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### **Continuing Examination of Successful Transit Ridership Initiatives**

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#### **INTRODUCTION**

This digest identifies key factors and initiatives that have led to ridership increases at more than 50 transit agencies. This information will be of particular use to transit managers and planners interested in better understanding various mechanisms that have played a role in recent ridership increases. This digest is a follow-up to *TCRP Research Results Digest 4*, "Transit Ridership Initiative," which reported on initiatives at more than 40 transit systems.

#### **SUMMARY**

On the basis of interviews with more than 50 transit systems' managers, several general observations can be made about ridership experiences during 1994 through 1996 and the factors that have contributed to significant ridership increases in selected areas. Many of these observations mirror those made in an earlier study that examined transit ridership increases from 1991 through 1993. In addition, new initiatives and approaches have played a significant role in recent ridership success stories. General observations are as follows:

- Most systems experiencing major ridership increases attribute the increases to various combinations of strategies; this was true in the previous study as well.
- Actions and initiatives that have been effective in increasing ridership can still be

usefully categorized into the five areas identified in the earlier study:

- Service adjustments;
  - Fare and pricing adaptations;
  - Marketing and information initiatives;
  - Planning orientation; and
  - Service coordination, collaboration, and market segmentation.
- External forces continue to have a potentially greater effect on ridership than system and service design initiatives. The most important of these external factors during 1994 through 1996 have been
    - The resurgence of local and regional economies, which has spurred ridership growth;
    - Reductions in federal transit operating assistance, which have suppressed ridership growth; and
    - Integration of public transportation with other public policy initiatives and program areas (e.g., welfare-to-work, education, and social service delivery), which has spurred ridership and eased some funding constraints.
  - System expansion was a more overt factor in ridership increases occurring from 1991 through 1993; route and service restructuring was a more prominent factor from 1994 through 1996.

- Many of the systems experiencing significant ridership increases between 1994 and 1996 instituted or expanded deep discount fare policies along with efforts to make passes more widely available throughout their communities. This was achieved by expanding the number of direct sales outlets or by expanding programs directed at employers.
- The trend toward targeting specific market segments and tailoring services for these segments, noted in the earlier study, has continued. Most of the commonly identified market segments were mentioned by one or more systems, reflecting the particular circumstances existing at the local levels. Among the mix of systems examined, however, there was significant attention paid to tourist and visitor markets.
- The focus on absolute ridership levels as a key measure of success continues to be complicated by competing objectives, such as cost control, service coverage, use, and market share--absolute ridership can be trending up while other key indicators are showing negative trends, thus raising the question of what should constitute success.
- Interviews with transit managers revealed few instances of hard data on the effect of various strategies and initiatives. More analytical work and documentation is available for service restructuring and the introduction of new pass programs than for other actions.
- The types of disaggregate ridership experiences captured in the interviews conducted for this study need to be assessed, synthesized, and disseminated to broader audiences. This was suggested in the earlier study.

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## **OVERVIEW**

### **Purpose**

This report contains the findings and conclusions of a second round of inquiries into the factors influencing recent increases in transit ridership across the country. The report describes circumstances and initiatives that are thought to have been most important in achieving ridership increases in communities that have experienced the largest ridership growth in the period from 1994 through 1996.

The results of the assessment are intended to further assist the FTA, the transit industry, and others in attracting and sustaining increased transit use. The results are also intended to assist TCRP in disseminating information about transit ridership trends and successful initiatives.

### **Background**

The current study follows an earlier transit ridership assessment project carried out for the period from 1991 through 1993 at the request of APTA. This initial effort was funded as Task 2 under TCRP Project J-6, "Quick Response for Special Needs." The results of this first assessment were published in *TCRP Research Results Digest 4*, "Transit Ridership Initiative." The follow-on study reported here was undertaken at the request of the FTA and, like the first, was funded through TCRP as Project J-6, Task 19.

In the initial assessment, data about more than 40 transit systems were collected, and interviews were conducted with senior managers at 36 transit systems; of these 36 systems, results from 27 systems provided the basis for a series of findings and conclusions reported in 1995 and summarized below:

- A combination of strategies, programs, and initiatives are often associated with ridership increases.
- Strategies and initiatives leading to ridership increases fall into five broad categories:
  - Service adjustments;
  - Fare and pricing adaptations;
  - Marketing and information initiatives;
  - Change in planning orientation; and,
  - Service coordination, consolidation, and market segmentation.
- External forces have at least as great an effect on ridership as agency strategies and initiatives.
- Service expansion was a major factor in areas where ridership increases were greatest, from 1991 through 1993, suggesting significant latent transit demand in many areas.
- Significant increases in ridership are occurring at the subsystem and submarket levels that may not be reflected in aggregate, systemwide data.

- Most ridership increases are associated with some effort to target specific market segments.
- Ridership is not often a firm goal and the desire to increase ridership frequently is overridden by objectives associated with service utilization and budget adherence. In fact, ridership may be increasing while use, market share, and cost are exhibiting negative trends.
- The effects of specific strategies and initiatives to increase ridership are often not known or easily measured.
- Most systems experiencing ridership increases have detailed data on use and rider characteristics.
- Data and analysis on ridership trends and experiences at the disaggregate level are not systematically synthesized or regularly reported outside the individual systems.
- The most frequently cited research need was to have more information routinely available about the experiences of other systems.

In addition to these findings, potential research topics were identified for future consideration. The research topics included in *TCRP Research Results Digest 4* were used as the basis for a November 1994 "National Workshop to Develop a Research Agenda for Increasing U.S. Transit Ridership" in Irvine, California, attended by more than 40 transit and transportation experts from around the country. The results of the workshop were published in *TCRP Research Results Digest 6*, "Research Agenda for Increasing Transit Ridership," and included 28 potential research project descriptions.

In the spring of 1997, the current follow-on study was begun. Objectives were to examine ridership trends at the original systems for the period from 1994 through 1996 and extend the assessment to those other transit systems that reported the most significant ridership increases over the same period.

### **Approach**

The project was carried out between March and November 1997 and involved two parallel lines of activity. First, ridership trends and experiences from 1994 through 1996 were reviewed for the original transit systems that were the subject of the initial study. The objective was to determine the extent to which earlier positive ridership trends from 1991 through 1993 had continued or changed in the subsequent 3-year period and the factors that may have influenced these changes.

The second line of activity involved identifying other transit systems that experienced pronounced ridership gains during the period from 1994 through 1996 and evaluating the factors that might have contributed most to the increases.

In assessing the more recent ridership increases at the original transit systems and in reviewing the experiences of selected other systems, the same approach was followed as was used in the previous study. Data and information on transit ridership from 1994 through 1996 were

collected and reviewed. Telephone interviews were conducted with senior staff at the targeted transit systems. The information and insights gained from the telephone interviews were reviewed and analyzed to characterize the types of factors and actions that appear to result in increased transit ridership and to test the continued validity and usefulness of the typology of actions and factors developed in the initial study.

In addition to examining recent ridership increases and factors that influence them, FTA requested that two questions regarding the dissemination of information about the factors and actions that promote significant increases in ridership be addressed. The first question was to gauge the level and types of audience interest in the information resulting from these and related ridership studies. The second question was to determine what formats might be used to make this information most useful to the various audiences.

To address these questions, interviews were held with Washington, DC-based representatives of organizations involved in transit and transportation planning, policy, funding, legislation, and regulation. The results of this process were reported in a companion technical memorandum to this report.

#### ***Data Sources and Systems Selected***

Data and information gathering on ridership came from several sources, including statistics available from APTA; reports of ridership experiences that appeared in APTA's weekly newspaper, *Passenger Transport*, between 1994 and 1996; and documents provided to the researchers by staff members at the transit agencies interviewed. The major statistical sources used were the APTA Quarterly Ridership Reports from 1994, 1995, and 1996.

Table 1 identifies the transit systems that have been the subject of the assessment. The table first lists the systems that were the subject of the 1991 through 1993 study effort and then the more recent ridership trends from 1994 through 1996. The second group of transit systems, added in this follow-on assessment, showed significant ridership increases during 1994 through 1996.

**TABLE 1 Transit ridership changes on selected systems, 1994 through 1996**

System/City	1996 Total Annual Ridership (000s)	Percent Increase/ (Decrease) 1994-1996
<i>Original Systems (Included in 1991-1993 Study)</i>		
C-TRAN Vancouver, WA	5,097	48.0
LYNX Orlando, FL	15,818	38.0
SCAT Sarasota, FL	1,931	37.8
Roaring Fork Aspen, CO	3,697	22.0
Ames Transit Agency Ames, IA	2,719	17.7
Riverside Transit Agency Riverside, CA	6,360	15.7
Escambia County Area Transit Pensacola, FL	1,354	14.7
TALTRAN Tallahassee, FL	3,154	11.7
FAX Fresno, CA	9,290	11.2
MTD Champaign-Urbana, IL	9,300	8.9
Utah Transit Authority Salt Lake City, UT	18,798	5.9
METRO RTA Akron, OH	5,673	4.7
New Jersey Transit Newark, NJ *Excludes demand-responsive service	189,625*	3.5
PenTran Hampton, VA	6,351	1.6

**TABLE 1 Transit ridership changes on selected systems, 1994 through 1996  
(continued)**

System/City	1996 Total Annual Ridership (000s)	Percent Increase/ (Decrease) 1994-1996
Citifare Reno, NV	8,224	1.0
Broward Transit Ft. Lauderdale, FL	24,093	(0.7)
DASH Alexandria, VA	2,252	(0.7)
RIDE ON Montgomery Co., MD	17,241	(1.4)
Metro-Dade Miami, FL	80,029	(2.7)
HART Tampa, FL	7,392	(6.3)
SamTrans San Mateo, CA	17,890	(9.6)
MTA Flint, MI	5,482	(12.6)
<i>Other Systems With Significant Increases (1994-1996)</i>		
Santa Clarita Transit Los Angeles, CA	1,692	41.7
Snohomish County PTBA Seattle, WA	7,310	35.5
Visalia City Coach Visalia, CA	1,121	31.8
Regional Transit Authority Corpus Christi, TX	5,521	31.2
OMNITRANS Riverside, CA	10,454	29.6
Transfort Ft. Collins, CO	1,398	22.6

**TABLE 1 Transit ridership changes on selected systems, 1994 through 1996 (continued)**

System/City	1996 Total Annual Ridership (000s)	Percent Increase/ (Decrease) 1994-1996
Foothill Transit Los Angeles, CA	13,948	19.7
Laketran Cleveland, OH	574	18.3
Waco Transit System Waco, TX	538	17.0
MARTA Atlanta, GA	167,240	16.9
Centre Area Transportation Authority (CATA) State College, PA	2,244	16.8
South Coast Area Transit Oxnard, CA	2,937	12.9
Orange Co. Transportation Authority (OCTA) (Bus) Los Angeles, CA (MB only)	45,681	11.1
Housatonic Area Regional Transit (HART) Danbury, CT	745	10.8
Whatcom Transportation Authority Bellingham, WA	2,890	10.3
Sacramento Regional Transit District Sacramento, CA	24,756	10.2
Pierce County PTBA Tacoma, WA	12,222	10.1
Tidewater Transportation District Commission Norfolk, VA	9,139	9.9
Tri-Met Portland, OR	66,374	9.9
Denver Regional Transportation District Denver, CO (MB/MBP)	48,126	9.0

### ***Transit System Interviews***

Interviews were conducted with senior staff at each of the transit systems listed. The objective of the interviews was to develop general information about the factors and actions that were considered important in generating the ridership increases or that might have influenced changes in prior ridership trends in the case of the original systems. The interviews were carried out in a fashion similar to the approach used in the earlier study. A loosely structured set of questions was used by researchers that allowed interviewers and respondents to address any circumstances or issues they considered important to the ridership experiences being examined. Appendix A contains summaries of the interviews completed during the course of the study.

As was true in the original study, there were several instances in which more than one individual was interviewed at the same system. In most cases, a single senior manager or the executive director was interviewed. Often supporting material and documentation also was provided and reviewed by researchers. Appendix B contains a selective bibliography of the sources used.

Although the interviews and the capsule summaries in Appendix A allow for findings and conclusions to be drawn for the purposes of the study, they are by no means comprehensive, nor was any attempt made to independently confirm data or validate information from the individuals or sources other than those noted. This was the same approach used in the 1991 through 1993 study.

## **OBSERVATIONS**

Several observations made in the original assessment of 1991 through 1993 ridership increases are of continuing relevance in the assessment of more recent ridership changes. The issues highlighted below were discussed in *TCRP Research Results Digest 4*.

**(The material that follows is adapted from or quoted directly from pages 3 to 6 in *TCRP Research Results Digest 4*.)**

### **Local Context and Dynamics Remain Critical**

Ridership increases at systems from 1991 through 1993 occurred during a period when aggregate transit ridership for the nation was flat or declining slightly, coinciding with lagging economic performance nationally and throughout many regions of the country. In the past several years, economic strength has returned to many regions, and transit managers have noted improved local economies as a major factor in the more widespread, significant, and sustained ridership increases that have been registered over the past 3 years. Despite stronger economic performance nationally and in many regions, aggregate national transit ridership has remained stable from 1994 through 1996 at approximately 7.9 billion trips annually. The national ridership trends across modes of transit have varied, however. Examples are as follows:

- Overall bus ridership has declined, driven by losses in larger systems and cities, even though bus ridership trends at smaller transit systems have been positive;

- Light rail and commuter rail ridership has increased nationally, largely because of new systems and extensions going into operation; and
- Heavy rail ridership declined slightly, driven in large part by experiences in the New York region, which accounts for nearly two-thirds of total heavy rail ridership, nationwide.

Ridership reports from the first half of 1997 indicate, however, that ridership, which was stagnant during the past 3 years, may be increasing. First half reports for 1997 show year-to-date ridership increasing at 2 percent over the previous years' levels, with increases in all transit modes. Clearly, there is a lag between upward changes in economic performance and increases in transit ridership. The relationship, however, is complex and is more reflective of specific local and regional conditions than broad national trends.

As noted in the initial study, this relationship is one of several illustrating that circumstances outside the immediate control of transit planners, managers, and policy-makers can have far greater effects on transit ridership than any combination of service, fare, marketing, or operational initiatives instituted by transit agencies themselves. The earlier report observed that, *"This notion continues to call into question the balance of effort and energy devoted internally to system and service improvement strategies compared to the efforts and abilities of transit managers and policy-makers to impact and influence forces, conditions and policies outside the immediate operating environment that have substantial impacts on transit use. If ridership continues to increase modestly but market share continues to decline regardless of how traditional service adjustments are made, to what extent should non-traditional initiatives and activities be introduced into an agency or industry agenda?"*

The results of the current study strongly suggest that this question remains relevant today, and there is clear evidence of greater breadth and innovation in the actions and strategies being implemented to increase transit use and expand its relevance. Yet, the long-term trend in declining market share is continuing nationally as well as in many areas, including those where ridership growth has been most pronounced. Nonetheless, the battle for an increased role for public transit has broadened in recent years and more examples of effective innovation and change are in evidence today than was so in the earlier study.

The question of what constitutes "new" or "innovative" remains, however. Strategies and initiatives that have long been in place in one area may be highly unusual or innovative for another. Transit systems that are the focus of the current study have introduced significant changes, many of which have been well established elsewhere. In some cases, changes are tending in opposite directions with great success. This is the case with C-TRAN in Vancouver, WA, where ridership increases are occurring because of a switch in service configuration from timed-transfer service to a grid system, while in Corpus Christi, TX, significant ridership increases are resulting, in part, from introduction of neighborhood transit centers.

### **What Constitutes Success?**

The earlier study included a discussion of conflicting or competing goals that frequently arise in the transit industry. The study noted that, *"Increasing absolute ridership levels is not the sole or even primary criterion for 'success' across the industry. Success can be and is defined in a variety of*

ways. Frequently, ridership is combined with or even subordinated to financial and budgetary objectives....As a result, success is often defined informally as minimizing the ridership losses from measures taken to increase revenues or constrain costs. " As was the case in the earlier study, these often conflicting goals are being served simultaneously.

Similarly, it was noted that although significant increases in transit ridership have resulted from the expansion of service, as would be expected, use of service may have declined. This calls into question the extent to which increasing ridership and declining use could be considered a "success." As noted in the earlier study, "Several transit managers interviewed have recognized patterns of lowered utilization in periods following the introduction of new service, with slow recovery of utilization rates as expanded services become better recognized throughout the community." Although this phenomenon continues to hold true in many cases in the current study, transit managers were able to point to both ridership increases and improved system performance as a result of the actions taken and initiatives described here.

Finally, findings from the current study also reflect observations made in the earlier work with respect to the importance of increased ridership versus the affect of enhancing the long-term relevance of transit and broadened support for transit generally. As was noted in the earlier report, "Many of the actions described result in significant ridership increases at a micro level or for a specific market but seem inconsequential at the overall system level in the short term. Added value comes, however, in building positive, supportive links to other parts of the community." As an example, integration of traditional transit services with school and human service agency transportation represents an expanding frontier that serves to both increase transit ridership and place transit more firmly in the public consciousness as a fundamental service.

As was suggested in the earlier study, "competing goals aside, it remains a critical objective for the industry and for the communities served by public transit, to attract as many users as possible to the service. "

### **Aggregate Data Disguises Critical Relationships and Effects**

The current ridership assessment began from a review of systemwide ridership data reported to APTA. As described earlier, however, aggregate system-level data disguise important relationships and dynamics. Although total system ridership may not have changed significantly, transit use and travel patterns at the subsystem or subregional level may be changing significantly in several dimensions, including in specific geographic subregions, in particular corridors, by specific types of users, for particular trip purposes, or for individual transit modes. Many of these circumstances have come to light as researchers have discussed aggregate ridership changes with transit managers and staff.

As was suggested in the earlier study, it is these experiences--disaggregate or submarket initiatives and effects--that are not widely or effectively shared across the industry and among stakeholders.

### **Funding Constraints**

A final topic of concern to the industry as a whole and the management and staff of most systems interviewed is the lack of a financial base to launch or sustain major ridership initiatives. Funding constraints inhibit service expansion, suppress service innovation and experimentation, and limit the scope of even "back-to-basics" service enhancements. Funding constraints also dramatically reduce critical market research functions and activities. Ridership increases do not usually come without added cost, and increased financial support is as critical as operations, planning, and other service-based initiatives.

## **CATEGORIZING RIDERSHIP INITIATIVES**

Using information gathered from the assessment of ridership increases for the original 27 transit systems, five broad categories of activity were identified in the initial study. These same categories provided the framework for examination of the ridership increases from 1994 through 1996.

### **Service Adjustments**

Service adjustments refer to changes that tangibly alter the services as provided or as consumed by the riding public. Service adjustments most frequently mentioned as having materially affected ridership from 1994 through 1996 included

- Reallocation of service to the most productive routes,
- Increased frequency of service,
- Enhanced passenger amenities, and
- Introduction of transit center-based route structures.

### **Fare and Pricing Adaptations**

Fare and pricing adaptations include actions that alter the absolute or relative price or cost of transit services for existing or prospective riders. Among the actions mentioned most often were

- The introduction or expansion of deep discount passes,
- The expansion of outlet sales, and
- Cooperative programs with businesses or other organizations or institutions.

### **Marketing and Information Initiatives**

Marketing and information initiatives include approaches ranging from broad public information campaigns to programs tailored to specific markets or specific services. These activities generally increase the level of available information about service, with or without actual changes in the services themselves.

### **Planning Orientation**

Activities noted under the heading of planning orientation include processes and initiatives that elicit more input and new perspectives from local citizens and leadership. A new generation of "comprehensive operations analyses," strategic plans, and community-based planning activities are among the most frequently mentioned examples.

### **Service Coordination, Consolidation, and Market Segmentation**

Service coordination, consolidation, and market segmentation initiatives are intended to highlight instances in which integration is occurring across a broad spectrum of transportation service providers and others, or where the needs of specific submarkets or user groups are being targeted.

## **FINDINGS AND CONCLUSIONS FROM RECENT TRANSIT RIDERSHIP INCREASES**

The material that follows summarizes the factors thought to have most influenced changes in ridership trends in those transit systems reviewed in the earlier study and in other selected systems that demonstrated the most significant ridership gains from 1994 through 1996. In addition to the following material, Appendix A contains brief summaries of individual transit systems. These summaries are based on interviews with system managers.

### **Recent Experiences at the Original Systems**

Table 2 contrasts the ridership experiences from 1991 through 1993 with those from 1994 through 1996 for 22 of the original transit systems studied. The story in aggregate numbers is decidedly mixed. Among the most significant stories are

- The continued phenomenal ridership growth at LYNX in Orlando, FL, which achieved a 38 percent increase following a 44 percent increase in the prior 3-year period;
- The about-face at the Flint, MI, MTA, the prior time period's ridership leader (12 percent decline following a huge increase of 90 percent plus) and at SamTrans, (a 9 percent decline after an earlier 34.6 percent increase);
- The extraordinary recent increases at C-TRAN in Vancouver, WA, (48 percent increase following a 4 percent earlier increase) and SCAT in Sarasota, FL, (a 37.8 percent increase after an earlier 9.4 percent increase); and
- The steady progress over the 6-year period at several smaller systems (Ames, IA; TALTRAN in Tallahassee, FL; and FAX in Fresno, CA).

