Lessons Learned in Transit Efficiencies, Revenue Generation, and Cost Reductions

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16. Abstract

Transit agencies across the United States have been forced to become more creative in finding ways to decrease their costs or increase revenues from non-traditional sources as federal operating assistance has been reduced, revenues from local sales tax sources have decreased, and as local resistance to tax increases has grown. In the past, transit agencies have resorted to decreasing service or increasing fares as the primary way to deal with tight budgets. This report compiles the techniques that are being used at over 90 transit systems to increase revenues or reduce costs in ways that do not harm the best interests of their passengers. Over 90 transit agencies provided over 400 examples of how they have taken advantage of their unique assets, created new partnerships, cooperated with other public or private entities, redesigned their services, developed new marketing techniques, utilized technology, and reengineered their processes to reduce their costs or increase their revenues. Over 220 unduplicated ideas are presented in summary form that will allow any transit manager to determine if they would like to emulate similar techniques at their transit agency. The savings or new earnings from these techniques might not cure every budget problem, but transit agencies can expect to find techniques that can either increase revenue or decrease costs by as much as 10 to 15 percent. The names of appropriate people to contact at the various transit agencies are also included in the report to encourage communication and the further exchange of ideas.

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Executive Summary

Executive Summary

Background

Transit agencies are no different than virtually all other public agencies, private companies, or households in at least one fundamental respect: all of them need money to function. Securing sufficient funds to operate has been perhaps the biggest challenge facing transit systems in recent years. When the first edition of this report was published in 1996, transit systems were reeling from declining federal transit operating assistance, costly legislative mandates (e.g., Americans with Disabilities Act and drug testing requirements), and resistance to increasing local taxes. Times improved for transit in the late 1990s as ridership increased six years in a row. However, in 2003, transit budgets have become even more difficult to balance. A weak economy has produced a double whammy for most transit agencies to deal with: reduced agency revenues caused by declining sales taxes and reduced ridership/farebox revenues due to higher unemployment. Revenues have decreased at the same time that liability and health care insurance costs have climbed, while security concerns post September 11, 2001 have added new financial burdens to America's transit agencies. In many cases, state budgets are in even worse shape than local budgets, hence relief for transit agencies is rarely found from that level of government. According to a survey conducted by the American Public Transportation Association in 2002, 51 percent of all transit systems reported operating budget deficits as well as ridership declines in the first six months of 2002. The April 7, 2003 edition of Passenger Transport chronicled the budget cuts and fare hikes transit agencies were experiencing throughout the country due to the downturn in the national economy. More recently, the Kansas City Area Transportation Authority has advised that bus service and staffing could be slashed as much as 25 percent if no new source of funding is found. The Washington Metropolitan Area Transportation Authority has made plans to increase base fares as much as 25 percent. The Dallas Area Rapid Transit agency projected a $28 million reduction in sales tax revenue for FY 2004, requiring significant cuts in staffing and route services. The Santa Clara Valley Transportation Authority in

"Adversity is the first path to truth."
—Lord Byron

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Silicon Valley faces a 33 percent drop in sales tax revenues and projects a nine percent service cut and an increase in fares.

It is true that public transit agencies face a multitude of difficulties in sustaining service as their external environments change and create new pressures. However, it is inherently inconsistent for a service industry that emphasizes "Customer Service" to reduce service and raise fares as the first options when dealing with tight budgets. Making the passenger (or customer) bear the brunt of tight budgets by paying more and/or getting less is **not** being customer friendly, and usually contributes to a downward spiral in ridership. Better options are to increase productivity and/or reduce costs to continue to remain attractive to customers who have choices. While public transit agencies serve customers that many regard as "captive," in truth, everyone has options on how, or how often, they travel.

Purpose of Project

The purpose of this research project was to gather and redistribute information on how transit agencies are generating new revenues or reducing costs without harming the best interests of their passengers through higher fares or reduced service. This project was based on the idea that transit agencies have a great deal to learn from each other in the areas of raising new revenues or reducing costs in new, non-traditional ways. A very simple survey was developed and sent to more than 400 transit agencies in the United States in 1996. The transit agencies were asked to provide a brief description of the five most effective methods they used that have generated new revenues and/or saved money. In 2001 and 2002, this report's author also sent direct requests for similar information to over a hundred transit managers who had participated in the Leadership APTA program and to transit agencies that had not provided information in the survey conducted in 1996. Responses were received from over 90 transit agencies. In addition, the report's author reviewed articles from Passenger Transport, other transit magazines, and the Internet to find other examples of techniques that transit agencies were using to save or earn money. Many of the techniques were similar among agencies (e.g., advertising on buses or bus shelters). However, even in those areas of similarity, there were distinctions that should be of interest to transit systems that might wish to adjust their methods of doing similar activities.

Summary of Findings

There were over 220 unduplicated methods of saving money or generating revenues submitted by the 90 transit systems responding to the survey and requests for information. All of these techniques are included in the full report. However, it is helpful to realize that there are six common themes among these many different techniques. By understanding these basic themes, transit leaders can more effectively encourage their managers to recognize similar opportunities in their own systems. It is recognized that many of the techniques have elements of more than one theme in them, hence the reader should not be concerned if it seems one of the techniques should be classified under a different theme. The techniques that were identified in the first edition of the report have no asterisk (**) in front of them in the main body of the report. Conditions might have changed since 1996, and those agencies might or might not still be practicing those techniques. However, they still offer ideas that might be applicable for other transit agencies. The techniques that were identified as part of the research for this second edition of the report have asterisks (**) in front of them in the main body of the report. The common themes among successful techniques are described and summarized below:

Theme I. Positive Opportunism

This theme is meant to describe those actions taken by transit agencies that take advantage (without harming anyone else) of their unique assets. Many people have a perception of transit agencies as black holes of unending expenses. However, transit agencies have many assets that are of value to others and can become profit centers. One of transit's defining characteristics is that it provides transportation *linkages* for people and communities. Positive opportunism encourages transit managers to envision new linkages with other public or private entities that can result in new revenue as well as additional community support for transit. Subcategories within this theme are:

Sale of Advertising Rights

Transit agencies sell space for advertising on buses, benches, shelters, rail cars, vans, automated guide way cars, schedules, transfers, passes, ticket books, trash receptacles, buildings under construction, property, etc. One transit system enjoys such a fine image that it makes royalties

from the sale of T-shirts and mugs with its logo on them. Within this subcategory, there are different ways of administering an advertising program. For instance, some agencies have doubled or tripled revenues by bringing the transit advertising function in-house versus contracting this responsibility to national brokers. Advertising in-house has also created stronger linkages to local businesses that advertise on the system, who then have another reason to support the transit service in their community. The transit system may collect substantial dollars for these advertising opportunities, or trade the value of the opportunity for other goods or services that help them more effectively market their system. The LYNX system in central Florida has taken the "painted bus" concept to new heights through exercising artistic control while demanding, and getting, advertising on buses that actually adds to the attractiveness of the fleet.

Facilities that Help Generate New Revenues

Examples include performing vehicle maintenance work (for profit) for other agencies out of transit's facilities, charging for parking under guideways, leasing rights-of-way along rail corridors to telecommunications companies, renting excess building space (taking advantage of agency downsizing), selling surplus property, entering leveraged leases for guideways and maintenance facilities, charging for bid books for construction projects, charging annual fees for placing newspaper dispensers at terminals, charging the film industry for access to transit facilities, selling exclusive rights for the sale of soft drinks at rail stations, charging for "tunnel advertising" in underground rail corridors, selling the naming rights to train stations, charging rent for the use of property being held for future development, and selling waste oil.

Equipment that Helps Generate New Revenues

Examples include entering leveraged leases for buses, rail cars, and technical equipment such as radio systems and farebox information systems; washing other public and private vehicles with agency bus wash equipment, charging for printing for other agencies with printing equipment purchased with capital grants, charging insurance companies for the value of lost

time when buses are involved in accidents that are the fault of other parties; providing charter service where permissible with unique transit vehicles, gaining designation as an authorized warranty center allowing the agency to be paid by the vehicle manufacturer for performing repairs, selling newspapers on board transit vehicles, selling the naming rights to vintage trolley vehicles, and charging the filming industry for the use of transit vehicles in commercial video productions.

Taking Advantage of Transit's Employees as Unique Assets

A common phrase heard is that the most important asset of an employer is its "human capital." In transit's case, employees are the source of ideas to reduce costs through employee suggestion programs, and they are indispensable participants in "gain sharing" programs that have saved at least one agency millions of dollars. In addition, transit employees are a unique asset that can generate new revenues through the sale of the expertise they have gained in matters such as hazardous materials training, Commercial Drivers License testing, simulator training, or rail operations planning for international consulting purposes. One large transit agency collects fees from companies who wish to advertise their product or service on employees' pay stubs. SunLine Transit created a new Services Division where part-time bus operators are used for street sweeping, graffiti removal, and a variety of other community services to generate new revenues, community support, and reduce costs associated with turnover among part-time bus operators.

Taking Advantage of Transit's Passengers as Unique Assets

Access to transit's customers is valuable to entities other than the transit system. Telephone companies will pay for the rights to place pay telephones at strategic locations in a transit system, while also offering additional telephonic transit information services to the passenger at no extra cost. One transit agency earned additional revenue through installing cellular phones on its commuter trains. Another transit agency charges companies for the right to distribute discount coupon booklets to passengers who buy monthly passes. Joint promo-

tions with private companies at transit centers, or on board transit vehicles, increases ridership and revenue. School Boards in some districts will pay the transit system for each student carried as they pursue every method to increase the educational attainment of their young citizenry. Private companies in Boston pay the MBTA to make the rail system fare-free during notable community events in order to place banners in stations and garner goodwill. BC Transit in Vancouver draws additional revenue from sales in their "Cappuccino Cars." At least two transit agencies are obtaining shares of revenue from private companies who install video monitors at no cost on their entire fleet of buses that will display transit stop information as well as news in exchange for allowing advertising on the video screens.

Theme II. Partnerships

Transit agencies have long operated in the spirit of partnership with federal and state governments for transit operating and capital assistance. What has changed in recent years is the need to expand the list of partners. Transit agencies do not have the financial resources to independently accomplish all they would like to do in their communities, nor can they rely as heavily on a federal government that is hoping to reduce its massive deficit while it drives more project costs to the local level. Hence, transit systems are looking to *leverage* their limited resources by forging new partnerships that bring non-traditional sources of support. These partnerships allow transit agencies to provide services or facilities where they would not otherwise be feasible. Subcategories within this theme include:

Private Sector Partners Supportive of New Transit Service

Examples include agreements with malls, business parks, museums, hotels, major employers, associations of businesses, or hospitals for new services paid partially or fully by the private entities. The private sector partners initiate the majority of these partnerships, while welfare-to-work grants provided multiple opportunities to create such partnerships. Transportation concurrency requirements in Broward County have resulted in private developers paying for transit circulator services when no road improvements are possible. In Rochester, a Transportation Foundation has been established to generate funds to assist the local transit

authority to provide transportation to community organizations that could otherwise not afford it.

Public Sector Partners Supportive of New Transit Service

Examples include agreements with military bases, universities, public schools, transportation management associations, downtown development authorities, convention centers, social service agencies, or cities for new or extended service paid for partially or fully by the other public agencies. These agreements also provide opportunities for transit agencies to restructure existing nearby services to be more productive. A number of transit agencies have also benefited from excellent relationships with regional agencies such as Metropolitan Planning Organizations, Air Pollution Control Districts, or Councils of Governments that make decisions on allocating discretionary funds for transit purposes. There are also examples of Departments of Transportation from neighboring states jointly funding services that cross state borders.

Public or Private Entities Assisting with New Transit Facilities or Equipment

Examples include agreements with cities, private developers, or over-the-road bus companies to pay for portions, or the entirety, of new transit passenger facilities; agreements with air pollution control districts or utility companies to pay for all or substantial portions of the cost of new transit maintenance and fueling facilities or equipment ranging from bike racks to alternative fuel buses; agreements with private companies to operate CNG mobile fuel dispensers; agreements with redevelopment agencies to provide physical improvements or complimentary services in or near transit passenger facilities; and Metropolitan Planning Organizations that allocate funds from discretionary federal sources for ADA improvements or environmental remediation.

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Theme III. Cooperation

This theme includes additional examples of transit systems working with public or private entities, or their own workforce. It differs from the "Partnership" theme in the sense that the transit system is already engaging in the activity in question. No entirely new service or facility is being created through cooperation. However, by cooperating with other agencies or groups, transit systems can either reduce their costs or gain greater benefits at no extra cost, and enhance their image in their communities. Subcategories of this theme include:

Joint Purchasing

Examples include procuring goods or services through pre-established state contracts to save time and money; forming consortiums among multiple agencies to purchase commonly required commodities such as liability and health insurance, drug testing services, prescription drugs, electricity, and fuel; "piggy-backing" on contracts of other public agencies; participating in regional marketing among transit systems to reduce the cost of administration, thereby allowing transit agencies to focus on operations performance.

Sharing/Trading of Services, Facilities, or Funds

Examples include trading advertising space on agency vehicles for services such as training, media advertising, or assistance at special events; swapping capital dollars for operating dollars between agencies within the same state; utilizing other local public agencies to invest funds or perform support services; sharing the cost of services that cross the boundaries of more than one service area; joint use of maintenance facilities between transit agencies and other local agencies such as school boards, parks districts, or sewage districts to reduce capital and operating expense; sharing vehicles purchased through state grants by other agencies in exchange for providing operators for the other agencies' transportation needs; utilizing state-established investment fund programs to provide for better rates of return while still having ready access to such funds; utilizing state infrastructure bank funds as local match for capital projects to free up funds for necessary operating expenses.

Public or Private Entities that Support Existing Transit Service

Examples include agreements with employers that buy transit passes for their employees; businesses that sell pass materials at their facilities; businesses or community groups that agree to maintain bus stops, shelters, or stations; businesses that sponsor events that promote transit; private carriers that strategically utilize transit agency services for special events; businesses that make their parking facilities available for transit patrons when space is available; utility companies that provide solar lighting cells for illuminating bus shelters; getting support from state legislatures to modify legislation allowing a greater percentage of funds received from authorized sources to be used for operating expenses; newspapers that write informative stories on transit services at no cost to the transit agency; and partnership programs for organizations to join whereby dues of up to $50,000 a year are paid to the transit agency in exchange for multiple benefits for participating companies and their employees.

Providing Experience/Service/Employment Opportunities for Other Agencies

A number of transit systems are realizing genuine benefits from utilizing summer youth employees, college interns, and volunteers who provide valuable services ranging from data entry, graffiti removal, research, schedule distribution, assistance at special events, etc., at very low cost. Similarly, some transit systems are benefiting from low cost labor provided through sheriff's work incarceration programs or non-profit human service programs for bus cleaning, station cleaning, and landscaping services.

Coordination of Services

Serving as a coordinator for paratransit services has allowed some systems to realize savings. They are in a better position to mainstream paratransit passengers to less expensive fixed-route options, coordinate various paratransit providers to encourage multi-loading, and reduce the capital expense by maximizing the use of paratransit vehicles through coordinated use of vehicles among agencies. Some transit agencies have become brokers of paratransit services on a statewide basis, allowing them to earn administrative fees above and beyond their costs.

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Cooperative Agreements with Transit Labor

A number of transit systems have successfully negotiated with their bargaining units to reduce costs through the following techniques: greater use of part-time operators for general use, weekend runs, trippers, vacations, lunch reliefs, etc.; extended wage progression schedules; two-tiered wages for new hires or small vehicle operators; one-time cash bonuses versus base wage increases; changing to managed health care versus select health care; early retirements coupled with pension modifications; changing separate sick and annual leave to consolidated paid time off; and salary freezes and cooperative measures to find savings. The Greater Cleveland RTA worked with its unions to establish an incentive program providing bonuses of up to $400 when performance criteria were met. Lynx developed a mentor program whereby senior bus operators guided and advised new operators on how to adjust to their new jobs, and saw turnover of part-time operators tumble from 50 percent to eight percent a year. Community Transit temporarily avoided higher medical insurance rates by having its IAM union members obtain their medical insurance through their international union rather than through the more traditional sources ordinarily used by the transit authority.

Theme IV. Service Planning, Marketing, or Delivery Methods

Not surprisingly, the highest cost element of any transit system is the actual operation of service. The methods transit agencies have used to provide service have not changed dramatically in the past fifty years. However, the areas they operate their service in have changed significantly and are more challenging to serve efficiently, and sources of funding seem harder to secure. Transit systems must become more disciplined in the traditional methods of providing service, and/or find creative and more cost-effective ways to serve the new urban form. This theme shows how transit systems are responding to the need to improve the productivity of their service, within the following subcategories:

More Careful and Prudent Resource Allocation Decisions

Examples include consolidating or interlining routes; minimizing service on days of lower demand such as Martin Luther King Day and the day after Thanksgiving; thoroughly scrutinizing and reducing deadhead mileage and overtime; carefully reviewing run-cutting practices to ensure the runs are not assembled based on "folklore" that is advantageous to senior operators versus true contract language; using a productivity frequency index to make service cuts with the least possible impact on ridership; getting the agency Board of Directors to adopt service standards that are used in regular reviews of system performance; allowing bus operators to construct their own runs within recognized parameters; and reducing the size of trains or buses to better reflect demand.

Modifying the Method of Service

Many transit systems are making fundamental changes to the way they provide service that responds to the changing urban form and/or the desires of their customers. Some of the new methods that have worked for transit agencies include changing radial service to more grid-like service; modifying fixed-route service to point deviation (either entirely or during off-peak); providing demand-responsive service in low density areas or in off-peak times, sometimes allowing passengers to call the vehicle operators, who carry cell phones, directly; replacing express service with vanpools or megavans; contracting with VPSI to provide leased vans to human service agencies that in turn provide trips to passengers that would otherwise cost four times as much to provide with regular paratransit service. Point deviation has been helpful not only in attracting additional passengers due to its convenience, but also by allowing agencies to reduce the amount of separate paratransit services required.

Contracting for Services Through Competitive Bids

Some transit agencies contract all their bus or rail service every few years at substantial savings. Some agencies contract out only their commuter/express service, but still realize large savings. Others contract out only a portion of their regular route service, but still realize the benefits of partial competition through subsequently more effective negotiations with their own bargaining units.

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Mainstreaming Paratransit Users to Fixed-Route Service

Many transit systems have persuaded state Medicaid programs to purchase bus passes rather than paratransit services for their clients, resulting in win-win-win results. Two systems report savings as a result of modifying multiple subscription paratransit routes to new, more cost-effective "community routes." One agency reports that it requires all ADA paratransit service applicants who have submitted incomplete applications to come to the office for functional testing, where 80 percent are denied eligibility after a thorough but fair determination of mobility capabilities. Another transit agency has reduced paratransit costs by allowing personal care attendants accompanying a disabled passenger to ride the fixed-route transit system for free, making disabled patrons more likely to use fixed route services.

Marketing and Fares

The attractiveness of transit service can be enhanced through the fare structure. Passes of various durations (one day, weekend, four-day visitor, weekly, summer, etc.) have proven to be extremely popular. Family fares (kids ride free) and "friends ride free" programs, as well as deep discount fares for frequent passengers, have increased ridership and revenue for many transit systems. Discounts available only through using vending machines helps to increase ridership and reduce manpower costs at points of sale. Total rebranding of a transit agency's image (e.g., Rabbit Transit) can boost agency recognition and increase ridership at relatively low cost. Working with major employers to enable monthly passes to be purchased with pre-tax dollars substantially reduces the real cost of using transit, resulting in increased pass sales. One transit agency has established a neighborhood pass program that allows all residents of the neighborhood to ride for free once a minimum payment has been made by the neighborhood to the transit agency.

Theme V. Maximizing Capital Budgets

Although federal operating assistance has been cut, capital dollars have generally been available and are more politically palatable to those who question the level of support transit should receive. Strategic use of capital funds can reduce operating costs while increasing productivity, and sometimes results in profits. This theme shows how transit systems are

utilizing capital dollars as investments that allow them to maintain or improve service levels. The methods being used fall into the following categories:

Use of New Technology

Transit has been generally slow to experiment and implement new technology. However, many transit systems credit new technologies for generating cost savings. Among the successful applications have been automated passenger counters, automated runcutting and scheduling for fixed-route and paratransit applications, signal pre-emption systems, desktop publishing, automatic vehicle location systems, video surveillance in money rooms and on board buses, automated ticket vending, transfer dispensing machines, automated trip planners accessible through transit agency websites, automated customer information service for fixed-route and paratransit, computerized throttle controls and alcohol fumigation systems that improve fuel economy, and posting job vacancies on the internet for high tech positions.

Relatively Low-Tech Solutions that Save Labor and/or Parts Costs

Not all operating cost reductions require high technology. Transit agencies reported savings due to investments such as new brake lathes, a deep water well for bus wash machines, metal bus benches in place of wood, portable high-powershelter cleaning equipment, seats that reduce workers compensation claims, an automated lubricating device for bus maintenance, high platforms at commuter rail stations to eliminate the need for wheelchair lifts, using waste oil for heating transit facilities, and putting sandblasted glass panels in bus shelters with motifs designed by artists to discourage graffiti.

Acquiring Vehicles that Reduce the Cost of Operations and Maintenance

More transit agencies appear to be abandoning the practice of standardizing their fleets. A number of systems are purchasing smaller vehicles that are more fuel efficient and more consistent with the level of demand. Others are purchasing larger vehicles to increase capacity without the need for additional vehicles or operators. A growing number of agencies report that alternative fuel buses reduce operating costs over the life of the vehicle.

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Facility Investments to Reduce Operating Costs

Sometimes costs can be reduced by consolidating facilities such as administration offices or rail maintenance facilities. Other times it pays to build additional bus operations facilities to reduce deadhead mileage expense. While the costs and benefits must be reviewed very carefully on a case-by-case basis, capital grants provide the opportunity for such major investments, when they make sense. One agency located its primary operations/maintenance center as close as possible to its main bus transfer center to reduce deadhead mileage, road calls, and operator travel time to relief points. Building energy-saving features into bus storage and maintenance facilities can substantially reduce utility bills and sometimes result in rebates from utility companies.

Capitalization of Operating Expenses

Federal capital grant dollars can be used to pay for the capital costs associated with contracted fixed-route and paratransit service. They can also be used to pay for costs such as leasing administrative and operating space and purchasing associated capital and maintenance equipment, providing substantial relief to the agency's operating budget. Tolls generated by local expressway authorities can be used as soft match for federal capital grants, thereby saving local transit systems the normal cost of matching such grants with hard dollars.

Vehicle Maintenance Techniques that Extend the Life of Vehicle Systems and Parts

A number of maintenance practices were cited for their cost saving qualities, including recycling cleanable and reusable filters, using synthetic oil to reduce labor cost associated with oil changes, and performing frequent oil analysis and opacity testing. Transmission brake retarders were credited with at least doubling the life of brakes, and aluminum wheels were also credited with increasing brake life, eliminating heat-related tire damage, and increasing fuel efficiency. New rear wheel seals tested by one transit system resulted in increasing the life of such seals from 12,000 miles to 48,000 miles.

Theme VI. Improved Management of Resources

This theme focuses on the activities transit agencies are taking to save money through better management of their organization, resources, major expenses, and processes. These activities reflect transit's willingness and need to question the status quo. This theme concentrates on internal matters versus external partnerships or cooperative ventures. The methods being used fall into the following subcategories:

Reorganization/Reduction in Force

A number of systems have reduced the size of their administrative staffs and agency budgets by reorganizing the agency upon retirements or through attrition. Attrition is sometimes encouraged by departure incentive (early retirement) plans that incur up-front costs, but produce long-term savings as lower cost professionals are hired, or former employees are hired on an hourly basis with no benefits. Other agencies do not have the luxury of waiting for retirements and have to make tougher choices based on needs versus resources. Private consultants are sometimes used to help identify surplus positions. Position eliminations often involve combining work previously dispersed among several positions. Organizations tend to become flatter, requiring training for those who are left to deal with more functions and decisions. Part-time employees are used for administrative tasks at some transit agencies to do work less expensively and to fill in for employees on leave when necessary. In Cedar Rapids, the transit agency was consolidated with the local parking authority, allowing much of the transit agency expenses to be paid through parking revenues while encouraging more transit usage through the strategic co-location of parking facilities and transit shuttles. Two transit agencies in Virginia consolidated into one agency and realized well over a half-million dollars in annual savings due to reduction of duplicative staff and better bulk purchasing, while improving the area's chances of securing competitive grants from the state and federal government due to the pooling of legislative clout.

Contract/Outsource or Retain Functions

Elements of transit management such as planning, scheduling, building maintenance, fire inspection services, inventory, rail gearbox overhauls and repair of brake actuators, or money counting are either "farmed out" or retained, depending on which option is more cost effective. Smaller systems might outsource virtually every function and focus on managing contracts containing incentives and penalties. Some systems contract for vehicle maintenance eliminating the need to bid and purchase parts and fuel and all the administrative tasks of hiring, training, and supervising a staff of mechanics.

