

*Request submitted to FTA
**Anticipated based on FDOT funding formulas