TABLE 2 Recent ridership experiences at original systems

System City 1996 Ann. Riders (000s)	1991- 1993 Percent Increase	1994-1996 Percent Increase/ (Decrease)	Key Factors Influencing 1994-1996 Transit Ridership Trends
C-TRAN Vancouver, WA  5,097	4.1	48.0	Rapid regional growth (+) Strong regional growth policies (+) Long-term fare stability (+) Shift to grid system from timed transfer system (+) Introduction of new types of service (+)
LYNX Orlando, FL  15,818	44.5	38.0	Rapid regional growth (+) Aggressive marketing and public relations program (+) Business partnerships and collaboration (+) Emphasis on customer service/amenities (+) Funding constraints restrict expansion to meet demand (-)
SCAT Sarasota, FL  1,931	9.4	37.8	Major fare reduction based on County policy (+) Service expansion (+)
Roaring Fork Aspen, CO  3,697	14.0	22.0	Rapid resort growth (+) Environmental sensitivities (+) Service expansion (+) Business partnerships (+)
Ames Transit Ames, IA  2,719	13.4	17.7	Partnership with University: shuttle service, passes (+) Route restructuring (+)
Riverside Transit Riverside, CA  6,360	44.0	15.7	Economic recession (-) Funding constraints restrict expansion to meet demand (-)
Escambia Co. Pensacola, FL  1,354	3.1	14.7	Growing tourist market, use (+) Marketing emphasis: tourists, trolley services, CBD markets (+)
TALTRAN Tallahassee, FL  3,154	9.2	11.7	University partnerships: passes (+) State government partnership: passes (+) Service refinements (+) Marketing: dependent populations (+)
FAX Fresno, CA  9,290	15.6	11.2	Regional economic recovery (+) Increased job opportunities for low income (+) Aggressive marketing and public relations (+) Funding constraints restrict expansion to meet demand (-)

TABLE 2 Recent ridership experiences at original systems (continued)

System City 1996 Ann. Riders (000s)	1991- 1993 Percent Increase	1994-1996 Percent Increase/ (Decrease)	Key Factors Influencing 1994-1996 Transit Ridership Trends
MTD Champaign- Urbana, IL 9,300	21.8	8.9	Minor changes in hours, coverage (+) Introduction of low-floor buses (+) Take over of University of IL dial-a-ride service (+) Increased state funding (+)
UTA Salt Lake City, UT 18,798	5.8	5.9	Regional economic and population growth (+) Aggressive marketing and public relations (+) Extensive pass programs (+) Introduction of regional inter-city service (+)
METRO RTA Akron, OH 5,673	21.9	4.7	"Maturation" after earlier referendum/expansion (+) Route restructuring (+) Introduction of new types of service (+) Partnerships with businesses, employers (+)
NJ Transit Newark, NJ 189,624	8.0	3.5	Growth in peak-period demand (+) Long-term fare stability (+) Introduction of innovative services (+)
PenTran Hampton, VA 6,351	12.2	1.6	Service reductions for non-work trip markets (-) Funding constraints restrict expansion in fast-growing market (-)
Citifare Reno, NV 8,224	11.1	1.0	Major fare increase (-) Funding constraints restrict expansion to meet demand (-)
Broward Transit Ft. Lauderdale, FL 24,093	11.1	(0.7)	Strong transit-dependent market (+) Fare increase (-) Funding constraints restrict expansion to meet demand (-)
DASH Alexandria, VA 2,252	41.7	(0.7)	Off-peak ridership increases (+) Reputation for reliability, safety (+) Local economic development (+) Government employee reductions (-)
RIDE-ON Montgomery Co, MD 17,240	17.2	(1.4)	Government employment reductions (-) Local and regional fare increases (-) Decline in CBD-bound trips; increase in suburban trips (-)

TABLE 2 Recent ridership experiences at original systems (continued)

System City 1996 Ann. Riders (000s)	1991- 1993 Percent Increase	1994-1996 Percent Increase/ (Decrease)	Key Factors Influencing 1994-1996 Transit Ridership Trends
Metro-Dade Miami, FL 80,029	13.0	(2.7)	Route restructuring (+) Partnership with Medicaid providers (+) Decline follows increases from Hurricane Andrew recovery (-) Management focus on cost control (-)
HART Tampa, FL 7,391	6.0	(6.3)	Increased bicycle transit use (+) Service reductions/fare increases from funding constraints (-) Need to add costly ADA service (-)
SamTrans San Mateo, CA 17,890	34.6	(9.6)	Reorientation of service to BART feeder/integration with regional service (-)
MTA Flint, MI 5,482	90.6	(12.6)	Increased state funding through welfare-to-work partnership (+) Service reductions/fare increases from reduced federal funds (-)

Figure 1 illustrates the experiences of the original systems from 1991 through 1993 and from 1994 through 1996.

Although the gross ridership numbers provide some insights about transit services and use, they tend to disguise important phenomena in almost every case-stories and circumstances that are more important and informative than observations drawn from systemwide ridership data. Examples are as follows:

- The Flint, MI, experience is decidedly positive, given that the state has more than replaced lost federal funds and formally linked MTA services and state welfare-to-work initiatives.
- The LYNX increases are, in part, a testament to customer orientation and marketing.
- The C-TRAN increase reflects the link between growth management and successful transit.
- The SamTrans decline occurs at the same time that total transit use in the San Francisco Bay area is up.
- External forces beyond the control of system managers are often insurmountable and/or irresistible.
- Fully one-half of the systems indicated that ridership growth was constrained by fiscal pressures brought on by reductions in federal operating support during the 1994-1996 period. These systems reported that they could not respond to latent or growing demand because of inadequate resources.

### **Major Themes**

Two strong themes emerge from this re-review of circumstances and experiences at these systems:

1. The relevance of public transportation is increasing in many quarters, both in a broader community context (as viewed by citizens and customers) and in a broader public policy context (as shown by links between transit and other public service objectives, programs, and policies).
2. Resources matter. Most transit systems are unable to serve current and growing demand or to address changing mobility needs, in part, because of financial constraints and competition for limited public funds.

### **Factors Affecting Recent Ridership Experiences and Trends at the Original Systems**

The 1991 through 1993 and 1994 through 1996 ridership trends for the original systems studied and the key factors that have influenced ridership changes in the most recent period are highlighted in Table 3. Several noteworthy observations emerge about the factors and initiatives that have influenced more recent ridership trends in these systems; these observations are discussed in the following subsections.

Figure 1. Contrasts in ridership trends: 1991 through 1993 compared with 1994 through 1996.

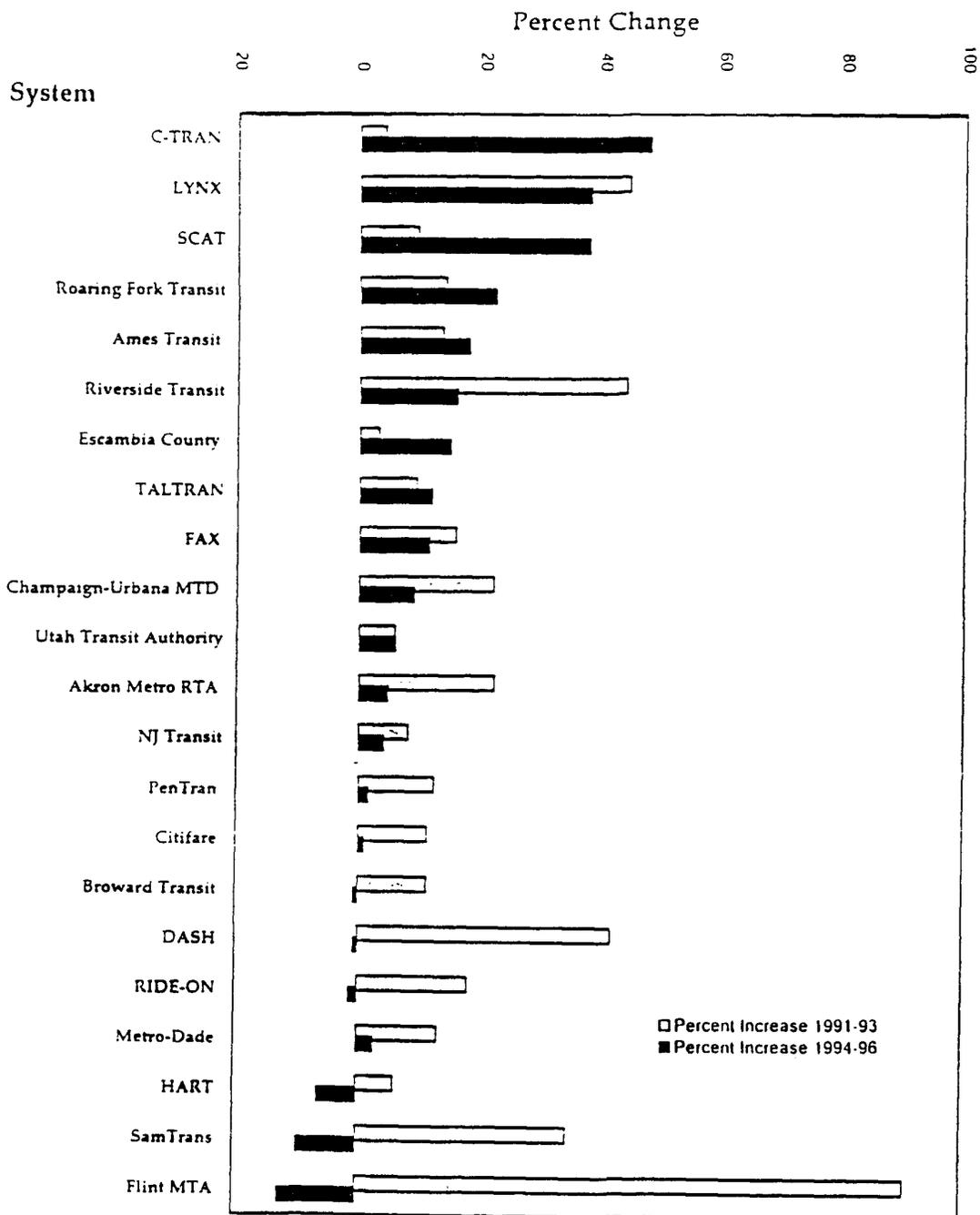


TABLE 3 Selected ridership experiences and key initiatives

System and City 1996 Ann. Riders (000s)	1994 - 1996 Percent Increase	Service	Fares/Pricing	Marketing	Planning	Market Segments
Santa Clarita Transit Santa Clarita, CA 1,692	41.7	Increased frequency  Limited new service		Aggressive outreach through rolling direct mail program; print media	Disaster response	Discretionary riders
Snohomish County PBT Seattle, WA 7,310	35.5	Route restructuring Increased frequency Park-and-ride facilities Transit center Expanded carpool	University pass programs	Advertorials Local newsletters Drive-time radio Direct mail	Neighborhood-level public involvement Increased transit- friendly planning processes	
Visalia City Coach Visalia, CA 1,121	31.8		Fare increase		Response to cuts in school system transportation services	Sharp increase in student ridership
RTA Corpus Christi, TX 5,521	31.2	Route restructuring; introduction of major transfer facilities  Mix of local, express, and park-and-ride service  Tourist services (water taxi, trolley, tram)		Attractive new facilities  Targeted marketing to Hispanic community, shoppers, students		Commuters, transit- dependent riders, youth, elderly, tourists

TABLE 3 Selected ridership experiences and key initiatives (continued)

System and City 1996 Ann. Riders (000s)	1994 - 1996 Percent Increase	Service	Fares/Pricing	Marketing	Planning	Market Segments
OMNITRANS Riverside, CA 10,454	29.6	Major service redesign: route realignment, increased frequencies; improved connections; standard headways  Fleet upgrades (in process) to CNG vehicles	Base fare increase; introduced new day pass	Customer surveys  Improved schedule / system information materials		
Transfort Ft. Collins, CO 1,398	22.6	Initiation of regional service	Fare increase  City subsidy of free youth travel		Service collaborations with university, city, employers  Planning new transit transfer center; rail corridor conversion to multi-modal use	Youth, university students
Foothill Transit Los Angeles, CA 13,948	19.7	Contracted service  Customer service focus  Increased frequency; expanded weekend service	Restructured 7/97  Discount passes	Transit stores; retail pass outlets  Extensive targeted outreach	Strategic plan; development of timed transfer centers  Performance monitoring	Discretionary riders; 18- to 35-year age group

**TABLE 3 Selected ridership experiences and key initiatives (continued)**

<b>System and City 1996 Ann. Riders (000s)</b>	<b>1994 - 1996 Percent Increase</b>	<b>Service</b>	<b>Fares/Pricing</b>	<b>Marketing</b>	<b>Planning</b>	<b>Market Segments</b>
<b>Laketran Cleveland, OH 574</b>	18.3	Service expansion for full weekend service to Cleveland  High-quality commuter coaches  Strong preventive maintenance program		Ongoing public education/outreach  Promotion of weekend service for entertainment, shopping, and travel		Paratransit riders  Cleveland commuters  Recreational riders
<b>Waco Transit Waco, TX 538</b>	17.0	Service redesign			Collaborations with college, local service agencies  Intermodal downtown transit center under development	Commuters, transit-dependent riders
<b>MARTA Atlanta, GA 167,240</b>	16.9	New HR stations opened, 1992-1993	Eliminated station parking charges at one station  Fare increase (June 93)  Base fare increase (July 95) w/ no pass cost increase  Student Transcard introduced		Dedicate freeway entrance to HR station  Partnerships w/ business  Partnerships w/ social service agencies	Increased support, collaboration w/ TMAs

TABLE 3 Selected ridership experiences and key initiatives (continued)

System and City 1996 Ann. Riders (000s)	1994 - 1996 Percent Increase	Service	Fares/Pricing	Marketing	Planning	Market Segments
CATA State College, PA 2,244	16.8	Service line expansion, increased frequency and hours of service	Passes subsidized by residential developments, university	Outreach through local newspaper, web site, press events	Strategic planning underway; market surveys  Collaboration with university, local businesses, residential developments	University students  Emerging markets: commuters, senior citizens
South Coast Area Transit Oxnard, CA 2,937	12.9	Expanded late evening service		Bilingual information and materials  Operation language instructor		
OCTA Orange Co., CA 45,681	11.1	Major service redesign to increase productivity  Service adjustments three times annually  Fleet upgrades				Economic resurgence; increased employee ridership
HART Danbury, CT 745	10.8	Service redesign; initiation of by-request service; paratransit service		Local radio, print media outreach	Jobs transportation planning group  Initiating interstate bus service for commuters and shoppers	Senior citizens; commuters; customers and employees of area shopping mall

TABLE 3 Selected ridership experiences and key initiatives (continued)

System and City 1996 Ann. Riders (000s)	1994 - 1996 Percent Increase	Service	Fares/Pricing	Marketing	Planning	Market Segments
Whatcom Transportation Authority Bellingham, WA 2,890	10.3	Service route expansion; increased service frequency and hours  "Campus express" service  Service redesign  Dial-a-ride van pool feeder service for low- use routes	Fare increases; monthly passes	Targeted marketing to university community; free first-month passes	Collaboration with university	University students and staff  Paratransit riders
RTD Sacramento, CA 24,755	10.2	Increased service, including off-peak  Fleet conversion to CNG in progress	Discount fare campaign  Employer-discounted pass program	Major outreach in conjunction with fuel cost increases and discount fare campaign	Collaboration with university, state government, employers  Light rail expansion under development	Employees, students
Pierce Co. PBTA Tacoma, WA 12,222	10.1	Increased frequency Intercity Express Service with garage Increased vanpooling	Fare increase			

TABLE 3 Selected ridership experiences and key initiatives (continued)

System and City 1996 Ann. Riders (000s)	1994 - 1996 Percent Increase	Service	Fares/Pricing	Marketing	Planning	Market Segments
Tidewater Transit Norfolk, VA 9,138	9.9	<p>Maturing timed-transfer system integrated w/ paratransit</p> <p>Emphasis on quality of the transit experience</p> <p>Focus on family of services w/ premium paratransit</p> <p>Attention to seasonal markets/services</p>	Shift to deep-discount pass program (Oct. 95)	<p>Targeting infrequent riders, population turnover</p> <p>Increased customer service of all types</p>		
Tri-Met Portland, OR 66,373	9.9	<p>Yearly service increases (2.5 percent)</p> <p>Small vehicle suburban service expansion</p> <p>Constant focus on improved reliability</p> <p>Westside LR opening anticipated (Sept. 98)</p>	<p>Staged fare increases at 2-yr. intervals</p> <p>PASSPORT/Eco pass program</p> <p>Subarea parking restrictions, pricing, enforcement</p>	<p>Sustained high level of emphasis</p> <p>Coordination with utilities to target residential changes</p>	<p>Increased Eco pass staff support</p> <p>Tracking LOS, boardings, trips per capita</p>	<p>High level of choice riders (70%)</p> <p>High levels of midday use</p> <p>Attention to TMAs</p>
RTD Denver, CO 48,125	9.0	LRT initiated Airport express		EcoPass program Business relocation service		

### ***Influence of External Factors***

At virtually every system contacted, managers referred to one or more external factors that significantly affected recent ridership trends. In one-half of the systems, the most important of these was the decline in federal operating support, which either reduced the ability to pursue new markets or forced reductions in services to existing customers. This effect, however, has been temporary in many cases, and adaptations are being made successfully to restore funding at state and local levels. There is a lag, however, where declines in funding take 2 years or more to replace, with negative ridership effects resulting in most cases in the interim.

The pace of local economic growth has also been a major factor influencing ridership trends. Strong population and employment growth, slowdowns in regional growth, and downsizing in particular industry sectors or by major employers (e.g., federal government) continue to affect ridership significantly.

### ***Service Adjustments***

Service expansion has been a feature of most of the systems showing significant ridership growth. LYNX continues to expand traditional services, although at a slower rate because of financial constraints; Sarasota expanded service 25 percent, yielding a 38 percent increase in ridership; C-TRAN has been able to expand into areas that are within urban growth boundaries, ensuring that service can be concentrated where development will actually occur rather than in settings characterized by more typical low-density suburban sprawl.

The pattern of service reductions is also noteworthy. TALTRAN in Tallahassee, FL, reduced service but was still able to manage a ridership increase of nearly 12 percent. Citifare in Reno, NV, reduced service 18 percent and was able to hold ridership effectively constant in the process. These experiences may be more noteworthy "successes" than larger percentage increases being experienced elsewhere, given the circumstances.

Holding ridership steady may be viewed as a success, depending on the circumstances. HART in Tampa, FL, has continued increasing its Americans With Disabilities Act (ADA) services to comply with federal requirements, forcing a reduction in regular route services. The 1994-1996 resulting ridership decline (6 percent), however, is turning into an increase during 1997. DASH in Alexandria, VA, essentially held ridership constant in the face of substantial federal downsizing and far greater ridership losses on the regional WYATT system. The same can be said for ridership on RIDE ON in Montgomery County, MD, where holding ridership levels constant can be viewed as a significant achievement.

Service redesign was a feature in nearly all the systems contacted. Route restructuring is widespread, particularly in systems showing ridership declines or slowed ridership growth. In several cases, restructuring is also being aided by more detailed marketing and survey data. Regardless of the ridership trends, systems also are actively experimenting with and introducing new types of services. The most noteworthy example is the shift taking place at C-TRAN in Vancouver from a timed-transfer operation to a grid service. The timed-transfer service was being run with transfers available on 30- to 60-minute cycles. The introduction of connecting grid services on more frequent headways, however, has resulted in significant increases in ridership. The conclusion reached by service planners (and customers) is that service frequency and availability is more important to riders than reliability at longer

intervals. This notion is consistent with a key observation from the prior study--that the most immediate means of generating ridership is through service expansion, and/or increasing frequency, if budget and policy allow.

### ***Fares and Pricing Adaptations***

Fares and fare policy continue to affect ridership. LYNX now distributes passes through more than 40 Walgreen's stores throughout its service area. County commissioners reduced fares in Sarasota from \$1 to 25 cents for a period, resulting in a significant growth in ridership but--as expected--a loss in revenues. This gap was anticipated and was covered by county funds. An increase to 50 cents is planned, with continued county support. NJ Transit attributes its continued ridership increases to stable fares. The system has had no fare increase since 1990, and no increase in local one-zone bus fares (accounting for 50 percent of ridership) since 1988.

### ***Marketing and Information Initiatives***

Marketing and customer orientation are two of the most interesting features of the recent ridership experience. LYNX continues to aggressively pursue a comprehensive and creative "retail" marketing strategy that has sent public awareness of the LYNX system, service, and organization into the mid 90 percent range. They have also reoriented their driver recruitment and hiring process, with less emphasis on past driving experience and more emphasis on screening techniques that focus on a candidate's ability to relate to people, particularly, customers.

C-TRAN in Vancouver embarked on a service expansion and related marketing campaign in anticipation of an impending "disaster." In September 1997, three lanes of six on one of the two bridges connecting Vancouver, WA, with Portland, OR, were closed for repairs. The result was forecast to be a commuting disaster, even though C-TRAN has provided a 14 percent mode split into downtown Portland. Transportation contingency plans included putting into service an additional 100 buses borrowed from Seattle, provisions for commuter rail service on Amtrak, an increase in vanpools from 10 to 120, more than a dozen subscription bus services, arrangements for eight additional park-and-ride lots, and the introduction of an HOV facility in the peak direction on the open three lanes. The preparation, marketing, and highly successful implementation of these services positioned C-TRAN as an invaluable actor in the public eye.

### ***Service Coordination, Consolidation, and Market Segmentation***

With respect to new partnerships and markets, the most noteworthy advance has been the experience in Flint, MI, where public transit services have been endorsed and incorporated in policy and law as a fundamental element of the state's welfare-to-work initiative. Rather than expand or reinforce separate human service transportation systems and services, the Governor has supported the use of--and increased funding for--public transit as a central element in the state's welfare-to-work strategy. The 3-year ridership decline in Flint was a function of lost federal aid. It took 2 years to bring new state resources into play and establish the programmatic and funding link between transit and the state's welfare policy. Despite the

recent ridership dip, managers feel that the relevance of the system has been expanded immeasurably and that the future for the MTA is brighter than ever.