Improved Methods of Procurement

The purchase of major items such as insurance can be aided by combinations of low bid and negotiation procedures with multiple brokers, or by using an insurance broker to analyze benefits and negotiate rates with various proposers. Leasing can be more effective than purchasing when procuring facilities, but purchasing tires versus leasing them allows the transit agency to resell the tire carcasses at a price higher than their 10 percent capital match spent on the tire when it was new. Fuel hedging has allowed many agencies to benefit from stabilized fuel costs. Bulk purchase of certain items can reduce the unit cost by as much as 15 percent. Agencies reported substantial savings by scanning the Internet when looking for new computer equipment to avail themselves of brand new equipment from failed "dot.coms" at bargain prices. One agency found that provisions of federal law allow public agencies to send mail to people with disabilities without paying for postage. A Canadian transit agency has stabilized its electrical power costs by arranging a long-term price structure for electricity produced by wind-powered generators.

Managing Major Expenses

Certain expenses that are common among most transit agencies and represent substantial portions of their operating budgets have been effectively reduced through focused efforts. Examples include energy costs that have been reduced through investing in expertise to better understand the rate structure of power companies and to improve the management

of their electrical power demand; liability expenses that have been reduced through self insurance programs that cost less than premiums when combined with an emphasis on safety, training, accident investigation, and challenging claims; reduced workers' compensation claims as a result of having carriers perform claims management functions and establishing light duty or temporary modified assignment programs for those receiving workers' compensation benefits; reductions in sick leave as a result of spot auditing of sick pay requests and stationing doctors and nurses at transit facilities to perform physicals; restricting the entry of new employees into costly indemnity health plans; instituting "carrot and stick" policies to reward paratransit passengers who do not cancel trips or have no-show records, while penalizing those who do; performing baseline marketing studies to gain a better understanding of who uses transit to help determine the most cost-effective way to spend advertising dollars; utilizing commercial paper lines of credit to access funds at a low interest rate to maintain access to low-cost funds to keep projects moving; and managing pension policies carefully to reduce necessary contributions; refinancing outstanding debt when interest rate reductions make it economic to do so; aggressively pursuing subrogation claims to recover the cost of damages to transit property; and transferring the liability of workers compensation claims and auto liability claims to private insurance companies through a competitive bid process.

Reengineering Internal Processes

Although details were sometimes sketchy, transit agencies reported that they were re-thinking processes such as track installation, train motor rebuilds, contract reviews, distribution of passes to vendors, and petty cash procurement to determine how they could be accomplished less expensively. One system noted that it now confers with other transit agencies instead of consultants for advice. Another agency has established a "utility bus operator" position that can perform multiple tasks besides operating a bus. Bus maintenance intervals have been extended 50 percent, thereby decreasing maintenance expenses with no increase in service failures. Employee turnover costs have been minimized through the establishment of "One-Stop-Job-Shops" that reduced the hiring process from two months to 17 days. More "family friendly" work shifts that increase the percentage of straight runs have reduced the costs of bus operator turnover. Internet subscription services have allowed transit agencies to reduce

the cost of printing schedules and filling schedule racks by communicating route and schedule changes by email to thousands of passengers. Intranet-based project information systems allow email project reports to be sent to the Federal Transit Administration through Acrobat files versus thousands of hard copy pages per month. Finally, the pre-issuance of commonly used materials prior to the midnight shift allows the closing of storerooms during that shift, with attendant reduction of staff requirements during the shift.

Conclusions

Transit agencies clearly have many experiences to share that can help the industry reduce costs or generate new revenues without resorting to raising fares or cutting service. The techniques discovered through this survey are not a panacea for the financial pressures most transit systems are experiencing. The bottom line results are typically new revenue or savings of between 5 and 10 percent of an operating budget (though it could be significantly more). However, the implementation of these techniques also improves the image of the transit systems within their own communities. For instance, one general manager of a northeastern U.S. transit property had to institute service cuts, but he also presided over a number of new revenue generating techniques. He noted that, "We had to make a number of difficult choices, but the general response from the media and business community was 'It's about time you stopped begging and started managing.'" In short, the process of a more business-like approach, leveraging limited resources through partnerships and cooperative arrangements with public and private agencies, encouraging entrepreneurial thinking, and finding new ways to serve the public will ultimately improve a transit agency's standing in the community as well as its bottom line. In some instances, however, there may be a need to be sensitive to the reactions of tax paying private companies who might resist a transit agency that starts doing new work that could be done by local companies.

In his book entitled *The Seven Habits of Highly Effective People,* author Steven Covey writes about the need for each individual to evolve from being a dependent person to an independent and interdependent person to achieve full effectiveness. This advice applies to transit agencies as well. They must minimize their reliance on other levels of government, and increase their capabilities of generating necessary revenues. There appears to be a movement in the country

for less government and greater self-reliance. This is perhaps best illustrated by the broad support for welfare reform. Just as individuals will need to improve their skills, so are transit agencies being asked to be more creative and self-reliant. This report hopes to contribute toward the accomplishment of that goal.

Executive Summary

Acknowledgments

The National Center for Transit Research (NCTR) would like to acknowledge the assistance of many people who helped in various ways to enhance the quality of this report. The drafts of the survey instrument were tested and completed by Celia Kupersmith, General Manager of the Golden Gate Bridge, Highway & Transportation District, Gregg Cook, General Manager of the Ann Arbor Transportation Authority, Jay Goodwill, former Director of Sarasota County Area Transit, and Ron Nawrocki, former Director of Budget and Management Analysis for MARTA. CUTR thanks Tony Kouneski and Dennis Kouba of APTA for their help in increasing the response to the survey by advising the transit community about the survey and project in an article in the June 10, 1996 issue of Passenger Transport.

In addition, the following transit professionals reviewed the draft of the report and offered constructive comments for improving the final report:

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Housatonic Area Regional Transit District

JoAnn Woodhall
Transportation Planner
Kitchener Transit (Ontario, Canada)

NCTR is grateful to every transit system that responded to the survey. The name of each person who responded to the survey is provided in Appendix B of this report. Without their willingness to share their success stories, this report would not be possible.

Any references to specific products in this report should not be regarded as an endorsement of those products by NCTR. Transit agencies that have reported positive experiences with those products should be contacted for further information.

Introduction

Background

Transit systems throughout the country are struggling with the burdens brought on by the termination of federal operating assistance and increasing costs caused by legislative mandates such as the Americans with Disabilities Act (ADA) and drug testing. Resistance to increasing taxes at the local level has made it more difficult to secure the funds necessary to maintain service. At the same time, expenses continue to rise for health and liability insurance, while new expenses associated with increased security post 9-11 add to most agencies' budgetary challenges.

"Prosperity is a great teacher; adversity is greater. Posession pampers the mind. Privation trains and strengthens it."
—William Hazlitt

Too often, transit agencies have taken the quickest path to balancing their budgets. According to a survey conducted by the American Public Transit Association (APTA), 56 percent of all transit systems had raised their fares an average of 26 percent in Fiscal Year 1995 and/or 1996, while 48 percent of all systems cut an average of 12 percent of their vehicle miles of fixed-route service during that same time period. Another survey conducted by APTA in 2002 found that 37 percent of transit systems had increased fares during that year due to budgetary pressures, with another 29 percent ready to do so. APTA also found that 51 percent of all transit systems reported operating budget deficits as well as ridership declines in the first six months of 2002. The April 7, 2003 edition of Passenger Transport chronicled the budget cuts and fare hikes transit agencies were experiencing throughout the country due to the downturn in the national economy. More recently, the Kansas City Area Transportation Authority has advised that bus service and staffing could be slashed as much as 25 percent if no new source of funding is found. The Washington Metropolitan Area Transportation Authority has made plans to increase base fares as much as 25 percent. The Dallas Area Rapid Transit agency projected a $28 million reduction in sales tax revenue for FY 2004, requiring significant cuts in staffing and route services. The Santa Clara Valley Transportation Authority in Silicon Valley faces a 33 percent drop in sales tax revenues and projects a nine percent service cut and an increase in fares.

Introduction

Public transit agencies seem to face an unending series of challenges as their external environments change and create new pressures. However, it is generally not advisable for a service industry that emphasizes "Customer Service" to reduce service and raise prices as its first option when dealing with tight budgets. Making passengers bear the brunt of tight budgets by paying more and/or getting less is not being customer friendly, and can easily start a spiral of decreasing ridership and revenue. Industries that wish to retain competitive positions should look first to increase productivity or reduce costs to continue to remain attractive to customers who have choices. While public transit agencies serve customers that many regard as "captive," in truth, every passenger has options on how, or how often, they travel.

Purpose of Project

People seldom improve when they have no other mode but themselves to copy after.
—Oliver Goldsmith

Transit agencies are no different than virtually all other public agencies, private companies, or households in at least one fundamental respect: all of them need money to function. Securing sufficient funds to operate has been perhaps the biggest challenge facing transit systems in the past few years. The purpose of this research project was to gather and redistribute information on how transit agencies are finding ways to either generate new revenues or reduce costs *without harming the best interests of their passengers.* This research was inspired by the Small Operators' Forums held at APTA's Annual Conferences. During these sessions in the late 1990s, there were no formal speakers or agendas. Instead, a facilitator encouraged everyone in attendance to share their successes (or failures) in any number of areas of common interest among transit managers in a "round table" format. There was a lively and informal exchange of valuable experiences that enabled all participants to learn from each other. Similarly, this research project was based on the idea that transit agencies have a great deal to learn from each other in the areas of raising new revenue or reducing costs. Indeed, a few agencies indicated that they are spending less money on consultants and more time on the phone with their fellow operators as one way to reduce their costs.

Methodology

The information provided in this report was initially obtained through a survey that was sent to over 400 transit agencies in the United States. A test survey form was first developed and sent to seven transit agencies that were personally contacted and asked to participate.

The fact that only two of these seven agencies responded to the test survey provided an indication that it would be difficult to obtain responses from the industry. There appeared to be a few challenges in obtaining the information. First, transit agency managers claim to be bombarded with surveys. Answering questions from their Board of Directors is a necessity; answering a survey from a university is not. Hence, most surveys are going to go to the bottom of the "things to do" pile. More than a few sarcastically indicated that the way they were saving money was by not responding to surveys.

The major cause for the low response rate was probably the nature of the survey instrument. The survey did not use a "check the box" multiple choice format that respondents could quickly complete. This project was looking for *new* ideas and methods being used by transit systems to make new revenues or save money. Hence, *narrative* responses were needed, offering explanations of the techniques in enough detail (usually a full paragraph or more) to be easily understood. This type of open-ended survey takes more time for agencies to complete, and clearly discouraged the majority of agencies from responding. Finally, the survey was complex in the sense that new ideas on generating revenues or saving money could come from any of the operating divisions within a transit agency. Since no one person in the agency had all the information readily available, the survey became that much more difficult to complete.

The final survey instrument was modified based on feedback from the test survey to make it less bulky and intimidating (see Appendix A). Every agency was promised a copy of the final report if they answered the survey, and the cover letter noted that an award would be given to the agency that demonstrated the most outstanding examples of creative and effective techniques. Rather than an award, the National Center for Transit Research (NCTR) followed up with a report entitled "Conditions that Promote Creativity at Transit Agencies" that highlighted the practices in place at four of the agencies that demonstrated particularly innovative ideas and ways of earning new revenue or saving money without negatively affecting their passengers. This report is available through NCTR's website at *www.nctr.usf.edu*. In addition, while each agency was asked to respond in writing if they could, they were also advised to respond by phone or e-mail if it was more convenient to do so. Three agencies did respond via e-mail. No agency initiated a phone response. Thirty-five transit agencies responded to the first issuance of the survey by regular mail.

Twenty other agencies were called and asked if they would please respond if another copy of the survey were faxed to them. Most of those agencies did respond. Finally, twenty additional agencies were contacted by phone and provided information to the author in that way. In the end, over 340 ideas were submitted by 65 transit agencies that took the trouble to share their success. Ten other agencies claimed they had nothing to report or no time to report it. The total of 75 agencies represented an 18.75 percent response rate.

In the year 2000, NCTR decided to update the initial report entitled "Lessons Learned in transit Efficiencies, Revenue Generation, and Cost Reductions" based on the belief that more creative ideas could be found. Rather than sending the survey to over 400 transit agencies, the same survey was targeted to those agencies that had not submitted ideas in the past. The author made direct requests to the 100 graduates of the Leadership APTA program via email (many of whom worked at transit agencies that had responded to the initial survey). Additionally, the author reviewed articles from Passenger Transport and other transit-focused journals to find articles that described new ways that transit agencies were using to earn new revenues or reduce their costs. In the end, ideas from more than 90 transit agencies have been identified and are included in this report. Those ideas that were identified in the research efforts that were undertaken after the year 2000 are indicated by double asterisks. Hence, those who are familiar with the original report can save time by reading only those ideas that are identified by double asterisks.

Report Format

This report attempts to "make sense" of the 220 unduplicated revenue generating or cost saving techniques by finding the common traits among them. Each reported technique is therefore included in one of six categories or "themes" that help simplify the fundamental character of each technique. By understanding these basic themes, transit leaders can more effectively encourage their managers to recognize similar opportunities in their own systems. The six themes are:

Positive Opportunism - This theme describes those actions taken by transit agencies that take advantage of their unique assets including advertising space, facilities, equipment, employees, and passengers, all of which have value to others and can become profit centers.

Partnerships - Transit agencies have expanded their list of partners far beyond the state and federal governments, leveraging their limited resources by attracting non-traditional sources of support that pay partially or fully for new services or facilities where they would not otherwise be feasible.

Cooperation - This theme includes additional examples of transit systems working with public or private entities to improve what they are already doing in a manner that saves money, gains friends, and improves the agency's image in their communities.

Service Planning, Marketing, or Delivery Methods - Transit systems are becoming more disciplined and efficient in the traditional methods of providing service, or are finding completely new and more cost-effective ways to serve the traveling public.

Maximizing Capital Budgets - Strategic use of capital funds can reduce operating costs while increasing productivity and improving service levels without increasing operating budgets.

Improved Management of Resources - Transit agencies are reducing their costs by questioning the status quo through modifying the management of their organization, resources, major expenses, and processes.

Each idea submitted by every agency is explained in enough detail to give the reader at least the basic information needed to understand the concept. The transit agency that submitted the idea is also identified. If the reader wants more information, they are encouraged to call that agency. Appendix B provides the name, agency, address, and phone number of the person who submitted the information from each agency.

The National Center for Transit Research (NCTR) prides itself in performing research that is relevant and useful. We are certain every transit agency will find at least one new idea (and probably many more) that will help them generate new revenue or reduce costs. NCTR would also like to see this sharing of information among transit agencies continue. While conferences and journals are very helpful, the Internet provides even more opportunities for universal and immediate sharing of information. This report will be accessible via NCTR's web page at *http://www.nctr.usf.edu*. All transit agencies are invited to provide summary descriptions of new techniques via E-mail to *volinski@cutr.usf.edu*. All new techniques received after this report will be incorporated into NCTR's Web site.

Introduction

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Transit systems are sometimes regarded by pessimists as black holes of unending expenses. Until recently, there has been little recognition that transit systems can also have multiple "profit centers" that are capable of generating revenues beyond those collected through the farebox. Transit employees might not view their own assets as being particularly unique since they are common to most transit agencies. They also will not recognize the opportunities to take advantage of their assets if they don't look outside their own borders of responsibility. Various transit assets have real value to a multitude of other parties who might have no particular interest in transit itself.

"A wise man will make more opportunities than he finds."
—Francis Bacon

Transit agencies are quickly learning to take advantage of their unique assets. This could be referred to as being opportunistic. However, opportunism often implies a sacrifice of principle. There is nothing harmful in what transit agencies are doing to take advantage of their unique assets. Hence, these actions are referred to in this report as being within a theme called "Positive Opportunism." This is fostered by looking for opportunities to link with other public and private agencies that can benefit from transit's properties, facilities, equipment, employees, or passengers. The actions taken by transit systems in all of these categories are explained in greater detail below.

Sale of Advertising Rights

Clearly, this technique is the most common method used by transit agencies across the country to generate non-farebox revenue. Transit systems now sell the rights for companies to advertise on buses, benches, shelters, station platforms, rail cars, automated guide way cars, schedules, transfers, passes, ticket books, system maps, buildings under construction, transit property, etc. One wonders what the limit is. Will we see supervisors' vehicles carry-

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ing advertisements as taxis do, or operators' uniforms with patches promoting private products on them as professional tennis players do?

The transit system can realize cash revenue, or be compensated in trade (e.g., getting "free" advertising on radio stations that are advertising on the bus). The "trade" items can also provide prizes that can be given away as part of marketing campaigns, or to use as prizes for bus or rail roadeos. The advertising space on the bus provides no end of generating opportunities for good will with community agencies that might be allowed to advertise on the bus or train at no cost on a space-available basis (when all space is not sold out). Described below are examples of transit systems who reported gaining revenues or other benefits from selling advertising rights.

1. Springs Transit modified its on-bus advertising contracts to allow for "vinyl wrap" buses, resulting in a four-fold increase in advertising revenues. The agency also changed its bus bench contract and the city ordinances to allow for bus shelter advertising that will generate $100,000 per year for 150 shelters. (Colorado Springs, Colorado)

2. The Sheboygan Transit Commission expanded the sale of advertising on their buses from rear frame only to side ($600 per bus per month) and rear ($750 per bus per month) frames. Some of the space was sold to radio stations that paid partially in cash and partially in trade, allowing for promotion of the transit service on those radio stations. The trade was recognized by its value and checks were exchanged. By allowing transit to expense this trade, it increased state subsidy by 42 cents on the dollar since it was a recognized transit expense. (Sheboygan, Wisconsin)

3. The Central Ohio Transit Authority brought the on-bus advertising function in-house and increased revenues from $300,000 per year to $1,000,000 per year, for an increase of $700,000 or 1.5 percent of the annual operating budget. A single staff marketing professional who is paid partially by salary and partially by commission handles all sales. The emphasis is on selling ad space to *local* companies, which not only generates more money, but also results in COTA establishing closer relationships with local businesses that now have another reason to support transit in the community. (Columbus, Ohio)

4. At PENTRAN (now Hampton Roads Transit), advertising revenue on buses and vans is the agency's greatest revenue generator, having produced enough income to provide the local match for the Capital Improvement Program since 1991. The program is

administered in-house and offers three approaches for advertisers. They can either pay for individual racks on buses at rates that encourage multi-month purchases, or they can participate in the Adopt-A-Van or Adopt-A-Bus program. The "adoption" programs provide advertisers with exclusive access to the vehicles' interiors and exteriors. There is a one-time preparation charge of $750 for painting the bus a base color prior to the application of graphics and returning the bus to PENTRAN colors at the end of the contract. The advertising charge for a one-year contract is $800 per month, and $750 a month for a two-year contract. The respective charges for the Adopt-A-Van program are $300, $300, and $250. (Hampton, Virginia)

5. The Golden Gate Bridge, Highway, and Transportation District anticipates collecting $500,000 per year for exterior on-bus side advertising with only non-permanent adhesive vinyl (not frames) to cut down on operational costs. In addition, the agency is seeking proposals to sell advertising in Golden Gate Bridge toll and Golden Gate Transit ticket books. More than 1.2 million toll and transit books are printed annually. Advertising in both books will be standardized to better attract advertisers and will be available on both sides of a one-sheet insert. The number of inserts could be increased if additional advertisers justify the added cost. The program is intended to offset District costs of printing ticket books, for a potential annual savings of $123,000. (San Rafael, California)

6. At Golden Gate Transit, a Request for Proposals (RFP) was issued for a private contractor to rebuild, maintain, and sell advertising on 106 GGT bus stop shelters, and to reconstruct kiosks at its San Rafael Transportation Center and Larkspur and San Francisco Ferry Terminals for continuation of advertising sales. Advertising revenues will be $48,000 from shelters and $93,000 from kiosks. In addition, an annual savings of $100,000 in cleaning and construction maintenance is estimated, for a total combined annual gain of $241,000 per year. (San Rafael, California)

7. The Bus Logo-Licensing Agreement provides a 6 percent royalty payment for use of "The Bus" logo on T-shirts, coffee cups, etc. (similar to the University of Hawaii athletic department). This program generates about $20,000 per year, based on the popularity of The Bus with tourists and many residents. (Oahu Transit Services, Inc. - Honolulu, Hawaii)

8. Santa Clarita Transit has agreements with contractors to install and maintain transit amenities (benches, shelters, and trash receptacles) at no cost to the City in exchange

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for the right to advertise. This saves $360,000 in the construction cost of 56 shelters (plus $48,000 in annual maintenance expense), as well as the $200,000 expense of installing 224 bus benches (44 with trash receptacles) and the $55,000 annual maintenance expense. The innovation is that instead of collecting a percentage of advertising revenue, the city opted to maximize the provision of shelters by requiring the contractors to provide non-advertising shelters and benches. (Santa Clarita, California)

9. In King County, the normal sale of space on the outside and inside of buses generates approximately $2.3 million annually. The "commercial painted bus program" has generated an additional $268,000 since 1994. Limiting the number of painted buses to ten per year, they charge $3,000 per month for a 40-foot bus and $4,000 a month for a 60-foot bus under contracts that typically last one year. The advertiser pays all costs of production, applying the design, and restoring the coach to its original colors. Payment is in a combination of cash and trade (media ads or gift certificates from restaurants which are then used as incentives to encourage pass sales or HOV use). Metro also receives a "posting credit" which is used to cover the contractor's cost of posting non-commercial, transit-related exterior or interior signs including bus fare information, safety and conduct messages, and special transit promotion messages. Normally the contractor would charge between $1 and $15 for the labor involved with placing transit promotion placards and signs. However, in this case the contractor absorbs this expense within the percentage of retained advertising revenues. The "posting credit" has saved the operating budget over $100,000 since 1994. (Seattle, Washington)

10. LYNX does not approach on-bus advertising as a by-product, but as a primary product, making it an active division that generates revenues. LYNX invested in a Macintosh Computer System and hired artists to both design and paint the buses. There are stringent quality controls and all artwork must be agreed to by the client and LYNX. They accept no advertising for products that can't be used by a minor. This generates $3,000,000 in cash and trade (for a system of only 200 buses), including television advertising during the Super Bowl and other highly rated programs. (Orlando, Florida)

11. The Sacramento Regional Transit District generates $160,000 annually from advertising on light rail vehicles in addition to $300,000 generated from on-bus advertising. (Sacramento, California)

12. In Sacramento, shelter and bench advertising is provided through a contractor, with the transit agency receiving 10 percent of the gross advertising revenue that amounts to

$200,000 annually. The contractor acquires and installs the shelters and benches. The contractor also maintains the shelters, saving the agency at least $150,000 annually. (Sacramento, California)

13. MARTA currently has contracts with private contractors, and agreements with local governments, to place over 250 shelters along bus routes. The shelters are erected by the contractor at no cost to MARTA. The contractor rents advertising space on these shelters, and is responsible for repairs, lighting, and trash removal. MARTA nets approximately $150,000 annually, with an additional $150,000 paid by the contractor to local governments. MARTA avoids the expense of constructing each shelter ($8,000 per shelter) and its maintenance and repair (approximately $2,000 per year). (Atlanta, Georgia)

14. MARTA frequently trades advertising space and promotions on the bus and rail system with local newspapers and radio and television stations for space and airtime to advertise MARTA. Only excess, unsold space is offered for barter, so no potential revenue is lost. In some years MARTA has saved over $500,000 in advertising expenses. (Atlanta, Georgia)

15. The Eastern Contra Costa Transit Authority has a contract with an advertising shelter agency to install, maintain, and replace bus stop shelters. This contract has decreased the time needed to research, buy, and maintain bus stop shelters; the time to apply for permits; and the $3,000 a year per shelter the agency was spending for maintenance and insurance. Part of the cost to the agency was the time spent developing the contract and negotiating with the members of the Joint Powers Authority to approve the style of shelters. The advertising shelter agency pays a percentage of their advertising revenues to each city within the Joint Powers Authority as well as to ECCTA. (Antioch, California)

16. The Regional Transportation Commission in Reno hired an additional staff member to function solely as an in-house transit advertising sales professional (working for straight salary). Posters are placed on RTC buses by the agency's maintenance employees. Revenues increased from $70,000 per year in 1994 to $125,000 in 1995 and are projected to be $200,000 for FY 1996. Sales promotional efforts have been targeted at key local business sectors, and the salesperson has created long-term relationships with local businesses rather than one-time advertising customers. (Reno, Nevada)

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17. In addition to advertising on the sides and rear of the bus, Santa Monica Municipal Bus Lines traded out the front advertising space to a local radio station for advertising on the air. A review revealed that the Bus Lines could gain more value by selling the space at a flat rate to the concessionaire. The Bus Lines is now guaranteed $90,000 annually for the front space, plus $15,000 support for its Bus Roadeo and $3,000 for other prizes and contests. This new income is far in excess of the value of the trade out. (Santa Monica, California)

18. A new five-year, on-bus advertising contract which included whole-bus advertising became effective at the Washington Metropolitan Area Transit Authority (WMATA) on January 1, 1995, and provided for minimum guaranteed revenue of $1.88 million over the term of the contract. The maximum potential revenue from whole-bus advertising over the five-year term could be as much as $1.2 million per year (above and beyond the $1.88 million guarantee). However, the whole-bus advertising program was discontinued because of aesthetic concerns voiced by citizens. (Washington, D.C.)