### **Recent Experiences at Other Selected Systems**

Table 3 summarizes the actions and initiatives that have contributed to ridership increases at other transit systems that experienced the largest increases from 1994 through 1996. As was the case in the 1991-through-1993 period, most transit systems experiencing more recent increases have implemented noteworthy actions and programs in each of the five broad areas noted earlier.

### ***Influence of External Factors***

As was the case in the ridership assessment for 1991 through 1993, external factors--those conditions and circumstances over which transit managers and policy makers have little or no control--played a prominent role in the ridership increases and trends from 1994 through 1996. The circumstances range from shifts in regional economies, to federal and state policies, to conditions unique to both a particular region and the specific period being examined.

The most important external factor, common to many of the systems examined, has been the resurgence of regional economic growth. Stronger economies and increases in population and employment tend to result in increases in ridership and strengthened demands for service expansion. Areas with adequate financial resources have been able to respond and expand their ridership base.

Running counter to the effect of resurgent economies has been the withdrawal of significant federal operating assistance during 1994 through 1996. In areas where lost federal funding has not been replaced at the state or local level, transit system ability to increase ridership during a period of economic growth has been restricted. The effect is twofold. Several systems that realized significant ridership increases during 1994 through 1996 could have captured even larger increases if they had had the resources to expand service to meet rising demand. In other instances, ridership remained flat or declined slightly because resources were not available to address increasing demands that were not currently being met.

Government policies other than transportation policies are also beginning to affect some areas. In particular, welfare-to-work initiatives and education policy are leading to increased collaboration and cooperation with traditional transit providers. Although this has been of strategic interest to the transit industry for some time, it is only recently that mutual interest from other public service sectors has been translated into effective action. In the case of Michigan, the linking of transit and welfare-to-work programs was directly responsible for increasing state funding to transit and mitigating the loss of federal operating assistance.

Another example of the effect of broad policies is the link between the well-known growth management policies in Portland, OR, and the continued increases in transit ridership that have been experienced by Tri-Met. The policy setting in Portland is, however, complex and has proven hard to replicate. Growth management fosters development patterns that are

served more effectively by transit, the livability of those developments requires transit, and the need for transit has fostered support for ensuring that reasonable funding sources are available.

Finally, unique local and regional circumstances continue to play a role in ridership trends and in many of the increases described here and in the system summaries in Appendix A. Among the most obvious was the increase in ridership that occurred in Atlanta as a result of the Summer Olympics. Other similar events and circumstances have been important in other areas but certainly not on the same scale as the Olympics.

### ***Service Adjustments***

Although several of the systems examined increased service levels in the 3-year period, the most often cited service adjustments involved restructuring of existing services to concentrate on geographic areas (corridors or subareas) where current travel demand is greatest. Although this approach is likely to result in reduced coverage and frequency in some areas, increased attention to demand, use, and emerging markets has increased ridership. This suggests that the rationale for service planning may be shifting from the traditional strong reliance on uniform service coverage objectives and "policy headways" to somewhat greater emphasis on market demand and performance at the system and subsystem level. The considerable attention being given to regular service analyses and periodic "comprehensive operations analyses" by many of the systems contacted is further evidence that performance measurement may be playing a more prominent role than it has traditionally.

One of the most interesting findings was how the basic service structures and their effectiveness compared. Many of the systems that have experienced significant recent ridership increases noted the effectiveness of timed-transfer or transit center-based operations, particularly in the smaller systems--in this service concept, reliability is critical to attracting and retaining riders. The C-TRAN experience suggests that increased service frequency in a grid network can also lead to substantial ridership increases. Both instances are consistent with the experience of systems that had ridership increases in the earlier period (i.e., that increased service frequency is a fundamental strategy for increasing ridership). The effectiveness of these alternative service configurations obviously is dictated by local and regional circumstances. The availability of adequate funding is a key factor in the ability to operate high-frequency service, regardless of the route structure being used.

In contrast with observations noted in the earlier study, more mention was made of the effort to cater to and serve tourist and seasonal markets as well as university markets. In these instances, the opportunity to focus on specific markets with new, non-traditional services has led to a broader range of sustained partnerships with business and the education sector than was evident in the earlier study.

Because of the continued financial constraints that transit systems operate under, there is clear "back-to-the-basics" orientation in many systems and an acceptance of the need to move incrementally in making service changes and improvements.

### ***Fare and Pricing Adaptations***

The most widespread fare and pricing factor noted during the current interviews was the broad emphasis on and expansion of pass programs using various levels of discount. Most of the systems contacted had moved recently into some form of deep discounting to provide an added incentive to existing and prospective users.

The issue of pricing, however, is still being pursued on a one-dimensional basis, i.e., through adjustments to the cost of transit to riders, rather through adjustments to the cost of travel across modes. In only two cases--Tri-Met in Portland and MARTA in Atlanta--was mention made of efforts to influence transit use through adjustments to parking costs. In the MARTA case, the effort was focused on eliminating parking charges in part of a MARTA garage at a key rail station, rather than on parking costs generally.

Increasing use of passes also is significant because it has created a vehicle for many systems to establish partnerships with a wide range of other organizations, including businesses, universities, and health and welfare providers, among others. These partnerships have led to increased ridership and have enhanced the relevance of transit in the broader public policy arena, a step critical to future efforts to increase ridership and to ongoing efforts to marshal the resources needed to provide effective service.

### ***Marketing and Information Initiatives***

Although only a few examples were cited of specific marketing initiatives identified with ridership increases, many systems mentioned efforts to sustain strong, broad-based marketing programs. The implication is that sustained, aggressive marketing is now somewhat more widely recognized as a critical feature than it may have been in prior years. In the past, marketing programs were often the first to be reduced in difficult financial times.

It was also apparent from the reactions of system managers that much more attention is being paid to targeted marketing than was apparent in the earlier study. Almost no obvious market or submarket was left out of discussions with various system managers. The transportation disadvantaged, ethnic communities, students, new residents, commuters, tourists, and so forth, are all being targeted directly and effectively in marketing campaigns, along with the general effort to project transit more positively into the public consciousness. As an adjunct to the marketing efforts, frequent mention was made of the importance of and approaches to more customer-oriented service design, operations, and marketing. Because marketing staffs frequently are a first point of contact for existing and prospective riders, the commitment to stronger market orientation has, in many systems, taken the form of increased resources for public information functions.

Finally, marketing campaigns also provide natural opportunities to establish partnerships with interests and organizations throughout the community.

### ***Planning Orientation***

As noted in the discussion of service adjustments, there appears to be a more widespread involvement in comprehensive operations analysis than was noted in the previous study. In many cases, these initiatives are being enlarged and made more sophisticated within the technical planning staffs at transit systems. At the same time, there appears to be more

widespread planning activity involving more stakeholders than may have been true in the past. As a result, transit systems seem to be somewhat more opportunistic in establishing effective linkages if not overt partnerships as services are planned and altered.

Unlike the earlier study, however, there were fewer instances mentioned in which specific, "new" planning programs or initiatives were noted. One interpretation may be that strategic plans and new collaborative ventures are no longer considered by most systems to be unique, but are often undertaken in the normal course of events, at least at the systems examined.

### ***Service Coordination, Consolidation, and Market Segmentation***

There has been fairly broad recognition among the systems contacted that success lies, in part, in reaching out more routinely to stakeholders, clients, and partners in all aspects of planning and operations. Although these efforts certainly result in improved ridership in specific circumstances, they also are providing transit with a broader base of support, which is equally important in the long run. Many of the managers interviewed remarked about the degree to which transit services have achieved a more prominent place in the local and regional public policy agenda as a result of successful efforts to engage other organizations and interests communitywide.

In reviewing the progress that has been made at the systems examined, it is clear that the initiatives being taken seem to reflect a somewhat broader sense of mission. The concept of "mobility management" is more frequently mentioned as a key perspective driving the kinds of actions and initiatives being taken at these systems. At the same time, there is still relatively little evidence of significant realignment or restructuring of organizations, institutions, and process steps that are increasingly discussed as fundamental in the evolution of transit agencies into managers of mobility. The efforts being made, though highly successful in attracting added ridership in many instances, are fundamentally innovative steps taken from within a traditionally structured industry. Few, if any, systems have yet attempted (or been allowed to attempt) the types of change that might take ridership successes to a level where the trend of declining market share can be reversed.

Still, the experiences highlighted in the current assessment of ridership increases are worthy of more intense and systematic review and broader dissemination across a wide range of audiences. These experiences can provide the base from which innovations and initiatives can be considered and evaluated.

## APPENDIX A

### SUMMARY OF TRANSIT SYSTEM INTERVIEWS

Telephone interviews and, in some cases, face-to-face interviews were conducted with transit managers at 45 transit systems. Summaries of these interviews are provided in the pages that follow. During the interviews, the following general questions were pursued in an effort to identify the factors and actions that have contributed to ridership increases from 1994 through 1996. These same general questions were the basis for interviews in the earlier study of ridership increases from 1991 through 1993.

1. Is the general magnitude of increases as drawn from APTA data correct?
2. What factors do you think have contributed to the increases?
3. To what extent has service expansion been responsible for increases?
4. To what extent have new programs or initiatives been responsible? What specific actions or initiatives? Can you describe them briefly?
5. What actions are being contemplated in the future to increase ridership?
6. Is there anyone else at the system that we should talk to about your recent experiences or programs?
7. Is there written material describing your recent ridership trends and initiatives?

### FACTORS AFFECTING RIDERSHIP TRENDS, 1994 THROUGH 1996 THE ORIGINAL SYSTEMS

#### Ames Transit Agency

#### Ames, Iowa

Contact: Robert Bourne, Executive Director

### SUMMARY

During 1991 through 1993, Ames Transit's ridership increased 13.4 percent. An unexpectedly sharp decline in the first quarter of 1994 was attributed to a fare increase implemented the prior quarter, and fares were rolled back to former levels. Ames has since had strong ridership growth, with an increase of 17.74 percent from 1994 through 1996. This trend has continued into FY 1997

Ames ridership is dominated by the university market, and the agency has worked closely with the university on service design and fare structures. Thus collaboration has provided steady ridership growth to the transit agency while enabling the university to reduce on-campus congestion and avoid costly parking lot expansion. A shift in the typical student profile to older, part-time students who often commute to classes has further increased the need for transit services. Agency planners estimate that there is a 5 to 8 percent annual increase in travel to campus; most of this increase is captured by the bus system. Ridership on non-university-related routes has declined during this same period.

Ames Transit serves 2.7 million passengers with a 3 million dollar budget. As the pace of suburban development increases in the area, the agency is concerned about the level of capital resources needed to expand service levels. In particular, the agency sees an increasing demand for paratransit services. Increases in city support are linked to property value increases, which are not always sufficient to cover the system's needs.

Specific initiatives undertaken by Ames Transit to promote ridership include

- *Parking/Shuttle Service for University Commuters.* Ames Transit provides a parking lot shuttle running from a university parking lot into campus. To encourage use of this service, the agency moved to 5-minute headways, and the university provided parking for free at this lot. Ridership increased dramatically with this combination of services and pricing.
- *Subsidized Service.* A university residence hall arranged with the agency to provide free service to residents traveling to the university by reimbursing Ames Transit for the fare loss.
- *Pricing and Pass Programs.* The pricing adjustment noted in the past report (reversing a fare increase after ridership dropped) has been maintained, with a base fare of 75 cents. Reduced fares (25 cents) have been instituted for off-peak use evenings and weekends. This fare reduction achieved increased ridership on one Saturday route, and service headways have been reduced from 40 to 20 minutes on that route. The increase in service has been funded through internal savings.

Various pass structures have been implemented to serve different riders, each priced at the same rate as the standard monthly pass. New passes include a semester pass for university staff and a winter pass for bicyclists (running from November 1 to March 1). The agency has negotiated with the university to pay half the cost of employee passes; they are now issuing about 150 to 160 passes per semester.

- *Market Research.* Ames Transit has benefited from the use of focus groups and market research to determine appropriate changes in pass structure and refinements in service.
- *Internal Savings.* Since a 1 percent cut in annual mileage in 1993, Ames has been able to maintain service levels by identifying cost savings internally. One major cost-reduction strategy has been the use of mini-buses for some night service and early morning weekend routes. These vehicles are used for dial-a-ride service during the day. Overall, the agency has increased the amount of mileage covered with smaller vehicles, enabling cost reductions and improving the public image of the agency by reducing complaints about "empty buses" during off-peak runs.
- *Consulting Services.* The agency recently started a consulting firm in cooperation with the university and bid for and won a contract to design a bus system for a neighboring town. Because of the cyclical nature of the system's services, which are heavily influenced by the university schedule, the agency has professional staff available to provide contract services during the slower summer season. Ames Transit intends to do one contract per year to bring in revenue and keep staff fully utilized.

**Broward County Division of Mass Transit  
Broward County, Florida**

Contact Bob Fossa, Senior Planner

**SUMMARY**

During the 1991-through-1993 period, transit ridership in the Ft. Lauderdale area increased by 11.1 percent. These increases continued into 1994, which saw an increase of 5.79 percent. Ridership has been essentially stable since 1994, with a slight decline registered for the total 3 year period from 1994 through 1996 of just under 1 percent. Miles and hours of service have been maintained. The agency had a fare increase in April 1995, which may have resulted in some loss of ridership. Ridership in May 1997 had increased roughly 3 percent over the previous year; this increase is considered to be a reflection of increased demand.

The system serves a general market. Planners estimate that 87 percent of the system's riders use the system because they do not own or have access to a car. A survey recently conducted by the University of Southern Florida's Center for Urban Transportation found that most riders have incomes between \$10,000 and \$20,000.

Economic development is strong in the county, and increasing demand is anticipated. The focus of the agency, therefore, has been on service planning and identification of funds to support expansion. Obtaining ongoing operating funds is considered the biggest challenge. Farebox recovery has increased from about 27 percent of operating costs to approximately 30 percent, attributable to the 1995 fare increase. The system is working with the County Commission to identify resources, with a goal of increasing the system budget from \$50 million to \$75 million by FY 2000.

Specific initiatives to support ridership have included

- *Customer Surveys and Service Expansion.* The system is initiating several service changes based on the results of surveys recently completed. Surveys have identified late night and Sunday service as the two biggest demands for service expansion. In January 1998, the system will begin extended late-night service (after 10:00 p.m.) on 14 of 28 routes. In addition, the three routes that do not run on Sunday will have Sunday service beginning in January. Broward plans to reduce headway on its best route to 20 minutes throughout the day. Thus expansion, at an annual operating cost of \$2.6 million, will be supported for 2 years by CMAQ funds.
- *Fleet Expansion.* In FY 2000, Broward's fleet will be expanded from 197 to 242. The expanded fleet will enable Broward to extend service to southwestern Broward County where considerable development has been occurring with no capacity to provide service.
- *City-Based Circulators.* The system's overall expansion strategy is to increase frequencies, straighten routes, and focus on main radials. To supplement this grid approach, the system has put in eight fixed-route circulators in specific neighborhoods.

- *Peak-Hour Express Lines/Mid-Day Demand-Response Service.* Mini-bus peak-hour express runs have been instituted on a pilot basis, providing service between major residential developments and downtown Ft. Lauderdale. During the day, the same vehicles are used to provide demand-response circulator service in a disadvantaged area near downtown Broward. The minibuses provide free door-to-door service to any destination within the area between 9:30 a.m. and 2:30 p.m. The program, supported by CMAQ funds, has had strong mid-day ridership since its initiation in March 1997. The express service ridership averages 25 to 30 people a day, while the circulator system ridership is approaching 200 per day.
- *Changes in Paratransit Service.* In January 1997, in response to complaints and poor service, Broward Transit terminated its contract with the sole provider of its paratransit service. Ridership had declined in paratransit because of the poor service (from 854,000 in FY 1995 to 742,000 in FY 1996). The system now contracts with seven different providers with regions and zones. Ridership has rebounded, and the number of complaints has been dramatically reduced.

**C-TRAN  
Clark County Public Transportation Benefit Area Authority  
Vancouver, Washington**

Contact: Les White, former Executive Director  
Michael Haggerty, Service Planner

**SUMMARY**

According to the C-TRAN planning staff, the system has experienced double-digit increases in ridership in recent years. This growth trend is evident in the 1994 to 1996 period, which shows a 48 percent increase.<sup>1</sup> The following external factors have played a major role in this phenomenal growth:

- *Economic Growth.* Clark County is the fastest growing county in Washington and is a bedroom community for Portland, OR.
- *Location Preference.* As a bedroom community with a very low property tax rate, Clark County is a preferred location for metropolitan residents.
- *Regional Growth Management.* Portland's aggressive approach to growth management has allowed C-TRAN to know where growth is going to occur and in what form, helping to eliminate the need for service expansion into far-flung, low-density suburban settings where service is unproductive and costly to operate.

In addition, the Portland region is well known for a strong pro-multimodal outlook and philosophy that is reflected in levels of transit use throughout the region. Portland maintains a 40 percent non-SOV mode split into the downtown; Clark County travel into downtown Portland currently has a 15 percent transit mode share.

Finally, as part of the regional growth management policy, Portland has maintained high off-street parking rates in the downtown area--approximately \$200 per month.

The combination of these factors has provided the major impetus behind the incredible ridership growth being experienced by C-TRAN.

Although these external factors have been important, C-TRAN has also continued to make adjustments in its service and operations. Adding to the reasons for continuing ridership growth is the fact that C-TRAN has been able to operate and expand over the past 7 years without a fare increase. This is possible, in part, because of the ability to avoid running costly,

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<sup>1</sup> The prior TCRP assessment indicated a 3-year ridership increase from 1991 to 1993 of 4 percent. Although the number was correctly derived from available data, C-TRAN staff indicated in the current round of interviews that in 1992 old fareboxes were replaced with electronic registering models. Drivers were slow to adjust and/or were not well trained in their use. The result was that in that year, reported ridership figures were far below actual experience.

unproductive service as a result of regional growth management. In addition, however, CTRAN operates a very low-cost and effective maintenance program. Initiatives related to service planning and improvements include the following:

- *Service Redesign.* Perhaps the most noteworthy C-TRAN initiative that has contributed to the growth in ridership has been the calculated decision to shift service patterns from a very practical and skeletal timed-transfer system to a grid system with service operating more frequently. The introduction of more east-west routes and increases in headways from the 30 to 60 minutes on much of the former timed-transfer service has paid off both in increased ridership and increased use.

In effect, a frequency-based system and service has been introduced in place of a system whose major characteristic was reliability. Once that reliability began to break down, the timed-transfer system was less and less effective from a customer point of view. In contrast, the move to more frequent, grid-oriented service has created additional informal "timed-transfer" opportunities where major routes now intersect. Coupled with greater visibility in the public eye because of the increased frequency of service, C-TRAN does not see the current trend tapering off soon.

- *Service Enhancements and Customer Outreach.* In addition to reconfiguring its service, CTRAN continues to introduce new types of services. It plays a part in an aggressive, state-mandated employer outreach program, provides guaranteed rides home, and offers taxi script to assist those who choose to leave their car behind.
- *Construction Period Services Planning and Marketing.* Finally, C-TRAN is parlaying its continuing success through a new service planning and marketing initiative focused on the "disaster" that will confront the region when one of the two river bridges to Portland is closed later this year for repairs. C-TRAN services will be even more critical to the region than they have been. To meet the challenge and enhance its role, C-TRAN is borrowing buses from Seattle, providing eight new park-and-ride lots, assisting in an HOV demonstration, ramping up its vanpool program, and assisting in the introduction of Amtrak-operated commuter rail service.

## **Champaign-Urbana Mass Transit District Champaign-Urbana, Illinois**

Contact: Bill Volk, Managing Director

### **SUMMARY**

In the last 3 years, the Champaign-Urbana MTD system has experienced ridership growth of nearly 9 percent--a rate larger than growth in the regional population. According to management, the increases have occurred without any "dramatic changes" in the scope or nature of services in the region. Managers have, however, continued to make minor service adjustments in the form of additional coverage, additional hours, and changes in schedules. In addition, the "products" being provided have been improved. For instance, 50 percent of the fleet consists of new low-floor buses, adding to the convenience of the bus trip, and a new downtown intermodal terminal is under construction that will serve the transit system, intercity buses, and Amtrak. Finally, the Champaign-Urbana system recently took over the operation of the University of Illinois' dial-a-ride service.

The progress that has been made also results, in part, from increased funding from the state. Increases have been provided in anticipation of cuts in support at the federal level.

**Citifare--Regional Transportation Commission  
Reno, Nevada**  
Contact David Jickling, Transportation Planner

## SUMMARY

The increase of 11.1 percent experienced from 1991 through 1993 in the Reno area was followed by a period of flat ridership levels from 1994 through 1996--Citifare recorded a less than 1 percent increase during that period. A significant ridership decline in 1994 of almost 6 percent was attributed to a fare raise of about 33 percent across the entire system that was implemented in August of 1993. Staff estimate that ridership was regained within 6 to 7 months.

Beginning in FY 1995, the system was required to start reducing service because of financial shortfalls related to several factors, including the need to accrue capital to replace a portion of its aging fleet. In addition, operating costs were higher than anticipated, possibly because of previous expansion of services. These issues were compounded by federal budget cutbacks and an economic downturn in the area and the resultant leveling of sales tax revenues. In response, Citifare undertook a detailed analysis to determine how to reduce service and increase revenues while minimizing ridership loss. Approaches included the following:

- *Service Reductions.* Between 1995 and 1997, Citifare reduced service by 18 percent. The agency first conducted an intensive analysis of trip-by-trip performance of the whole system. The first line of cuts involved eliminating trips with fewer than 10 passengers an hour. Two routes were eliminated completely; other routes had service levels reduced. As a result of careful analysis, Citifare was successful in minimizing ridership loss--estimated at an 8 percent decline--and in increasing its productivity from an average of 31 to 32 riders per hour to 38 to 39 riders per hour.
- *Fare Increases.* To avoid further cuts in service, fares were increased again in January 1997 by about 25 percent across the system. Citifare has increased its base fare from 75 cents in 1991 to 1992 to a current level of \$1.25. The system has maintained deeply discounted passes--including weekly and daily pass options as well as monthly passes. A recent analysis concluded that 3 to 4 percent of its ridership loss has resulted from the recent fare increase rather than service reductions. Planners suggest that part of Citifare's success in maintaining ridership and increasing efficiency during this period may be related to the high level of transit dependency among its base ridership. Most system riders are low wage earners, most of whom are employed by the casino industry. The agency estimates that only about 5 percent of its riders are tourists or leisure users.
- *Marketing.* Citifare offers a voluntary program for major employers through which the system will match a 20 percent pass subsidy made by the employer. This provides an employee with a 40 percent further discount on an already discounted monthly pass. A few employers have participated to date. Citifare has also produced a "bus book" that consolidates all route schedules and information in one booklet. Customers have found the

booklet convenient and attractive, and Citifare has reduced its production costs for route information materials.

- *Expansion Planning/Revenue Strategies.* Having completed the most significant components of vehicle replacement, service cuts, and fare increases, Citifare now expects to be able to slowly rebuild services, focusing on major routes with exceptional ridership levels. However, the system does not expect to regain its ridership levels of the early 1990s for another 6 or 7 years without additional resources. Following a rejection of a sales tax package for transportation services (both highway improvements and transit) in 1994, the system is exploring other revenue sources, including partnerships with developers and employers. Citifare has been successful in negotiating one agreement with a casino located outside of its service area, that purchases 13 hours of service per day. Other employers may follow suit.

**DASH--Alexandria Transit Co.  
Alexandria, Virginia**

Contact: Sandy Modell, General Manager

**SUMMARY**

During 1991 through 1993, DASH's ridership grew by 41.7 percent. This growth resulted, in part, from the continuing economic development and population growth in the City of Alexandria, as well as the assumption of a major route previously managed by the Metro Bus system. In addition, transit ridership was promoted by a City ordinance requiring developers of new sites to work with transit and by DASH's assertive outreach program to expand its use by tourists, residents of new residential complexes, and employees of specific businesses.

In the period from 1994 to 1996, DASH experienced a slight drop in ridership; ridership declined by just under 1 percent (74 percent). During the same period, however, the Metro Rail and Metro Bus services (serving the District of Columbia metropolitan area) experienced an overall decline in ridership of 9.63 percent. Because roughly one-half of DASH riders transfer to the Metro systems, DASH management is pleased to have "held it's own" despite the decline in Metro ridership. Job cut-backs, particularly by government employers, have resulted in declines in commuter ridership on some routes. DASH attributes its ability to maintain a steady ridership level to an increase in non-commuter ridership and to the reputation of the system as reliable, courteous, and safe, as well as to the continuing economic development and population growth in Alexandria.

DASH reports that the system is "trying to keep up" with the pace of development. DASH has grown from 35 to 65 operators since it began. Most routes are at or near capacity. DASH's current facility can accommodate 30 buses--13 fewer vehicles than the system owns. The ability of the system to continue to expand to match demand will depend in large part on the City's ability to fund the system's capital needs.

DASH's initiatives to promote ridership have focused on expanding non-peak use and developing efficient service to areas experiencing rapid residential and business growth. Specific activities include

- *Mid-Day Ridership Promotion.* DASH now offers an expanded transfer that is good on any DASH bus for 4 hours (increased from a 3-hour transfer, which was instituted in 1991). There has been a significant increase in transfer use in the last couple of years, particularly by senior citizens and part-time workers.
- *Outreach to Tourists and Leisure Users.* DASH has continued the hotel outreach program (mentioned in the last report) to attract visitors to the transit system. This program began as a state-funded program, but is now funded locally by the hotels and tourist bureau. In addition, in the past year, DASH implemented a "DASH and DINE" pilot program to encourage using the bus to travel to restaurants in Alexandria's historic district and throughout the city. Twenty-five restaurants participated in this experimental program, which offered customers a meal discount with a valid transfer. The results of the pilot are now being evaluated.

- *Pricing.* DASH has not had any significant fare increases in recent years. The system continues to use fare incentives to promote first-time riders, including one time "try-it" coupons and other smaller efforts with various employers and businesses.
- *Transit Planning With New Developments.* Alexandria continues to have an ordinance requiring developers to have a transit management fund. DASH works closely with developers to plan effective transit services required by major build-outs of office and residential complexes as well as federal buildings. A major current initiative is transit planning with the Eisenhower Public-Private Partnership.
- *Agreements with Connecting Transit Systems.* DASH has developed shuttle services to facilitate commuter transfers from the Virginia Rail Express (VRE) service. In 1997, DASH implemented a VRE rail pass agreement through which DASH accepts VRE's pass and VRE reimburses DASH.
- *Service Refinements.* DASH has held public hearings for specific areas to help identify service improvements, including route changes and improvements in connecting services. In 1996, DASH conducted a comprehensive analysis. Based on these results, it is now "fine-tuning" its routes by adding frequency or rerouting to better serve various complexes and developments. This evaluation has been particularly useful because DASH had been required to implement a high level of service quickly to meet demand and is now benefiting from a more detailed analysis of this service.
- *Employee Involvement.* DASH uses employee committees for input and problem solving as one means of improving service, educating its work force, and promoting staff morale. DASH plans to set up a service improvement committee, which would include drivers.
- *Special Services.* DASH has provided charter services as a means of generating revenue and has provided special service runs for schools. DASH is not a direct recipient of federal funds, which provides it some flexibility in offering special transportation services.
- *Fleet Improvements and Maintenance.* DASH is upgrading and expanding its fleet with 10 additional buses in 1998. Some of these will be replacing older buses and some will be used to increase service frequency on selected routes.

**Escambia County Transit System  
Pensacola, Florida**

Contact: Mary Beth LaCoste, Marketing Director

**SUMMARY**

From 1991 through 1993, the Escambia County Transit System sustained an overall increase of 3.1 percent in ridership. Subsequently, the system had a significant increase of 18 percent in the first quarter of 1994, sparked by a grant for a new route from the airport to the naval station. From 1994 through 1996, the system achieved a 14.67 percent increase, even though the system's ridership composition has changed considerably during these years. Use of the naval station route was lower than expected; an unexpectedly high proportion of ridership growth has been because of use of transit by tourists. The system has focused heavily, therefore, on providing services to tourists and to downtown workers and commuters and attributes a major part of its ridership success to an effective marketing program to these markets. The Transit System reports that a strong focus on trolley service has increased visibility and community support for the system as a whole.

There is concern that the county will need to cut service on some routes because of budget constraints and that this will result in ridership declines.

Specific activities include

- *Beach Trolley Service.* The system initiated a weekend trolley service, providing transit service to and from Santa Rosa Island for residents and tourists. Free to riders, this service is funded by the Island Authority and state DOT funds.
- *Downtown Trolley Service.* In October 1996, a downtown trolley service was initiated. To attract downtown workers and commuters, the system offers a "Park and Trolley" program. This program offers a \$9 monthly open-use pass for parking and trolley service. The service has been adopted for use by the court system in response to a parking problem for juror pools. Juror candidates for both the county and federal courts are directed in their summons to park at the downtown civic center and take a trolley. This system now serves 150 jurors weekly and is being used also for transportation for court mediators and witnesses.
- *Tourist Entertainment.* The downtown trolley system is heavily used by tourists. This is attributed to the transit system's efforts to "make the trolley more than just a ride, but also entertainment." Drivers are trained to give a narration of historic Pensacola during the ride.
- *Marketing.* The Transit System produced a colorful, easy-to-use systemwide map of the fixed route as well as information on how to use the trolley. Color maps are provided at trolley stops.
- *Pricing and Revenue.* The most successful pricing initiative has been the "Park and Trolley" monthly pass program. The system has had no changes in fares and reports that employer-paid passes are not being provided. The initiative related to employer-paid transit passes

for hospital employees, mentioned in the last report, was not successfully developed. Businesses provide modest support of the trolley through advertising.

**FAX--Fresno Area Express  
Fresno, California**

Contact: John Downs, Planning Manager

**SUMMARY**

From 1991 through 1993, FAX was working to regain riders after a recession-related decline in 1990-1991. During 1991 through 1993, ridership increased by 15.6 percent. From 1994 through 1996, FAX continued this steady climb in ridership, realizing an additional increase of 11.22 percent. This increase has been distributed across all routes at all times of day and among all rider segments, including wheelchair riders and bicycle users. FAX attributes its increased demand to the area's resurgent economy. Surveys suggest that the increase in job opportunities, particularly for lower wage workers, has resulted in increased transit use. In addition, university and school ridership represents 40 percent of FAX's total ridership.

FAX reports that it has been unable to keep pace with demand for service because of lack of resources to expand. Although changes in federal regulations have allowed FAX to capitalize on some maintenance costs, insufficient operating funds continue to be a limiting factor.

The high use of existing service, combined with traffic congestion in some areas, has contributed to a decline in on-time performance, which has dropped from 95 percent to 91 percent. FAX is undertaking an extensive surveying and planning process to identify opportunities for service improvements and strategies for achieving expanded service levels. Despite operating at or near capacity, FAX continues to aggressively market its services to generate increased awareness and public support for program expansion.

Specific initiatives to increase ridership have included

- *Bicycle Rack Program.* FAX is equipping all buses with bicycle racks. With roughly one-half of the buses equipped, use is much higher than projected. The system is carrying more than 3,000 bicycles a month—use had been projected at 500 bicycles a month. Rider surveys indicate that the availability of bicycle racks has provided more convenient transportation to existing riders, who are now able to bicycle rather than walk to bus stops. The effect of the bicycle racks on attracting new riders is unclear.
- *Customer Surveys and Service Improvements.* FAX routinely uses surveys to identify possible areas for service improvement and customer concerns about drivers, comfort, and general amenities. Baseline surveys are conducted, followed by follow-up surveys. This process was first conducted for the paratransit system and is now being expanded to the fixed-route system. FAX is working with drivers to improve on-board customer relations. Vehicle improvements have included equipping all new buses with automated announcement systems, and the installation of a new radio system with a vehicle locating system to help improve on-time performance.
- *Schedule Coordination.* Working with the neighboring county transit system, FAX has developed a timed transfer system for points at Fresno State University.

- *Marketing.* Surveys identified a lack of understanding among occasional riders about how to use the system. In response, FAX developed "FAX Tracks," a brochure that explains how to travel using FAX. Other marketing tools include the development of a color system map, use of information kiosks in the downtown area, and the production of individual route maps that are put on bus stop signs. FAX is also conducting public outreach by meeting with community groups and working with an Americans with Disabilities Act (ADA) advisory committee.

FAX also promotes the use of transit services by highlighting routes that have moderate ridership but strong public appeal, such as routes to the Fresno Zoo and to a redeveloped "pedestrian-friendly" downtown neighborhood. Vehicles on the zoo line have been painted in zoo themes. FAX believes that the public relations value of these popular and visible lines is important in building support for transit services, despite lower ridership levels.

- *Pricing.* FAX fares have remained constant since 1991. Fare increases are now being evaluated, although planners are concerned about the effect on ridership. FAX is working with area employers and colleges to expand transit service through fare subsidies.

**Flint Mass Transit Authority  
Flint, Michigan**

Contact: Bob Foe, General Manager

**SUMMARY**

As reported in the prior study, the Mass Transit Authority (MTA) experienced a ridership increase of more than 90 percent from 1991 through 1993. From 1993 to 1996, however, ridership declined nearly 13 percent. The major reason for the decline was the loss of federal operating assistance in 1994 and 1995. During 1994 and 1995, federal operating support went from around \$2 million to \$1.4 million to \$700,000. As a result, service cuts and fare increases were introduced, and service was restructured in an attempt to respond to the reduced funding.

In 1996, however, the state of Michigan instituted one of the most aggressive welfare-to-work programs in the country. In the effort, the success of the welfare-to-work initiative was linked with the availability of public transportation and a reassessment of the state role in the transit partnership was undertaken. As a result, the MTA went countywide and began service on a regional scale to meet state goals. In support of the expansion, an increased millage was passed in August of 1996, and new, multi-county service is being added. It is anticipated that ridership will grow 6 to 7 percent in 1997 and by 25 percent in 1998.

In recognition of the high cost of welfare-to-work services, the state passed legislation that guarantees that the state will cover 40 percent of eligible transit operating expenses. More recent legislation included in a transportation package has increased this authorization to "up to 50 percent."

One of the lessons learned in the more recent Flint experience is that it takes a significant amount of time to recover from major service and fare changes precipitated by substantial funding reductions. In the case of the MTA (and presumably other systems in Michigan), the recovery was hastened by the independent action of the state to base its welfare-to-work initiative on the availability of expanded public transit services.

As a result of this partnership, the MTA expects to show revenues 10 percent over expenses in 1997 and an even greater fund balance in 1998, even with increases in service. The balance will be used to pay off prior borrowing and to support future capital expansion.

The scope of Michigan's welfare-to-work program and its direct relation to public transit is worth further mention. As part of the initiative, the former state Department of Social Services was renamed the Family Independence Agency (FIA). The FIA targeted selected counties for zero welfare dependence. In the process, it was discovered that the absence of child care and adequate transportation were the two biggest stumbling blocks to achievement of this goal. With regard to transit, the choices were to reinvest in public transportation or to start a new generation of welfare-oriented transportation programs and services. State officials opted for the former and are continuing to push local agencies toward greater reliance on public transit for welfare-to-work-related work, school, and training trips. As part of this new direction, the

departments of Transportation and Education are expanding their collaboration on school related transportation services as well.

Another feature of this new partnership is an FIA program known as "Job Central" which involves distribution, through county agencies, of funds for education and training. It is now state policy to move county Job Central agencies out of the transportation business by the end of September 1997 and to look to public transit operators to provide the services necessary.

After a major ridership downswing prompted by dramatic reductions in federal support, the new partnership between transit, state welfare-to-work initiatives, and education interests has created a stronger transit industry whose relevance in the state and local setting is far greater than it has been. MTA officials expect that this partnership will prompt substantial future increases in ridership throughout the region.

**HART -- Hillsborough Area Regional Transit Authority  
Tampa, Florida**

Contact: Sharon Dent, Executive Director

**SUMMARY**

Ridership on the HART service increased more than 30 percent from 1992 through 1993 based on a comprehensive redesign of services throughout the service area coupled with a new aggressive pass program and marketing effort. Since 1994, ridership has been down approximately 6 percent, although ridership increased 2 percent in the past year.

Funding constraints have been noted as the basic reason for the 3-year decline. Inability to marshal increased local funding caused a 9 percent reduction in service, a fare increase to \$1.10, and institution of a 10 cent transfer in 1995—all actions that drive riders away. Although ridership has grown slightly in recent months, it took HART 18 months to recover from the 1995 service reductions.

An added factor in the system's recent ridership trends is that HART is not yet in full compliance with the Americans with Disabilities Act (ADA). As a result, the agency has continued to add comparatively expensive ADA service during a period of little or no revenue growth, creating increased pressures for another round of service reductions.

Despite this somewhat gloomy outlook in the aggregate, there have been noteworthy ridership successes for HART in the Tampa region. Among those is the acceptance and substantial use of the system by bicyclists. The entire HART fleet has been equipped with bicycle racks for 2 1/2 years. In addition, the downtown commuter center offers bicycle lockers and showers to riders. As a result, bicycle use of the HART system is now running 3 times the level of wheelchair use and the added multimodal dimension has provided a significant public relations boost for HART.

Another example of success has been the expanding vanpool program funded with federal CMAQ funds. The program is subcontracted by HART to a regional ridesharing agency and HART subsidizes trips that have one end in Hillsborough County. Eleven vans are in service, but it is expected that service can be doubled to meet demand at a rate of one new van in service every 2 months.

Despite lagging aggregate ridership figures and an anticipated additional reduction in basic bus service, HART is experiencing success in its effort to diversify its products and perform as a "mobility manager." This is a noteworthy situation in a region where there is persistent evidence that residents are growing less tolerant of inconvenience associated with travel, and where air quality, congestion, and parking problems do not provide any real leverage on either transportation investment or behavior.

**LYNX--Central Florida Regional Transportation Authority  
Orlando, Florida**

Contact Deborah Cooper, Director of Marketing and Public Affairs

**SUMMARY**

From 1991 through 1993, ridership on LYNX grew more than 44 percent representing double-digit growth each year. Aggressive service expansion, a "retail" marketing approach, and a strong customer orientation are all credited with playing an important role. In addition, new creative leadership was brought to LYNX over this time frame.

From 1994 through 1996, this earlier trend has continued. LYNX ridership was up 38 percent over the past 3 years, again achieving double-digit increases each year. At the same time service use and performance have been steadily improving as well, despite a recent fare increase. Customer orientation and retail marketing remain at the core of LYNX's success. In the early 1990s, only 35 percent of the region's residents were aware of the transit agency and its services. In 1996, surveys show that 96 percent know that LYNX is the region's transit service provider; 87 percent identified the agency unaided.

A large part of LYNX's phenomenal success has been the continued rapid growth in the Orlando region and its status as one of the premier tourist areas in the world. Despite this growth, growth in LYNX service levels has begun to flatten out, expanding more slowly than in the prior 3 years. A major factor has been increasing budget constraints resulting from declines in federal operating and.

Despite the increases in ridership, LYNX remains a service that caters predominantly to transit-dependent persons in the region. Today, ridership remains predominantly female, although the racial composition of LYNX customers is now about evenly split.

LYNX continues to work well with political and business leaders in the region. With a reputation for accountability, LYNX has become a partner in a regional funding referendum to be held in the fall of 1997. The question will be on a 1 cent sales tax, of which 24 percent will go to LYNX. The remainder will support other services, including schools, roads, and stormwater management.

LYNX continues to offer new services to its customers. In early August, LYNX introduced its "Lymmo" service, a fare-free downtown circulator operating in a designated lane. Lymmo service has been designed as a precursor to future LRT service through the downtown. Plans for LRT are also moving rapidly from the International Drive area in the west to downtown Orlando based on a substantial partnership with the tourist and entertainment industry concentrated in the area.

Among the service and management initiatives that have been introduced and that have contributed to LYNX's success in attracting riders are the following:

- Enhancements to customer services and telephone information systems;

- Comfortable, colorful buses;
- A continuous investment in shelters and customer amenities;
- A weekly pass program that uses more than 40 Walgreens stores as outlets;
- An "Ambassador Program" for drivers, including hiring practices that focus on profiling applicants' customer relations skills, rather than prior bus driving experience; and
- A "Purr-fection Inspection" preventive maintenance program that offers mechanics awards for performance, resulting in continual increases in miles between road calls.

**Metro-Dade Transit Agency  
Miami, Florida**

Contact: David Fialkoff, Chief Service Planning and Scheduling

**SUMMARY**

Ridership from 1991 through 1993 increased by 13.0 percent in the Miami area, then declined from 1994 through 1996 by 2.66 percent. According to Metro-Dade managers, ridership was unusually high during the earlier period as a result of the destruction caused by Hurricane Andrew in 1992. During this period there was a surge in transit use because roads were impassable, there was widespread relocation, and many persons who usually drove were without cars. Since then, the system has returned to more normal conditions and has been able to "hold its own" overall, with a strong increase in corridor ridership reflected in 1997 reports. Under direction by the county commissioners to maintain service levels, the system has been working to refine and reallocate service miles and hours to operate most efficiently within existing levels.

Metro-Dade's development of a transportation program for Medicaid clients, which was in a pilot phase during the last study, has been extremely successful. The program provides free monthly passes to Medicaid clients who require three or more round trips a month for medical appointments. Medicaid reimburses Metro-Dade for the passes as well as for its administrative expenses to manage the program. Now in its 4th year, the program is distributing 3,600 passes per month, with a projected level of 4,000 passes per month in the near future. Medicaid estimates its savings since program inception to be approximately \$12.9 million (as of July 1997). In response to the success of this program, the state of Florida now requires all counties with fixed-route systems to implement a similar program, and Metro-Dade is receiving calls from other agencies throughout the country and Canada for advice in establishing similar programs in their areas.

Other program initiatives and service refinements include the following:

- *New Corridor Service.* Started in February 1996, new corridor service is producing a 33 percent increase in ridership on a base population of 20,000 in that ridership area. This represents a one-third increase and 10 percent of the system's total ridership.
- *Use of Alternative Equipment to Achieve Savings.* The deployment of smaller vehicles on some routes, initiated in the prior period, has been continued and expanded. Metro-Dade developed an agreement with the system's union to hire drivers for minibuses at lower wage rate than drivers for full-size buses. In addition, the system arranged with another county facility to provide vehicle maintenance for these minibuses. These two initiatives have reduced hourly costs of operation to \$35 per hour, compared with the \$55 per hour cost of operation for full-size vehicles.
- *Limited Stop Service.* The limited stop service initiated in the prior 3-year period has been successful and is being continued. Originally supported by state funds, the county system has assumed the costs of this service.

- *Marketing.* Because of budget constraints, the system's marketing budget has been reduced. Minimal materials are produced at this time to provide basic service information to customers.
- *Ridership Surveys.* A market research survey has just been completed to provide Metro-Dade with updated information on its customer base. New rail service has been successful in attracting more affluent riders to the system. However, transit use by these riders is generally limited to rail use. Use of the system for reverse-commute rides is growing.