19. Revenue from advertising on buses has increased by 22 percent in a year for the Regional Transportation District, to a total of $2.2 million. Full wrap (painted) buses have gained in popularity (generating $340,000 in 1995). RTD has streamlined its procedures allowing Denver Transit Advertising to concentrate on sales, and RTD no longer advertises its own services on the buses during the busy advertising season of June through September. (Denver, Colorado)

20. The Regional Transportation Commission conducted a baseline transit advertising sales effectiveness study to measure the effectiveness of external advertising on transit vehicles. Using a set of Citifare buses and benches, the study provided valuable information on the effect of the quantity of displays, placement on the bus, response over time, size of display, and what types of persons respond to different displays. This has convinced local and regional advertisers of the effectiveness of transit advertising and increased revenues by $50,000 annually. (Reno, Nevada)

Key Lessons Learned in Sale of Advertising Rights

1. *Develop local relationships*–Consider retaining (versus outsourcing) responsibility for the advertising-on-vehicle function. Systems report that revenues have increased substantially as a result, but just as important, more advertising is paid for by local companies. This results in more relationships being formed with local businesses, who then have more reasons to support transit in the community. Transit systems would be well served by conducting a market analysis that demonstrates the visibility and effectiveness of advertising on transit vehicles and property.

2. *Art sells*–Transit agencies should retain artistic control of the end product. The transit agency is, after all, the owner of the vehicle. This will help improve the appearance of the vehicle and increase the community's interest in the transit fleet. It will also help prevent the substantial losses in potential revenue that occur when local communities object (sometimes with good reason) to whole-bus advertising. The better the artwork on the bus, the greater the chance for increased revenues since it is that much more attractive and unique.

3. *Make them feel special*–Whole bus advertising adds a new dimension to advertisers since it conveys a sense of ownership of the bus. It personalizes and customizes the vehicle, causing an even stronger sense of closeness between the advertising business and the transit system. This can result in the advertising business taking additional supportive actions, such as adopting (maintaining) stops; offering discounted passes to employees, supporting local transit roadeos, etc.

4. *Enjoy the flexibility prudently*–Each transit agency should maximize the benefits of the flexibility inherent in receiving cash or trade (such as "free" advertising or other items of value that can be awarded to passengers or employees). However, if possible, the agency should try to trade only unsold advertising space.

5. *Maintain what you obtain*–If the bus shelter advertising program is outsourced, require that company to provide wastepaper baskets and to maintain the shelter regularly. A shelter that is a littered eyesore might be worse than no shelter at all.

6. *Share the wealth*–If possible and appropriate, share some revenues gained through advertising on benches and shelters with the municipalities in which the facilities are located. They are then more likely to be more helpful in permitting additional shelters and taking other actions supportive of transit.

"I don't know anything about luck. I've never banked on it, and I'm afraid of people who do. Luck to me is something else: hard work - and realizing what is opportunity and what is not."
—Lucille Ball

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7. *Maximize the services received*–If private companies are utilized to perform the advertising on-vehicle function, get credit for posting fees (don't let them charge for placing public service posters on the vehicle).

Utilizing Transit Facilities To Generate New Revenues

Transit facilities have obvious value to transit agencies, but they can also have value to a variety of other agencies including telecommunications companies, neighboring businesses, investment firms, school boards, municipalities, national soft drink companies, and the film industry. Taking advantage of these common interests can generate new revenues, good will, support, and favorable community response for transit agencies. Even agency downsizing provides opportunities for profit by leasing or selling surplus space. Examples of exercising positive opportunism through transit facilities are provided below.

1. Golden Gate Transit is considering the sale or lease of approximately 2.7 acres of surplus property, all of which was acquired with local funds, next to its Santa Rosa Bus Terminal. An unofficial estimate of the fair market value of the surplus property is $550,000. GGT has a saying that they have never lost money on the purchase of land, and is not hesitant to purchase enough land for possible expansion. The original purchase price of the land in the 1970s was $20,000. (San Rafael, California)

2. LYNX has an agreement with a full service waste management company that pays 10 cents for every gallon of waste oil generated by LYNX (approximately 2,500 gallons per month), while charging $25 per barrel to collect and dispose of crushed oil filters. The revenue received for the waste oil and the expenses associated with the crushed oil filters cancel each other out. However, the agreement has saved LYNX $4,500 per year from previous costs associated with disposing of such items. All waste oil products collected are carefully manifested and only sold to companies that agree not to subcontract any part of the disposal process. In addition, the waste oil taken from LYNX is tested by the waste management company with a portable tester to provide further evidence that the oil from the transit agency is not contaminated. (Orlando, Florida)

3. In Puerto Rico, a private company provides service on one bus route that has been contracted and uses 33 percent of a terminal owned by the Metropolitan Bus Author-

ity. This company shares the expense of paying for maintenance at the terminal. In addition, parking spaces that became available due to downsizing of the administrative staff were rented to another governmental agency located nearby. For these two items the agency is receiving $236,357 annually, representing 0.7 percent of the operating budget. (San Juan, Puerto Rico)

4. The Regional Transportation District leases the air rights over a portion of the Civic Center bus transfer facility which is located underground at one end of the 16th Street Mall in downtown Denver. The air rights are used for a multi-story office building that generates rental payments to the District currently established at $216,901 for 1997 and scheduled to increase by one percent per year through the year 2074. As collateral for the lease, the District must maintain an account balance with a minimum market value of $1,500,000 in an escrow account, the interest on which accrues to the District until the lease expires. This amount in escrow is in a part of the District's restricted assets. (Denver, Colorado)

5. The Eastern Contra Costa Transit Authority (Tri-Delta Transit) leases a portion of their operating/administration facility to Laidlaw Transit, Inc., who currently provides services to the agency under contract. Laidlaw works from the same facility to provide services for another entity under a different contract. Tri-Delta Transit tends to get "free" hours of maintenance service from Laidlaw since their mechanics might not be needed full time for work on the other contract. This arrangement allows Tri-Delta Transit to enjoy an economy of scale, as Laidlaw provides extra mechanics, supervisors, and drivers at no additional cost to ECCTA. Laidlaw does this because they realize a savings by operating out of the facility, and want to remain as good tenants. In addition to a monthly space lease charge, Laidlaw is also charged a portion of the facility operating overhead (electricity, landscaping, repairs). This has resulted in a cost savings of approximately 3.5 percent of the total operating budget, and a higher level of service and employees. (Antioch, California)

6. Escambia County Area Transit contracts with County departments and non-profit agencies to maintain the vehicles of these departments and agencies from its transit facilities. Accounting must be kept separate, as no federal funds are eligible to be used to perform non-transit related activities. The primary concern is space and time. Implementation is somewhat difficult and much thought needs to be given. However, "prof-

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its" made from this activity (approximately $160,000 per year) are used to offset the cost of mass transit. (Pensacola, Florida)

7. Recent budgetary cutbacks resulted in The Central New York Regional Transportation Authority (Centro) having spare space in its facilities. All vacant space in its administrative offices, as well as bus maintenance bays and storage areas have been leased (in one case by a private charter firm), producing annual revenue of $40,000. (Syracuse, New York)

8. MARTA leases available space along the rail line to the telecommunication industry. This includes leasing available system duct to telecommunication affiliates for fiber optic cable, leasing real estate for telecommunication towers, and leasing areas in stations and tunnels for cellular phone equipment. Unsolicited proposals were received from the telecommunications industry. Implementation costs were less than $250,000, resulting in returns of $500,000 annually. (Atlanta, Georgia)

9. An RFP was issued inviting the private sector to address BART's needs for telecommunications improvements and to propose a revenue-generating use of BART's rights-of-way. As a result, an agreement was reached with MFS Network Technologies (MFSNT) to develop a "Conduit System" within BART's r-o-w. MFSNT will then generate revenue by marketing and operating the Conduit System for use by private telecommunications companies for a fee. The revenue generated will be split by BART and MFSNT with 91 percent of gross revenue to BART and 9 percent to MFSNT. Annual payments to BART should reach $1.0 million. Additional agreements are being negotiated. The intent is to generate at least sufficient annual revenue from third party use of BART's r-o-w to cover BART's annual obligation of $5.5 million to pay off its own telecommunication improvements which will be designed, constructed, and integrated by MFSNT. Financing in the amount of approximately $44,600,000 will be provided by Pitney Bowes Credit Corporation via a Lease-Purchase Agreement. (Oakland, California)

10. Dallas Area Rapid Transit is pursuing changes to state legislation that will make feasible the use of U.S.-based leasing techniques to generate as much as $5 million in up-front cash from their administration and light rail facilities. (Dallas, Texas)

11. York County Transportation Authority (Community Transit, recently renamed Rabbit Transit) has agreements to perform maintenance on city vehicles from its transit main-

tenance facilities. This provides some additional revenue and builds stronger relationships with other public bodies. (York, Pennsylvania)

12. New York City Transit charged $75 for copies of books used to bid construction projects, which did not cover the cost of producing the book. By raising the fee to $125, the agency will earn over $200,000 additional revenue per year. (New York, New York)

13. The Metro-Dade Transit Agency (MDTA) plans to enter leveraged lease-back agreements to generate up-front revenue from its transit maintenance facilities, parking garages, and the Metrorail and Metromover guideways. (Miami, Florida)

14. MDTA leased an area under its Metrorail guideway to a developer who is building a supermarket on the adjacent property. The leased area will be used for parking, generating an annual rent of $27,000. This concept is attracting many other owners of property adjacent to the Metrorail guideway. This not only generates revenue for MDTA, but also places the burden of maintenance on the adjacent property owner. (Miami, Florida)

15. The Capital Area Transit Authority is considering accepting outside work generated by requests from municipalities and local school districts for maintenance of their fleets at their transit maintenance facilities. They currently maintain rubber-wheel trolley vehicles owned by the state of Michigan. (Lansing, Michigan)

16. Through a Livable Communities Initiative grant, Corpus Christi Regional Transportation Authority bought an old bank building and designed a transfer facility around it. The authority rents space to private businesses including a barber shop and florist. The investment in the transfer center also helped spur other development in the immediate area. (Corpus Christi, Texas)

****17.** The Greater Cleveland Regional Transit Authority has newspaper racks on its buses that serve Park and Ride locations. The RTA pays the wholesale price for the papers and pays for only the papers sold. While this practice brings in only a small amount of revenue, one of its primary advantages is that it gives the agency more control over their Park and Ride facilities when done in conjunction with another policy to limit the number of newspaper dispensers at each facility. There had been as many as 24 different newspaper dispensers at each Park and Ride facility, which created an unsightly situation and considerable litter. Newspaper companies must now pay an an-

** *The techniques that were identified as part of the research for this second edition of the report have asterisks in front of them in the main body of the report.*

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nual fee to have a dispenser at the Park and Ride facility, and this has helped control the number of dispensers to help improve the quality and attractiveness of the RTA facility. (Cleveland, Ohio)

**18. Bi-State Development Agency brokered a lease/leaseback of their two Missouri station/garage facilities, their light rail maintenance facility, and their light rail vehicles in their fleet to achieve a one-time cash infusion of $6.6 million. (St. Louis, Missouri)

**19. Five Seasons Transportation developed their Ground Transportation Center in Cedar Rapids to not only serve as a transit transfer facility, but as an intermodal center that also attracted public and private development that would grow the downtown to the south, and raise revenues for the transit agency. The construction of the center helped attract multiple investments in the area, as well as a 40-unit market rate housing development, a Montessori school, and a station area for Trailways, Greyhound, and Jefferson Lines at the transit center itself, all of which generate operating revenue in the form of rents to the transit agency. (Cedar Rapids, Iowa)

**20. The Massachusetts Bay Transportation Authority charges the film industry for access to their facilities such as rail cars, buses, platforms, etc. when used in motion pictures and television productions. This results in approximately $30,000 clear profit per year. Any expenses for additional security are paid for by the film industry. (Boston, Massachusetts)

**21. The Greater Cleveland Regional Transit Authority issued a Request for Proposals seeking competitive bids from soft drink companies that would allow the successful proposer to have exclusive rights to sell their product at the RTA's train stations and major bus park and ride centers. To help avoid litter, spillage, and drinking of the soft drinks on board the vehicle, only 20-ounce resealable plastic bottles of soft drinks are sold from the dispensing machines. The amount of revenue the agency receives is a function of total sales, with the agency receiving $.50 for each $1.00 bottle of soft drink sold. This exclusive rights practice is in place at 16 stations to date, and has generated $40,000 in revenues. When the soft drink dispensers are placed in all 50 planned locations, the agency anticipates collecting over $100,000 annually through this technique. To date, there has been no problem with spillage on board the transit vehicles or debris. (Cleveland, Ohio)

**22. The Metropolitan Transit Development Board (MTDB) of San Diego has secured an agreement with Coke that provides MTDB with a guarantee of $50,000 cash each year and 35% of the revenues collected from sales of soft drinks at San Diego Trolley station sites. In exchange, Coke has exclusive rights to sell their soft drinks through 80 machines at 45 train stations. Coke's objective is not only to sell product, but to take advantage of the advertising exposure offered by the large drink dispensing machines which serve as highly visible billboards for their product during the day and night. Coke promises to respond to any graffiti and vandalism of their machines within 24 hours of receiving such a report. Drinks are sold only in resealable plastic bottles to accommodate people who buy the drink and can't finish it before they board the train. In addition, avoiding aluminum cans helps to discourage vagrants who might rummage through trash receptacles for such cans. MTDB also engages in joint promotions with Coke when introducing new service or promoting certain kinds of service (e.g., for $29, someone can get four train tickets, four baseball game tickets, four hot dogs, and four cokes at a San Diego Padres game). Imagination is the only limitation to the possibilities of such relationships. (San Diego, California)

**23. The Metropolitan Atlanta Regional Transit Authority (MARTA) is the first transit agency to implement "Tunnel Advertising" in their rail system. Tunnel walls, a previously untapped resource, provide space for implementing a technology based on the 19th century device called the zoetrope, a precursor to modern movie projectors. The zoetrope is a cylinder with slits cut into the top edge and images placed inside. The cylinder is spun around its axis, and the viewer looks through the moving slits at the images. These images appear to move, as if animated. The display is mechanically simple, consisting of low-profile metal ad boxes installed side-by-side on a rail system along tunnel walls at window height. A typical display is approximately 500 to 1,000 feet long and consists of 200 to 300 ad boxes. The animation lasts between 15 and 30 seconds, depending on the speed of the train. Revenues from this source of advertising are projected in the $30 million to $40 million range over a five-year period. (Atlanta, Georgia)

**24. MARTA is working with a vendor to provide advertising space on trash receptacles. While the projected revenues are not yet known, they believe this source will help pay for the cost of keeping stations clean. (Atlanta, Georgia)

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**25. Following a trend made famous by sports stadiums throughout the country, HartLine is generating significant revenue from the sale of naming rights to its new electric streetcar line that runs from downtown Tampa to the City's historic district (Ybor City). The Tampa Electric Company (TECO) has paid $1 million dollars for naming rights to the system. Private companies pay $250,000 per car for exclusive sponsorship of a single trolley car for a ten-year term. This sponsorship provides for the sponsor's name or log on the exterior (front and rear) and interior of the trolley car, prominent display of the sponsor on the Streetcar system's website with links to the sponsor, and the sponsor's name on maps mounted at each station, and on the system map. The sponsor is also entitled to hold two special events on the streetcar during the normal operating hours each year. In addition, the sponsors qualify for a tax credit of up to 50 percent of the value of their donation under Florida's Community Contribution Tax Credit Program. This credit applies against State of Florida corporate income tax liability and to sales and use tax liability. Similar opportunities are available to sponsors of individual trolley system stations who pay $100,000 for exclusive naming rights. In all cases, the Trolley Board of Directors has final approval of the "look" and information on signage. (Tampa, Florida)

**26. The New York Metropolitan Transit Authority took advantage of space that was available due to scaffolds being used on buildings during renovations. Temporary vinyl ads that were 60 feet high varied in width from 20 feet to 60 feet. Advertisers included the GAP, Pan American Airlines, and Guardian Insurance. (New York, New York)

**27. WMATA is expecting to receive a minimum of $3 million in operating revenue over the next 10 years by entering into an agreement with the Williams Companies, Inc., for the installation and operation of a fiber optic cable system for an initial 15-mile segment of cable. The fiber optic cable will be attached in protective sheaths to the walls of WMATA tunnels and in buried duct banks along the surface portions. (Washington, D.C.)

**28. Hollywood & Highland, developer TrizecHahn's $615 million retail/entertainment complex opened November of 2001 above the Los Angeles County Metropolitan Transportation Authority's Hollywood/Highland Station on the Metro Red Line. The 1.2 million square foot development will feature six new movie screens called the Chinese 6 Theaters, over 70 retail shops, restaurants, a Grand Ballroom operated year-round

by Wolfgang Puck, and a TV studio. It will also host the Academy Awards ceremonies in the 3,500-seat Kodak Theatre, and will include the 640-room Renaissance Hollywood Hotel and a 3,000-space underground parking garage. TrizecHahn is leasing 1.35 acres of MTA land for 55 years at a rate of $492,000 per year (with additional increases added every five years based on the Consumer Price Index) and four 11-year optional extensions. (Los Angeles, California)

**29. The Massachusetts Bay Transportation Authority has entered into partnerships with a number of private businesses that wish to sponsor "free rides" during notable community events, such as the opening day for the Boston Red Sox. The private sponsor pays $100,000 to MBTA in exchange for the agency opening its turnstiles for no less than three hours to allow passengers to ride for free. The private sponsor gains through exposure provided through press conferences, a media plan, and banners at the stations, all of which the sponsor pays for. MBTA simply acts as "the stage" for the private sponsor, incurring no real expenses itself. Since almost half of MBTA's passengers use passes, the agency does not lose as much revenue as they might if more passengers paid with cash. MBTA estimates that it makes $70,000 more than it would on a normal day when they participate in such events. Of course, MBTA also gets to be part of a positive community event. (Boston, Massachusetts)

**30. A development joint venture between Metra and U.S. Equities Realty will transform nearly two full city blocks of underused, street-level space beneath the 16 elevated tracks of Ogilvie Transportation Center into a retail and restaurant attraction. The 200,000 square foot development will include 90,000 square feet of retail, including a specialty food market, 36,000 square feet of restaurants, and parking for 100 cars. U.W. Equities will oversee Metra-Market development, leasing, and tenant construction, and will provide property management services. The project will operate under a 90-year lease. The benefit to the commuter railroad from rental income and return on capital investment is projected to total more than $29 million during the first 25 years. Ridership increases due to this new destination will also add to farebox revenue. (Chicago, Illinois).

**31. The Big Blue Bus generated $914,000 in lease/rental revenue from properties that are being held for future development. (Santa Monica, California)

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Utilizing Transit Equipment To Generate New Revenues

Similar to its facilities, transit agencies control equipment that is somewhat unique within a community and can provide more opportunities to generate revenues. Sometimes the revenues are considerable (e.g., leveraged leases for buses, rail cars, and technical equipment). Other times the revenue generated might be relatively small, but they provide the transit agency with another chance to gain friends, support, and a positive image in the community. Examples of these opportunities are provided below.

1. Palm Tran more than doubled its bus service in 1996. In anticipation of the need for new maps, schedules, and other printed materials, it purchased a $250,000 printing press with 80 percent federal funding. The press has the capacity to produce all of Palm Tran's printed material at half the cost of private printers. Palm Tran has agreed with Palm Beach County to allow county personnel to run the press, and the excess capacity of the press is used to sell services to other county departments. It is estimated that the $50,000 local share of the cost of the equipment will save/earn $1,000,000 over the expected ten-year life of the press. (Palm Beach County, Florida)

2. Ben Franklin Transit has 100 Ford vanpool vans and 30 paratransit vehicles that are on Ford chassis. With this fleet and their facility and tools, the transit agency applied for and gained designation as a Ford Authorized Warranty Center. Ben Franklin Transit now performs all the warranty work required on their fleet and are paid by Ford at a negotiated hourly rate ($34.80) that is higher than the agency's labor costs. Ford also pays Ben Franklin Transit 20 percent above each part's cost as administrative fees. Furthermore, Ford provides training to the agency's mechanics for free. There is little controversy since BFT only does warranty work on its own vehicles, and the margin for profit for warranty work for private dealers is minimal. Ford dealers were unable to quickly turn around warranty work prior to BFT's designation as a warranty center. Consequently, they are also enjoying the advantage of less down time for their fleet. Ford is now interested in using BFT as a test center for new vehicles, and will provide the agency with free test vehicles and pay for necessary repairs at the rates noted above. (Richland, Washington)

3. Six sale/leaseback transactions have generated $18 million for the Metropolitan Transit Development Board in San Diego since 1981. All of the light rail vehicles and 97 new compressed natural gas (CNG) buses have been "sold" for tax purposes involving

different parties in Japan, Germany, and the United States. Interpretation of leaseback laws is suggesting that facilities (such as maintenance buildings) might be eligible, as well as the re-leasing of already leased vehicles. (San Diego, California)

4. The Sacramento Regional Transit District entered a cross-border lease with Deutsche Bank AG for 10 light rail vehicles. This agreement, though carrying some risks, provides SRTD with $500,000 as a transaction fee, representing approximately 3 percent of the appraised value of the 10 light rail vehicles. (Sacramento, California)

5. Since July 1990, New Jersey Transit has entered into a number of agreements to sell and lease back various properties owned by the corporation to either a foreign or domestic entity seeking favorable tax treatment, resulting in an up-front benefit paid to NJ Transit. From 1990 to 1996, the agency received a total financial benefit of approximately $3.5 million from various leases on rail cars, locomotives, and buses. This revenue allowed the agency to avoid fare increases and reduce reliance on federal and state subsidies during that time. (Newark, New Jersey)

6. A cross-border lease agreement with DB Export-Leasing GmbH for 11 light rail vehicles allowed the Regional Transportation District to sell and lease back the vehicles for a period of 18 years, providing net additional proceeds of $600,000 to RTD. In addition, RTD entered into three, seven-year cross-border leasing agreements and other related agreements with JL Massive, JL Elbert, and JL Persephone Lease Companies, LTD., for a total of 85 buses. The additional revenue generated by these transactions was approximately $600,000. (Denver, Colorado)

7. New Jersey Transit invested $480,000 for 13 simulators designed by in-house staff and built by outside contractors. The simulators enable instructors to train more drivers in less time than with traditional methods. Use of the simulators is expected to result in annual savings of approximately $100,000 by cutting training costs, reducing accidents, and lowering insurance premiums. (Newark, New Jersey)

8. One hundred buses were acquired by the Port Authority of Allegheny County (PAT), using cross-border financing techniques with the assistance of contracted legal, financial advisory, and financial arranger services paid from the proceeds of the transaction. Net revenue produced was approximately $500,000, effectively reducing the cost per bus by $5,000 per unit. (Pittsburgh, Pennsylvania)

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9. Centro subcontracts to private charter bus companies that find it to their advantage to lease some or all of Centro's 22 over-the-road (MCI) coaches. Those vehicles are used by Centro for daily peak hour express service and regional bus service, but are generally available during off-peak, weekends, and evenings. Centro has an agreement with three charter carriers that have kept their fleet size small enough to cover routine demands, and then use Centro buses for infrequent events requiring more capacity, resulting in a win-win solution for all parties. This activity provided Centro with over $60,000 in new net revenue. (Syracuse, New York)

10. The Capital Area Transit Authority operates rubber-wheel trolleys owned by the state as part of regular fixed-route service during the week. On weekends, these vehicles are available for charter for minimums of four hours at $85 per hour. CATA has gained the approval of the private bus company in the community by requiring those interested in chartering the trolleys to make arrangements through the private company. In this manner, people believe the private company is responsible for the service, and the company receives a $25 administrative fee for taking each reservation. (Lansing, Michigan)

11. Golden Gate Bus Transit provides bus service from Santa Rosa and Larkspur to most preseason and regular season San Francisco 49er home football games. This service is only offered during off-peak, non-commute hours and does not interfere with regular fixed-route service. During the 1995-96 season, net profit from ticket sales was nearly $13,000. (San Rafael, California)

12. Suntran is planning on utilizing Chance CNG trolley buses to provide charter service through areas of great tourist interest. Though they have not yet started the service, they hope the Federal Transit Administration will allow such service to be provided on the basis of the uniqueness of the product. Suntran believes it can charge $300 an hour. There has been at least one request per week for such service, which could generate approximately $1500 per month in new net revenue. (Albuquerque, New Mexico)

13. Centro, with 20 Ford paratransit vans, has become an authorized Ford warranty center. Centro now performs the warranty repairs and gets paid by Ford in a manner resulting in profits for the agency. Their designation as a warranty dealer also allows them to compete for warranty work on other Ford vehicles owned by social service

agencies that also provide paratransit service with vehicles that have been purchased through a state Government Services Agreement contract. (Syracuse, New York)

14. DART will utilize cross-border leasing techniques for a major bus purchase and for their light rail and commuter rail vehicles to generate almost $20 million that DART will receive in up-front cash. (Dallas, Texas)

15. MetroLink Commuter Rail utilized a United States Leveraged Lease for all 98 of its cars and engines, receiving $21 million in up-front cash, which has been reserved for capital maintenance purposes. (Los Angeles, California)

16. Metro-Dade Transit completed a financial lease transaction for 134 Metrorail cars to a lessor that can claim tax benefits as a result of its investment in the transaction, followed by a leveraged leaseback of those assets to MDT. This transaction generated over $8 million in proceeds for Miami-Dade County. (Miami, Florida)

17. At Capital Area Transportation Authority, the bus wash machines are used to clean not only their own buses, but also other municipal fleet vehicles and private recreational vehicles (RVs), which are very popular in Michigan. In addition, CATA serves as a subcontractor to a local bus rebuilder, whereby CATA performs brake repairs for the rebuilder due to the availability of their brake lathe. CATA usually works on two sets of brakes per week for $150 and has generated approximately $6,000 per year. This allows the bus rebuilder to avoid the cost of a new brake lathe ($45,000), which is only needed occasionally. The job is not labor intensive, and requires no additional mechanics to be hired at CATA. (Lansing, Michigan)

18. Durham Area Transit Authority has identified cleaning and washing vehicles from other City Departments and private organizations such as Duke University and Southern Coach as an opportunity for new revenues. They are also exploring opportunities to maintain heavy-duty diesel vehicles for selected markets. (Durham, North Carolina)

****19**. Space Coast Area Transit painted a 40-foot bus to match a "King Kong" Ad that was sold by Clear Channel Outdoors, SCAT's Advertising contractor. In exchange for the painting of the bus, Clear Channel paid for food and collateral materials for the Grand Opening Celebration of SCAT's Beach Trolley Service. The event was attended by over 250 local tourist officials and businesspeople and was covered by 5 TV stations and 2 radio stations. The event generated invaluable news coverage for the Beach Trol-

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ley service and the tourism industry in the Cocoa Beach area. The cost to SCAT was minimal, since the bus was due for a new paint job within 12 months. (Cocoa Beach, Florida)

**20. Based on a formula that has not been challenged, Broward County Transit charges insurance companies for the value of the time lost when buses are in accidents caused by other drivers. Over 75 percent of all accidents that BCT buses are in are the fault of other vehicles. BCT typically collects over $200,000 annually from insurance companies from this source. The formula is based on the average revenue collected by a bus in service each day ($200) multiplied by the number of days the bus is out of service. (Pompano Beach, Florida)

**21. Miami-Dade County completed a lease transaction for Qualified Technological Equipment that netted the County over $9 million. Included in this transaction was the value of the County's 800 Megahertz radio system, the CAD/AVL data communication system, the Metrobus farebox information system, the Metrobus passenger information system, and the Metrorail communications systsem. (Miami, Florida)

Key Lessons Learned in Facilities and Equipment That help Generate New Revenues

1. *Diversify*–Work can be performed for other public and private agencies from transit facilities. This can help generate additional revenue and build relationships with other agencies.
2. *Be a gracious host*–Other agencies can work in your facilities, whether the space is made available due to downsizing, or the space is more deliberately provided through contracting of services.
3. *Location, location, location*–A transit agency's property may be valuable for its air rights or the access it might provide others such as telecommunications companies for installing cables, towers, or telephones at transit facilities. Other businesses that passengers utilize frequently can also locate at transit facilities, generating revenues and providing convenience for the passengers.
4. *Take the money and run (your service)*–Transit agencies can purchase rolling stock and facilities, then simultaneously sell these to an investor who in turn leases them back to

the transit system. The tax benefits and depreciation value are shared with the transit operator through reduced lease costs, providing the transit agency with a considerable up-front cash payment.