**METRO Regional Transit Authority  
Akron, Ohio**

Contact: Gerry Bryan, Director of Planning

**SUMMARY**

After a strong ridership increase of 21.9 percent from 1991 through 1993, the RTA showed a more modest increase of 4.73 percent from 1994 through 1996. The increase in the early years of the decade resulted from major service expansion that occurred after passage of a sales tax referendum enabled the system to expand into new areas of Summit County.

RTA managers now characterize the system as in a "maturing" phase, as RTA evaluates and refines some services and continues to pursue initiatives to make most efficient use of existing service levels as well as to identify new service opportunities. Program initiatives and service refinements include the following:

- *Reallocation of Service.* RTA has evaluated its system and reduced some levels of service on routes with low ridership. Additional restructuring is proposed for 1998.
- *Collaboration with University.* In partnership with the University of Akron, RTA operates a Frequent Rider Program which provides free rides to all university staff and students. This program, financially supported by the University, has provided an average of 40,000 new rides a month. However, the University is considering a cutback in its service contract with RTA because of budget constraints.
- *Commuter Express Service.* The North Coast Express, a new express bus service to Cleveland from downtown Akron, has been initiated to serve commuters. Two service lines provide an average of 150 trips per day. The use of high-end vehicles providing comfortable seating and amenities for the 35-mile trip has been successful in attracting a strong ridership. The service has been supported for 2 years by CMAQ funds; RTA is recommending that the service be continued with local support.
- *Commuter Service.* Part of RTA's service restructuring has involved ensuring that employees with suburban area jobs, which includes most participants in the welfare-to-work program, are able to use transit to reach those job sites. By continuing to refine RTA's radial routing structure-with its hub in Akron--RTA is providing increasingly efficient and comfortable transfer service to riders traveling into and out of Akron. Inbound and outbound service runs are coordinated at half-hour intervals to ensure minimal waits at transfer points. Capital improvements have been made to shelters and roadways to improve service in Akron.
- *Collaboration with Businesses and Employers.* Through a 1-year contract with a retail employer that relocated from Akron to Youngstown, RTA has provided express shuttle service to provide transitional transportation support for employees of that business. This service was ended after the 1-year contract was completed. RTA is negotiating with a major area shopping mall to provide additional service frequency to that shopping area--over a base

level already provided by the system--that would be financially supported by mall businesses.

- *Fare Adjustments.* Following a fare increase in the prior period from 65 to 85 cents, RTA again increased fares, in November 1995, to \$1. A slight dip in ridership occurred in 1996 as a result of this increase, as anticipated. RTA expects ridership to rebound in 1997.
- *Marketing.* Most marketing activity focused on building a customer base for the Northeast Express. Marketing efforts targeted residents of communities that the limited-stop express would serve, as well as employers based in Cleveland.
- *Tourist and Leisure Use.* Although the majority of RTA's riders are commuters (75 percent), the strengthened economy and increasing number of attractions in the Cleveland area--such as Jacobs Field and the Rock and Roll Hall of Fame--is resulting in an increased use of transit for special events and entertainment. This is increasing mid-day travel somewhat

**Montgomery County RIDE ON**  
**Montgomery County, Maryland**

Contact: David Bone, Transportation Planner

**SUMMARY**

From ridership gains of 12.8 percent and 4.4 percent respectively in 1992 and 1993, RIDE ON's recent experience has been more modest. Over the 3 years from 1994 through 1996, overall ridership on RIDE ON has dropped slightly, by just over 1 percent. Two factors have been cited as responsible for recent flat ridership:

- *Fare Increase.* A fare increase in 1995 from \$1 to \$1.10 on RIDE ON, coupled with a simultaneous fare increase by the Washington Metro system serving the region, including Montgomery County, had the predictable effect of driving riders away. The effect was far more pronounced than the previous fare increase from \$.90 to \$1, suggesting that there may have been a psychological barrier around the \$1 level.
- *Decreases in Employment.* Down-sizing of the federal work force in downtown Washington began in earnest during this period, dramatically reducing the single most transit-oriented travel market in the region and in Montgomery County. Financial and related difficulties in the District of Columbia have also had a negative effect.

A 5 percent decline in ridership in 1996 has been counterbalanced by a 4 percent increase in 1997. As a result, ridership in general has been relatively steady at approximately 17 million per year.

Although ridership to downtown Washington and in more close-in Washington suburbs in Montgomery County (e.g., Bethesda and Rockville) has slumped, RIDE ON is experiencing strong ridership increases in other areas of the county. In outlying communities, rapid growth is largely responsible for increased transit use. In other communities closer to the downtown area, such as Silver Spring, changing demographics have prompted ridership increases with the arrival of a new influx of immigrants.

Although external conditions seem to have been the dominant factor in RIDE ON's recent ridership trends, the system has introduced various noteworthy services. They each illustrate means to shift toward a stronger market orientation in the design and delivery of service:

- "Code Red" policy allows everyone to ride free on air quality alert days;
- "Request Stop" service is available on the entire RIDE ON system after 9:00 p.m. to provide customers with enhanced safety and security;
- "RIDE ON to Taxi" service is available. For customers who wish to have a taxi waiting for them at the end of their transit trip, RIDE ON will make the call; and
- RIDE ON buses will begin this fall using the new HOV lanes built on I-270, the major commuter corridor through Montgomery County.

Finally, the Washington, DC, region is in the midst of a regional bus study which, among other things, is attempting to sort out the roles and functions of local and regional bus service providers across the region. A realignment of riders and services is likely.

**NJ Transit--New Jersey Transit Corporation  
Newark, New Jersey**

Contact: James P. Redeker, Senior Director, Business Planning  
Al Tillitson, Business Planning Staff

**SUMMARY**

From 1991 through 1993, ridership at NJ Transit increased 8 percent. These gains occurred in a climate that typically is associated with ridership declines--declines in population and employment and real declines in gas prices.

From 1994 through 1996, ridership at NJ Transit has continued to grow, increasing nearly 4 percent with an additional 5 percent growth in fiscal year 1997 just ended in June. An economic resurgence in late 1996 and 1997 was a factor in increasing the most recent year's numbers.

The largest single factor in recent ridership growth has been stability in fares. The last fare increase was enacted in June of 1990. For the 50 percent of the trips on buses that pay a local one-zone fare (representing 40 percent of the total system), fares have not been increased since 1988. NJ Transit has determined through various analyses that ridership in the region is more sensitive to fare changes than elsewhere in the transit industry, with fare "elasticity" estimated at .45 compared with industry-wide figures closer to .3 (a .45 percent decline in ridership for each 1 percent increase in fares).

Recent ridership growth has been concentrated in the peak periods where ridership is growing faster than the work force. Although a positive trend, the effect is to absorb more and more of the available peak-hour capacity.

In addition to "paying close attention to the basics" of running multimodal service, NJ Transit has initiated the following successful new services over the last several years:

- *Extended Services.* The "Wheels" program has been an effort to extend and restore services to match emerging market needs, including changes in work shifts. Weekday services have been extended to weekends, where appropriate. Feeder services have been introduced in the suburbs. Services cut in earlier adjustments have been restored, and weekend services have been provided to malls to serve inner-city employees.
- *Express Service.* "Midtown Direct" rail service has also been a success. Rail service that used to stop in Hoboken, now proceeds directly to midtown Manhattan. The travel time benefits to Manhattan have been so pronounced that the availability of Midtown Direct service has induced households to move their place of residence. Nearly 14 percent of Midtown Direct ridership has moved to locate closer to the service according to recent NJ Transit surveys.

Although these two initiatives constitute major success stories relative to their respective markets, they still represent only a very minor part of the aggregate NJ Transit ridership and service.

**PenTran -- Peninsula Transportation District Commission  
Hampton, Virginia**

Contact: Michael S. Townes, Executive Director

**SUMMARY**

Ridership on the PenTran system increased more than 14 percent from 1991 through 1993. In the latest 3-year period, ridership growth fell less than 2 percent. However, growth has been sustained despite two recent fare increases and is reportedly outpacing population growth at present.

In the prior 3-year period, impressive ridership increases were largely the result of increasing levels of service in the region, indicating that there had been latent transit demand if adequate service levels could be made available. Today, PenTran managers feel the same situation exists: there could be significant ridership increases if the funds were available to support expanded service. Over the last several years, however, funding and financial resources have been reduced, largely because of the reductions in federal transit operating assistance. Without funds to match, local sources have become harder to come by as well. As a result, PenTran continues to target the work trip market, often leading to reductions in the levels of service available to other markets as funding continues to tighten.

On a more positive note, some new employers are making their presence known in the Hampton area, including Gateway 2000, Canon, Iceland Seafood, and new military commands. Each has requested and received presentations from PenTran officials about the scope and nature of transit services in the region, indicating that competitive leadership understands the value of transit to the region as well as to individual businesses and industries. As yet, however, new corporate partners have not offered to engage financially in ensuring that adequate levels of transit service remain available.

**Riverside Transit Agency (RTA)  
Riverside, California**

Contact: Susan Hafner, General Manager  
Steve Oller, Director of Transportation

**SUMMARY**

From 1991 through 1993, RTA experienced a dramatic increase in ridership of 94 percent. Ridership growth exceeded the growth in service levels during a period of rapid economic and population growth in the region, which covers 2,500 square miles of service area. During this period, RTA worked to keep pace with growth through service expansion and marketing initiatives, working closely with local communities and businesses.

From 1994 through 1996, RTA's rapid expansion slowed to a total ridership increase of 15.71 percent. This more modest increase was achieved in spite of an economic recession in the region and a marked change in the jobs/housing distribution that considerably altered travel patterns within the area. Employment locations for residents shifted from Los Angeles and Orange County to the inland areas, distributed among the 14 cities in the service region. This has required RTA to shift routes and service schedules to accommodate changes in commuting patterns.

RTA continues to be unable to meet the demand for transit service due to inadequate funding. Because funding was relatively flat from 1994 through 1996, RTA postponed major service expansion; the total level of service miles and hours remained the same during this period with the exception of slight increases in Americans with Disabilities Act (ADA) service. Within this level of service, RTA has implemented service improvements when possible, including alternative routing and refinements to the delivery process. A major planning process currently underway is expected to identify additional strategies for service improvements within a context of budget constraints.

Special initiatives include the following:

- *School Transportation.* As school districts' budgets are being cut, RTA is working with school districts to accommodate student transportation needs, including making routing and schedule adjustments. RTA has developed a school transportation committee structure to meet with all of the school districts to discuss and plan transportation services. With one school district, RTA has reached an agreement to provide expanded route deviations supported by district funds. This arrangement provides the school district with the most cost-effective means of providing student transportation.
- *Collaboration with Businesses.* RTA receives support of its downtown trolley system through local hotels and businesses. RTA's Transportation Now Coalitions involve employers in the development of transit plans.
- *Welfare-to-Work Project.* Riverside County's welfare-to-work project provides a monthly bus pass to students in its training program. RTA is exploring the possibility of developing a

service to provide transportation on an ongoing basis for project participants to get to their classes and jobs.

- *Planning.* RTA is now starting another major planning study to identify the most effective ways to manage and improve transit services given its expectation of continuing budget constraints. RTA will be looking at reallocating resources to fill service gaps and make most efficient use of existing service levels. The study will include a comprehensive operational analysis and, through extensive market studies, will examine latent demand issues as well as the needs of existing riders. The study results are expected to be available in February 1998.
- *Changes in Fleet Composition.* Depending on planning study results, RTA may make changes in its fleet by acquiring intermediate-size vehicles to complement the use of its full-size vehicles on particular routes.
- *Pricing.* RTA's last fare increase was implemented in 1992. The agency works within a state policy that mandates farebox levels as a percentage range of total operating costs. Within that range, RTA's board policy has been to realize farebox revenues at the minimum required level to encourage ridership. However, RTA managers anticipate that fare adjustments may be required in response to growth issues and the cost of services to some areas. There is also interest in simplifying the fare structure and in the potential implementation of an unlimited-use day pass. Consideration of pricing changes will be undertaken after service refinements have been completed.

## Roaring Fork Transit Aspen, Colorado

Contact: Dan Blankenship, General Manager

### SUMMARY

Roaring Fork Transit (RFTA) has been aggressively building ridership since 1991, combining service expansion with an active marketing program and demand management through a new paid parking policy. The system experienced a 14 percent increase in ridership in the 1991 to 1993 period; followed by an increase of 22 percent from 1994 through 1996. Growing from a total ridership of 2,143,886 in 1991 to 3,697,283 in 1996, RFTA achieved a 72 percent increase in ridership over the 6-year span. During this period, service mileage grew by 115 percent.

RFTA serves a valley extending from Aspen in the north, in Pitkin County, to Glenwood Springs in the south, and encompassing a total of five towns and three counties. A well-known skiing and resort location, the area has been experiencing such rapid development that issues of traffic congestion and air quality are becoming matters of general public concern and perceived as threats to the region's tourism industry. This concern is compounded by plans for four major highway construction projects that are expected to create serious congestion. RFTA is attempting to take advantage of a growing public awareness of traffic problems, environmental sensitivity, and concern for the region's continuing appeal to tourists to promote expanded transit as an effective transportation alternative for the valley.

- *Service Expansion.* The system's heaviest period of service expansion was between 1993 and 1995. This expansion included route expansion to serve the lower valley as well as extension of service hours. Total service miles increased from 2,429,031 in 1994 to 3,171,443 in 1996, an increase of more than 30 percent.
- *Paid Parking Program.* In January 1995, the city of Aspen implemented a paid parking program, issuing parking permits for parking in the commercial core and residential areas. The program includes provisions for short-term parking and parking for delivery vehicles and the availability of high-occupancy vehicle parking in a ring around the commercial core. Parking in the core area is priced at \$1 per hour. Approval of the new program was highly controversial--sparking a "honk in" demonstration by opponents--and the program was initially implemented on a provisional basis only, pending final authorization by a public vote scheduled for the spring of that year. In conjunction with the parking program start-up, RFTA worked to enhance the convenience and frequency of its service. The system extended service hours to 2:30 a.m. and undertook a full-scale marketing campaign. According to RFTA, this careful service planning and intensive promotion, coupled with the implementation of paid parking, was immediately successful in substantially changing auto driver behavior, virtually eliminating congestion in the core area and balancing parking availability with the residual demand. This success produced a dramatic shift in public sentiment; in May 1995, the parking program was ratified by voters by a 3 to 1 margin.

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- *Construction Period Service.* RFTA is working with elected officials and with Colorado DOT to develop a response to the planned highway construction. This may include the implementation of temporary bus lanes with transit priority through construction zones, development of intercept parking lots located in advance of construction zones from which travelers can access park-and-ride service, implementation of HOV lanes, and the potential identification of alternative transit-only routes. RFTA anticipates an increase in ridership of 50 percent or more over the next 5 years, particularly on commuter routes, if sufficient service can be provided.
- *Revenue/Cost Allocation.* RFTA's primary source of funding is a 1.5 percent county sales tax levied by Pitkin County. Although RFTA provides service to the other counties in the valley, some communities have been reluctant to increase their existing level of support. Communities bordering Aspen, noting that Pitkin County's zoning requirements have pushed denser development into neighboring counties, have argued that most of RFTA's service serves riders who are not able to live in Aspen but commute to the area for work. To determine actual ridership patterns, RFTA has conducted rider surveys. These studies identified a significant amount of internal transit use and trips between down-valley communities, in addition to the anticipated commuter travel to and from Aspen. RFTA is using these data to educate communities about the existing service use and to engage in discussions with local governments about the appropriate method of allocating costs of service to each township or county.
- *Fares and Pricing Programs.* To meet its budget, RFTA developed a combination of fare increases and service reductions. Fares have been raised 50 percent over 2 years, with a ridership drop of between 1 and 1.5 percent. However, given the rapid growth in the region, RFTA cannot isolate the true pricing effect on ridership. The system is predicting a 3 percent drop in ridership in 1997 unless supplemental revenues are identified. RFTA has some employer participation in purchasing transit passes for employees; one employer purchases between \$150,000 and \$200,000 in transit passes. RFTA's pass sales program has developed a number of outlets, working through retail stores and banks, to provide customers convenient access to buy discounted passes. Tickets are distributed through these outlets on a consignment basis.
- *Contracted Services.* RFTA contracts with a ski resort to provide skier shuttle services. The resort pays 100 percent of the service operation costs and pro rated equipment costs. Through this contract, RFTA is able to keep vehicles in use throughout the day, assigning vehicles used for peak-hour commuter runs to shuttle service during the day, providing cost-effective service to the resort. Second, through an arrangement with the Forest Service and county, RFTA provides a narrated tour bus service into a wilderness area that is closed to automobiles. The service, developed in response to unacceptable traffic levels in the protected area, is self-supporting and provides some revenue to the Forest Service.
- *Regional Service Planning.* As issues associated with rapid development extend beyond Aspen and Glenwood Springs to towns and counties throughout the valley, there is a growing movement to promote a regional approach to land use and congestion planning.
- *Proposed Light Rail Service.* Discussions are underway regarding the development of a valleywide light rail system, running in the existing (out-of-service) Rio Grand Railroad

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right-of-way, which has been acquired by a consortium. The Colorado state legislature recently passed enabling legislation to create a regional transportation authority.

**SamTrans--San Mateo County Transit District San Carlos, California**

Contacts: Gerry Haugh, General Manager  
Larry Stueck, Director of Planning

**SUMMARY**

Ridership increases from 1991 through 1993 were a result of major increases in commuter rail operations in the SamTrans service area. Between 1994 and 1996, SamTrans ridership showed a decline of more than 9 percent. Over the past year, however, ridership has been on the upswing, growing nearly 9 percent.

One of the most significant features behind the ridership data appears to be the evolving role that SamTrans bus service plays within the larger Bay area. Although bus ridership has been down, overall transit use in the SamTrans service area has increased with the opening of a BART station. Bus service has been restructured, reduced, and reoriented to emphasize shuttle service to the Colma station. While this adjustment was being made, ridership declines were predicted and realized. After 1 year, however, SamTrans ridership has recovered and is expected to continue to grow. To direct that growth, an extensive study is underway of the entire SamTrans system. Results should lead the way to further shifts in service and increased relevance and ridership on SamTrans.

**SCAT--Sarasota County Area Transit  
Sarasota, Florida**

Contact Jay Goodwill, Director of Transportation

**SUMMARY**

SCAT experienced an increase in ridership from 1991 through 1993 of 9.4 percent. From 1994 through 1996, ridership jumped by 37.84 percent. This increase was the result of a sharp fare reduction combined with a significant increase in service levels.

SCAT serves an area that includes a high percentage of retirees; roughly 30 percent of residents are age 60 or older. In addition, there are seasonal tourists and part-time residents. The area does not have a university and does not include a significant commuter population. SCAT operates 25 buses a day.

- *Pricing.* In October 1994, SCAT's base fare was lowered from \$1 to 25 cents (with no transfer) by action of the County Commission. This resulted in a 15 percent increase in the first months of reduced-fare service. Revenue the prior year (1993-1994) was \$554,000; after the fare reduction, annual revenue dropped to \$298,000. To compensate, the Commission increased the county contribution by \$250,000, based on staff projections of revenue loss. The following year, fare revenue increased to \$365,000 because of increased ridership. Because of the dramatic increase in ridership, SCAT has been able to maintain stable costs and a good cost per passenger rate. The 25-cent fare will continue until September 30, 1997, after which it is expected to be raised to 50 cents. SCAT is projecting a 14 to 15 percent ridership decrease as a result of this fare increase. Despite the fare increase, the level of county contribution will continue and increase slightly to cover the phasing out of peer federal operating assistance in 1998, as well as the leveling of state support. In addition, SCAT is anticipating a \$100,000 increase in Americans with Disabilities Act (ADA) paratransit program costs.
- *Service Increases.* In December 1994, SCAT added 25 percent more service hours, resulting in an additional jump in ridership. This expansion included route changes, expansion into new service areas, and improved connections.
- *Fleet Improvements.* In 1998, SCAT will acquire 12 new buses and will retire 13 older vehicles. With this upgrade, the average age of the fleet will drop from 12 to less than 4.
- *Driver Training.* To support and continue SCAT's good relationship with customers, SCAT is undertaking a driver training program to assist drivers in effectively managing passenger relations.

**TALTRAN  
Tallahassee, Florida**

Contact: William Carter, Administrative Specialist III

**SUMMARY**

TALTRAN's ridership growth from 1991 through 1993 of 9.2 percent was linked in part to the growth of the city by annexation during that period. The system's ridership growth continued into the 1994-1996 period, when it achieved an increase of 11.65 percent. This overall number includes some interim declines which occurred in 1994--linked to the opening of a parking garage by a university--and a leveling off of ridership in 1996, tied to fare increases.

The bulk of TALTRAN's ridership is made up of students--there are three universities in the Tallahassee area--as well as senior citizens, youth, and lower wage workers.

TALTRAN officials characterize the agency as being in a "budget consideration mode"--constrained by insufficient revenues and unable to keep pace with demand. To maintain services, the system has focused on collaborations with universities, service refinements, and fare adjustments. Specific activities include the following:

- *University Transportation.* Following the lead of Florida State University, which had been supporting a fare-free pass program for several years, Florida A & M instituted a similar agreement with TALTRAN in 1993. TALTRAN reports that use of this service has been high, although many riders were probably already using the system. TALTRAN also operates Florida State's on-campus system. TALTRAN's ridership dropped in 1994 when Florida State opened a 400-car garage on campus. TALTRAN is now negotiating with Tallahassee Junior College to develop a fare-free program with that institution.
- *Fare Increases.* TALTRAN increased fares near the end of 1996 from 75 cents to \$1. Ridership is expected to be flat in 1997, with a good increase in revenue.
- *Pass Program with State Agencies.* TALTRAN markets monthly passes to state agencies; these passes are discounted both by the system and by the purchasing agency. As with other pass programs of TALTRAN, this marketing tends to enhance revenues while having minimal effect on ridership levels.
- *Marketing.* TALTRAN continues to operate a strong marketing program that includes outreach to youth through schools and organizations. The system has recently decided to pursue carrying advertising on buses and bus stop shelters as a revenue strategy.

**Utah Transit Authority  
Salt Lake City, Utah**

Contact: John English, General Manager

**SUMMARY**

The Utah Transit Authority (UTA) has seen steady increases in ridership over the 6-year period: from 1991 through 1993, ridership increased by 5.8 percent; 1994 through 1996 shows a similar level of increase of 5.87 percent. Growth in ridership is attributed to a very strong local economy and population growth. Unemployment rates are at 2 to 3 percent and there is a "vitality in travel" in the region.

Within this economic context, UTA credits its strong marketing program with its ability to increase its ridership. UTA devotes a significant percent of the budget--1 to 2 percent annually--to advertising. The system employs a traditional advertising and marketing approach, focusing on the use of television advertisements and direct mail. There are three major emphases to their marketing campaigns--retain ridership, identify new ridership, and develop a positive image.

- *Marketing Initiatives.* A significant level of resources is dedicated to retaining UTA's ridership position--one-half million of the budget is dedicated to general advertisements for ridership retention. The New Riders Program is designed to appeal to various market segments (e.g., teenagers, students, senior citizens, and minorities) and to induce demand. Various initiatives in this program include an Ethnic Outreach program in 1996 with special advertisements in ethnic media (e.g., newspapers and radio). A senior citizen initiative was also developed. In addition, UTA developed a first-time caller program, which identifies new callers to the UTA information line and which gives special attention to these callers by providing a system overview and sending a follow-up information packet that includes schedules and tokens. Finally, based on market research, UTA developed an image campaign. UTA primarily markets through television advertisements intended to convey a positive feeling about the Authority and to provide its information number. UTA also provides information regarding schedules and schedule changes, detours, new services, promotion, and advertised routes through direct mailing.
- *Pass Programs.* UTA has developed a number of pass programs, including the youth pass and the ECO pass program, as well as smaller programs such as a seasonal ski service pass. Five years ago UTA developed a "deep discount" pass program for the University of Utah, which has 35,000 employees and students. The University pre-purchases annual transit passes for all employees and students. In response to ridership growth, UTA has added express service and other services oriented toward the University. Because of the success of this program, UTA developed the ECO pass modeled after the Denver, Colorado, EcoPass program. UTA attributes much of its ridership growth to the ECO pass program. The ECO pass program is marketed to large (more than 30 employees) regional employers such as the University of Utah and the Latter Day Saints (LDS) Mormon Church (which employs 3,000 people). The employer buys pre-paid annual transit passes at a 75 to 90 percent discount,

depending on the level of transit service to the employer, for all of its employees. Employees receive the passes for free or for a nominal fee. The University pays for passes with revenue collected from increases in parking fees.

After implementing the ECO pass program, the bus (to work) mode share increased from 27 to 28 percent to 53 percent. Each time UTA sells the ECO pass program to a major employer, the Authority implements new services, or service modifications, to accommodate the new demand.

The ECO pass program is now an element of the Regional Rideshare Department, which is responsible for the new ridershare initiative. The rideshare initiative program includes various programs for employers to encourage alternative modes of transportation. Public agencies in Utah are mandated to reduce single-occupancy vehicle travel to below a 20 percent share. UTA extended this program to private companies.

- *Service Region Expansion.* Each year UTA annexes new areas into its service district. These areas are fairly outlying areas that tend to increase service cost but do not result in large ridership changes.
- *Inter-City Service.* One larger service change includes more inter-city express bus service. Salt Lake--which is approximately 100 miles long and 20 miles wide--has three urban areas aligned from north to south. Eighty-five percent of the population is in this core area, which includes the cities of Ogden to the north, Salt Lake City, and the Provo-Orem urbanized area in the south. There is considerable travel between Salt Lake and the urbanized areas of Ogden and Provo-Orem.

## Other Systems

### Centre Area Transportation Authority (CATA) State College, Pennsylvania

Contact: Hugh A. Mose, General Manager

#### SUMMARY

The Centre Area Transportation Authority (CATA) serves a market heavily dominated by students of Pennsylvania State University (PSU), which is located near downtown State College. CATA's ridership has grown steadily during the study period, increasing from 1,921,500 in 1994 to more than 2,244,000 in 1996--an increase of 16.8 percent. The system operates two fixed-route bus services: the Centre Line connects residential and commercial areas with downtown State College and the university campus; The Loop service--operated jointly by CATA and Penn State--provides service to 20 destinations throughout the campus. CATA also operates a growing dial-a-ride service.

CATA's manager attributes the system's success to such factors as the overall economic growth in the area, strong and proactive management, and the active involvement of CATA staff in designing and delivering high-quality service. To support its service delivery, CATA has been successful in building successful collaborations with the university, developers of residential complexes, and some commercial enterprises.

- *Population Growth.* The State College area is a high growth area, attracting an increasing university population as well as a growing number of businesses. The expanding number of students directly affects CATA's ridership: as the population grows, students are living further from campus, have fewer opportunities to park on campus, and are more likely to rely on transit. In addition, as State College grows and experiences increasing traffic and population density, the community is becoming increasingly sensitized to issues of congestion, environment, and quality of life. This growing awareness is contributing to public support for transit service.
- *Service Design and Expansion.* CATA has steadily expanded service by extending service lines outward as the community has grown and by increasing service frequency and hours of operation. Service is now provided earlier on Sundays, and service frequency has been increased to 30-minute headways as needed. In some sections, additional buses are added to meet peak-hour demands for travel to and from campus.
- *Collaboration with Pennsylvania State University.* CATA estimates that 95 percent of riders on its campus service are students and that 80 percent of Centre Line riders are students. CATA works closely with PSU to plan and coordinate transit service to accommodate student riders. Service is expanded significantly during the academic year. Design refinements have enabled CATA to integrate its "commuter express" service to outlying parking lots on the campus periphery, with The Loop service on campus. Shuttle bus service is provided from parking lots into campus to accommodate both drivers and bus commuters. In 1997, an agreement was reached with PSU to allocate a portion of parking revenues to underwrite the costs of transit services.

- **Collaboration With Residential and Commercial Developments.** Historically, developers of new residential complexes in outlying areas offered bus service to their tenants as a means of competing with housing options closer to the center of town. These property managers found it more cost-effective to contract with CATA to provide service. CATA has contracts with six different complexes through which the complexes pre-pay fares on behalf of tenants; for a negotiated figure, the complex purchases the right for all tenants of that complex to ride the bus. These contracts represent a major component of CATA's revenue, generating approximately \$400,000 annually.  
CATA is continuing to build on this model of funding service expansion through private contracts. In one case, the developer of a new complex was required to develop an arrangement with CATA to provide transit service to the complex as a condition of the building permit. More recently, a development team approached CATA to discuss transit service as part of its initial planning process.  
In cooperation with local municipalities, CATA has taken a similar approach in extending service to commercial areas. A shopping mall in the area, for example, along with some of the major stores in the mall, contribute to the township to support bus service to that commercial complex. Other special arrangements with businesses include an agreement with a local employer to pay for free trips for employees to get to their work location, and a seasonal arrangement with the proprietors of a local ski area to subsidize service to that facility.
- **Staff Involvement.** CATA's manager highlights the system's skilled and dedicated work force as a central element in the system's success in recent years. The presence of a "positive work culture" promotes innovation and collaboration among managers, employees, and the board of directors to improve system services. On an operations level, maintenance staff are credited with the system's ability to continue to deploy older vehicles. Drivers take initiative and work together to respond to passenger needs that arise during trip routes. Staff are directly involved in service planning and design as well as in service delivery. One example is the use of a team of drivers to plan routes for new service. According to the manager, this high level of staff involvement creates a high degree of staff "buy-in," resulting in both improved service quality and low staff turnover rates.
- **Fleet Composition.** To keep up with its growing ridership, CATA has kept older vehicles in service rather than retiring them on schedule. This has put additional pressure on maintenance staff to ensure that vehicles are properly maintained. CATA operates only full-size buses, although it will be deploying a mini-bus in the future. CATA is in the midst of converting its entire fleet to CNN vehicles and has 24 CNN buses in operation. This decision has received considerable public support and enhanced CATA's reputation in the community.
- **Marketing.** CATA has sought out low-budget approaches to increase visibility and provide service information to current and potential customers. For example, in 1994, signposts were added to all bus stops providing times that buses would arrive at that location. CATA has developed an agreement with the local newspaper to print a ride guide of all routes and schedules twice a year, the cost of which is covered through advertising. The guide is distributed with the newspaper to 15,000 households, and CATA receives 20,000 copies for direct distribution to customers. CATA has developed the capacity to produce schedules in house; this capacity saves money and enables the system to update schedules

as needed. The use of special news events, such as a press event in conjunction with the acquisition of CATA's CNG vehicles, has provided positive public exposure.

CATA has recently implemented a web page that provides a wealth of information to the public, including a general description of the system; maps and schedule information; information on fares, passes, and special services; and a "how to" section for new customers describing how to take a bus. As more customers gain access to the Internet, CATA is finding that the web page has increasing utility in reaching current and potential customers.

- **Revenues.** Total fare revenues, including prepaid fares, contracts with other entities, passes, and farebox, generate 52 percent of operating revenues. CATA receives additional support through the state transit program, federal funds, and allocations from the six municipalities served by the system. The university leases six buses from CATA to operate the university bus service. While state support has been strong--Pennsylvania recently passed a gas tax increase with increased funding slated for public transit--the level of support provided by local governments has been relatively modest. CATA's emphasis on private contracts to generate revenue has enabled the system to expand services to areas of interest to specific constituencies.
- **Strategic Planning and New Markets.** While CATA's core market segment is the student population, other market segments are growing. An increasing number of students are also permanent residents and are employed in the area. In addition, State College is emerging as a retirement community, bringing a new market segment to the system. State lottery proceeds are used to provide free transit for senior citizens, and CATA operates a paratransit program.

Current unmet demand includes service to several major employer locations and to the area hospital, as well as a need for increased service frequency on some existing routes. CATA's ability to meet unmet demand is limited by its level of operating resources.

In 1996, CATA began developing a long-range strategic plan, to be completed in early 1998. The process includes a 300-household telephone survey regarding trip making behavior and propensity to use transit; stakeholder interviews; and public meetings to receive feedback on the draft plan. Initial surveys have identified more interest in transit service than expected in outlying sections of the county. CATA's plans are likely to include providing more service to non-student markets, with a particular emphasis on transit-dependent customers.

**Denver Regional Transportation District  
Denver, Colorado**

Contacts: Bill Beuthel, Transportation Planning

**SUMMARY**

The Denver Regional Transportation District (RTD) experienced a steady rate of growth of 9 percent in its bus ridership between 1994 and 1996, increasing bus ridership from over 44,171,000 to over 48,125,000 during that period. This increase in bus use occurred during the same period that the RTD initiated light rail service in the district, which started in November of 1994. Staff attribute much of this ridership success to the strong regional economy and resulting population growth.

- *Service Expansion.* The RTD is in the midst of a multi-year expansion program that will ultimately produce an eight-corridor rapid transit system. The new light rail service--which reported ridership of over 4.1 million in 1996--has diverted some ridership from express bus service. Despite this replacement, bus ridership continued to climb during the study period.
- *Pricing.* The RTD did not institute any fare increases during the study period. More recently, fare adjustments made in July 1997 marked the first major increase in fares in more than 10 years. The adjustments ranged from no increase to an increase of as much as one-third for some service. While the rate of ridership increase dropped at this time, RTD experienced no overall decline in ridership.
- *Marketing.* Denver RTD maintains a well-known and highly successful marketing campaign. The system's EcoPass program has been very popular. Other initiatives include the development of a Business Relocation Service, express services to the airport, and an overall increase in regional services.

**Foothill Transit  
Los Angeles, California**

Contact: Julie M. Austin, Executive Director

**SUMMARY**

Foothill Transit ridership has increased steadily since 1993. APTA figures document an increase of 19.7 percent between 1994 and 1996: ridership increased from more than 11,648,000 to 13,948,000 in that period. Foothill's Executive Director attributes this steady growth to the system's customer focus, based on the philosophy that providing clean and courteous service at good frequency levels will create a service that "makes sense" for customers to use. Service hours and ridership have increased in tandem: hours have increased by 54 percent and ridership by 56 percent since 1993.

Foothill Transit is a public agency created under a joint powers agreement among 21 cities and Los Angeles, serving a total area of 327 square miles. The agency has been in place since the late 1980s, when the RTD was dissolved and responsibility for services transferred in phases to the new organization. The system was fully implemented across its 26 routes in 1993. Under the new structure, all staff are contracted employees, and all management and services are provided by contractors rather than operated directly by the agency. Four governing representatives are elected from four regional clusters in the service area. Foothill reports that the new system has been successful in expanding service and ridership by 91 percent over 1986 levels--with the same level of per hour operating subsidy.

- *Operating Efficiencies and Contract Management.* Foothill's bus service is provided through contracts with two bus operators. Foothill's costs per hour have gone down for the past 2 years; this increased efficiency is attributed to a newly constructed operations and maintenance facility used by both operators. High service quality is maintained by developing and enforcing contract terms. These include a "no tolerance" graffiti policy that requires that any bus with graffiti greater than one-half inch in size immediately be taken out of service and repaired.
- *Service Expansion.* Service expansion includes the addition of weekend service on some lines and increased frequency on all lines. Ridership levels are strong throughout the service day, with moderate increases in the morning and evening hours. Foothill's target is to have buses operate at 15-minute intervals; currently the longest headway is 1 hour. The system is unable to further expand service during weekdays because of fleet limitations. Foothill also installed bicycle racks on all buses last year and experienced a 1,200 percent increase in that use during the first year.  
After conducting a comprehensive operational analysis, Foothill developed a strategic plan, completed in 1994, which is being implemented. The system plans to develop eight timed transfer centers in the service area; three have been installed and design contracts for the remaining five centers are being awarded.

- *Performance Monitoring.* Foothill Transit emphasizes an ongoing system of performance tracking to monitor performance and maintain high service standards. Managers credit Foothill's strong board for providing an effective mechanism for accountability and feedback that has fostered system improvements. The board reviews performance measures monthly.
- *Customer Focus.* Foothill maintains a computerized customer comment system that records and tracks all complaints. This feedback is incorporated in service adjustments, which are made on a 6-month basis. The board monitors complaints per 100,000 riders--identified by line and by local and express riders--as one performance measure. In addition, the system conducts an attitude and awareness survey biannually. A recent comprehensive operational analysis showed that more than 80 percent of respondents gave the system a good or an excellent rating.
- *Marketing Efforts.* Foothill's extensive marketing efforts have included a "We Drive" campaign, targeting discretionary riders in the 18- to 35-year age group. The campaign, which included a partnership with a television cable company and local theaters, achieved a high level of market penetration. Foothill has developed more than 100 outlets for pass and metro card sales and operates four transit stores, which provide scheduling and routing information. In addition, Foothill maintains a 1-800 number for customer information. To improve response to customer phone inquiries, Foothill involved customer service staff in team efforts to brainstorm potential methods of service improvement. Customer service representatives now directly answer 96 percent of incoming phone inquiries.
- *Fare/Pricing.* Foothill recently implemented its first major fare restructuring on July 1997, which included a 5 cent increase on the base fare and discounts on all categories on the fare debit card. Studies have documented that passengers are increasingly using passes and taking more rides than they used to; ridership is increasing at a faster rate than fare revenue.

## Housatonic Area Regional Transit (HART) Danbury, Connecticut

Contact: Richard Schreiner, Director of Service Development

### SUMMARY

Housatonic Area Regional Transit (HART) achieved a 10.8 percent increase in ridership between 1994 and 1996. HART serves a network of eight towns in the Danbury area, four of which receive fixed-route service. Paratransit service is provided throughout the service area. The region's economic growth and demographic changes have played a part in HART's ridership growth. The system has promoted growth through routine service assessment and redesign, marketing, and facility improvements.

- *Economic Growth and Demographic Changes.* Unlike some areas in southern New England, the Danbury region has been experiencing economic growth as an increasing number of businesses relocate to the area. Fairfield County has attracted several corporate headquarters as well as some manufacturing plants. There is growing use of the HART system by commuters because of the continuing economic improvement in the area. In addition to this business growth, the area is attracting an increasing number of older residents, due in part to a significant number of senior citizen complexes that are opening in the region. The presence of a major rehabilitation center in Brookfield has supported the development of several assisted living residences in the area. These demographic shifts have sparked strong increases in HART's paratransit service ridership as well as fixed-route use. Although most of HART's riders are transit dependent, HART is beginning to have more recreational riders traveling for entertainment and shopping. A trolley shuttle that runs a downtown circuit in Danbury targets these customers.
- *System Analysis and Service Redesign.* HART conducts regular assessments of its service design and efficiency through annual comprehensive operational analyses. Through this routine review, HART has redesigned service to eliminate unproductive areas and has initiated service improvements. The most significant service redesign has been the initiation of by-request service on fixed routes. When boarding, passengers can request a route deviation to reach their destination. The implementation of by-request service has helped HART offset the loss of some service routes and increase overall system productivity.

HART is averaging 16 to 17 passengers per vehicle hour on its fixed-route service, with capacity to absorb additional demand. The paratransit service is close to or at capacity, with wait times for service becoming a problem, especially in Danbury.

- *Marketing.* To better promote its services, HART has developed marketing trade agreements with local newspaper and radio stations; HART provides advertising space on vehicles in exchange for advertising exposure in the media. This arrangement, which has been in place

for 2 years, has enabled HART to increase advertising substantially and has increased system visibility. Market research conducted by HART in 1993-1994 identified radio and press as the most effective media to reach passengers.

- *Facility Improvements.* At the end of 1993, HART opened a major new station at its central downtown transfer point. The larger, well-landscaped, and attractive facility--designed to fit in with Danbury's overall downtown rehabilitation--is likely to have supported ridership increases. In addition, HART has replaced some older vehicles, significantly improving the comfort of riders of its bus fleet. All paratransit vehicles are 1994 or newer vehicles.
- *Service Plans.* In November 1997, HART will begin a new commuter-based service that will provide interstate bus service from Danbury to Brewster, New York. The 10-mile travel route will enable a good intermodal connection for commuters from Connecticut who travel to New York City using the Metro North rail service via the station in Brewster. Conversely, the service will provide efficient transit for passengers traveling from Brewster to shop at the Danbury Fair Mall, a major regional shopping mall. The new program was developed in collaboration with the New York and Connecticut Departments of Transportation, whose support will be matched with CMAQ funds for 2 years.

To address transit plans for access to jobs, HART established a jobs transportation planning group for the Housatonic region that includes employer representatives. Short-term plans for service expansion to support employees include the provision of evening and Sunday service. Evening service is particularly important for employees working evening hours at the shopping mall.

- *Fares and Revenue Structure.* HART has not implemented any changes in fare levels and pass programs in recent years. The system conducts periodic free-fare promotions as part of its marketing program. Local support and fare revenues cover about one-third of HART's fixed-route operating costs; local municipalities pay for approximately 60 percent of HART's paratransit program costs.

## Laketran Cleveland, Ohio

Contact: Frank J. Polivka, General Manager

### SUMMARY

Laketran has been growing steadily since it opened its first route in 1985. Between 1994 and 1996, ridership grew by 18.3 percent, increasing from 485,100 rides to 574,000 rides annually. Most of this increase occurred in fixed-route bus service, although Laketran has a significant dial-a-ride program as well, which represents between 42 and 45 percent of total service. Ridership on most fixed routes has been growing at a rate of 4 to 6 percent annually, without significant service expansion or redesign.

Laketran's manager attributes the system's ongoing growth in ridership in part to the fact that the new organization is still in a "maturing process" of building visibility and public awareness. Population growth--sparked by Cleveland's economic resurgence--has also contributed to ridership growth. Laketran's success in building a reputation as a provider of reliable and comfortable service has been supported by an active marketing program.

- *Service Design.* Laketran implemented modest service expansion in 1994 and 1995, including the provision of weekend service to Cleveland for Indians games during the season. In 1996, Laketran went to full weekend service, carrying almost 18,000 riders to Cleveland for sports and entertainment events. Of the total county population of 215,000, an increasing number of residents are senior citizens, and Laketran has a high demand for dial-a-ride service, serving more than 700,000 passengers a year. The system has attempted to manage demand for its dial-a-ride service through improved productivity and efficiency measures rather than continuous increases in service hours. Laketran has focused on the provision of high-quality, comfortable coach service with good amenities as a means of attracting an upper middle class market. Development of park-and-ride facilities in conjunction with its coach service to Cleveland has attracted an increasing commuter ridership. Highway construction activity in 1994 encouraged more car commuters to switch to Laketran's commuter service. Laketran's commuter coaches are now operating at 85 to 95 percent capacity. The system plans to expand its park-and-ride program.
- *Outreach and Marketing.* Laketran "constantly tries to stay in front of the public" using two types of advertising themes: a traditional "try us--ride the bus" message and an advocacy-oriented message promoting the importance of bus service to the community. Visibility of the system was particularly high during the 1994-period as Laketran was advocating for renewal of the 1/4 percent sales tax, which provides partial revenue support for the system. Laketran has found that the credibility it has developed through its paratransit service has helped promote ridership on its fixed-route service.

- *Pricing.* Laketran has not changed fares since 1988. Its round trip fare to Cleveland of \$4.00 is set at a competitive level, offering transportation to the city at a cost that is lower than automobile parking rates in the Cleveland area.