5. *Technician, heal thyself*–Special relationships can be developed with vehicle manufacturers to enable a transit agency to become certified as an authorized warranty center, resulting in payments made to the agency for warranty repairs performed on their own or other vehicles.

6. *Isn't that special?*–Specialized, expensive capital equipment such as printing presses, brake lathes, bus wash machines, simulators, over-the-road coaches, and rubber-wheeled trolleys can be used to perform work for other agencies or clients. While the transit agency must be sensitive to possible protests from private companies, it can actually enhance its image as a community asset if the equipment improves the efficiency of local businesses.

Taking Advantage of Transit's Employees as Unique Assets

Labor may well be the single largest expense of most transit agencies, but transit's employees can also make significant contributions towards generating revenues or reducing costs. As one transit consultant good-naturedly noted, for every pair of hands you hire, you get a brain thrown in for free. They contribute cost-saving ideas through employee suggestion programs, offer special expertise to other public and private agencies, they are indispensable participants in "gain sharing" programs, and they represent a target market that certain advertisers want to reach. More detailed explanations of techniques in this subcategory are provided below.

1. As noted in the previous "Equipment" subcategory, New Jersey Transit purchased 13 simulators to train their own operators more effectively, and has cut costs of training and liability by $100,000. In addition, the agency has received state certification for providing bus driver training to other agencies and is anticipating $100,000 in annual revenues associated with NJ Transit trainers providing this service. (Newark, New Jersey)

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2. Durham Area Transit Authority will take advantage of their unique personnel expertise by providing hazardous materials training for private or public organizations, training and certifying other bus operators within DATA territory, and conducting security checks for other bus operations in North Carolina. (Durham, North Carolina)

3. To promote a more entrepreneurial environment, Centro requires that all staff members are responsible for all elements of their sections' budgets. Each one is encouraged to establish "profit centers" and to be as aggressive as possible in finding opportunities to generate new revenues. They are required to re-examine all their processes and relationships. Their advertising contract was renegotiated to open up more inventory for sale, and they are managing garage and surface parking lots much more aggressively to maintain market competitiveness. (Syracuse, New York)

4. In 1992, the government of Argentina decided to privatize their national commuter railroad system. Private businesses were invited to bid on seven different commuter rail and subway lines located in the capital of Argentina. One of the requirements for the contract with the Argentine government was that they have a contract for technical assistance with an existing rail operator. BART was selected to provide that technical expertise over a ten- year period. The annual element of the contract consists of two components. BART receives an annual fee of $50,000 automatically. An additional $50,000 is paid to BART as a non-refundable deposit for any requests for technical assistance received during the year. Work requests beyond the $50,000 deposit are billed and received before the work begins. Subject areas BART staff have provided technical assistance on include Management and Organizational Structure, Organizational Issues, Fare Collection, Budgeting, Physical Review of Locomotives, Shop Maintenance, Maintenance Shop Work Flow, Locomotive Reliability, and a Modern Commuter Rail Study. Total billings on this project have been $1,600,000. BART staff contributing to this contract have included staff from Rolling Stock, Transportation, Engineering, Budget, and Joint Development. After fully recovering all costs and overhead expenses, the Argentina project has contributed $400,000 in "profit" after three years. (Oakland, California)

5. Similarly, BART was selected by Parsons Brinckerhoff to provide operational training to the transit operator of the new commuter railroad in Cairo, Egypt. BART developed training materials, student texts, and instructor's guides for all six of the

classes for Instructors, Train Drivers, Station Masters, Station Attendants, Local Switch Board, and Central Personnel. BART staff have provided the training and gone to France to study the central equipment at the factory and at railroads in France where it is being utilized. This one-year contract has utilized personnel from Transportation and Rolling Stock. The contract is expected to extend approximately one more year. Total billings to date have been $1 million. After fully recovering all costs and overhead expenses, the Cairo project has contributed $250,000 to BART. (Oakland, California)

6. Metro Area Transit has instituted a bonus plan for all employees that provides cash payments if the agency achieves certain thresholds, including coming in under budget, decreased absenteeism, safety, and reduced accidents. Eighty-five percent of all employees qualified for the $550 bonus. An external auditor confirmed the agency finished the year $600,000 under budget. (Omaha, Nebraska)

7. The Metropolitan Transit Authority in Houston established a successful gain-sharing program for salaried personnel to focus their attention on control/reduction of operating costs. An outside consultant was hired for $100,000 to ensure an objective review. The cost target was defined as the total operating expenses excluding contingency. Any savings below the cost target were to be shared by METRO and the employees equally, assuming the ridership threshold of the previous year's ridership was achieved. If the current year ridership were equal to or less than the ridership of the prior year, the salaried employees would earn 40 percent of their share of savings. If the current year ridership were equal to or greater than the previous year's ridership, the salaried employees would earn between 40 percent and 100 percent of their share, apportioned in relationship achieved between threshold and target ridership. The program resulted in $5 million in savings, with $1 million paid out to salaried employees for a net savings to the Authority of approximately $4 million (or 1.7 percent of the annual operating budget). "Only" $1 million was paid to salaried employees because the ridership threshold was not met. (Houston, Texas)

****8.** The Cyride Transit Board created Cyride Technical Services to generate new revenue to serve as local match for capital items. The creation of this function was a way of maximizing the resources of the transit agency during the "valleys" of the year in this college town. The planners and management staff of Cyride designed a three-route starter system for the city of Branson, Missouri. Cyride netted approximately $25,000

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for these consulting services, more than enough to pay the local share associated with purchasing two minibuses. (Ames, Iowa)

**9. The Massachusetts Bay Transportation Authority (MBTA) realizes $2,500 annually from selling advertising space on the pay stubs that go to over 6,500 employees, charging $50 per message. The messages are usually two sentences with no graphics. (Boston, Massachusetts)

**10. SunLine Transit aggressively implemented a number of entrepreneurial practices to generate new revenues to help offset a loss of $400,000 in federal operating assistance. The key to doing this was to establish the SunLine Services Group as an adjunct to the agency with the intent of selling non-traditional services within the region. These services focused on the advantages of using Compressed Natural Gas in this desert environment. SunLine then either acquired vehicles through army surplus purchases, or through grants, enabling them to provide a variety of services in their region that were not being provided efficiently by any other public entity. These services include street sweeping, changing streetlights, traffic signal maintenance, graffiti removal, watering plants at highway intersections, providing emergency lights and generators at major community events, and building levees for flood control districts. In all cases, the vehicles used to provide these services used CNG fuel and were painted a clean, bright white. The services were performed by part-time SunLine bus operators who were delighted to have the opportunity to earn more income while in the status of waiting for full-time bus operator positions to open. These opportunities for income also helped reduce turnover among part-time operators, thereby reducing SunLine's overtime expenses. Revenues gained from the provision of these various services more than made up for the loss of federal operating assistance and made the transit agency far more relevant to the vast majority of citizens of the community. (Thousand Palms, California)

Taking Advantage of Transit's Passengers as Unique Assets

Access to transit's customers is valuable to entities other than transit agencies. They represent a market for other goods or services that can be effectively reached given their use of transit vehicles or facilities. Clearly, some of the advertising noted in the first part of this theme is an example of that, as well as the routine placement of concession machines at

terminals. However, there are other instances where both public and private entities are willing to pay for access to transit's passengers, as noted below:

1. At Golden Gate Transit, "Merry Ferry" special promotions for two weeks before Christmas include free fashion shows, wine tasting, music, and visits from Santa, all provided by restaurants and retailers to promote themselves to a captive ferry audience. This adds value to utilizing transit, and helps build ridership and revenue. Ridership increased 202 percent compared with the same runs during the rest of the winter on weekends and 121 percent on weekdays. (San Rafael, California)

2. "Lunch for the Office Bunch" on the GGT Sausalito ferry encourages lunch getaways during the summer with a variety of live entertainment. "Jazz on the Ferry" on summer Fridays also attracts additional riders who have a good time and get extra value in these trips. (San Rafael, California)

3. Centro has recently developed monthly passes and 10-pack tokens as fare media. All passengers who purchase these fare media also receive a coupon booklet that provides them with discounts at local retail stores (e.g., Dunkin Donuts). The coupons are produced by the companies participating in the coupon program after Centro gives the companies specifications. However, Centro is also charging each participating vendor $500 per month for the rights to have access to their passengers through this program. Centro suggests picking the first few participating companies judiciously and possibly offer them a deal that benefits the companies as well. (Syracuse, New York).

4. Centro negotiated a deal with AT&T for the installation of telephones in bus shelters. Centro receives $100 per month per phone, plus a percentage of revenue. In addition, the phones are programmed to allow callers to dial "*BUS" for a free connection to Centro's customer service information center. Phones are programmed to shut off after midnight as a way of cooperating with local police who are concerned that such facilities are used to consummate illegal activities. (Syracuse, New York)

5. Schools in northern Kentucky experience attendance problems, and attribute some of the problems to transportation. The school board agreed to pay for all students carried by the Transit Authority of Northern Kentucky. TANK now gives more empha-

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sis to attract student passengers, keeps electronic tallies of their boardings, and invoices the school districts for all students they carry. (Fort Wright, Kentucky)

6. In WMATA's rail system, pay telephones were initially placed in the mezzanine area of each station. As a means of increasing revenue, it was thought that the platform location would be a more convenient location for phones for passengers, encouraging the use of phones for impulse calling with no fear of missing a train. There was no cost to implement this change, since the exchange carrier was already under contract to provide pay telephone service. In Fiscal Year 1989, prior to the installation of platform telephones, revenue for the use of pay telephones was $76,500. It is projected that in Fiscal Year 1996, the amount of revenue generated from pay telephones now on platforms will exceed $700,000. (Washington, D.C.)

7. The Metropolitan Transit Development Board awards a single Master Concessionaire contract to administer the various concession operations at transit sites in the San Diego area. This Master Concessionaire solicits for mobile kiosks ("push carts") at major bus stops and park-and-ride lots. These push carts sell transit tickets and passes, soda, coffee, post cards, and other small merchandise. They bring in small amounts of revenue for the transit systems, but add presence to the stop area. Goodwill donation facilities, with attendants, add a low-key use and some additional presence at similar sites. (San Diego, California)

8. In 1992, BART staff retained consultant assistance to assess the viability of a competitive solicitation to secure a new pay telephone contract in order to generate additional revenue. At the time, Pacific Bell had the pay phone concession contract with BART; there were approximately 525 phones on BART property being used by BART transit patrons and BART was guaranteed $500,000 per year in revenue from these phones. Based on the consultant's analysis, BART released an RFP to solicit a new contract to generate additional revenue and services for its patrons. Five proposals were received and evaluated. Amtel Communications, Inc., was selected by BART. The new pay phone contract was for a minimum annual guarantee of $1.0 million, or 40 percent of gross income, whichever was greater. (Oakland, California)

****9.** In 1996, Metro-North Railroad generated an additional $125,000 in revenue by installing 279 cellular phones on selected trains. On average, 5,000 calls were made per week. Calls cost $1.75 per minute, plus tax. (New York, New York)

**10. Fredericksburg Regional Transit earns commissions from newspapers (The Free Lance Star) sold on board the buses. The newspaper company installed newspaper holders in each vehicle, providing a small commission to FRED for each paper sold. Through this arrangement FRED also receives a free newspaper advertisement from the Free Lance Star every two months. The Muncie, Indiana Transit System recently teamed with their local daily newspaper, The Star Press, to offer newspapers for sale on its buses. The newspaper oversaw the design and manufacture of special newspaper racks for the buses that were installed by MITS maintenance personnel near the front door. The newspaper delivers bundles of papers to the transit garage each morning, and picks up the unsold papers from the previous day. The operators pick up bundles of newspapers each morning on their way to their buses, and place the papers in the racks. Cleaning personnel remove unsold newspapers from the buses at night. Operators key each newspaper sale into the farebox, creating an accurate record of revenues collected. This is to reconcile sales and returns against the newspaper's records. (Fredericksburg, Virginia and Muncie, Indiana)

**11. Commuter trains in Vancouver, B.C. draw in extra revenue from their "Cappuccino Cars." These are designated cars on trains that operate in the morning and afternoon peak periods. The private vendor is selected through a competitive bid process. (Vancouver, British Columbia – Canada)

**12. LYNX (Central Florida Regional Transportation Authority) utilized the access to their passengers as leverage to reach an agreement with I-TEC, a local firm in the Orlando, Florida area. I-TEC has made a $1 million investment by installing two 13-inch flat screen video monitors in each of LYNX's 220 buses. The videos provide up-to-date news every 20 minutes on the bottom segment of the screens while the top half of the screen provides next stop information. Commercials of 20 to 60 seconds are also shown in between news, LYNX promotions, and public service announcements. These monitors and the feed system for up-to-date news have been provided through private investment. Once I-TEC has recovered its costs of initial investment, LYNX will receive a share of the profits realized from the advertising. While the private company will provide and install the first 220 video monitors at their own expense, LYNX will pay for all future capital expenses associated with this service. A similar system is being installed in the bus fleet at Milwaukee County Transit. (Orlando, Florida)

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**13. The Massachusetts Bay Transportation Authority sells space on their passes, schedules, system maps, and even their pay stubs to employees to generate revenue. MBTA leverages the volume of their subway, combinations, and boat pass sales (300,000 per month) to sell advertising on even these small cards, generating $6,000 of new revenue per month. These opportunities for advertising have proven so popular that they have sold quarter panel space on these fare media for a year and a half in advance. One-quarter panel spaces of three inches by three inches on individual route schedules are also sold that allow for targeted advertising for businesses along particular routes. MBTA charges approximately $500 per route schedule advertisement, which generally provides three months of exposure for the advertiser. The half-million transit system maps provide further opportunities for revenue generation, where the agency charges $8,000 for panel exposures of 3 inches by six inches, and as much as $40,000 for full panels that are 8 and one half inches by 3 and three quarter inches. (Boston, Massachusetts)

Key Lessons Learned in Taking Advantage of Transit Employees and Passengers as Assets

1. *Market your full product line*-Transit employees gain special expertise in areas such as safety training, HAZMAT handling, and security that can be sold to other agencies with transportation functions. Efforts can even be international in scope.
2. *Think win-win*-Collectively, transit employees can help achieve agency goals while saving money if there are clear performance goals and reasonable incentives tied to those goals. This is good for the individual employee, the organization, and group morale.
3. *Add value*-Joint promotions provide wonderful opportunities to "treat" your customers and give them extra value for their choice of transit. This increases ridership and revenue and builds customer loyalty.
4. *No one gets to see the Wizard*–Discount coupons issued to regular passengers are excellent value-adders by themselves, but transit agencies can also charge companies for the right to give those coupons to transit customers. This same principle applies to telephones at transit facilities, concessions, or other services. They not only provide revenue for the transit agency, but a convenience for the passenger as well, and add "presence" and security to the facility
5. *It's the passenger, stupid*–When locating any services or conveniences (such as telephones), think like a passenger and place the services where they are most likely to be used most frequently.

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Partnerships

Transit agencies have often referred to the federal and state governments as their partners in various transit projects. The federal government remains an active partner in helping to fund capital projects, but it is steadily reducing its contributions for operating assistance. Some state governments have helped pick up the federal operating slack, but there are few examples of states that have made up the difference entirely. There is a need for transit agencies to expand their list of partners to include major employers, universities, municipalities, downtown development authorities, public school districts, business associations, hotels, and various other entities. Transit systems can leverage their limited resources by forging new partnerships that can bring non-traditional sources of support. These new partnerships allow transit agencies to provide services or facilities where they would not otherwise be feasible. These relationships are typically initiated by the other partners, which should encourage transit agencies to more assertively pursue and offer such opportunities.

"Fantasies are more than substitutes for unpleasant reality; they are also dress rehearsal plans. All acts performed in the world begin in the imagination."
—Barbara Harrison

Transit and transportation are all about *linkages*, allowing people to travel for many different life functions. Given the critical need for mobility in American society, it shouldn't be surprising that there are other entities that also regard the mobility provided by transit as critical to their own success. Examples of how transit agencies have gained new partners is provided in greater detail below:

Private Sector Partners Supportive of New Transit Service

Transit agencies have found new partners among private businesses and major employers who regard transit as important to their own self-interests, and are willing to pay fully or partially for new service that would otherwise not be possible to provide.

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1. Springs Transit implemented a new three-year route (that might be made permanent) between a hospital and a remote parking lot. The hospital is undergoing major renovation and is using the land for the previous employee parking as the base for a new building. Displaced employee parking was moved to the site about a mile away. Springs Transit provides open-door transit service, but the hospital pays 100 percent of the fully-allocated costs to operate the route. (Colorado Springs, Colorado)

2. Milwaukee County Transit implemented the Employer Trip Reduction Response (ETRR) Program in 1995. This program allows the system to respond to employer requests for new and additional transit services in areas located more than one-half mile from the nearest transit service. This program helps reduce air pollution and improves access to jobs for unemployed Milwaukee residents. One of the requirements of the ETRR Program is that benefiting employers participate in funding the local cost of the services. Other funding has come from the Congestion Mitigation & Air Quality (CMAQ) Program, state, and fares. No Milwaukee County Transit funds are used to support these services. As many as 12 employers have contributed a total of over $90,000 per year towards the cost of these services. (Milwaukee, Wisconsin)

3. In the Orlando area, the Seminole Towne Center (the newest mall in the region) approached the City of Sanford about serving the site with transit. The developer contributes $10,000 to LYNX toward the cost of the service, and the City of Sanford matches that contribution. (Orlando, Florida)

4. LYNX operates under an agreement with the International Drive Master Transit and Improvement District for 15-minute frequency service from 6:00 a.m. to 1:30 a.m., serving the corridor that supports Walt Disney World, Sea World, Universal Studios, Disney/MGM Studios, Epcot Center, 23,800 hotel rooms, and the convention center. LYNX receives $1,623,000 per year (all fully-allocated costs for the service minus fares collected) from the District. A separate operating division was created within LYNX to ensure operators receive special training for events in the district, fare instruments, customer service, information dissemination, etc. The division has its own dedicated fleet of vehicles. LYNX gets this opportunity over the private sector in large part because of its outstanding and colorful image. (Orlando, Florida)

5. The Indianapolis Public Transportation Corporation was approached by 20 employers who pooled their resources and paid 70 percent of the expense of providing late evening and weekend bus services due to an employee shortage problem caused by the

lack of transportation for such workers (e.g., fast food restaurants, movies, hotels, etc.). Out of pocket expenses for surveys cost $5,000. Where possible, service on the street was reprogrammed to reduce the cost of meeting the employers' needs. The program is called MetroWorks, and has increased ridership in the late evenings. (Indianapolis, Indiana)

6. Escambia County Area Transit entered into an agreement with two malls to underwrite the cost of transportation from the Pensacola Naval Air Station to the malls during the weekend and on nights when normal bus service was unavailable. The malls decided to split all costs not covered by the farebox on a 50/50 basis. This premium service is provided at no cost to taxpayers and is open door. Implementation costs were minimal. (Pensacola, Florida)

7. The largest hospital in the region had a shortage of 400 parking spaces and reached an agreement with Community Transit (since renamed Rabbit Transit) to establish a park-and-ride service that not only provided direct service for hospital employees but also allowed the authority to restructure and improve its service in the area at no additional cost. The $140,000 received from the hospital covered all expenses related to service improvements and provided 8,000 new passengers per month. The hospital has also agreed to subsidize the cost of transit passes for its employees. (York, Pennsylvania)

**8. The Foxwoods Casino is partnering with the Connecticut Department of Transportation and its regional job access facilitators to help fund Job Access Reverse Commute express transit service for selected shifts for use by employees of the Casino. The casino is committed to contributing toward the cost of the service and has been an active partner in providing job opportunities. Other major employers in the area have also been engaged in the discussion of new transit service. (Hartford, Connecticut)

**9. The Connecticut Department of Transportation has developed agreements with two private companies that have agreed to pay for all subsidies associated with the provision of peak hour shuttle services that run between their facilities and commuter rail stations. The first service primarily benefits the employees of Westvaco (near Stamford, Connecticut), but the service is also available to the general public. Westvaco employees ride the service free of charge, while the general public pays a base fare of $1 or $22 a month for a combined bus and rail UniTicket. Westvaco is providing $70,000 per year to CDOT to pay the share of expenses not covered by farebox revenues. A similar service called the Westport Road Shuttle is funded at a level of $40,000 per year

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by Deloitte Touche in the Norwalk, Connecticut area. In both cases, the private companies sought out the Department of Transportation to begin the process of partnering for new transit service. (Hartford, Connecticut)

**10. SunLine Transit awarded a contract to Pickins Fuel to operate a mobile CNG fuel compressor that allowed the transit agency to sell CNG fuel to other entities with major fleets, such as the Postal Service and garbage haulers that operate in the Coachella Valley. The mobile CNG compressor travels to the fleet storage areas and fuels the mail delivery vehicles and garbage trucks each night. SunLine shares the profits realized with Pickins Fuel. (Thousand Palms, California)

**11. Fredericksburg Regional Transit offers a Partnership Program for public or private organizations to join. Public/Private organizations contributing $50,000 or more annually toward FRED operations are members at the "Platinum Level", those contributing $25,000 to $49,999 are members at the "Gold Level", and those contributing $7,500 to $24,999 are members at the "Silver Level". Members enjoy a variety of benefits, including welcome packets to new employees, schedules and schedule holders, advertising on the FRED bus, fare cards for free FRED rides, t-shirts and other giveaways, a position on FRED's Public Transit Advisory Board, employee surveys of transit needs, and one-time special transportation services requested by the partner. (Fredericksburg, Virginia)

**12. With the opening of the new Getty Museum in 1998, Santa Monica's Big Blue Bus saw the need to provide additional transit service to provide accessibility to this major trip generator. Due to site restrictions, parking at the museum is extremely limited with reservations required for visitors. In addition, due to the limited parking, encouraging public transportation for employees was a high priority for the museum. Big Blue Bus staff and Getty staff negotiated a contract where the Getty paid for additional service needed to extend an existing route to the museum, including longer hours on weekdays and weekends. The Big Blue Bus credits the Getty with fares collected from passengers boarding and alighting at the museum. Revenues for fiscal year 1998-1999 totaled $351,762. (Santa Monica, California)

**13. The City of Santa Monica is in the California coastal zone and development in the coastal zone requires approval from the California Coastal Commission. The Coastal Commission is concerned with traffic in the coastal zone and for many years the Coastal Commission has required that hotel developers contribute toward public transit

shuttle service. Hotel contributions toward public transit operated by the Big Blue Bus totaled $188,700 in Fiscal Year 2001. Funds were used to help operate three electric vehicles on the "TIDE" route, linking major hotels in Santa Monica with the Third Street Promenade, a major commercial area in downtown Santa Monica. (Santa Monica, California)

**14. Fredericksburg Regional Transit (FRED) partners with Greyhound, sharing an operations center where tickets for Greyhound and passes for FRED are sold. FRED acts as a sales agent for Greyhound, and earns 15% commission on all passes sold for the private carrier. This activity generates approximately $4,000 per month in extra revenue for the agency. (Fredericksburg, Virginia)

**15. The Rochester-Genesee Regional Transportation Authority initiated the creation of the Greater Rochester Community Transportation Foundation to assist the authority in providing transportation to community organizations that do not have the funding to move groups – usually children or senior citizens – to destinations such as museums, amusement parks, soccer camps, etc. A Board of Directors was established, made of representatives of community groups and private companies the authority works with to make plans for fund raising. Over $30,000 was raised at a golf tournament heavily sponsored by private companies in the community and other contributors. The Board of Directors determines how the dollars are spent on transportation services. The revenues from this source essentially pay for RGRTA's expenses for providing transportation services, thereby eliminating the need to find some other source within the authority's budget to pay for such expenses. Of course, the agency also enjoys improved public relations given the extra value they now provide the community. (Rochester, New York)

**16. Broward County Transit is an agency of Broward County Government and has benefited from negotiations with developers who want to build in certain locations that do not meet growth management "concurrency requirements", meaning that highway capacity is insufficient to accommodate the additional traffic that will be generated by the new development. Broward County has instituted a program to collect impact fees from developers that can be used for transit capital purposes such as bus bays, bus shelters, and new buses. However, the County has been prohibited from using impact fees for operating expenses due to restrictions of state legislative language governing such fees. The County has now established new procedures that allow negotiations

based on new "concurrency requirements". Since impact fees are not being exacted, there is no violation of state regulations dealing with impact fees. Developers have been willing to contribute as much as $75,000 annually toward the cost of shuttle services as a way of helping their developments meet concurrency requirements. (Pompano Beach, Florida)

**17. TARC's Trolley Hop, a seasonal service along Bardstown Road, Frankfort Avenue, and downtown Louisville, provides transportation for local residents, convention-goers, and out-of-town visitors to the unique shops, art galleries, restaurants, and museums found along Louisville's most eclectic corridors. The Trolley Hop, launched in 1997, received funding from the Louisville Gas & Electric Company and more than two dozen businesses/attractions along the route. It was designed to facilitate economic activity in a fun way that doesn't add to air pollution or increase traffic congestion. (Louisville, Kentucky)

**18. Charles Schwab & Company, Inc. will be transferring 2,500 employees from its San Francisco Western Regional Office to a new facility 45 miles east of San Francisco in the Livermore Amador Valley Transit Authority (Wheels) Service area. The new office is near a Bay Area Rapid Transit (BART) station, so Schwab and Wheels worked together to plan and implement a free shuttle for individuals traveling between the Pleasanton BART station and the Schwab office complex. Schwab provided two rehabilitated 40-foot coaches and pays for all operating costs. Wheels agreed to wrap the buses with Schwab advertising and to operate the free shuttle service between the BART station and Schwab's office for two years. (Livermore, California)

Public Sector Partners Supportive of New Transit Service

There are numerous public agencies such as cities, universities, development authorities, and public schools that have interests that can be best served by helping to fund transit service improvements that are targeted to their areas of interest. These partnerships also allow the transit agency to improve its services and image, while gaining more "friends" in the community.

1. PACE entered into an agreement with the Waukegan School District, which was closing one of two schools and would be experiencing much higher student transportation costs. The school district agreed to pay PACE $186.50 per student to allow students to ride fare-free from 6:00 a.m. to 8:00 p.m., with only minimal additional service being provided. Ridership increased by over 50 percent. All costs associated with additional service are covered 100 percent through the agreement. This has not been duplicated in other parts of the service area due to active resistance from private operators of school transportation services. (Arlington Heights, Illinois)

2. A new two-directional, 10 minute frequency shuttle provided by King County Metro was made available to all employees and residents between Microsoft campuses and park-and-ride lots. This new service was funded through an FTA demonstration grant, with contributions from the City of Redmond and the Overlake Transportation Management Association. Due to low ridership, it was canceled in February 1997, but served as an example of the services that can be provided through public partnership. (Redmond, Washington)

3. LYNX receives funding from a number of public partners to provide new services in its region. The University of Central Florida voluntarily contributes $50,000 (through student fees) for fixed routes and circulators that serve the university. The City of Orlando pays LYNX $52,560 annually for shuttle services provided from Downtown to the Centroplex. The Orange County Convention Center also pays LYNX $25,850 annually for shuttle services from the parking area to the door. The Downtown Development Board sponsors ($513,000 annually) the Freebie, a downtown circulator with 5-minute headways from 6:20 a.m. to 7:00 p.m. (Orlando, Florida)

4. Centro contracts with two universities to provide service in a manner that generates new revenues and riders. In one contract, they receive fixed revenue per vehicle hour that more than covers their costs, allowing them to provide fare-free service for everyone on exclusive campus routes. In another contract, Centro provides service that goes through areas of the city as well as the campus, and receives revenue from the university based on estimated boardings, while operating open-door service throughout. (Syracuse, New York)

5. The Capital District Transit Authority signed agreements with two universities to provide most of their transportation services. All additional costs were covered through the agreements which provide $200,000 in new revenues. The revenues are secured

through the charging of student fees by the universities, which allow students to ride for free. While the agreements are generally revenue neutral for CDTA, the opportunity to provide service to the universities allowed them to modify nearby routes to improve the overall quality of service in the area, and should ultimately result in increased ridership and revenue. (Albany, New York)

6. The Metropolitan Transit Development Board was able to garner 54 percent of the region's federal CMAQ funding for transit. A major part of the CMAQ funding is dedicated for construction of future Light Rail Transit (LRT) extensions. However, CMAQ has also been approved and used for operation of new bus and LRT services, which is allowed for up to three years of the new service. (San Diego, California)

7. All municipalities that have Madison Metro bus service contribute the net local share, including capital, of operating the applicable service. In addition, the Madison Metro School District pays for the routes that are added during the school year to accommodate the students, and the University of Wisconsin pays for the special campus routes. These contributions total $1.4 million annually. In addition, Dane County purchases group access service from Madison Metro, providing the agency with $118,000 in revenue annually. (Madison, Wisconsin)

8. Broward County Transit has reached agreements with seven different cities in the County that reduce costs by 90 percent while quadrupling ridership in areas of relatively low demand. BCT acquires small, accessible minibuses with its federal and state grants and leases those vehicles to the participating cities for one dollar a year per vehicle. In addition, BCT provides each city with $18,000 per year, per vehicle to help pay for operating costs. However, each city is responsible for operating and maintaining the vehicles with their own staff. BCT provides free training and technical assistance in scheduling, placing bus stops, and developing printed material, if requested. The service provided is far more flexible than that provided by BCT, and has much more local energy to help it succeed. These agreements have reduced BCT's costs of providing service from $180,000 per year to $18,000 per year per vehicle, and ridership has typically tripled or quadrupled due to the greater marketing effort made at the city level. This service also helps reduce BCT's cost of providing paratransit service, since the minibuses are accessible and able to provide route deviation service. (Pompano Beach, Florida)

9. The Sacramento Regional Transportation Commission participated in a fund swap negotiated by the Sacramento Area Council of Governments. The Sacramento Regional District (SRTD) provided $39.3 million in unusable state capital funds to the Metropolitan Transportation Commission, who in turn gave SRTD $32.7 million in highway funds. SRTD gave these highway funds to the city of Folsum for a new bridge. In turn, Folsum will pay SRTD $40.4 million over 12 years to pay for the operation of an extension of the light rail system. (Sacramento, California)

****10.** LakeTran reached an agreement with the Lakeland Community College whereby the transit agency purchased a cutaway minibus for $48,000 and provided it at no cost to the college in return for the college assuming all maintenance and operations costs to provide circulator service on its campus that ties into the LakeTran fixed route system. This essentially extends LakeTran's service to the front door of the college buildings and makes transit more accessible and convenient for those attending the college. The college keeps records of all passenger counts and mileage, which are used in formulas that help determine funding received by LakeTran. (Grand River, Ohio)

****11**. Pierce Transit has found a way to reduce the impact of paratransit services. A Special Use Van (SUV) is a 15-passenger van supplied to sheltered workshops to transport their developmentally disabled clients to and from work. Pierce Transit absorbs all cost of vehicle acquisition, maintenance, and insurance. In turn, the workshop is responsible for providing a qualified driver and scheduling daily pick-ups and drop-offs of clients. The SUV program is a creative option for reducing costs and improving service quality to people with disabilities. By shifting an average of 4,300 trips per month to SUVs, Pierce Transit's SHUTTLE program has been able to meet an increase in demand for service without having to deny trips, cut service, or increase the budget. The average cost per trip for SUV is $1.46, compared to the average cost of $23.49 per trip for SHUTTLE. (Tacoma, Washington)

****12**. Taltran entered into an agreement with the Leon County School System to allow students to ride Taltran buses at no cost to the students on a 24/7 basis. The school system paid Taltran $10,000 per month through this partnership. During the five months of this state grant-funded program, Taltran transported almost twice the number of students previously carried when they paid cash. The pre-paid revenue from the school system represented a 20% increase in revenues to the transit system, and the additional passengers help Taltran receive more dollars through the Florida Transit

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Block Grant program, which utilizes ridership in its formula when deciding how to distribute funds for transit throughout the state. (Tallahassee, Florida)

**13. The Connecticut Department of Transportation has successfully secured substantial Job Access and Reverse Commute Grants from the Federal Transit Administration without having to provide the local required matching funds from the state's transportation budget. All of the matching funds for an approximately $6.5 million dollar annual grant are being provided through the Connecticut Department of Social Services. These services have carried over 13,660 separate individuals on over two million passenger trips. A complete menu of 69 different sorts of services (e.g., fixed route, route deviation, other customized services) are used to provide the trips through this grant. (Hartford, Connecticut)

**14. The Santa Barbara Crosstown Shuttle uses four 22-foot quiet and clean battery-electric shuttles to bring residents from their homes to the downtown core. The project is a cooperative effort between the Metropolitan Transit District and the City of Santa Barbara. The City contributed $900,000 for the purchase of four Crosstown Shuttle vehicles and will contribute $375,000 annually for operating expenses. Funding to cover operating costs is provided from downtown parking fees. (Santa Barbara, California)

**15. The Contra Costa County Regional Medical Center operates a health clinic in Tri Delta Transit's service area in addition to a full service hospital in Martinez, approximately 13 miles outside Tri Delta Transit's service area. In the early 1990s, Contra Costa County contracted with a private operator to provide shuttle service between the two facilities. The county was not satisfied with the quality of service that was being provided so, in 1997, the county approached Tri Delta Transit with a request for the transit agency to assume responsibility for the operation of service. Tri Delta Transit staff developed a contract with the county that resulted in two new buses paid for by the county as well as an agreement that results in full recovery of the costs to operate the service. The service has been expanded to serve other Contra Costa County office locations as well as Amtrak, and will also be extended to the Veteran's Hospital. (Antioch, California)

**16. Votran in Volusia County, Florida has worked closely with the local Metropolitan Planning Organization to position itself to receive 20% of all Surface Transportation Funds received by the MPO for transit capital purposes for years into the future.

While debating whether or not the MPO should set aside a certain percentage of its STP funds for bike paths and sidewalks, champions for transit encouraged the MPO to set aside funds for transit capital purposes, and they did! The five-year Transportation Improvement Plan calls for this allocation to be made each year. This results in approximately $800,000 in federal funds being set aside annually for transit capital purchases. In addition, the State of Florida Department of Transportation provides the match for these federal dollars as they would if the STP funds had been programmed for highway improvements, and places them in the statewide Transit Block Grant for Volusia County. These transit block grant funds can be used for either capital or operating expenses, and Votran has elected to use the $200,00 annual state match for the transit set aside STP funds for operating purposes. (Daytona Beach, Florida)

**17. The New York State Department of Transportation and the Connecticut DOT are cooperating with each other to pay the costs associated with shuttle services that take passengers from western Connecticut to eastern New York to connect with the Harlem Line of Metro North Railroad. One route is totally funded by New York State at a level of $310,000 annually, while CDOT contributes $250,000 per year for the other route. Both routes operate predominately during peak hours for the benefit of commuters. Although most of the passengers are residents of Connecticut riding in the peak direction, New York's DOT sees the benefits of additional passengers and revenues on the Metro North commuter rail service, as well as reduced congestion on its parallel highways. The Connecticut DOT sees the benefits of providing better access to regional transit services for its residents. (Albany, New York and Hartford, Connecticut)

Public or Private Entities Assisting with New Transit Facilities or Equipment

New partners such as cities, air quality boards, or private businesses have shown their willingness to partner with transit agencies to pay for all or substantial portions of the costs of new transit facilities or equipment ranging from alternative fueled buses to major transfer stations.

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1. At Napa Valley Transit, all buses are equipped with signal pre-emption that is triggered automatically when buses are more than five minutes late. The Opticom signal works off of a global positioning system (GPS) that also does real time vehicle tracking. Napa Valley Transit was chosen by the 3M Company as a demonstration site for the development of this integrated system. Consequently, the transit agency paid $130,000 for only the signal pre-emption upgrade portion of the system. (Napa, California)

2. Since 1991, the Sacramento Regional Transit District has benefited from the Intermodal Surface Transportation Efficiency Act (ISTEA) flexibility by receiving $18.8 million in CMAQ and $4.6 million in Surface Transportation Program (STP) funds for multiple projects including new alternative fueling facilities, bicycle lockers, 20 CNG buses, ADA improvements, light rail line extensions, double tracking, and environmental remediation. (Sacramento, California)

3. Pierce Transit encouraged partnering on capital projects with other jurisdictions using state dollars to leverage federal dollars resulting in new capital revenue. The agency then allocated the saved local revenue dollars to service improvements. (Tacoma, Washington)

4. Metra has partnered with private businesses to make existing parking available to Metra commuters on a shared basis. Businesses and organizations size their parking facilities to meet their own peak parking demand period. When this time period is different than when rail commuters require parking, an opportunity to jointly use the facility is possible. This scenario increases parking capacity available to commuters and at the same time provides revenue in the form of parking fees to the lot owner. This program has led to making 2,527 more parking spaces available, which would have cost Metra over $10 million ($4,000 per space). (Chicago, Illinois)

5. A partnership venture between MARTA, the State of Georgia, and Atlanta Gas Light Company (AGLC) has substantially reduced the cost to MARTA to implement and operate a new CNG fleet of 118 buses. AGLC provided $3 million for construction of a CNG fueling facility and $2.9 million toward the expense of the buses (covering the difference between the cost of diesel buses and CNG buses). It also agreed to provide heavy maintenance for the fueling facility for 20 years and guaranteed a set price for fuel for five years. The State of Georgia also provided $5.8 million for the procure-

ment of the buses, and the U.S. Department of Energy provided $500,000 as well. (Atlanta, Georgia)

6. Centro partnered with Niagra Mohawk Utilities for the installation of a CNG fueling facility. State and federal grants paid for 90 percent of the fueling facility, with Niagara Mohawk paying the 10 percent local share of $350,000. In addition, the utility company paid the local share difference between the cost of 20 conventional diesel fuel buses and a similar number of CNG buses ($500,000). In exchange, Centro will purchase fuel from Niagara Mohawk. (Syracuse, New York)

7. The City of Schenectady agreed to serve as a supplementary sponsor along with the Capital District Transit Authority for a new downtown boarding center, providing $50,000 of the $225,000 local match. (Schenectady, New York)

8. WMATA has entered into an agreement with a private developer (RF&P), whereby the developer will design and build a new Metrorail station as part of a new 342-acre development (Potomac Yard Project). This 16,000,000-square foot, mixed-use development was approved by the City of Alexandria on the condition RF&P builds and designs the Metrorail station at no capital cost to WMATA whatsoever. The cost to design and build the station is anticipated to exceed $25 million. The developer is responsible for all costs associated with the project that will be deeded over to WMATA, which will operate and maintain the station. It is anticipated that the new station and development will generate sufficient riders (estimated at 14,600 per day) to more than offset the cost of operation. (This is no different than having a small development pay for and install a bus stop at a subdivision). The project will provide for a bus loading/unloading facility as well as a kiss-and-ride facility. (Washington, D.C.)

9. The Metropolitan Transit Development Board is partnering with the local redevelopment agency to use some transit capital funding, along with local capital improvement and redevelopment monies, to complete a ten-block street improvement project. Included will be a rehabilitation and improvement of two light rail transit stations, along with a major corridor change to create supportive transit uses in and around the corridor. The MTDB has also partnered with cities to use a combination of federal and local funds to build sidewalks that include improved bus stops designed to be consistent with ADA requirements. (San Diego, California)

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10. Large and small examples of joint development in San Diego all result in increasing transit ridership which increases revenue (in addition to whatever lease revenues might be made). Examples range from a LRT station where a child-care facility was developed along with residential uses on the site, to stations where multi-story office uses are part of the station. (San Diego, California)

11. In San Diego, the local match for new CNG buses was provided through Air Pollution Control District vehicle registration fee revenues, and the local utility took financial responsibility for building the required fueling stations. (San Diego, California)

12. Suntran partnered with the city of Albuquerque and a new developer to expand its ridership and park-and-ride facilities. As part of the local development review process, a new mall was required to purchase 100 monthly bus passes each month for five years, and provided $85,000 for a park-and-ride facility in the general vicinity. In addition, the mall would need to make available 600 parking spaces for park-and-ride purposes for major community events such as the annual balloon fiesta. (Albuquerque, New Mexico)

13. Community Transit received funds from the State Environmental Protection Agency (EPA) to pay for the difference of the cost of diesel and CNG buses (saving $180,000) and for the majority of the cost of the fueling station (saving $160,000). That facility is also used to serve other agencies, and the agency will charge an administrative fee at a few cents per gallon of fuel. (York, Pennsylvania)

14. Two major joint developments have occurred at two Metrorail stations in Miami, with a third major development nearing reality at a Metromover station. The joint development at the Dadeland South Metrorail station includes two class "A" office buildings totaling over 410,000 square feet, with 40,000 square feet of retail and a 305-room luxury Marriott hotel, and is expected to generate over $900,000 annually in lease payments to MDTA. The joint development at the Dadeland North station includes 320,000 square feet of multi-story retail space, and anticipates the construction of a hotel and office building. Depending on the completion of the phases, the estimated annual rent at buildout will range from $400,000 to $1,468,000. MDTA is currently entertaining two proposals for joint development at one of its downtown Miami Metromover stations. The proposals are for mixed-use residential, retail, entertainment, and hotel development that is expected to generate rent from between $150,000 to $350,000 per year. All of these developments generate additional ridership that also

generates additional operating revenue for MDTA. For instance, the additional ridership expected to be generated by the Dadeland North project is 200,000 passengers per year. (Miami, Florida)

15. Metro-Dade Transit reached an agreement with Mount Sinai Hospital to build a joint-use, multi-modal transit facility on the hospital grounds. The facility will house a transit terminal, a joint-use parking garage, and a rehabilitation center for the hospital. The transit elements of this project will be financed through a grant from the FTA ($3 million). The hospital donation of the land serves as the local match for the project, saving $300,000 in local match dollars. (Miami, Florida)

16. Another example of MDTA's partnerships is with the Omni Mall, which paid for the design and construction of an aerial skybridge connecting the Omni Metromover station to the Omni Mall. The Mall also pays 23 percent (around $50,000 annually) of the maintenance and security expenses for the Omni Metromover Station. (Miami, Florida)

17. All of the buses at Napa Valley Transit have bike racks made possible by grants obtained from the local Air Quality Management District. The District also paid for the installation of bike lockers in twelve locations throughout the county. (Napa, California)

****18.** The Port Authority of Allegheny County developed a joint use arrangement for a park and ride lot immediately adjacent to the West Busway, resulting in capital cost savings of $250,000 and annual maintenance cost savings of $5,000 throughout the life of the busway. (Pittsburgh, Pennsylvania)

****19.** The Santa Clara Valley Transportation Authority partnered with the Jay Paul Company to build its new Moffett Park Light Rail Station in Sunnyvale, California. The Jay Paul Company provided the $5.7 million construction cost for the station as part of its Ariba Plaza Project. (San Jose, California)

THEME II
Partnerships

Key Lessons Learned in Theme II – Partnerships

1. *Seek and ye shall find*–Entities such as hospitals, malls, universities, employers, tourist attractions, etc, have typically initiated partnerships with transit agencies. Transit agencies might well create considerably more partnerships that can result in new and more effectively-structured service. Hence, transit systems should promote their interest in partnering and stay in touch with the needs of the broader community.

2. *You're part of the family now*–Partnerships help expand a transit agency's image from being just a transportation option to that of an integral community asset. Good transit service can enhance an area's tourist economy, provide critical access to jobs to assist in welfare reform, help employers gain wider access to an area's work force, help shopping centers succeed, contribute to pedestrian friendly environments, provide savings to users who can then afford better housing, get students to school, decrease the need for parking, help achieve clean air goals, etc. Transit is all about linkages, not just for getting people from point A to point B, but linking public transit with community goals. Those linkages should be positively exploited.

3. *Leverage the limited funds*–The non-traditional sources of financial support from other public and private entities might not only pay for new service, but also allow the transit agency to restructure existing service to help gain additional riders and revenue. If local share for capital projects can be obtained from other public or private partners, the transit agency can use their own limited resources for other capital or operating needs.

4. *Feed the energy*–The more local a service is, the more attention the sponsoring agency is likely to give it. There is simply more energy per unit of service helping the service to succeed. Local sponsors are subject to more scrutiny, and they are on the hook for their own investment. Hence, it is often wise to decentralize and customize transit services with the help of local sponsors.

5. *Stay close to your friends*–Transit agencies are very likely to benefit from funding agencies with complimentary community improvement goals, such as Air Quality Districts, state EPAs, Downtown Development Authorities, Councils of Governments, and MPOs. Transit agencies need to attend those meetings and know what their interest are, then make every effort to let them know transit is a willing partner in improving the quality of life in their area.

6. *Don't be bureaucratic drag*–If joint development at transit centers is an objective the transit agency should be colorful in its marketing for partners. Don't advertise for

developers in typical governmental language that emphasize process and constraints. Talk about exciting opportunities, be extremely responsive to expressions of interest, and be flexible in negotiations.

7. *They really, really like me*–Not everyone regards transit as just an expensive public service that too few people use. Some employers see offering transit benefits as a competitive advantage to securing the best employees. Universities want to minimize costs associated with parking facilities and give students inexpensive mobility options. Some businesses welcome the foot traffic generated by transit passengers. Coming to their store to purchase transit passes. Different media want to share transit information with the listening, reading, or viewing public to make their shows or papers more appealing to the broadest audience possible. Medicaid agencies want the least expensive transportation options for their clients. Some malls want commuters to use their facilities as park-and-ride lots to encourage shopping at their stores.

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Cooperation

This theme includes additional examples of transit systems working with other public or private entities, or their own workforce. It differs from the "Partnership" theme in the sense that the transit system is already engaging in the activity in question. No entirely new service or facility is being created. However, by cooperating with other agencies, or groups, transit systems can either reduce their costs or gain greater benefits, while once again enhancing their image and increasing their chances for support from the external environment. Examples of cooperation are explained in greater detail below.

"Where we cannot invent, we may at least improve."
—Charles Caleb Colton

Joint Purchasing

Transit agencies are procuring goods or services through pre-established state contracts, forming consortiums among multiple agencies to purchase items of common interest, "piggybacking" on other contracts, and participating in regional efforts to maximize marketing budgets.