Laketran has targeted an annual growth rate of 4 to 5 percent. Although the system has been able to manage revenues so far to sustain a moderate level of growth, there is concern that the system will face problems with operational funding levels by the year 2003 or 2004, depending on federal funding policies.

- *Fleet Management.* The system emphasizes a strong preventive maintenance program and regular fleet replacement. Vehicle replacement has been particularly important for the dial-a-ride service, because of the heavy use of this service.

## **Metropolitan Atlanta Rapid Transit Authority Atlanta, Georgia**

Contact: Bob Thomas, Planning Department

### **SUMMARY**

Transit ridership in Atlanta increased nearly 17 percent in 1994 through 1996. Most of this increase can be tied to the 1996 Summer Olympic Games and the continued rapid population and employment growth in the Atlanta region. Despite these external factors, there was still significant ridership improvement prior to the Olympics that can be associated with transit-related actions and initiatives in the Atlanta region.

- *Service Expansion.* While MARTA rail station openings at Buckhead and Doraville occurred in 1992, the effect on ridership was still being felt through the 1994 through 1996 period according to MARTA staff. Also at the Doraville station in December of 1992, parking charges were eliminated for a large share of the parking deck, attracting increased park-and-ride use from surrounding Gwinnett County.

In 1993, the Kensington and Indian Creek stations were opened on the east line and continue to attract riders from beyond the earlier service area. The Kensington station can be accessed from dedicated entrances off the J-295 Beltway.

- *Fares and Pricing.* MARTA pricing strategy involves an effort to influence greater reliance on discounted passes. In July 1995, the base fare was increased from \$1.25 to \$1.50 (discounted fare media were not increased as much). Even with the increase, there was no appreciable drop in ridership.

MARTA operates a regional pass program, the MARTA Partnership Program, which makes farecards available to employers with a sliding discount based on volume sold. Sales of 500 to 750 cards provides a discount of 11 percent; sales of 1,000 or more cards results in a discount of 15 percent. Participation in the program continues to grow steadily.

Recently, the Partnership Program has been extended through an agreement with the Legal Clinic for the Homeless, providing an example of marketing and distributing discount fare media through social service agencies rather than the corporate community.

Finally, MARTA operates a student discount program for elementary and secondary school children. The student "Transcard" program provides discounted rides between 6 a.m. and 7:00 p.m. on weekdays only.

- *Business partnerships.* Another feature of the MARTA program is the growing formation of Transportation Management Associations (TMAs) and their involvement and coordination with MARTA. Specific planning efforts and improvement programs are underway in concert with the Perimeter association (routing and service changes), the Emory University TMA (an MIS), and the Buckhead TMA.

The Atlanta region continues to be challenged in terms of transportation in several ways that are of particular relevance to MARTA and transit generally in the region. First, although growth is occurring faster in the suburbs surrounding Atlanta, the absolute number of jobs in the downtown area continues to grow. Secondly, Atlanta finds itself in an increasingly perilous position with respect to air quality and the conformity of transportation plans to air quality plans. The extent to which road building can continue in the region is being actively debated.

## **OMNITRANS Riverside, California**

Contact: Anne Palatino, Director of Planning

### **SUMMARY**

OMNITRANS' ridership increased by close to 30 percent between 1994 and 1996, rising from more than 8,065,000 to 10,454,000 trips annually. A combination of service restructuring and marketing outreach helped stimulate ridership growth in 1995. More recently, OMNITRANS restructured and increased fares and implemented a new day pass system in July of 1996.

- *Service Restructuring.* Following a comprehensive operational analysis, OMNITRANS significantly restructured service in the Fall of 1995. Service restructuring was constrained by a requirement that total service hours not be increased more than 4 percent. Redesign included realignment of many routes to enhance direct travel, increased service frequency on heavily traveled routes, and improved connections. Schedule restructuring focused on consistency and ease of transfer for customers: all routes were standardized to be on 15-, 30-, or 60-minute on-the-hour headways. In response to these service changes, OMNITRANS achieved a 20.35 percent increase in 1995 ridership over the prior year.
- *Pricing and Fare Restructuring.* Effective July 1996, OMNITRANS implemented an increase in its base fare and its fare for senior riders and riders with disabilities, while maintaining the price of its monthly pass and introducing a new day pass. The last fare increase had occurred in 1991. Riders' enthusiastic response to the day--which eliminated transfers and offered unlimited 1-day travel at a cost of \$2.00--resulted in an immediate increase in ridership numbers despite the increased base fare price. Day passes now account for 40 percent of OMNITRANS' collected fares. As of May 1997, farebox revenue had increased by 20 percent from the prior year, and the farebox recovery ratio increased by 2.39 percent.
- *Marketing.* OMNITRANS has produced a single pocket-size bus book and system map that provides information and schedules covering all 15 cities served by the system. OMNITRANS conducts attitude and awareness studies every 2 or 3 years to track customer response.
- *Fleet Improvements.* The system is transitioning from a diesel to CNG fleet.

**Orange County Transportation Authority (OCTA)  
Orange County, California**

Contact: Kurt Brotcke, Senior Transportation Analyst

**SUMMARY**

After a slight dip in ridership between 1993 and 1994, OCTA's ridership climbed from approximately 41,130,300 in 1994 to more than 45,681,200 in 1996--an increase of more than 11 percent. The major factor in this growth has been the economic resurgence in the county since 1993. Employment growth has attracted more people to the area; in particular, increases in service industry jobs have generated increased use of the transit system.

- *Service Redesign and Increased Productivity.* More impressive than ridership gains has been OCTA's success in improving productivity during this period. OCTA conducted a major service review and redesign in October 1995 that resulted in a cutback in total service hours while providing increased service on high-demand routes. The analysis combined census and survey data with GIS technologies to identify candidate locations and routes for restructuring. This evaluation represented the system's first "major overhaul" in 15 years. In FY 1996-1997, OCTA achieved a systemwide level of 38.2 boardings per vehicle system hour, surpassing its earlier high point of 36.5 boardings, achieved in FY 1991.

Plans for service expansion between September 1997 and February 1998 are underway. OCTA will be adding 40 buses to meet existing demand and improve headways.

- *Routine Service Adjustments.* OCTA evaluates and adjusts routes three times a year to fine-tune service. This routine process enables the system to track ridership trends and implement minor refinements throughout the year.
- *Fleet Composition.* About one-third of OCTA's full-size buses are now low-floor vehicles. In addition, OCTA's use of smaller vehicles has grown, particularly for routes in the southern section of the county where ridership levels are lower and the nature of some routes precludes the use of larger vehicles. As ridership has grown, OCTA is planning to move from the use of 17-seat vans to mid-size (25-seat) vehicles on some routes.

**Pierce County Public Transportation Benefit Area  
Tacoma, Washington**

Contact: Don Monroe, General Manager

**SUMMARY**

For most of the past decade, transit ridership on Pierce Transit had been flat. From 1994 through 1996, however, ridership increased more than 10 percent. This recent ridership increase occurred during a period when both service and fares were increased.

Two keys to the 3-year ridership increase are found in external factors--the renewed strength of the local economy, driven largely by the Boeing Company and military installations, and the solid funding base available at both the state and local level. The availability of adequate funding has allowed Pierce Transit to take several steps that have contributed directly to the recent ridership increases: (1) investment in amenities to enhance passenger comfort and convenience; (2) investment in new services; and (3) retention of reasonable fares.

- *Increased Service.* At the time that fares were increased in August 1996, service was increased through the reduction of headways from 1 hour to 20 to 30 minutes on 52 routes.
- *Changes in Service Mix.* The most significant increase in service came, however, with the institution of non-stop express bus service between Tacoma and Seattle. Ridership began at 600 to 700 passengers a day and has grown to more than 3,000. In November 1997, a \$19 million six-level garage was opened that in late December has begun to fill up, accommodating more than 1,200 cars a day. About the same time, the express service was expanded to Saturdays and Sundays.

Vanpool services have also been a factor in Pierce Transit's success. The current program has provided more than 120 vans brokered through companies and individuals. Pierce Transit envisions buying 20 to 25 vehicles a year and the program covers its operating expenses.

**Regional Transportation Authority  
Corpus Christi, TX**

Contact Linda Watson, General Manager

**SUMMARY**

Transit ridership in the Corpus Christi area has increased more than 31 percent between 1994 and 1996 and the gains are continuing. Over the last 3 months, ridership levels have broken records with gains from 7 to 10 percent over 1997 monthly figures. The sustained pattern of ridership increases has resulted from external influences as well as specific initiatives and actions set in motion by the RTA several years ago.

Broad characteristics of the Corpus Christi travel market are responsible for much of the ridership increase. Significant portions of the travel market are made up of transportation-disadvantaged individuals and households, including a large Hispanic population, strong youth ridership and a large elderly population. Coupled with a strong tourism industry and services linking key tourist attractions, RTA has been able to increase its relevance and visibility throughout the community as ridership has grown. This has occurred in a setting in which anti-tax sentiments are strong.

*Service Changes.* Significant route restructuring was carried out approximately 4 years ago, focused on the introduction of four major transfer facilities throughout Corpus Christi. The effect of this fundamental restructuring is best illustrated by the fact that ridership continues to rise even though service reductions were made in January 1997 through the elimination of some trips and scaling back on selected route coverage.

*Customer Orientation and Market Response.* In assessing the recent rise in transit ridership, one of the most significant factors has been the overall attention paid to transit customers, particularly aspects which are making the system more pleasant, more comfortable, and easier to use.

- The success of the restructured route system and the four new transfer facilities is due, in part, to what has been described as their eye-catching, award-winning design. Standard passenger amenities are incorporated in structures that have become mini-landmarks for the community and neighborhoods, providing an identity for both the system and the immediate neighborhood.
- In response to an economic downturn in the community of Robstown 25 miles away, RTA increased service levels, including a mix of local, express, and park-and-ride services, to provide improved access to Corpus Christi for shopping and commuting.
- Although fares have remained largely unchanged over the last several years, the transfer system has been revised to provide additional time (up to 1 hour), allowing more travel without increasing the cost.

- Most schools are served directly by major routes, allowing more convenient use by students throughout the community.
- The tourist market is served by non-traditional transit services that are functional and attractive adjuncts of the tourist facilities and environment. These services are an integral part of the beach-oriented tourist area that is so important to the local economy, and local businesses are helping to make key improvements (e.g., trolley stops along the routes). Other services are as follows:
  - A water taxi service operates from Memorial Day through Labor Day providing access to the convention center and museum area, the Aquarium, and the Battleship Lexington for \$1 a trip;
  - A rubber-tired trolley provides service along the beach and bay-front hotels; and
  - An open-air tram runs on the beach front providing access from parking lots to beachfront attractions.
- Although no new, broad-based marketing initiatives have been introduced, the RTA does conduct site-specific campaigns and supports a special advertising program on the local Hispanic radio station.

In summary, the transit services in Corpus Christi are being planned and provided in accordance with community needs and the specific characteristics of key markets. This focus has helped create a continuing trend of rising transit visibility, use, and relevance throughout the community.

**Sacramento Regional Transit District  
Sacramento, California**

Contact: Mike Wiley, Assistant to the General Manager

**SUMMARY**

Between 1994 and 1996, the Sacramento Regional Transit District (RTD) ridership grew by 10.2 percent, increasing from 22,462,800 to 24,755,500 unlinked trips. The system's steady growth has continued; RTD's ridership rose by 6.3 percent in FY 1997 (July 1996 through June 1997). During the study period, the Sacramento region was just beginning to recover from a recession, experiencing small gains in both population and jobs. The pace of economic growth has quickened since 1996. Ridership growth was achieved between 1994 and 1996, despite the lack of major economic growth in the area and with only modest levels of service expansion. Several factors contributed to this success, including a creative approach to fare adjustments and marketing, productivity measures, expansion of group pass programs, and fleet improvements.

RTD is pursuing an expansion of its light rail service that will enable it to extend service to new regions and redeploy buses to respond to unmet demand from new growth areas in the county.

- *Service Expansion and Redesign.* RTD has been regularly adding service since FY 1994 at a rate of between 1.5 to 2 percent annually. Most of this increase has been in bus service, including the provision of more service in off-peak and non-commuter times. In conjunction with these increases, RTD has made service adjustments to improve productivity, including reallocating service to higher demand routes and service times.

RTD's rate of service expansion has left a significant level of unmet demand, particularly in areas of recent population growth that are not yet served by the system. There is also a need for greater service frequencies on existing lines. The system has been constrained by operating revenue levels from expanding service more quickly.

- *Discounted Fare Campaign.* In the summer of 1996, RTD decided to reduce regular fares for the summer months from \$1.25 to \$1.00. This decision was made in response to two significant factors. First, in May of that year, gasoline prices surged by between 20 and 30 cents per gallon, sparking a strong public outcry. Secondly, air quality was particularly poor in the region during that period, generating greater public awareness of air quality issues. The RTD identified this shift in public attitudes as a unique opportunity to promote transit and quickly developed a new marketing initiative. It implemented short-term fare increases, combined with an aggressive public education campaign, to encourage residents to use transit both to save money on gasoline and to contribute to lower vehicle emissions. Marketing efforts included both paid advertising and media events.

RTD's campaign was very successful in increasing ridership: during the summer, monthly ridership averaged 10 percent higher than the prior year. This represented a net increase of more than 3 percent in addition to the average ridership growth of 6.4 percent already achieved. Growth was higher in bus ridership than in rail ridership. Ridership increases were concentrated in fare categories in which the discount was implemented; an overall increase of 14.4 percent (net increase of 7.7 percent) was realized in these categories. Net revenue loss during the period of reduced fares was about 1.7 percent. Most significantly, RTD reports that this ridership growth spurt carried over into higher levels of sustained ridership after the regular fares were resumed. In fact, annual fare revenues were higher than projected, despite the unbudgeted fare reduction period, because of increased ridership.

- *Collaboration on Group Pass Programs.* RTD has a well-developed group pass program underway, through which several employers pay all or a portion of their employees' transit costs. State government--the largest employer in this state capital location--has been paying a portion of employee monthly pass costs for several years. In addition, an arrangement had been in place since 1992 with the student association of the state university in Sacramento, through which annual payments from the student association covered unlimited rides for riders with student ID cards. Student ridership increased more than tenfold following the implementation of this program. In 1995, this program was expanded to non-students; RTD now contracts directly with the university to provide free service to all university students, staff, and faculty. This expansion resulted in dramatic increases in ridership associated with the university. Also, since 1992, RTD has provided a group pass program for recipients of General Assistance (GA), through an agreement with Sacramento County. This program replaced a county program that had provided GA recipients with a direct cash payment of \$20 per month for transportation expenses. The new program has unproved access to transportation for recipients, lowered administrative costs to the county, and generated annual revenues of between \$1 million and \$2 million for RTD. RTD has implemented a variety of other, smaller group pass programs, including one with the local Air Force base. RTD intends to further market its group pass program as an important component of its outreach strategy and has adopted a formal policy regarding the structure and requirements of the group pass program.
- *Fleet Improvements.* Although the direct relationship to ridership growth has not been measured, RTD's fleet conversion program has generated strong positive public response. RTD started conversion of its fleet to CNG vehicles in 1993; out of a total fleet of 210, RTD now has 136 CNG buses. The conversion will be complete in 2002 or 2003. General improvements in vehicle comfort and amenities have also contributed to customer satisfaction with bus service.
- *Revenue Strategy.* The RTD's local funding is generated through a local 1/2 cent sales tax, of which one-third is allocated to transit RTD will be working to increase the portion of the local tax available for transit service when the tax is up for voter reauthorization prior to 2008. Increased tax revenues would enable the system to expand at a faster rate to meet existing and anticipated unmet demand.

- *Plans/Light Rail Expansion.* RTD expects to increase ridership on all modes from its current level of 90,000 passengers per day to more than 110,000 per day by the year 2003. To achieve this, RTD is targeting the expansion of its light rail service from its current 18.3-mile system to a 39-mile rail network. Construction of a 2.5-mile extension is underway; RTD has received a full-funding agreement to pay for one-half of an additional 6.3-mile extension to the south, which is now in final design; and RTD is working on three other extensions. This aggressive expansion of light rail service will be complemented by minor increases in bus service, to average 1 to 2 percent annually. The development of light rail service will enable RTD to reorient its existing bus service to unserved or underserved neighborhoods and to provide feeder service to the rail line.

## **Santa Clarita Transit Los Angeles, California**

Contact: Ron Kilcoyne, Transportation Manager

### **SUMMARY**

Santa Clarita Transit (SCT) is a young system, starting service in 1991. The system has grown rapidly, increasing its annual ridership from 1,194,000 in 1994 to 1,692,100 in 1996--an increase of 41.7 percent. Service is dominated by the local fixed-route bus service, which carries an average of 6,900 riders on a typical weekday during the school year. SCT also provides a commuter express bus service, averaging 800 rides per day, and a dial-a-ride service, providing around 250 to 300 rides daily. Ridership has grown in all services, but has risen most sharply and consistently for local fixed-route service.

The system serves a relatively affluent residential area in which most households own more than one car and are not transit dependent. SCT's operations have been influenced by some dramatic events, including the economic recession that occurred in the area in the early 1990s and a major earthquake in Los Angeles in January 1994. Ridership increases are a result of several factors, including improvements in service frequencies and spans, the forced introduction of many new customers to public transit after the earthquake, and an aggressive marketing program designed to appeal to discretionary riders.

- *Service Expansion.* Although SCT opened some new fixed-route service lines during the early part of the study period, increases in ridership far surpassed increases in service. SCT's productivity has risen substantially: by the end of 1996, the system had achieved a 7-day average of 23 passengers per rider vehicle hour compared with an average of about 14 passengers in 1992. Productivity has continued to climb in 1997. Total coverage area was reduced slightly when a demonstration route was discontinued in mid-1994, thereby reducing the percentage of the service population within walking distance of fixed-route service. Virtually all service growth was focused on improving frequency or expanding the span of service on existing lines. This "made the transit system a lot more useful" to those living within walking distance of bus routes, thereby boosting customer use of the system.
- *Demographic Changes.* The population of the Santa Clarita area remained stagnant during the study period because of the recession. However, the number of high school age youths increased during this time, creating a population group with a higher tendency to use the system for travel to and from school and to other destinations. SCT estimates that its local ridership is composed of about 40 to 43 percent youth and less than 10 percent senior citizens. The overall percentage of elderly in Santa Clarita is low; many seniors who do use transit use SCT's dial-a-ride service.
- *Disaster Response.* The January 1994 earthquake resulted in an immediate and massive increase in use of the Metrolink commuter service to Los Angeles. This in turn resulted in sharp increases in the use of SCT's fixed-route system. SCT estimates that the system

carried between 1,000 to 1,200 a day to the Metrolink train service. For many travelers, this was their first knowledge of the transit service.

- *Marketing.* Santa Clarita Transit has pursued an aggressive marketing program to increase public familiarity with the system. A rolling direct mail program was implemented in coordination with service frequency expansion as service was increased in specific areas. Because the service area is an automobile-oriented suburban area, marketing efforts focused on encouraging discretionary riders to use the transit system. For example, one marketing message used was "Three reasons why a family with three cars would want to take our buses."

SCT has found print marketing to be most cost-effective and uses direct mail, flyers, and newspaper advertising exclusively. Free-ride coupons are included in every marketing piece. By coding and tracking use of these coupons, SCT can evaluate the effectiveness of different marketing efforts and market segment response.

Collaborations with local businesses have supported SCT's marketing efforts, including an arrangement with local businesses to serve as transit pass outlets in exchange for free advertising. A local shopping mall underwrites the cost of free service to the mall for two days in November. SCT has recently hired a staffperson to further develop its collaborations with area employers.

- *Commuter Service Design.* SCT has achieved the highest percentage of home end boardings in the entire Metrolink commuter system: 13 percent of the boardings at the Metrolink Santa Clarita station arrive at the station by bus. This is supported by a well-designed intermodal connection. Buses have preference over the cars at the station, so that riders can transfer with a walk of less than 50 feet. Bus and tram schedules are coordinated, and the two systems have reciprocal transfer agreements.
- *Fares.* Fares generate about 25 percent of SCT's total operating budget. The last major increase in fares was implemented in July 1993. Fare changes have not been a factor in ridership growth during the 1994-1996 period.
- *Plans.* As the Santa Clarita economy has emerged from recession, development in the region has resumed and demand is increasing for service in new areas. Although in recent years SCT has focused on increasing frequency and service spans on existing service lines, future service increases are likely to be in expanded coverage of the service area. The cost of increasing operations to meet unmet demand in new service areas will be balanced against several capital needs faced by SCT, including the need to construct a new maintenance facility.

## **Snohomish County PTBA--Community Transit Snohomish County, Washington**

Contact Tim Brakke, Manager of Service and Facility Development

### **SUMMARY**

The Snohomish County Public Transportation Benefit Area Corporation, or "Community Transit," operates 240 buses in a service area that includes 19 jurisdictions in the north suburban Seattle area. The recent increase in ridership is associated with external factors as well as planning and management initiatives undertaken by Community Transit.

Rapid population growth and a strong employment base, including Boeing Company plants, have been major factors in the recent ridership increases. The State of Washington also has aggressive employer trip reduction requirements in place for businesses with more than 100 employees. Although the trip reduction program is considered responsible for small increases in transit use, Community Transit staff feels that the trip reduction program has played a significant role in shaping supportive, pro-transit attitudes locally and regionally.

In addition, the University of Washington and several community colleges have initiated transit programs that have resulted in significant ridership increases. The introduction of a universal pass at the University of Washington allowing travel in both Snohomish County and King County resulted in a 22 percent increase in University-related ridership. The "U Pass" acts as both an identification card and a discount card. The program is revenue-neutral for the transit systems. Transit is also being supported at some local community colleges, leading to significant increases in that market as well.