1. Ben Franklin Transit uses state contracts to obtain vehicles, other equipment, and office supplies. This saves up to $7,000 on a 15-passenger vanpool van, and $2,000 to $3,000 on a 7-passenger vehicle. This process saves time as well as money since the full bid process is not necessary. BFT also gets reductions of 25-40 percent off wholesale and 50-60 percent off retail for batteries, electrical equipment such as lights, tires, ribbons for computers, etc., by purchasing through state contracts. (Richland, Washington)

2. The Miami Valley Regional Transit Authority led efforts to organize a Self Insurance Pool for mid-sized and smaller transit authorities in Ohio (Ohio Transit Insurance Pool formed December 31, 1994). This effort was prompted by the inability to obtain

reasonably priced transit liability coverage. The Authority worked with legal counsel and the director of a municipal pool with 14 city members to establish the pool. This has saved $100,000 annually while providing much broader coverage. RTA's previous transit liability coverage was $10 million in excess of a $2 million deductible. The current coverage is $10 million in excess of a $250,000 pool deductible and in excess of $1,000 individual property deductible. In the last ten years, the Authority has had two claims exceed $1 million in settlement, but less than the previous $2 million self-retention. (Dayton, Ohio)

3. The Regional Transit Commission utilizes another local entity (Washoe County) to jointly purchase fuel. Taking advantage of the county's bid sheets provides an estimated annual savings of $10,000. (Reno, Nevada)

4. Chula Vista provides service in the greater San Diego area under the umbrella of the Metropolitan Transit Development Board. While Chula Vista (and a number of other local providers) is responsible for route scheduling and operations, information for all transit services in the metropolitan area is provided regionally. This allows each operating agency to focus on operations and spreads the cost of marketing over the entire region, allowing certain items (such as transfers, schedules, etc.) to be purchased at a reduced bulk price. (Chula Vista, California)

5. The Transit Authority of Northern Kentucky worked with the Southwest Ohio Regional Transit Authority (Cincinnati) to purchase fuel and fareboxes. This increase in purchasing power decreased their total capital costs by $4,000 and operating cost by $46,000. (Fort Wright, Kentucky)

6. In the procurement of paratransit vehicles, SunLine Transit "piggy backed" on a larger agency's bid packages with minimal cost to SunLine and a savings of $5,000 per purchase. (Thousand Palms, California)

7. Twenty-two public agencies in the state of Pennsylvania formed a Drug and Alcohol Testing Consortium to allow a joint purchase of testing services. While out-of-pocket costs are slightly less per test, the most significant benefit is that all administration of testing procedures is handled by the vendor. The consortium keeps all records on safety-sensitive employees, works with the Medical Review Officer (MRO), makes the random selection, completes reports to the FTA, etc. (York County Transportation Authority, Pennsylvania)

**8. The Port Authority of Allegheny County (PAT) formed a "Buyers Group" and participated in a joint procurement with Allegheny County, the Community College of Allegheny County, Allegheny County Housing Authority, the Housing Authority of the County of Beaver and five municipalities for purchase of electricity. This procurement was estimated to save PAT approximately $250,000 in the first six months. (Pittsburgh, Pennsylvania)

**9. Pierce Transit joined the Washington State Transit Insurance Pool (WSTIP) as an Associate member to take advantage of favorable liability insurance rates. In 2001, prior to joining WSTIP, the agency's excess liability insurance premium increased almost 76% due to the tightening of the insurance market. By joining WSTIP the increase was reduced by approximately 40%. In addition, Pierce Transit can now participate in, and have access to, a professional risk management claims database. This is a significant improvement over the previous database as it provides accurate reserve reports to the Accounting Department, and can generate trend analysis, and other claims management reports. (Tacoma, Washington)

**10. PAT successfully negotiated with Highmark to reduce the cost of prescription drugs through participation in the Three Rivers Labor Management Coalition, which has resulted in an annual savings of approximately $300,000. (Pittsburgh, Pennsylvania)

**11. The California Transit Insurance Pool (CalTIP) is a pooled insurance program with 31 participating transit agencies that offer its members guaranteed availability of coverage, regardless of the market conditions, and immediate and long-term savings in liability insurance premiums and optional physical damage coverage. At the end of the fiscal 2000 program year, CalTIP's liability program had retained earnings in excess of $1.8 million, and had returned a combined total of $1.24 million in funds to members through the retrospective return process. (California Transit Association)

Public or Private Entities That Support Existing Transit Service

Both public and private entities can take a variety of actions that help promote the utilization of existing transit service. These actions can make transit a more attractive alternative, resulting in increased ridership and revenue, and sometimes reducing a transit agency's costs.

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1. Milwaukee County Transit developed partnerships with the University of Wisconsin-Milwaukee and Marquette University whereby the universities pay $29 per student per semester to MCTS and all students who wish to use transit service ride free. The program is called UPASS. The revenue impact is minimal, though receiving the revenue up-front from the universities is helpful, and use of the system by more students is expected to generate additional regular fare trips. In essence, MCTS found a way to increase ridership, ease parking and congestion in and around the universities, increase mobility for students, and develop stronger community relations without additional public funding. (Milwaukee, Wisconsin)

2. Santa Clarita Transit partners with 16 local businesses to display transit system timetables and sell monthly passes. Instead of receiving commissions, the businesses benefit from increased traffic. The businesses also gain greater visibility by being a pass sales outlet since their names are included in any printed material produced by the system advising people where they can buy passes. (Santa Clarita, California)

3. A ridership partnership between the Port Authority of Allegheny County (PAT) and the University of Pittsburgh began as a pilot project during FY 1996. PAT created a special fare zone, the U-Zone, in which the University of Pittsburgh faculty, staff, and students could ride for free by showing their university I.D. There was no significant operational impact, as existing bus service was revised and only staff time was involved. PAT received $4,000 per week from the University initially. The rates have been renegotiated in a four-year agreement that calls for the University to pay PAT on a per-rider basis, with graduated payments each year. PAT now receives $33,000 per month and expects to double this revenue over the next four years. The project has generated 1.2 million rides on an annual basis. (Pittsburgh, Pennsylvania)

4. The Livermore/Amador Valley Transit Authority has an agreement with the Hacienda Business Park whereby employees of the business park are issued flash passes that allow them to ride the buses at no cost. The business park pays a flat amount per month to the agency based on deep discount rates that provide a 40-ride punch pass for only $24. (Livermore, California)

5. The Metropolitan Transit Development Board's "Adopt a bus stop" program reduces maintenance costs where adjacent businesses or residences "sign up" to maintain the bus stop in front of their building. (San Diego, California)

6. Madison Metro has arrangements with the University of Wisconsin and Edgewood College to provide semester passes to students. The schools will reimburse Metro for the estimated lost revenue. The benefits to Metro will be increased ridership and the potential for future customers and revenue. (Madison, Wisconsin)

7. As part of a broader effort to stay in touch with the concerns of passengers and neighborhoods, San Francisco Municipal Railway (MUNI) sent a query letter to community papers to see if they would like a regular MUNI column in their newspapers. Five papers indicated they would, providing MUNI with an inexpensive method of communicating its services to the public. (San Francisco, California)

8. King County Metro has entered an agreement with Microsoft (a very high profile employer) to encourage high occupancy vehicle use while generating revenues for Metro in new ways. The FlexPass partnership provides a comprehensive single pass approach for commuters using a variety of non-drive-alone travel modes. Microsoft is currently distributing FlexPasses (a sticker applied to the back of employee badges) to over 16,000 regular and contract employees at eight work sites in the King County area. With their FlexPass, employees have free access to all regular bus service, vanpools, and the Home Free Guarantee program. In similar programs, transit ridership has typically increased by about 140 percent during the first year of FlexPass use. The Metro/Microsoft partnership includes the following provisions:

   The FlexPass is a deeply discounted pass providing unlimited access to bus service. A pass is provided to all employees, though transit costs are based on actual use only. Costs to the company of increased transit use in following years are discounted, until full costs of actual transit use are borne in the fourth year.

   New trips have been added (11 trips on four existing routes) tailored to employee schedules, for which the company is providing 80 percent funding. A discounted vanpool program is provided which covers all costs of new riders (up to a 10 times increase in riders) during the first year, then requires Microsoft to fully subsidize these costs on a phased basis over a four-year period. (Seattle, Washington)

9. Centro has promoted the concept that companies that pay for employees' parking should also be willing to buy monthly passes for employees who use bus service. Twenty-eight employers are now subsidizing pass purchases for their employees. (Syracuse, New York)

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10. Napa Valley routinely involves the private sector in sponsorship of events. Some examples are Earth Day promotions (local recycling center), special service for the Fair (service clubs sponsor free trips), Youth Pass (local businesses pay printing costs in exchange for advertising), Rideshare Week (giveaways for raffles), bus christening party (all of the food, flowers, table decorations, and entertainment for the event is donated), and the annual Tour brochure where advertising on the brochure pays for the printing costs. (Napa, California)

11. Regional Transit Service entered into a partnership with Rite Aid, a drugstore chain, to market the agency's tickets and passes. RTS had been losing sales outlets, due to bank mergers and lack of interest. The agreement with Rite Aid costs the agency nothing. Rite Aid has sold nearly $2 million in tickets and passes for RTS over a three-year period. (Rochester, New York)

****12.** About two-thirds of Tri-Met's 851 bus stops are being cared for by community groups through the SOLV/Tri-Met partnership program "Adopt-a-Stop". From March 1999 to March 2000, only 19 complaints were submitted about bus stop cleanliness, compared to well over 100 the year prior to the establishment of the program. Tri-Met has determined that this voluntary program has resulted in services that would ordinarily cost $657,973. (Portland, Oregon)

****13.** The Bi-State Development Agency developed an idea that was shared and accepted by St. Louis County and City, then proposed to and accepted by the East-West Gateway Council of Governments to use $8 million of uncommitted federal Surface Transportation Program funds to Bi-State for the purposes of subsidizing their budget deficit in FY 2000. (St. Louis, Missouri)

****14.** In cooperation with Southern California Edison, SunLine Transit found a way to illuminate their bus shelters and bus stops with batteries powered by solar energy. This solar energy provides inexpensive light that increases rider security, lets advertisers' messages be seen all night, and saved approximately $10 per month per location in utility costs. (Thousand Palms, California)

****15.** Georgia state legislation has stated that no more than 50 percent of the revenues MARTA receives from a one-cent general sales tax may be used for operating purposes. Supporters of MARTA were successful in persuading the state legislature to change language in the current legislation to allow up to 55 percent of the revenues to be used for operat-

ing purposes. This provision will only apply for five years, since MARTA's Board still wants the staff to carefully manage the operating budget. However, the change in state legislation will provide MARTA with an additional $15 million dollars of operating funds on an annual basis. (Atlanta, Georgia)

Sharing/Trading of Services, Facilities, or Funds

Transit systems are finding ways to minimize expenses by sharing facilities, trading items of value, and utilizing other public agencies' expertise at virtually no cost. They are also sharing expenses of common service, and in some cases finding ways to fund their operating expenses by trading capital dollars for operating dollars.

1. Tri-Delta Transit and Central Contra Costa Transit Authority split the total cost of operating a fixed-route service from one service area to the other. CCCTA provides the bus and half the operating cost and Tri-Delta provides the other half of the operating costs for the service. This allows both agencies to split the cost of service, while helping their customers and demonstrating the spirit of coordination that taxpayers expect. (Antioch, California)

2. Being a part of county government, SCAT takes advantage of numerous administrative support services at minimal cost to the transit program, such as Personnel, Payroll, Risk Management, Accounting, Self-Insurance, etc. (Sarasota, Florida)

3. The Regional Transportation Commission utilizes Washoe County's Treasurer's Office to invest RTC funds. This saves the agency $50,000 annually, and provides opportunities for higher earnings rates since funds are part of a larger investment pool. (Reno, Nevada)

4. Fairfield/Suisun Transit has developed partnerships with 14 different parties whereby they purchase service from others or others purchase service from them, allowing operational costs to stay the same over time. For example, a neighboring city was operating a single fixed-route service. Fairfield/Suisun assumed management of the single route through an agreement with the neighboring city, thereby adding more service hours without additional costs. (Fairfield, California)

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5. MTDB exchanged federal capital funds to another operator in California for "flexible" monies. The downside of this transaction is that MTDB received only 80 cents on their dollar in the swap of capital money for operating money, but it did provide them with sufficient operating funds to maintain service in spite of a tight operating budget situation. (San Diego, California)

6. Volusia County Transit (VOTRAN) implemented new service in an area of the County (DeLand/Deltona) that had no operations facility, resulting in 284 deadhead miles per day (at a cost of $14,000 per month). VOTRAN reached an agreement with the Volusia County School Board to allow VOTRAN to utilize a new Deltona facility to house, fuel, and clean their transit buses. The daily deadhead miles were reduced to 120, resulting in a savings of $8,100 per month, or $97,200 per year. No rent is paid by VOTRAN, though they realize they are guests and make improvements to the facility where they can. There was a consensus between the County Commission and the School Board that the public wanted to see different public agencies share resources for the common good. This in turn has resulted in a better relationship between VOTRAN and the School Board, manifested by route adjustments to pick up students in areas where there is no school bus service and greater coordination in emergency evacuation service planning. (Daytona Beach, Florida)

7. VOTRAN terminated a contract with a private marketing consultant firm in favor of working with the Volusia County Public Information Office at a savings of $12,000 annually. That office does not charge VOTRAN for the marketing services it provides, and the transit system can be included in ads that are produced for other County departments such as the Beach Department, the Ocean Center, and the Airport. This arrangement has elevated VOTRAN's status to be considered as one of the primary public services that contribute to economic development and tourism in the County. (Daytona Beach, Florida)

8. MUNI arranged for refresher customer service training for its Telephone Information Personnel by an outside customer relations professional known for his expertise and attention to detail. It was arranged by the trading of bus ad space to publicize CalTrain in exchange for the special training services that Caltrain had under contract. (San Francisco, California)

**9. The Bi-State Development Agency borrowed from the state infrastructure bank and applied these funds as local match for bus purchases being made in FY 2001. This freed

up County and City local sales tax funds that normally match federal capital funds that were then used for operating costs. (St. Louis, Missouri)

**10. SKAT reached an agreement with the Upper Skagit Indian Tribe, giving SKAT access to two minibuses the tribe had purchased with a state grant. SKAT operates day-care and field trips for the tribe in exchange for using the buses the rest of the day and on weekends for the general public. Maintenance cost and insurance are covered by SKAT, but the agreement allowed them to acquire two new vehicles with no capital cost. (Skagit, Washington)

**11. Working with the Missouri Public Transit Association and other transportation modes, the Bi-State Development Agency convinced Missouri lawmakers to provide temporary assistance following the complete loss of federal operating funds. This resulted in passage of a bill in the legislature to provide state transportation agencies the amount of federal funds they lost in FY 1997, resulting in $3.9 million in operating assistance to Bi-State. This amount has been approved for Bi-State each year since 1997, on an annual appropriation basis. (St. Louis, Missouri)

**12. Transit agencies in the state of Illinois can take advantage of "The Illinois Funds" established by the Illinois General Assembly to provide an investment alternative for public treasurers across the state to earn a competitive rate of return on fully guaranteed investments, while maintaining access to invested funds. While rates of return are not high at the moment, transit agencies can still realize some return on their dollars while having the same liquidity offered by a personal checking account. (Springfield, Illinois)

**13. PAT entered into an agreement with PENNDOT whereby the state will pay 80 percent of the cost of inspecting Port Authority's highway bridges. This will result in savings to the Authority of approximately $15,600 annually. (Pittsburgh, Pennsylvania)

**14. The Arkansas State Highway and Transportation Department established a revolving loan fund to purchase small, lift-equipped vehicles that would then be leased out. Funds came from the FTA, FHWA vanpool capital, and a state match. The RLF allowed volume buying resulting in a cost reduction between $2,000 and $5,000 per vehicles. Also, transit providers that receive HHS funds may apply them towards this

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type of program. While HHS funds cannot be used to purchase a vehicle, leasing is considered an operating expense and is therefore permitted. (Little Rock, Arkansas)

**15. Tri-Met worked with the Beaverton School District, the regional Parks District, and the Unified Sewage Agency to arrange joint agreements on how to utilize an existing bus operations and maintenance facility to everyone's benefit. Through shared costs of roads and utilities, gaining grants through their regional partners, using a single contractor to minimize impacts and save construction costs, and sharing certain facilities, Tri-Met expects to realize a $4-5 million dollar benefit over a 20 year bonding period. (Portland, Oregon)

Providing Experience, Employment, or Service Opportunities for Other Agencies

Volunteerism and apprenticeships are not entirely dead. A number of transit systems are realizing genuine benefits from utilizing summer youth employees, college interns, and volunteers who provide valuable services ranging from data entry, graffiti removal, research, schedule distribution, etc., at very low cost. Similarly, other transit agencies are benefiting from low cost labor provided through sheriffs' work incarceration programs or other community service programs.

1. Napa Valley Transit has a travel training/orientation program staffed by ten trained user-volunteers who work one-on-one with new riders. The "Transit Ambassadors" also assist by staffing booths at events, doing graffiti abatement at the downtown terminal, and helping out in the office by stuffing mailers, daily data entry, etc. This program was originally developed using a $25,000 grant, and is now self-supporting from money raised through a "Catch the Bus" game the agency has at fairs and events. (Napa, California)

2. High school students do real work (graffiti removal, backlogged data entry, other limited term projects) for Milwaukee County Transit through a Summer Youth Employment Program. This allows MCT to get needed work done without hiring additional regular employees or paying excessive overtime. The cost of the program is $63,000, but the value of the work is $161,000, resulting in annual savings of $98,000. The program focuses on minorities and other disadvantaged youths, providing them with real work experience. MCT also assists the students with resume preparation,

interviewing, and other job search techniques. The program has the full cooperation and participation of the transit union. (Milwaukee, Wisconsin)

3. PENTRAN participated in several internship programs in conjunction with the Department of Social Services, local colleges, technical training schools, and high school job training programs. Through these programs, interns are able to gain valuable work experience while providing much needed clerical support at no cost to PENTRAN. In addition, several internships have resulted in permanent employment, which curbs recruitment costs. (Hampton, Virginia)

4. The Sheriff's Work Program uses incarcerated individuals and the Sacramento Vocational Services Program uses developmentally disabled individuals to provide the Sacramento Regional Transit District with station cleaning and right-of-way landscape maintenance services. In lieu of retaining staff or hiring contractors, the District saves $180,000 per year. (Sacramento, California)

5. Suntran utilizes interns from the University of New Mexico who are paid partially by the university and partially by Suntran. The interns have helped in many areas, including delivering schedule books, producing artwork and writing brochures for the marketing office, and providing some planning assistance. Engineering students have helped research route deviation possibilities for future service. (Albuquerque, New Mexico)

6. SunLine Transit uses a disabled intern to staff the paratransit reservation desk, which costs the agency nothing and results in savings of close to $18,000 per year. (Thousand Palms, California)

7. The Metro-Dade Transit Agency has an agreement with Goodwill Industries for obtaining interior cleaning services for all their buses. The Goodwill participants are human service recipients who are working on transitioning into regular work. They work in supervised teams of six, ensuring that MDTA's bus interiors are thoroughly cleaned once every eight days. While these participants earn wages, there are no benefits paid, resulting in costs that are 40 percent lower than MDTA personnel. (Miami, Florida)

**8. Skagit Transit (SKAT) and the Skagit County jail created a program to have jail inmates wash buses, saving SKAT $96,000 a year in costs from hiring washers. (Skagit, Washington)

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Coordination of Transit and Paratransit Services

Serving as a coordinator for paratransit services has allowed some systems to realize savings. They are in a better position to mainstream paratransit passengers to less expensive fixed-route options, coordinate various paratransit providers to encourage multi-loading, and reduce capital expenses by maximizing the use of paratransit vehicles through coordinated use of vehicles among agencies.

1. Centro now serves as the broker for all trips provided through Medicaid funding (there is $300 million spent annually on Medicaid transportation in the state of New York). Calls for such service in the Syracuse area now come to Centro as broker, and they direct all the trips they can to the bus service (rather than paratransit). In addition, a group called Peace Incorporated now works at the Centro facilities as a separate workforce, but side-by-side with Centro workers. The drivers of Peace Incorporated work under subcontract to Centro at a lower price than Centro employees. In addition, many trips in the future will be the responsibility of HMOs, who Centro is working with now to get into a position to receive a fee for all trips that will be funded through the HMOs. (Syracuse, New York)

2. MediCal provides health services to Medicaid recipients in California. MediCal pays Fairfield/Suisun Transit to make sure their patients are at appointments on time. Fairfield/Suisun has incorporated this new ridership into their paratransit service, increasing the passenger load to 3.2 per hour. All trips are recorded and MediCal is billed a fee for each trip provided. There are no additional costs. (Fairfield, California)

3. As the Consolidated Transportation Service Agency, SunLine coordinates all transportation services provided by social service agencies in the area. They utilize vehicles owned by private non-profit agencies when those agencies don't need the equipment for their own programs. This has resulted in a capital savings of $220,000 over the past five years. SunLine also "sells" maintenance service to non-profit agencies to generate up to $7,500 annually, helping to offset the cost of one of the mechanics. They also rent unused space to community agencies producing revenue of $10,000 per year. (Thousand Palms, California)

4. Pierce Transit identified a group of people who qualified for paratransit under a state program but were being transported through its own program. Through coordina-

tion with the state broker, those passengers were transferred to the state service provider, saving $376,000. (Tacoma, Washington)

5. The Metropolitan Bus Authority invoices other agencies for paratransit services MBA provides in areas providing fixed-route service since all agencies receiving federal funds for transportation must have complementary paratransit service. They receive $511,267 annually, or 1.5 percent of their operating budget, from this source. (San Juan, Puerto Rico)

****6.** The Metropolitan Tulsa Transit Authority serves as the broker for all Medicaid transportation provided through the entire state of Oklahoma, on behalf of the Department of Health Care. An "800" number has been established that allows anyone in the state of Oklahoma to call Tulsa Transit's Call Center. Personnel at the Call Center then determine which of the 20 providers throughout the state will serve the caller. Approximately 300,000 trips per year are brokered in this fashion. The state allows Tulsa Transit to fully charge for all expenses associated with brokering such trips, including the cost of two statewide field inspectors, plus a five percent "profit" which generates approximately $400,000 per year in extra revenue that is used to help pay for Tulsa Transit's fixed route and paratransit services. The same call center also takes care of all local paratransit needs in the Tulsa area, and this cross-fertilization of functions allows the human resources in the Call Center to be shifted as needed between statewide demands and local demands. (Tulsa, Oklahoma)

"Leadership has a harder job to do than just choose sides. It must bring sides together."
—Jesse Jackson

Cooperative Agreements with Transit Labor Unions

Cooperation is just as important within a transit agency as it is with the external environment. Almost 70 percent of the cost of operating most transit systems is attributable to labor, the vast majority of which is for employees in collective bargaining units. A number of transit systems have successfully negotiated with their bargaining units to reduce costs through greater use of part-timers, extended wage progressions, two-tiered wages (particularly for smaller vehicle operators), one-time bonuses versus base wage increases, changing to managed health care, and early retirements.

1. Wichita Falls Transit has formed a pool of part-time drivers to fill in when needed (vacations, charters, sickness, etc.). They are part-time in the fullest sense, receiving no benefits. This reduces overtime, benefits, and operating costs, and gives the agency a

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chance to evaluate a person before he or she is selected for full-time employment. (Wichita Falls, Texas)

2. The Central Ohio Transit Authority now offers all employees a managed health care program. In the past, all employees could go to any doctor at any health care facility and be insured. Under the managed health care program, rates that participating doctors and other medical providers can charge will be negotiated by the managed health care provider. The cost savings of $1.5 million dollars per year is approximately 3 percent of COTA's annual operating budget. This new health care program was successfully negotiated with the complete cooperation and support of the local union. (Columbus, Ohio)

3. San Diego Transit negotiated a five-year agreement with the local Amalgamated Transit Union (ATU) that provides one-time net bonuses annually instead of increases to the base wages. New hire progression has been extended to 8.5 years to reach the top wage rate, starting at 50 percent of the top rate and going up 2.77 percent each six months. Management provided a 4 percent increase to pensions and provided a one-time pension window for operators 50 to 54 to obtain 5 years of age in order to retire early. While this cost $375,000, they expect many more early retirements which, when coupled with lower starting salary and longer progression, should save almost $6 million over five years. The number of part-time employees will move from 15 to 20 percent over the five-year term. Employees who have reached their sick leave ceiling no longer lose the new accumulation, but receive a 50 percent buy back. (San Diego, California)

4. The Miami Valley Regional Transit Authority negotiated a two-tiered wage system for operators. This was prompted by ADA requirements and the labor agreement limiting subcontracting to $500,000. Assisted by a labor consultant to develop a system similar to a Cincinnati Metro contract, this arrangement resulted in a wage rate of $8.10 per hour instead of $16.20. This achieved an annual cost savings of $500,000, had ADA expansion been funded at big-bus operator rates. This helped reduce the costs of growing ADA service, permitting the RTA to maintain more fixed-route service. (Dayton, Ohio)

5. The Miami Valley RTA negotiated the institution of part-time operators with their union. This was prompted by a need to reduce costs for new contracts with schools for a.m. and p.m. trippers. They now have over 40 part-time employees working 30

hours per week, saving approximately $500,000 annually in avoided costs (if full-time operators had been used). The service has brought in new revenue and ridership for the transit system. (Dayton, Ohio)

6. Pierce Transit reached an agreement with its collective bargaining unit that provided a changeover from a select health care plan to a managed health care plan. Employees opting for the existing select health care plan will now pay the premium difference out of pocket. This action will save Pierce Transit in excess of $200,000 per year. (Tacoma, Washington)

7. Pierce Transit also negotiated a second tier wage for entry-level operators (about 16 percent of the workforce) in exchange for providing a contracted service directly. The economic benefit was substantial enough to allow an expansion of service that generated an increase in ridership. This has saved the agency $280,000 annually. (Tacoma, Washington)

8. In negotiating wage increases for both represented and non-represented employees, Pierce Transit approved a cash lump sum payment in lieu of a salary schedule percentage increase. This resulted in a savings of $300,000 per year. (Tacoma, Washington)

9. A labor-management task force was created in 1993 in Indianapolis to address double-digit increases in the price of group insurance. Since Metro employees pay a share of insurance premiums, there was incentive for the union and management to find ways to reduce insurance costs. The first year of the collaboration saw a reduction of 12 percent ($250,000) in premiums paid by employees and Metro, and increases have been limited to less than the rate of inflation since. (Indianapolis, Indiana)

10. SCAT uses part-time bus operators (14 out of 61 total) for lunch reliefs, morning show-ups, fill-ins for vacation, etc. (Sarasota, Florida)

11. The Capital District Transit Authority reached an agreement with its bargaining unit to establish a weekend part-time workforce. This gave full-time operators guaranteed weekends off, and saved the agency $600,000 per year. (Albany, New York)

12. Negotiations between TANK and their bargaining unit changed formerly restrictive language to permit the use of managed health care, saving between $150,000 and $200,000 per year. (Fort Wright, Kentucky)

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13. SunLine Transit froze salaries for administration staff for three years, and union salaries for two years, and saved over $260,000 during that period. Cooperative relationships between management and labor lowers labor legal costs and results in an efficient workforce. (Thousand Palms, California)

14. At DART, a five-year progression for bus operators' wages was negotiated (versus the previous three-year progression), resulting in annual savings of $1.5 million. (Dallas, Texas)

15. DART modified its management of Paid Time Off (PTO). Employees used to be eligible for as much as 26 vacation days and 12 sick days a year, with employees having the right to carry over and "bank" all their hours (making them eligible for huge payoffs at retirement). PTO will now consist of vacation and sick leave lumped together. New employees will start at 17 total PTO days for the first five years, increasing by three days for every five years, capping at 29 PTO days. DART will buy out all accrued vacation at the end of the year. These steps are estimated to save more than $11 million over 10 years. (Dallas, Texas)

16. The Kansas City Area Transit Authority (KCATA) negotiated a separate wage rate for operators of small buses that represents 60 to 70 percent of the rate paid to regular fixed-route operators. Smaller vehicles (25 seats or less) were placed into service on 10 routes (out of KCATA's total of 38) that serve low-density suburban markets where ridership was light. KCATA saves approximately $17,500 per year, per bus, for a total savings of $350,000 in 1996. This new rate will also allow KCATA to expand service and hire 50 additional operators. (Kansas City, Missouri)

17. The 1995 negotiation of the labor agreement between WMATA and Local 689 of the ATU provides for improved employee compensation and pension benefits while returning to WMATA a better than net-zero cost contract by the utilization of more part-time operators, a five-year new hire pay rate progression, a cost-saving new health care delivery system, and cost-saving modifications in the management of the pension plan to include an early retirement buyout of expensive senior employees. The labor contract term from May 1, 1995 to April 30, 1998 gave WMATA $14.7 million dollars in savings as follows:

New Hire Pay Rate Progression	**$2.5 million saved**
Changes in Pension Management	**$41.7 million saved**
Managed Health Care Plan	**$14.4 million saved**
Improvements in Productivity Work Rules	**$8.6 million saved**
Total Savings:	**$81.9 million**
Wage/Longevity Rate Increase/ Pension Benefit Improvements	**($67.2 million in total costs)**
Net Savings:	**$14.7 million (Washington, D.C.)**

18. Long Beach Transit negotiated an agreement calling for an 8.5-year wage progression, starting at 50 percent of the top wage with an increase of 5 percent a year. This results in a savings of $70,000 per employee over eight years, which makes LBT competitive with private providers. There is only an 8 percent increase in labor costs over the four-year labor agreement. (Long Beach, California)

19. Metro-Dade Transit and the Transit Workers Union agreed to the creation of a new Paratransit "B" Division with new operator personnel starting salaries set 37 percent below current MDTA operators. The agency shifted previously contracted fixed-route service to the new Paratransit Division with service to be provided using smaller vehicles. (Miami, Florida)

20. METRO decided to introduce minibuses into its fleet to lower unit operation and maintenance costs, increase service frequency, and promote a more "user friendly" vehicle in local neighborhoods. It was hoped that minibuses would allow a service to get started and grow itself into larger buses, without consuming a disproportionate amount of scarce resources while the service was maturing. METRO initially bid the service expecting that a private contractor could operate it at a lower cost than METRO. However, METRO's union asked to bid on the service and ultimately "won the contract" with a lower cost than the private contractors. The lower cost was achieved via a lower starting rate for minibus operators, a lower and slower progression in pay, and fewer fringe benefits. The use of minibuses has been highly successful in terms of all three of its initial purposes. Overtime, the pay rates, and fringes have been increased

for minibus operators (primarily to reduce turnover), but they are still approximately 50 percent of full-size bus operators' costs. This program has saved approximately $6 million per year, or 3 percent of the annual operating budget. The savings have allowed METRO to add more services within the same budget. (Houston, Texas)

**21. Los Angeles County Metropolitan Transportation Authority saved approximately $20 million between 1997 and 2000 as a result of a labor agreement with the United Transportation Union. The contract included a lower wage tier for newly hired operators, a reduction in the agency's contribution to union member health and welfare benefits, and an increase in the use of part-time workers to reduce overtime costs. (Los Angeles, California)

**22. Calgary Transit experienced costs savings through a labor agreement that established a separate class of operator. The transit agency may convert 30,000 hours per year of regular service to Community Shuttle routes. Since Community Shuttle operators are paid only for hours worked, the shuttle routes cost 50 percent less than regular routes. (Calgary, Canada)

**23. LYNX found a way to help reduce its turnover among first year bus operators by establishing a mentor program with the help of its more senior operators. Experienced operators guide, tutor, and advise new operators during the first months of their careers to help make their adjustment to the world of bus operations as smooth as possible. Mentors offer encouragement, answer questions, and lend an empathetic ear to drivers as they begin a new career that usually requires considerable adjustments. The mentoring period lasts between 60 and 120 days, depending on the needs of the different operators. Mentors perform their roles on a purely voluntary basis, although the agency recognizes them with certificates, awards, and recognition. The success of the program has been astonishing. Turnover among part-time operators was reduced from 50 percent annually to 8 percent. (Orlando, Florida)

**24. The Greater Cleveland Regional Transit Authority has instituted an incentive program for all employees based on eight different performance criteria for the agency such as on-time performance, reliability, safety, and revenue. Performance bonuses are paid every six months if organizational criteria, which were jointly developed by labor and management, are met. The agency set aside $400 per employee ($1.2 million agency-wide) to pay such bonuses. Six months after the program was put in place, one of the eight criteria was met. After 12 months, five of the eight criteria were met. Reliability

increased three-fold. The Ride Happy or Ride Free program (which issues a coupon for a free ride to anyone with a valid complaint) saw a reduction of one complaint per 8,000 passengers to one complaint for every 25,000 passengers. (Cleveland, Ohio)

**25. Community Transit was able to avoid a 25% increase in premiums for medical insurance by taking advantage of lower rates that were available through the International Association of Machinists. This large international union, at least for a time, was able to provide more competitive rates than the traditional sources of medical insurance. (Snohomish County, Washington)

Key Lessons Learned in Theme III– Cooperation

1. *United we stand*–It stands to reason that many transit agencies share the same challenges and concerns. There are many opportunities for transit agencies to work together for more competitive rates for items such as insurance, fuel, and drug testing services. Clearly, there is strength in numbers, and purchasing power is increased when multiple agencies join together when making major or frequent purchases.

2. *Don't reinvent the wheel*–Transit systems can minimize administrative costs and avoid duplication by reaching agreements with other public entities to perform certain functions such as investment of funds. Transit systems can also save time and money by taking advantage of existing state contracts for goods and services, or by piggy-backing on recently awarded contracts for major capital items.

3. *Share and share alike*–There might be opportunities to share facilities with other public agencies (such as School Board bus facilities) that not only save transit agencies money in terms of rent and deadhead mileage, but also enhance the image of both agencies in the eyes of the public who want to see cooperation among public services. Transit agencies might be able to share the expenses of service that operates in more than one area. Transit systems can also swap funds within states, and take advantage of special expertise that sister agencies might have.

4. *Shop for bargains*–There are numerous opportunities to find low cost assistance provided through volunteers, students, community service workers, and transitional works. These arrangements save the transit agency money, and are beneficial to the workers and the community.

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5. *The times they are a changing*–Most politics are local and labor negotiations will differ from one locality to the next accordingly. However, extremely tight budgets can certainly help transit agencies bargain more effectively. Many transit systems have succeeded in gaining concessions (wage freezes, cash bonuses, extended wage ranges, part-timers, two-tiered wage structures, managed health care, etc) and no-cost contracts in recent negotiations. As the national economy changes, job security is more important than wage increases to most unions.

6. *Common ground*–Change is often feared and resisted by unions. However, some of the changes in the nature of service areas (lower densities, greater sprawl can result in service modifications with mutual benefits for labor and management. New methods of providing more flexible transit service with smaller vehicles provide opportunities for competitive bidding, including bids from labor unions. Agreements can be reached for lower wage scales for operators of smaller vehicles. This reduces service costs and expands the number of bargaining unit jobs. Another example of shared interests is greater attention to employees' safety and welfare. This can result in healthier employees and reduced expenses association ed with absenteeism.

THEME IV

Service Planning, Marketing, or Delivery Methods

Not surprisingly, the highest cost element of any transit system is the actual operation of service. The methods transit agencies have used to provide service have not changed dramatically in the past 50 years. However, the areas they serve have changed significantly, becoming more dispersed and harder to serve efficiently. Sources of funding also seem harder to secure. Transit systems must become more disciplined or creative in the traditional methods of providing service, and/or find new and more cost-effective ways to serve the traveling public. This theme shows how transit systems are responding to the need to improve the productivity of their service.

"It is common sense to take a method and try it; if it fails, admit it frankly and try another. But above all try something."
—Franklin D. Roosevelt

More Careful and Prudent Resource Allocation Decisions

In government, things often don't change unless they absolutely have to change. If there is one positive aspect of the increasingly tight budgets at transit agencies, it is the trend of more prudent decisions being made by staff and policy boards on what services should and should not be provided. More transit agencies are realizing that they must make better decisions on how they allocate their scarce resources. Many of them are reducing operating costs with no negative impact on their ridership.

1. Putnam Area Regional Transit, a small system with eight buses, reviewed route performance, consolidated routes, and reduced hours of service without losing ridership. These actions helped reduce expenses by approximately 5 percent (Carmel, New York)

2. The Port Authority Trans-Hudson Corporation has reduced the train consist on the off-peak hours to reflect the reduced ridership during those hours. This reduces the

expense of power consumption, as well as wear and tear on vehicles. (Jersey City, New Jersey)

3. Through research of ridership information, King County Metro determined that regular weekday service levels were not needed on Martin Luther King, Jr. Day and the day after Thanksgiving. Metro adjusted service levels on those two days to "partial holiday" schedules and operates reduced hours, resulting in a savings of approximately $35,000 per year. (Seattle, Washington)

4. A "Productivity Frequency Index" allows Milwaukee County Transit to make significant service cuts while minimizing ridership impact and putting service dollars where they can be most productive. This index measures the relationship between passengers per bus hour of service (productivity) and the time interval between buses (frequency). The following equation applies:

$$\text{P.F.I.} = \text{Passengers per Bus Hour} \times \frac{\text{Average Headway}}{60 \text{ minutes}}$$

A P.F.I between 10 and 12 is the appropriate relationship between productivity and frequency for weekday service in Milwaukee. Utilizing a range is preferable to allow for route fluctuation. If a route's P.F.I. is consistently above 12, it should be considered for service increases. If it is below 10, it should be considered for service reduction. This technique provides a quantitative method to easily adjust and fine tune transit in relation to demand, and is very useful considering the political nature of service reduction decisions. (Milwaukee, Wisconsin)

5. While it took one year from concept to implementation, the time schedules for drivers and mechanics were redesigned at the Metropolitan Bus Authority so overtime would be reduced to a minimum. Overtime costs have been reduced from $876,781 to $440,889 for an annual savings of $435,892, or 1.31 percent of the total operating budget. (San Juan, Puerto Rico)

6. SCAT interlines some first morning and last evening bus trips between bus runs to allow expanded service span at reduced cost. (Sarasota, Florida)

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7. Closely monitoring service and ensuring that the service offered matches the observed or anticipated passenger usage is a major way of controlling expense at Santa Monica, which a 45 percent farebox return with a 40-cent base fare confirms. The agency uses a three phase public input process, holding general public meetings, followed by more detailed meetings with business and community groups to help them tailor service to the needs of the public (Santa Monica, California)

8. The Maryland Transit Authority provides bus service from four divisions. To reduce costs while retaining service levels, scheduling of service from the various divisions has been reviewed to reduce deadhead mileage. Such reductions have been accomplished by shifting selected services between divisions. This ongoing process is expected to result in annual cost savings in excess $500,000 when fully implemented. (Baltimore, Maryland)

9. New York City Transit reduces train lengths in off-peak hours, thereby requiring less staff. Train cutting improves personal security and reduces car mileage, savings power and car maintenance costs for an annual savings of $405,000 (New York, New York)

"Avoiding danger is no safer in the long run than outright exposure. The fearful are caught as often as the bold."
—Helen Keller

10. METRO conducted a major examination of all if its bus routes, schedules, and bus operating facility assignments with the view to reduce deadhead miles. This included such things as altering the bus operating facility assignment of buses to produce a shorter distance and/or faster speed between facility and the place where the bus went into revenue service, changing the route that the bus took between the facility and the place where it went into service to take advantage of new streets or road work, reducing recovery time, and reducing layover time where excessive. Schedules were changed as a result of this review. This substantially improved the efficiency of the schedules and thereby reduced deadhead miles/hours. This effort saved approximately $1.8 million in 1995, or 0.9 percent of the annual operating budget. The entire savings were reinvested in new services. (Houston, Texas)

11. The Orange County Transportation Authority utilized a consultant (IBI Group) to review system performance to attract more riders, improve efficiency and effectiveness, and to provide more bus options for discretionary users without a cost increase. After receiving extensive public input, the consensus was to eliminate unproductive routes, provide more small buses circulating in neighborhoods (eight new community routes), provide faster and more direct service on major arterials, and restructure transit services to provide a three-tiered family of services. They determined they could

not be everything to everybody. The result has been a 10 to 15 percent increase in ridership and a 5 percent reduction in net operating costs, amounting to a $5 million annual savings for OCTA. (Orange County, California)

**12. San Diego Transit carefully reviewed its scheduling and run cutting practices with a fresh set of eyes to determine if efficiencies could be found. They discovered that many runs were assembled as they were based on "folklore" more so than work rules or provisions of the labor agreement. Many of the runs were inefficient, but attractive to senior bus operators, and were maintained in an inefficient fashion due to the folklore that these runs were required to be developed as they were. Savings associated with modifying the runs in accordance with actual work rules and labor agreement provisions will save San Diego Transit over $1 million dollars annually. (San Diego, California)

**13. Tri-Met has Board-adopted Service Standards that are used regularly to assist with service reallocation that results in higher ridership and revenues at the same expense. Boarding rides per vehicle hour measures effectiveness, which is one half of the productivity equation. The other half of the equation is efficiency, which measures how well units of input (e.g., dollars are converted to units of output in the form of vehicle hours). All existing fixed routes are ranked in descending order of BR/VH for each day of the week and for different time periods of the day (such as midday, rush hour, night). Automatic Passenger Counters collect the data. On-board ridership counts are conducted to confirm the automated counts. Ridership is examined on a trip-by-trip basis and route segment basis. In 1999, 0.33% of all bus service hours were reallocated from low ridership trips to higher lines. The net gain in weekly boarding rides was 1,127, resulting in over $30,000 additional revenue that year. (Portland, Oregon)

Modifying the Basic Method of Service

While some systems are simply making more business-like decisions within traditional methods of service, other agencies are making fundamental changes to the ways they provide service due to changing urban form and travel behavior. Some of the methods that are working well are changing radial service to grid service, modifying fixed-route service to point deviation (either all day or during peak only), providing demand-responsive service in

lower density areas, and replacing express service with vanpools. Point deviation has the added benefit of reducing paratransit expenses.

1. The Kosciusko Area Bus Service changed its eight-vehicle system from fixed-route to point deviation in August 1995 and realized success beyond their most optimistic hopes. Ridership increased by 41 percent while total vehicle miles decreased by 24 percent. Fare recovery per passenger increased by 12 percent, partially due to increased ridership and partially due to a deep discount fare structure instituted along with the service structure. KABS was able to expand both its operational hours and its service area due to these changes. KABS no longer runs buses when they were not being used, and can match buses with actual passenger needs. All buses are lift-equipped, allowing them to provide better service to the disabled population while eliminating administrative costs associated with ADA certification. (Warsaw, Indiana)

2. After thoroughly reviewing ADA legislation and regulations and holding public hearings, Wichita Falls decided to modify its fixed-route system to a route deviation system. Bus "stops" were changed to bus "route" signs, thereby abandoning the fixed-route structure. They now deviate up to two blocks from the published route and rejoin the route where convenient. With no bus stops, they pick up anywhere, mid-block, etc. This service structure complies with ADA requirements, obviating the need for a complementary paratransit service. Only one staff person was added, a dispatcher that schedules the route deviation pick ups that must be requested a day in advance. The agency saved the cost of establishing a complementary paratransit service, estimated to cost between $750,0000 and $1,000,000 per year (Wichita Falls, Texas)

3. Corpus Christi Transit modified its fixed-route service to allow point deviation at the end of a route on an island. Passengers must call in advance to make reservations. This helps build ridership and mainstreams paratransit users to regular transit service. (Corpus Christi, Texas)

4. Ben Franklin Transit serves some areas of their community through a taxi feeder service. This eliminates the need for putting a fixed route into place until the demand requires one. In addition, the agency has established a TRANS+ night demand-responsive service that operates Monday through Saturday from 7:00 p.m. to 11:00 p.m. Extending regular fixed-route service (which ends at 7:00 p.m.) to 11:00 p.m. would cost an estimated $2 to $3 million. The service is contracted out, and only incurs costs when it is used. (Richland, Washington)

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5. The Fort Worth Transit Authority (The T) has purchased vans and small buses to operate on a flexible, demand-responsive basis in low-density suburban neighborhoods. Passengers can arrange trips by either calling dispatch, boarding the bus along its fixed route, or telephoning the operator who is equipped with a cellular phone to arrange for transportation. Purchase price of the vehicles ranged from $21,000 for a 15-passenger van to $60,0000 for a small bus. The cost of advertising the service was less than $10,000. Service has been experimental on three routes and will be expanded in the future. The operational impact is that the "The T" is now utilizing a greater number of small vehicle operators with an approximate 1 percent reduction in overall costs. (Fort Worth, Texas)

6. "The T" has replaced some low productivity express buses with vanpools. The vanpools are provided from a park-and-ride location to major industrial plants just as the buses were previously provided. The fare for the vanpool is subsidized down to the monthly bus fare ($40.00). The average cost for an express bus ride was $9.00 per passenger trip. The van substitution ride costs less than $1.25 per passenger trip. (Fort Worth, Texas)

7. The largest single saver of money at SunLine Transit was the realigning of bus routes to a modified pulse system. This allowed the agency to provide almost identical service, yet dramatically reduces the hours and miles, with one trunk line and a series of feeder routes. (Thousand Palms, California)

8. KCATA has established a new service called Metroflex, utilizing 12-passenger vehicles to serve areas of relatively low transit demand. These vehicles provide fixed-route service during peak hours and route deviation services during off-peak hours. They operate at a rate of 55 percent less than the rate of large bus operation expenses. (Kansas City, Missouri)

9. In 1995, Suntran revised their entire route system to a more grid-like service. While retaining the same number of service hours and miles, ridership increased 4-percent, and farebox revenue increased 7.3 percent. (Albuquerque, New Mexico)

10. In more rural areas, Community Transit has replaced traditional fixed-route service with point deviation service, referred to as "checkpoint" service, using smaller vehicles. The operators are paid the same wage, but there are still savings of $15,000 per year, per route, and the productivity over the previous paratransit service has tripled. (York, Pennsylvania)

11. In 1996, Connecticut transit conducted the most extensive market research in its history, yielding significant information that will form the basis for new and improved services. For example, all bus routes currently converge in downtown Hartford and New Haven. Their research indicates it will be much more effective to offer direct service to suburban hubs that do not pass through downtown. (Hartford, Connecticut)

12. METRO's service area is 1,250 square miles with multiple large activity/employment centers. Radial bus service to areas other than downtown is extremely expensive, due to the dispersion of centers and the long travel distances. In 1995, the METROVan program was implemented in partnership with the following entities (1) the employer "sponsors" the METROVan program for employees, providing subsidies to help reduce the cost to employees and offering guaranteed rides home, (2) the private vendor leases vans to van drivers at fixed rates based on mileage, (3) one employee per van serves as the van driver and receives free rides and can use the van for personal use for free except for gas; other employee riders pay a fare to the driver which is based on the total operations and maintenance cost of the van, less the contribution by the employer and METRO, and (4) METRO's contribution is based on which plan option the employer selects (such as, whether the employer offers guaranteed ride home or not) and the cost of the van. METRO now has 146 METRO Vans carrying approximately 55,0000 passenger trips per month. METRO saves (in terms of reduced subsidy) approximately $1.29 per van passenger trip as compared to the average subsidy of a fixed-route bus passenger trip. At current ridership rates, this represents approximately 0.4 percent of the annual operating budget. (Houston, Texas)

"When reform becomes impossible, revolution becomes imperative."
—Kelly Miller

13. As noted earlier, Broward County Transit has reached agreements with a number of cities within the county to establish a level of service consistent with the level of demand in relatively low-density areas. The cities are far more familiar with their areas and have ongoing relationships with businesses and communities, which can apply energy more effectively at the local level to promote transit usage. This method of service has allowed BCT to discontinue operating large buses in areas that do not require them. In addition to reducing costs by 90 percent, ridership has typically quadrupled due to the more effective local promotion and the more flexible type of service provided with smaller, more neighborhood friendly vehicles. (Pompano Beach, Florida)

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14. Bike racks were placed on all Livermore/Amador Valley Transit Authority buses two years ago. The agency now carries over 260 bicyclists per month. Accessibility by bike effectively increases the service area of the transit agency with no new buses or routes. The agency believes that at least half the bicyclists are new riders. (Livermore, California)

**15. SCAT contracts the management of its vanpool program to VPSI, Inc. In addition to leasing vans to commuter groups, VPSI also leases vans to human service agencies providing Transportation Disadvantaged service. Currently, over 40 vans are leased to human services agencies. The service provided by human service agencies would cost SCAT over $1 million yearly to operate with paratransit service. The current cost to SCAT is approximately $275,000 in yearly capital costs. (Cocoa Beach, Florida)

**16. Pierce Transit developed a Hybrid Service to restore some service to rural residents who were left without regular bus service because of budget cuts. Hybrid Service is free dial-a-ride service provided by Pierce Transit's SHUTTLE vans rather than large buses, and is open to anyone who wants to ride. Vans operate Monday through Saturday on a 2-hour schedule to connect with Pierce Transit bus service at Transit Centers or Park and Ride facilities. The designated stops are a combination of popular public locations and community stops, which have been requested by individual riders. Anyone can schedule a ride by calling SHUTTLE Customer Service one to five days in advance. Phone lines are open seven days a week, from 8 a.m. to 5 p.m. to take reservations. Riders needing service on a regular basis may request a "standing" reservation. The two Hybrid Service routes replaced both fixed route and SHUTTLE service in areas within service territory that experienced very low ridership and had an annual cost of $405,000. Combining the service into one vehicle for each area resulted in a $340,000 annual savings. (Tacoma, Washington)

**17. The Denver Regional Transportation District (RTD) modified the way they were serving suburban areas with low demand for transit. The Brighton Circulator provided local fixed route service every 60 minutes from 7:00 a.m. to 6:00 p.m. on weekdays only using full size buses. However, the fixed route carried less than one passenger per hour. RTD changed the way it was serving the Brighton neighborhood by replacing the fixed route shuttle with a "Call-n-Ride" (CNR) service. CNR service is defined by a geographic territory and the need to telephone for pick-up. Small vehicles are used and customers call directly to the driver who has a cellular phone (thus elimi-

nating the need for dispatching). The driver takes trip requests to go anywhere within the territory and provides the customer an estimated time of arrival. Calling for pick-up about an hour in advance is generally required and subscription service is offered. The new service carries over four passengers per hour, requiring a subsidy of $12.78 per passenger, versus the subsidy of over $60 an hour for previous fixed route services. RTD has decided to use this method of service in many other suburban areas of relatively low density and low demand. (Denver, Colorado)

Contracting for Services Through Competitive Bid

One transit agency director in the western United States noted that the policy board there believes that government exists to provide public services, not a job for life. Some transit agencies seek competitive bids for all of their service every few years, while others contract out only a portion of their service, but still benefit from more effective negotiations with their bargaining units as a result.