Some service planning activities also played a part in recent ridership increases. In 1992, local routes underwent a major restructuring that led to significant ridership increases in 1993. In 1993, a major market research effort was undertaken to better understand local trip patterns and perspectives on transit services. As a result, conscious efforts were made to increase public involvement and engage the public more comprehensively through public meetings and open house activities in areas under analysis. These have been found to be useful in generating service concepts, making adjustments to plans under development, and generating community buy-in for new initiatives.

Over the past 2 years, marketing efforts have also been increased significantly where no strong program existed previously. Various marketing activities have been undertaken during the period of the most recent ridership increases, including

- Purchased advertorials featuring Community Transit's recent achievements and range of services,
- Newsletters targeted to local jurisdictions,
- Drive-time radio spots, and
- Direct mail on route-specific aspects of service.

In 1994, new senior leadership at Community Transit began an effort to increase service frequency from 1-hour headways to 30 minutes as well as to add new service with 30-minute headways. Over the past 2 years, although service hours have increased 22 percent, ridership has increased 33 percent--indicating that significant latent demand for transit exists in the area.

During this time, Community Transit has made significant capital investments as well, including construction of several major park-and-ride facilities and a major transit center. Aggressive replacement of vehicles has continued, and new vehicles are being added for service expansion and increased frequency. In addition, Community Transit's vanpool fleet has tripled in recent years from 65 vehicles to 180. The program has been so successful that Community Transit has decided to drop the cost recovery target from 100 percent to 60 percent.

Although the Community Transit service area is suburban in nature and residents are very property-rights oriented, local government planning processes have been able to focus on transit and development relationships with some success. A portion of the county planning department effort is dedicated to supporting transit-friendly development policies and the Community Transit staff is involved directly in local jurisdiction development review activities.

Even with the recent 35 percent ridership increase systemwide, there is thought to be considerable additional latent transit demand that will continue to respond to changes in Community Transit services in the years ahead.

## South Coast Area Transit (SCAT) Oxnard, California

Contact: Laura Caskey, Acting Director Planning and Marketing

### SUMMARY

South Coast Area Transit (SCAT) achieved an increase in ridership of 12.9 percent from 1994 to 1996, growing from over 2,601,400 rides in 1994 to 2,937,000 riders in 1996. This growth followed a drop of 8.8 percent in ridership between 1993 and 1994 that was precipitated by a 1993 fare increase. Ridership growth has been steady since that decline.

As a low-density area with extensive automobile use, there has been little public incentive for transit expansion in SCAT's service area.

- *Service Markets.* SCAT serves largely a transit-dependent population, including agricultural workers employed by farms in the Oxnard area. The region has a significant Hispanic population, for whom Spanish is the primary language. To better serve this market, SCAT now produces all its materials as bilingual documents. In addition, SCAT has ensured that bus drivers who do not speak Spanish have learned basic phrases needed to communicate with Spanish-speaking riders.

SCAT has also seen some increased use of the system by students, particularly for class field trips.

- *Marketing.* SCAT conducts a media campaign each year that includes radio and television outreach. The loss of an outreach staff position has reduced SCAT's ability to conduct outreach to schools and other community groups.
- *Fleet Improvements.* SCAT has purchased new buses over the last 2 years, enabling it to eliminate its older vehicles and provide customers unproved access. There has been a particular increase in wheelchair boardings since the fleet has been upgraded. The installation of electronic fareboxes in 1995 improved fare collection and helped SCAT obtain more accurate data.
- *Service Redesign.* SCAT has made some minor revisions to routes and has cut some low-use service. Because the service area has a high number of transit-dependent residents, however, SCAT has been reluctant to eliminate service even when ridership is minimal. In July 1997, SCAT added later evening service hours for six routes, in response to customer demand.

**Tidewater Regional Transit  
Norfolk, Virginia**

Contact Jeff Becker, Service Development Manager

**SUMMARY**

Over the period 1994 through 1996, ridership on the Tidewater Regional Transit system increased over 9.9 percent. During this time, service levels have been somewhat variable though essentially stable. Among the most significant external factors during this period was the movement of approximately 50,000 military personnel out of the area with the prosecution of the Desert Storm military operation. More recently, however, the military sector has stabilized as has the regional economy.

- *Service Structure.* The Tidewater Regional Transit system has been a leader over the years in the development and implementation of the "family of service" concept, particularly through early deployment of paratransit services. In addition to fixed-route buses operating in a timed transfer mode, current services include a HandiRide service for patrons who are elderly or have disabilities, a premium paratransit service called MaxiRide, a pedestrian ferry serving downtown Norfolk and Portsmouth, seasonal trolleys and tours, and ridesharing services.  
The MaxiRide service operates from 6:00 a.m. to 7:00 p.m. in five or six areas. Service is available to the general public for a premium fare of \$3.00--double the \$1.50 bus fare. Service can be accessed by customers via cell phone directly to drivers, empowering both drivers and customers in better serving travel needs. Both the MaxiRide service and the HandiRide network are integrated within the timed transfer system that has a 3-minute transfer window.  
The timed transfer system was instituted in 1990-1991 and operates out of 20 locations with more centers being added. In implementing the system, the entire service network was redesigned. The result has been high levels of customer approval (70 to 90 percent) and lowered travel times on the system. The sense of Tidewater staff is that the timed transfer system has "really brought things together." The discipline of timed transfer operations helps to ensure on-time performance resulting in higher quality of service. It also enforces discipline on the planning process as well.
- *Marketing and Fares.* While Tidewater is still oriented to service cost and production, the system is making significant strides in expanding and improving customer orientation. In its efforts, staff views marketing and fare policy as highly interrelated elements with recent changes in the fare structure serving as the core of the marketing program. In October 1995, fares were restructured to focus on a flat fare with deep discounts. The target of the marketing/fare initiatives has been infrequent riders and turnover, where the deeply discounted fares are believed to be most effective.

In general terms, the marketing effort is guided by attention to "the four Ps"--price, product, (direct) promotion, and place (distribution of materials). Attention to these areas is thought to yield better customer service in: several important respects--driver performance, information, and ticket sales.

**Transfort  
Fort Collins, Colorado**

Contact David L. Lilly, Manager

**SUMMARY**

Between 1994 and 1996, Transfort ridership climbed by 22.6 percent, increasing from 1,140,300 to 1,398,500. The most significant factor contributing to this increase was the decision of the Fort Collins City Council in 1994 to provide free service to youth under 17 years of age, with the costs of service paid for through the City's general fund. Youth ridership rose steadily in response to this pricing decision. Transfort estimates that youth ridership now constitutes about 30 percent of total ridership. An additional 40 percent of the system's ridership is associated with Colorado State University (CSU); only 30 percent of total ridership is attributed to non-youth or non-CSU travel. Collaborations with the University and a pilot program with employers, as well as the initiation of a new regional service, have enabled Transfort to serve some important market segments. However, the system's ability to meet latent demand, particularly in the commuter market, has been constrained by lack of operating revenues.

- *Service Collaborations.* Since 1991, Transfort has had an agreement with Colorado State University to provide free unlimited rides to CSU students. This cost is underwritten by an activity fee charged by the University; CSU contributes about \$400,000 annually to support Transfort's three million dollar operating budget. Transfort estimates that this payment covers approximately one-half of the cost of service provided to CSU students. In 1995, Transfort entered into a 2-year pilot agreement with some employers to provide service to employees, based on a study conducted by Transfort of where employees lived and worked. Under this pilot program, employers have funded approximately 70 percent of the operating cost of bus service to their locations. Ridership has grown to an average of 20 passengers an hour. Transfort is now working with employers to design an ongoing program for commuters which would enable service to be continued with a lower portion of the cost carried by employers. One approach under consideration is the implementation of a pass program modeled after Denver's EcoPass.
- *Regional Service.* Transfort started its first regional service in March 1996, serving Larimer County and the cities of Loveland and Fort Collins. This new service partnership has been very successful; by June of 1996, the service had exceeded its target of 100 riders per day. The regional service will be continued into 1998.
- *Service Design and Expansion Constraints.* Transfort provides service between 6:30 a.m. and 6:30 p.m. Monday through Saturday. Transfort's ability to attract the commuter market has been limited by insufficient service frequency. Many lines operate on 1-hour headways, with the most frequent service operating with 30-minute headways. There also has been an ongoing demand for evening service. Service expansion to meet these demands has been limited by lack of operating funds.

Transfort's overall focus has been on increasing productivity within existing levels of service hours and vehicle capacity. No major service redesign was initiated during the study period, although the system did redesign one route in January 1997. This recent redesign has been successful in increasing ridership on that route by 30 percent.

- *Pricing and Revenue Strategies.* During the 1994 to 1996 period, Transfort implemented an increase in its base fare from 80 to 90 cents per ride. This increase did not affect ridership to a significant degree.

Transfort has conducted a study to identify potential sources of funding to supplement existing resources, including a variety of tax mechanisms. The system is evaluating the probable levels of public support for different revenue strategies.

- *Future Service Development.* Planning is underway for a new transit transfer center to be located on the CSU campus. An old railroad corridor running parallel to the local highway has been targeted for use as a multi-modal corridor, with pedestrian, bicycle, and bus service. The availability of dedicated bus lanes would enable Transfort to provide more efficient bus service, with faster travel times than SOV highway travel. In addition, planners are working to have the existing rail line retained, envisioning long-range development of commuter rail service as well in this corridor.

**Tri-County Metropolitan Transportation District of Oregon  
Portland, Oregon**

Contact: G.B Arrington, Service Development Manager

**SUMMARY**

Portland's Tri-Met system is one of the most widely referenced and reviewed transit systems in the country. Over the period 1994 through 1996, ridership on the Tri-Met system increased 9.9 percent. Continued strength in the regional and state economy was a significant factor. Transit managers also cite the region's continued strong commitment to transit within the context of a well-known regional growth management program as a critical factor in Tri-Met's ridership growth.

- *Service Expansion.* Service expansion and new types of service have been instituted by Tri-Met and cited as factors in the recent ridership increases. Overall, Tri-Met has been increasing service at a rate of approximately 2.5 percent per year. Recently experimental small vehicle services have been introduced into specific suburban communities through a process that relied heavily on outreach to and involvement of local residents in identifying needs and designing service.
- *Fares and Pricing.* Tri-Met has undertaken a program of small fare increases at regular intervals in an effort to try and minimize resistance to increases and establish a predictable, responsible approach to cost recovery and market conditions. Fare increases of 5 cents are programmed every 2 years.

In addition, the State Department of Environmental Quality has instituted Passport, a program that applies to employers with more than 50 employees. The program makes available annual passes for all participating employees with price adjusted through annual surveys on use. More than 200,000 employees at 230 employers are participating in the program. An additional 17,000 employees at 30 companies were added in September 1997. Throughout the development of the Passport program, Tri-Met staff has been added to ensure that there is continuing on-site presence and support to participating employers and employees.

- *Marketing and Market Response.* Tri-Met continues to maintain a high level of effort in marketing. More than 70 percent of Tri-Met riders are "choice" riders (i.e., who have a car available or who choose not to own one) according to market research data updated quarterly. As a result, there is a high level of midday transit use and service. The marketing program focuses to a considerable degree on rider retention (through activities to improve service reliability) and cooperation with utility companies (in order to monitor residence changes and provide newly relocated residents with information and free tickets for Tri-Met services in their new neighborhood). Underlying the marketing effort is a strategy to establish transit use as an "ethic" for local residents.

In assessing market response, Tri-Met monitors several factors, including levels of service, boardings, and ridership per capita. The success of the Tri-Met program is perhaps best illustrated by state DOT figures for 1990 to 1995 indicating that the region's population grew 8 percent, VMT grew 13 percent, and Tri-Met ridership grew 16 percent.

- *Planning and Coordination.* In addition to the planned opening of the 18-mile West Side light rail line and reorientation of bus service on Labor Day 1998, other activities are underway to integrate and coordinate Tri-Met and other transportation strategies and services in the region. One such partnership came into being in 1996 when new Tri-Met services were launched to serve the Oregon Health Sciences University complex. The University and related hospitals found it was cheaper to contract with Tri-Met than to continue to run their own shuttle services. As a result, Tri-Met is now providing customized express service and the various organizations have joined the Tri-Met Passport program.

Another partnership was launched in September 1997 in the Lloyd District outside the downtown. As part of a coordinated effort, local businesses, organized in a Transportation Management Association (TMA), initiated a program of parking meter installation, tighter enforcement of parking regulations, and participation in the Tri-Met Passport program.

**Visalia City Coach  
Visalia, California**

Contact: Monty Cox, Transportation Manager

**SUMMARY**

Visalia City Coach experienced a ridership increase of 31.8 percent between 1994 and 1996, growing from total annual rides of 850,800 to 1,121,100 in that period. The system manager attributes the bulk of this rise to sharp increases in student ridership that have occurred as the school district has changed its student busing policy. Faced with budget cuts, the area school district is continuing to reduce the amount of bus service it provides for students. In response, Visalia City Coach has seen the percentage of its total rides made by students grow from 25 percent to 45 percent. This change in the system's ridership profile has affected the system's approach to routing, which is now more heavily influenced by school locations and schedules.

The system is at capacity during peak hours and is exceeding capacity on some routes. Visalia City Coach has had difficulty cutting low-use routes because of opposition by riders who use those services. Service expansion has been constrained by insufficient operating funding.

- *Fare and Pricing Strategies.* Costs to the system have increased because of the increase in student riders. In contrast to some other systems that have contracted with school districts to provide new or expanded service to students, Visalia City Coach does not receive financial support directly from the school district. Fares were increased in 1996 from 55 cents to 75 cents, resulting in a temporary drop in ridership that has since been regained.
- In the summer of 1997, the system initiated a new monthly summer pass program for youth between the ages of 7 and 17. The program will be offered again in the summer of 1998 to test its effectiveness.
- *Market Segments.* Recent market analysis and planning work have indicated a need to do more work with employers to develop employee transit use; the system has no employer program because of staff limitations. The system has maintained a stable level of use of its dial-a-ride service, in part by encouraging use of the fixed-route service when feasible. A marketing study is underway to inform future outreach efforts.

**Waco Transit System  
Waco, Texas**

Contact: Kirk A. Scott, General Manager

**SUMMARY**

Ridership climbed by 17 percent for the Waco Transit System (WTS) between 1994 and 1996, growing from 459,900 to 538,100 rides annually. Ridership has been increasing steadily at a rate of 5 to 6 percent per year. This growth has been achieved without any increase in service hours since 1993.

- *Service Redesign.* A thorough redesign of routes was undertaken in 1993 in conjunction with some increase in service hours. WTS has not done any further redesign since that time. The system's manager notes that WTS is able to meet certain aspects of current demand, but has been unable to expand services to meet other unmet demand, including a demand for after-hours transit service, because of operating fund constraints. WTS has also been unable to obtain funding approvals from the city councils of the six cities surrounding the City of Waco to enable WTS to provide inter-city service.
- *Market Segments and Service Collaborations.* WTS serves a general population that is primarily transit dependent. Surveys have identified that more than one-half of riders are traveling to and from work. WTS participates in the "Try Transit" campaign and believes that this marketing effort has had some effect on ridership.  
  
Collaborations with Texas State Technical College and with a major local employer have resulted in ridership increases. In addition, WTS has developed an agreement with the local mental health and mental retardation services agency to provide yearly transit passes to their clients. This arrangement has provided improved transportation service to participating clients while reducing transportation costs for the agency. The agreement has contributed significantly to WTS ridership.
- *Future Planning Activity.* WTS plans to conduct a route study in the fall of 1997. Plans are underway to open an intermodal downtown transit center to serve private long-distance bus companies, WTS, and rural service providers.

**Whatcom Transportation Authority  
Bellingham, Washington**

Contact Rick Gordon, Director of Service Development

**SUMMARY**

Whatcom Transportation Authority (WTA) has increased ridership by 10.3 percent between 1994 and 1996. This growth followed a 1-year increase of 28 percent from 1993 to 1994. Much of WTA's growth in ridership is attributed to improvements and expansions in service, in particular service related to Western Washington University, which is next to Bellingham's downtown. This service expansion has been supported by WTA's marketing efforts, as well as the overall growth in the county's population.

- *Service Expansion.* During the study period, Whatcom added some new routes and increased service hours. Most routes are served at 30- or 60 minute headways, keeping adequate pace with current ridership trends. However, the system has been unable to expand service to meet some areas of unmet demand, including a demand for feeder service in evening hours and additional peak-hour express services.
- *Collaboration with Western Washington University.* The development of a "campus express" service, which provides bus service for Western Washington University (WWU) students and staff from a park-and-ride lot to campus, has contributed to WTA's increased ridership. This service, which operates during WWU's fall, winter, and spring quarters, is fully paid for by the University at an annual cost of \$120,000. The cost includes the rental of the park-and-ride facility from the city of Bellingham. While WWU has about 13,000 students and staff, it has approximately 3,500 parking spaces to serve the entire campus. Parking overflow has therefore had a significant effect on surrounding locations. WWU is involved in planning with the community to develop strategies to manage traffic and parking problems associated with the University.
- *Service Redesign and Productivity Measures.* To accommodate increasing demand within limited operating resources, WTA has redesigned services to increase productivity. Whatcom's fixed-route system was redesigned in November of 1996 to cut back services on low-performing routes and reallocate service hours to provide more frequent service on higher demand routes. Sunday service was implemented on one route segment from north Bellingham to south Bellingham. To continue to support sections of its service area with lower ridership, WTA has implemented a dial-a-ride vanpool feeder service to connect riders from outlying areas to fixed-route service. Whatcom is exploring ways to increase productivity on its specialized transit services, which represent more than 20 percent of the system's total operating budget of \$10 million to \$11 million.

- *Marketing.* Whatcom estimates that 30 percent of its ridership is related to the Western Washington University campus. The largest employer in the area, with a staff of about 2,000, the University serves a student body of 11,000: WTA has conducted significant marketing targeted toward the University community, including the distribution at the start of each academic year of free first-month passes to every student, staff, and faculty person, as a promotion of the bus service.
- *Fares and Revenue Strategy.* WTA increased fares in 1994 from 25 to 35 cents and implemented monthly bus passes, priced at \$10 per month, in the same year. Fares represent between 5 and 7 percent of WTA's total operating budget. A study is underway to review fare policy.

Revenues come primarily from state funds; 50 percent of WTA's operating budget is generated from a portion of a 1 percent sales tax matched against motor vehicle excise tax revenues. As a border area, the economy of the Bellingham region is heavily dependent on sales to Canadian markets and, therefore, on the value of the Canadian dollar. An upswing in tax revenues from sales to a strong Canadian market between 1987 and 1991 enabled Whatcom to fund reserve accounts in anticipation of upcoming projects. However, unexpectedly sharp declines in the value of the Canadian dollar resulted in much lower revenues in recent years than projected. WTA is working to secure federal and state support in order to maintain vehicle replacement and to replenish funds used to complete major capital projects, including the current construction of a new maintenance facility that will cost between \$10 million and \$12 million.

**APPENDIX B**  
**BIBLIOGRAPHY**  
**General References**

Information for each transit system was drawn from numerous articles in APTA's weekly newspaper, *Passenger Transport*, and ridership data was taken from APTA's quarterly ridership reports, as noted below.

APTA, *Passenger Transport*

- January-December 1994, Volume 52, Numbers 1-50
- January-December 1995, Volume 53, Numbers 1-50
- January-December 1996, Volume 54, Numbers 1-50

APTA, *Transit Ridership Report*, Quarterly reports for 1994-1996, Washington, DC

**Additional Specific System References and Web Sites**

In addition to the articles appearing in *Passenger Transport* dealing with ridership experiences at individual systems, the materials listed below were provided by staff at specific transit systems for review by the research team. The research team also reviewed material and information provided on selected transit system web sites, as noted below.

Roaring Fork Transit (Aspen, CO)

- Leigh, Scott and Cleary, Inc. "Resolving the Roaring Fork Valley Transit Subsidy Shortfall: A Valleywide Solution," August 26, 1996.
- Miscellaneous maps and marketing materials.
- RFTA, "1996 Revised Operating and Capital Budgets and 1997 Operating and Capital Budgets," Final, November 21, 1996.
- RFTA, "Roaring Fork Valley Rail Project," July 23, 1997
- RFTA, "Ridership, Service and Cost History," July 1997.
- RFTA, "Transit Development Plan for the Roaring Fork Valley," April 8, 1996.

CATA (State College, PA)

Web site (<http://www.catabus.com/cntrin/wekrtg.htm>)

Denver RTD (Denver, CO)

Web site (<http://www.rtd-denver.com/RapidTransit/>)  
(/GuideTheRide/index.html)  
(FaresAndPasses/)  
(FaresAndPasses/more\_passes.html)  
(skyRide/)  
(sportsRide/)

Foothill Transit (Los Angeles, CA)

Foothill Transit, "Five-Year Performance Comparison: Fiscal Year 1993-Fiscal Year 1997," August 1997.

HART (Danbury, CT)

Housatonic Area Regional Transit District, "Annual Report for Fiscal Year 1996." Web site (<http://www.wcsu.ctstateu.edu/hvedp/Transportation.html>)

OMNITRANS (Riverside, CA)

Williams, Wendy, "What a Difference a Day Pass Makes," *Transit California*. California Transit Association, August 1997, pp. 23-26.

Santa Clarita Transit (Los Angeles, CA)

Web site (<http://www.ci.santa-carita.ca.us>)

Tidewater Regional Transit (Norfolk, VA)

Goodman & Company, L.L.P.. Tidewater Transportation District Commission, "Consolidated Financial Statements, Year Ended September 30, 1996."

Waco Transit System (Waco, TX)

Web site (<http://www.waco-texas.com/lev3.cfm/126>)