1. Chula Vista has contracted out both transit operations and maintenance functions for many years. In order to increase competition and lower costs, the agency now purchases and retains ownership of all buses. Contracts are re-bid every five years. Generally, the contractor changes each bidding cycle (since their costs go up and new bidders can come in with lower prices). Transit service costs only $2.55 per mile. Services are currently provided by San Diego Transit, which was able to win the bid based on the establishment of a bus operator classification called Community-Based Drivers who drive 35 -foot buses at significantly lower wages. (Chula Vista, California)
2. The Capital District Transit Authority contracts out service in suburban areas to companies that provide service with smaller buses, at a savings of $8 per hour, or $35,000 per year. (Albany, New York)
3. MetroLink contracts with Amtrak to operate commuter rail service that utilized two-man crews with a single conductor and an engineer. Twenty-five percent of all tickets are checked, and fare evasion has been determined to be less than 1 percent. The contract is performance-and incentive-based, and has been peer reviewed and found to be as efficient as it can be. (Los Angeles, California)

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4. The City of Indianapolis diverted 25 percent of Metro's funding to itself. The city used that money to bid out routes financed by those funds and operated by Metro. The process forced Metro's labor union and management to work together to create an economically competitive contractual arrangement, allowing Metro to save 200 jobs and the taxpayers 15 percent of operations expenses, representing approximately $1.5 million dollars per year. (Indianapolis, Indiana)

5. Napa Valley Transit contracts out all of its services (including janitorial services), with the agency having only two permanent staff members. ATC/Vancom provides all day-to-day management, drivers, dispatch, maintenance, training, information operators, bus washers/fuelers, and road supervision. The City owns all equipment and facilities, with the exception of office space rented by ATC for driver training and the break room. The contract features a series of penalties and incentives for performance (on-time performance, wheelchair lift failures, miles between road calls, increased patronage, etc.). (Napa, California)

6. PENTRAN contracted out its paratransit services which not only saved the agency money on direct program costs, but also realized the following soft dollar savings: (1) increased parking/storage space for vehicles, (2) reduced computer equipment and technical requirements, and (3) the opportunity to rent office space previously occupied by paratransit personnel. (Hampton, Virginia)

7. Under the agency's privatization program, both private bus companies and NJ Transit bid on specified bus routes, with the agency's proposals used as the benchmark cost for the service. Currently, NJ Transit contracts out 14 bus service and 9 minibus service contracts representing approximately 13 percent of the total bus service provided by the agency, resulting in annual savings of approximately $6.7 million when compared to NJ transit's benchmark. (Newark, New Jersey)

8. At Indianapolis Metro, paratransit services were subjected to competitive bidding, with the existing union allowed to bid. All work was ultimately awarded to an outside provider at savings that ranged between 30 and 50 percent. In addition, 15 percent of Metro's fixed-route services were bid out and awarded to a private provider at a savings of approximately 20 percent of the routes' former operating costs. (Indianapolis, Indiana)

**9. Community Transit in Snohomish County, Washington contracts out all of its commuter bus service provided to and from Seattle to Coach USA through competitive bids, including bids received from the transit agency's union. The agency has saved over $9.4 million over five years through this competitive contracting process. (Snohomish County, Washington)

**10. The Massachusetts Bay Transportation Authority executed a transition to the new RIDE services contracts resulting from a competitive process, which places the entire paratransit operation out to bid for the first time in the program's 22-year history. It increased the obligation on vendors to supply more vehicles to reduce future MBTA capital expenditures by a combined total of $8.3 million over five years. Vendors had supplied 25% of the fleet requirements in FY99. This will increase each year until it reaches 75% in FY 2004. Allowing for increases in operating costs, the net savings will be approximately $5 million. (Boston, Massachusetts)

Mainstreaming Paratransit Users to Fixed-Route Service

The costs of providing complementary paratransit services are considerable. Some transit systems have developed methods of attracting people to regular transit service who might otherwise use the far more expensive paratransit service. Such methods result in winning solutions for the transit agency, which reduces expenses and increases ridership, and for the passengers, who increase their mobility options through access to regular transit service.

1. The Citrus Connection offers "Red Carpet" Service on Saturdays. Fixed-route buses deviate up to two blocks to pick up or drop off passengers who have special needs. The primary benefit is that it reduces the demand for paratransit service on Saturdays. (Lakeland, Florida)

2. The combining of three paratransit subscription routes into one community route resulted in savings of $40,000 per year at SunLine Transit. The use of taxis for off-peak times for ADA service resulted in savings of up to $10,000 a year. (Thousand Palms, California)

3. As the designated Community Transportation Coordinator, VOTRAN is responsible for the oversight of the Medicaid transportation contract. If Medicaid recipients

are using paratransit services to go to at least three Medicaid compensable appointments and can access the fixed-route bus, they are encouraged to purchase a Medicaid Bus Pass. The client pays $2.00 for unlimited usage during the month. Medicaid clients who take advantage of the Medicaid bus pass program relinquish their paratransit rights (though they can switch back if the bus service doesn't meet their needs). The Medicaid Bus Pass program generated $120,000 in revenue for VOTRAN and saved Medicaid $862,389 in one year. (Daytona Beach, Florida)

4. The "Local Motion" service has been expanded to include route deviations, enabling many users that were previously demand-response users to be mainstreamed to modified fixed-route service, saving the agency a minimum of $151,000 annually. (Madison, Wisconsin)

5. At Metro-Dade Transit, The Metropass Program transitions Medicaid clients on a voluntary basis away from the expensive paratransit service to the relatively inexpensive fixed-route public transportation service. From May 1993 to June 1996, the Metropass Program provided a monthly fixed-route public transit pass to 21,665 Medicaid clients, thereby saving the State of Florida $3,825,326 in paratransit costs. This program also generated over one million dollars in revenue to MDTA, resulting in a win-win-win solution. MDTA established a similar program for passengers that used its own Special Transportation Services (STS). The project encourages people with disabilities, who are STS certified, to use fixed-route service at no cost using their ADA identification card. In seven months time, the total number STS trips decreased by 10 percent, resulting in a savings of $884,000 (Miami, Florida)

**6. The Eastern Contra Costa Transportation Authority invites all paratransit applicants who submit incomplete or inconsistent applications to come to their office for functional testing. They use functional testing to determine if a person is fully, conditionally, or not eligible for ADA paratransit service. Eighty percent of the "questionable" applicants have been denied ADA-eligibility, saving the agency the $17 cost per passenger trip that would otherwise have been provided to ineligible passengers.

**7. In order to increase the attractiveness of the fixed-route transit system to disabled passengers, Alexandria Transit Company offers the personal care attendants (PCAs) accompanying a disabled passenger to ride for no additional charge. This is identical to the ADA mandate for paratransit service. By offering the same benefit on the fixed-route system, disabled patrons who can ride the fixed route service are more likely to

use it because of the fare incentive. The shifting of riders from paratransit to fixed route service provides cost savings to the city, as well as to the rider. In addition, the PCA can assist the disabled patron, saving time for the bus driver and other customers. To verify PCAs, the Alexandria Transit Company worked with the City's agency that administers the paratransit service to distribute specially marked ID cards for disabled patrons that are PCA certified. Bus operators were then trained in the acceptance of the ID card as a valid fare for a PCA boarding in company with a disabled patron.

Marketing and Fares

The attractiveness of transit service can be enhanced through the fare structure. Passes of various durations (one day, weekend, four-day visitor, weekly, summer, etc.) have proven to be extremely popular. Family fare (kids ride free) and "friends ride free" programs, as well as deep discount fares for frequent passengers, have increased ridership and revenue for some transit systems. There is growing evidence to suggest that the traditional elasticity's between fares and ridership don't always apply, particularly when careful packaging of fare structures are developed.

1. The Long Island Rail Road used a more creative and aggressive approach to attract ridership to off-peak travel. Forms of promotion traditional to active marketing outreach, but new to the LIRR (giveaway items, ceremonial kickoffs of seasonal service, recognition of long time customers, discount specials, etc.), were initiated to draw new customers. The services promoted included beach travel, evening and weekend travel into New York City (for entertainment), regional sporting events, holiday-time travel to attractions in New York City, and special tours in the region. Off-peak revenues have grown $2.3 million during this period, attributable to this promotional outreach. (Jamaica, New York)

2. A four-day visitor bus pass program has been instituted by Oahu Transit Services. It costs about $20,000 for printing scratch-off passes, but is expected to result in sales of 50,000 units ($500,000 per year) for additional revenue of $100,000. (Honolulu, Hawaii)

3. A $5 Weekend Pass was implemented by Metra in 1991. In FY 1995, a total of 625,055 Weekend Passes were sold, a 39 percent increase over 1992. Pass sales in FY 1996 are 20 percent above 1995. Fifty-five percent of Weekend Pass buyers said that the ticket

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influenced them to ride Metra. Over 33 percent purchased six or more passes through a year. This pass, promoted in conjunction with *Weekend Family Fares* (kids under 12 ride free per fare-paying adult) continues to attract non-users to Metra. (Chicago, Illinois)

4. During summer, Metra offers travel guides from downtown stations, discount "value added" coupons, and extends Weekend Family Fares to include weekdays (kids under 12 ride free per fare-paying adult). Sales of one-way tickets increased 10 percent from 1993 to 1995. Key findings from survey data highlighted that 70 percent of those who used Metra were influenced by the travel guide to take the train, and 82 percent who visited attractions claimed that the coupons influenced them to visit. (Chicago, Illinois)

5. The RTD implemented the Eco Pass program in 1991 to increase bus use in order to reduce air pollution and traffic congestion, while increasing Transit Ridership. The Eco Pass is an annual photo I.D. transit pass purchased for all full-time employees in an organization with an option to exclude part-time employees. The employee may then ride free with unlimited rides on any Local, Express, Regional, Light rail, or DIA service. It also includes the Guaranteed Ride Home Program, which guarantees any Eco Pass holder a free ride home in emergency situations via taxi. The program has not incurred any operating or capital costs, but has generated $2.9 million in revenue since it was implemented. (Denver, Colorado)

"Human salvation lies in the hands of the creatively maladjusted."
—Martin Luther King, Jr.

6. Summer Youth passes were promoted by the Indianapolis Public Transportation Corporation in partnership with the State of Indiana Attorney General's Office, who provided anti-drug abuse funds. The significant media coverage helped the agency sell 1,000 passes the first year (at $20 apiece for unlimited use in the summer), and sales have increased to 3,000, thereby increasing ridership. (Indianapolis, Indiana)

7. Fairfield/Suisun Transit structured a strategic fare policy that rewards frequent users. The base cash fare was increased, but tickets can be purchased in bulk at a discount. Revenue has increased, and ridership has increased between 10 and 21 percent each of the last eight years. The use of tickets has decreased boarding time for passengers, allowing the agency to avoid increasing headways or adding buses to maintain schedule. (Fairfield, California)

8. Livermore/Amador Valley Transit implemented a deep discount "Farebuster" program. The agency raised their basic cash fare to $1.00, but offered a ten-ride ticket

package for only $6.00, and a 40-ride punch pass for only $24.00. Although it cost $25,000 to market the new fare media, the agency realized an $80,000 increase in the sale of passes in a year. Annual ridership increased 15 percent while farebox revenue increased 16 percent, with only a very minor increase in service. (Livermore, California)

9. Contrary to examples provided above, the "The T" eliminated any discounts for tokens that are purchased in lots of ten. They are now offered simply as a convenience for passengers at the full adult fare. There have been no detrimental operational impacts, and revenue has increased modestly, by approximately $8,000 per year. (Fort Worth, Texas)

10. From Memorial Day to Labor Day a "friends ride free" program is offered on all Sundays by the Metropolitan Transit System to boost system use on the weakest day of riding. This program is based upon a successful promotion over Thanksgiving and Christmas when it was found that ridership was up an aggregate 14 percent and fare revenue was up 15 percent for those periods over the year earlier. (San Diego, California)

11. Deep discount fares increased revenue modestly, while helping stabilize ridership at Madison Metro. The number of remote sales outlets increased from 75 to 125. (Madison Wisconsin)

12. The Pinellas Suncoast Transit Authority abolished transfers and instituted an all-day pass. The base fare is $1.00 and the daily pass can be purchased on any bus for $2.50. Fareboxes can issue the passes that are then entered into the farebox every time the passenger boards. The farebox return has increased from 16 to 24 percent and ridership has increased by approximately 6 percent in the first six months of this fare method. Additional benefits of the all-day pass are that it eliminates transfer abuse and transfer theft, reduces disputes between bus operators and passengers, and speeds boarding. (St. Petersburg, Florida)

13. COTA restructured fares in May 1996 to generate additional revenue. The 13 percent increase in fares is expected to generate close to a million dollars over a one-year period. The fare structure has been accepted by the public with very little negative publicity or comment. The public recognizes the loss of federal operating funds, as well as the loss of a levy effort on the ballot in 1995. (Columbus, Ohio)

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14. Long Beach Transit increased its fares from $.75 to $.90 with no loss of ridership (neighboring Los Angeles MTA base fares are $1.35, enabling LBT to raise fares while still being reasonable in the eyes of passengers). The agency also tightened the enforcement of student fare collection by requiring students to show current IDs. Finally, the agency adopted a policy of achieving a 33 percent farebox return, requiring more discipline in its resource allocation process. (Long Beach, California)

**15. Virginia Railway Express (VRE) offers a 5 percent discount on monthly tickets sold only at vending machines. This not only reduces the customers' costs, but also saves money for VRE by reducing vending machine usage and shortening ticket inspection times. (Arlington, Virginia)

**16. The York County Transportation Authority changed its operating name from "Community Transit" to "Rabbit Transit" and created an entirely new marketing approach around the "Rabbit" theme. This included painting the buses with images of rabbits on the move, with cottontails on the rear of some of the smaller buses. All printed and electronic materials and advertisements took advantage of this new theme as well ("Hop on the bus", etc.). While there is no absolute proof that this change in name and image was solely responsible for a 17 % increase in ridership over two years, surveys taken before and after the name change showed that system name recognition among citizens in York County, Pennsylvania increased from 26% prior to the name change to 63% after the name change, and awareness of the existence of a transit system increased from 45% to 63%. All anecdotal evidence points to the value that this marketing theme has had on increased ridership and revenue. (York, Pennsylvania)

**17. In 1999, the Niagara Frontier Transportation Authority introduced a plan to the business community that enabled monthly passes to be purchased with pre-tax dollars. The program reduces commuting costs by sheltering a portion of the employee's income from federal taxes similar to how employees pay for medical costs. The cost of a monthly pass is deducted from the employee's paycheck before income tax is withheld and FICA is deducted. This helps reduce the effective cost of a monthly pass from $44 a month to $31. It also helps the employer reduce its contribution to FICA due to the effective reduction in pay, providing a savings for both the employee and the employer. An aggressive marketing plan was launched (named "Greenback"), and in the year since the inception of the program, Metro's pass sales increased by 11%.

**18. The Regional Transit District in Denver, Colorado has developed a Neighborhood Pass Program that allows households to obtain annual unlimited service for a fixed fee per housing unit. RTD conducts a study to determine the approximate revenue that the agency receives from passengers from a defined neighborhood, and then offers the households in that neighborhood the opportunity to ride for a deep discount if the households in the neighborhood can purchase enough passes to generate an amount equal to the revenue received through the farebox. RTD requires a minimum of $5,000 or 100 households in order to offer the Neighborhood Pass Program in a particular community. Each household can receive annual transit passes good for any service provided by RTD for all the members of their household through the program. The City of Boulder has also cooperated with RTD by printing and distributing fliers advertising this program, subsidizing the program where necessary, and providing a checking account for the neighborhood to make the check out to. Each neighborhood has a coordinator who must identify those who will take part in the program, receive pledges from those households, and then collect the payments from each household. The annual pass costs each household $60 and $100, depending on the number of households participating in the program. This compares to a cost of almost $1,200 for 12 monthly passes per person. The RTD receives their payments from the neighborhoods up front, and enjoys tremendous community relations as a result of this significant benefit to frequent transit users.

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Key Lessons Learned in Theme IV– Service Planning, Marketing, or Delivery Methods

1. *Take a closer look within*–Many agencies have realized significant savings by reducing service without losing ridership or revenue. This has been accomplished through close scrutiny of route performance, deadhead mileage, overtime expenses, and holiday ridership, and making adjustments accordingly. Adopting service guidelines have introduced more objective discipline into resource allocation decisions. The identification and elimination of inefficient service can result in savings or provide the resources needed for new service. Transit agencies might wish to consider using consultants who can provide special expertise and perhaps a more objective analysis of existing services.

2. *One size doesn't fit all*–The day of the standardized bus fleet is rapidly fading. Express buses might be replaced by vanpools. Forty-foot buses might need to be replaced by larger articulated vehicles. Paratransit vans might be replaced by community route minibuses (which can also reduce paratransit expenses). Taxis might be the most appropriate way to serve areas of relatively low demand during the evening. In short, transit must try to meet different levels of demand with the appropriate level of supply.

3. *Find your Niche*–You can't be everything to everyone. In most urban areas, transit has lost market share, even if ridership might be increasing slightly. A clear majority of people prefer other modes of travel. Transit must focus on whom it serves best and design its service and marketing plans accordingly. True marketing starts by knowing what the realistic market for your service is.

4. *Competition is good*–Clearly, there are limitations to competitive contracting in many areas due to labor protection agreements. However, an increasing number of agencies report positive experiences as a result of competitive contracting. Some agencies bid out their entire service on a regular basis, while others bid out only a portion. Even bidding out only a portion of the service helps introduce some market rationale in negotiating labor contracts with existing unions. Service contracts that are performance- and incentive-based have produced good results. Savings of 20 to 50 percent are generally reported.

5. *Be bold*–Consider a makeover. Some transit agencies have completely changed their method of providing service, either for all areas and all hours, or only for certain areas

or off-peak hours. These methods not only reduce costs, but also often result in more passengers and revenue. Methods such as route deviation or point deviation can be more attractive than traditional fixed-route services and can help minimize paratransit services. Private employers are more likely to contribute to the cost of more flexible, customized service.

6. *Fares matter*–A passenger's method of payment can have significant impacts on ridership and revenue. Deep discounts for frequent users (balanced by higher base fares), employer-subsidized travel, and introductory offers such as "friends ride free" during slack periods have resulted in increased ridership and farebox revenue. This demonstrates that there are many markets among transit users, and more flexible fare strategies can produce good results.

7. *People like passes*–Many agencies offer passes that attract people during times of light ridership (such as weekends), or are designed around the unique nature of their customer base (e.g. four-day passes for tourists). The all-day pass has proven to be highly successful not only in terms of ridership and revenue, but in terms of driver-passenger relations, improved running time, and reduced transfer abuse. Some fareboxes have the capability of issuing such passes. If not, outlets for purchasing such passes should be maximized throughout the service area.

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THEME V

Maximizing Capital Budgets

Although federal operating assistance has been cut, capital dollars have generally been available and are more politically palatable to those who question the level of support transit should receive. Strategic use of capital funds can reduce operating costs while increasing productivity, and sometimes results in profits. This theme shows how transit systems are utilizing capital dollars as investments that allow them to maintain or improve service levels. Virtually every transit agency takes advantage of utilizing the flexibility offered by the Federal Transit Administration to use their capital grant funds to pay for what used to be operating maintenance expenses. However, there are many other techniques being used that are described in more detail below.

"In great straits and when hope is small, the boldest counsels are the safest."
—Livy

Use of New Technology

Transit is not a huge market, and high technology applications are sometimes slow to develop when a large market does not exist for their applications. However, many transit systems credited new technologies for generating cost savings, including automated vehicle location systems, automated passenger counters, automated scheduling, desktop publishing, automated customer information service, and video surveillance, among others described in more detail below.

1. Palm Tran has recently installed IRD Teleride automated scheduling and runcutting software, which has enabled them to implement efficiencies they estimate are worth over $200,000 per year. (West Palm Beach, Florida)

2. All buses in Napa Valley are equipped with signal preemption equipment that automatically triggers traffic signals to go green for buses when they are five or more

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minutes late. This allows the buses to stay on schedule, and helps avoid the costs of placing extra buses in service to maintain headways. (Napa, California)

3. Tri Delta Transit purchased a fixed-route schedule writing program and realized a savings of 30 hours of staff time three times per year. Operational costs were also reduced by decreasing layover, deadhead, and total hours. The program cost $20,000 to implement, but has resulted in ongoing savings for the system. (Antioch, California)

4. Milwaukee County Transit installed an automated scheduling system that allows them to put work together more efficiently and to write operators' schedules more quickly. This has significantly reduced scheduled pay hours for operators. It has also allowed them to virtually eliminate overtime in the Scheduling Department, despite the fact that they have had major route and schedule changes on almost every pick and even a number of extra picks. The estimated annual savings is over $900,000 (Milwaukee, Wisconsin)

"If we are to peceive all the implications of the new, we must risk, at least temporarily, ambiguity and disorder."
—J.J. Gordon

5. Automatic passenger counters in King County record passenger boarding and alighting activity at bus stops. The APCs are a cost effective way to collect ridership information that would ordinarily require ride-check personnel or extensive involvement from vehicle operators. The APCs provide information for service planning, facilities planning, and regulatory reporting such as National Transit Database (NTD) and Title VI. The cost of the program is $200,000 annually. If done manually with riding monitors, it would be $2,000,000 annually. For NTD alone the cost would be approximately $90,000. (Seattle, Washington)

6. BUS TIME is King County's automated customer information system. Customers can phone in and receive computer voice generated information on bus routes and schedules. Over 600,000 calls are handled each year, with annual operations and maintenance costs of approximately $180,000. BUS TIME takes the place of approximately 17 telephone information staff positions that would cost $680,000, resulting in an annual savings of $500,000. (Seattle, Washington)

7. CDTA utilizes a software program that locks confirmed paratransit schedules into an automated voice response service. Passengers wishing to confirm their trips can have their questions answered automatically, allowing staff to focus on other activities. (Albany, New York)

8. CDTA utilizes paratransit scheduling software that has enabled the agency to achieve a seven percent increase in on-line passengers per hour. (Albany, New York)

9. Easily understood timetables and maps are available at all Santa Monica libraries and are now available on the Internet. These methods help promote the use of transit and reduce queuing for telephone information. (Santa Monica, California)

10. Desk Top Publishing is used extensively at SunLine transit for producing forms, ride guides, maps, passenger alerts, PowerPoint productions, etc. They rarely contract out any printed products since they can produce professional, full-color products with Desk Top. This has resulted in over $30,000 in annual savings. SunLine transit estimates that it would cost twice what they pay their in-house graphics professional to get all items printed through outside vendors. (Thousand Palms, California)

11. KCATA installed signpost AVL technology in the 1980s that provided schedule adherence information. Analysis of that information allowed KCATA to take 4 buses out of service while still maintaining published headways, producing an annual savings of approximately $350,000. (Kansas City, Missouri)

12. Long Beach Transit saves approximately $50,000 per year by using transfer machines installed in their buses instead of printed transfers manually distributed by bus operators. The majority of the savings comes from reduced printing costs. However, it also makes transfers much more secure. The transfer machines serve as revenue protection and control items as well. LBT recovered their costs for the machines within 3 years and have used them for 12 years. (Long Beach, California)

13. MetroLink Commuter Rail utilizes automated ticket vending machines at all of its stations. Operating and maintenance costs are less than 10 percent of fare collected, and they have been determined to be very effective. Credit cards may be used, and over 70 percent of all passengers purchase monthly passes. Data from the ticket machines are analyzed by MetroLink staff to complete National Transit Database reports, eliminating the need to hire surveyors. FTA has accepted MetroLink's ridership analysis as statistically valid. (Los Angeles, California)

14. Seventy percent of all calls to MetroLink are answered by automated customer information voice technology, saving the agency considerable funds in personnel expenses. (There was no previous manual system to allow cost comparisons). (Los Angeles, California)

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15. At Madison Metro Transit, numerous functions have been computerized to allow greater efficiencies, particularly as the agency has been downsized. Computerized functions include ticket and pass inventories, mechanics' payroll, fixed asset inventory, ridership and fare information, and purchasing records. In addition, automated voice response units enable the customer service center to spend more time on individual special inquiries, while standard requests for information are automated. The agency is also installing integrated software for planning, dispatch, route and trip scheduling, and payroll, as well as Internet access for certain employees and E-mail for the majority of employees. The net operating savings is $402,000, or 2 percent of the operating budget. (Madison, Wisconsin)

16. Madison Metro Transit installed a closed-circuit TV in the money room, and one will be purchased for the service lane to reduce losses due to theft and to promote safety of the employees. In addition, Silent Witness (a camera system) was installed on certain buses to help reduce problems that arise on buses. It could aid in lawsuits and the recovery of vandalism costs, providing potential for large savings. (Madison Wisconsin)

17. Community Transit utilizes an automatic lubricating device placed within each bus that hits all lube points on a bus on a continuous timed basis while it is in service. This device, and an extension of preventive maintenance intervals from 3,000 to 6,000 miles, saves $2,500 per year per bus. (York, Pennsylvania)

18. The Jacksonville Transportation Authority utilized automated passenger counters to provide more detailed analysis of boardings and deboardings that has allowed the agency to reduce service by approximately 5 percent while losing virtually no ridership. (Jacksonville, Florida)

19. DART installed a G/Sched Optimizer in 1996 to set the exact number of runs per type they needed to maintain their work rules. They were able to realize about a 2 percent savings compared with previous runs. They are able to create approximately twenty run cuts in a day with excellent pay-to-platform ratios. (Dallas, Texas)

20. During the spring of 1995, CTA utilized Telecutter from IRD Teleride to cut all of its bus schedules. To determine the effectiveness of Telecutter, nine weekday routes were re-cut using Telecutter. There were no changes made to those routes, allowing a clean before and after comparison of pay hours saved. This program provided a savings of

47.6 hours per day, or 1.67 percent when compared to previous pay hours. (Chicago, Illinois)

21. COTA implemented a Transit Operating System written in COBOL on a VAX/VMS-based system. It is installed in two garages, and tracks around 400 bus operators. By having instant access to timekeeping reports, management was able to make adjustments in time to even the workload and reduce payroll by $4,000 every two weeks for an annual savings of $100,000 per year by reducing guarantee payments. (Columbus, Ohio)

22. Palm Tran installed the Teleride Customer Information System in 1996. Within weeks of implementation, the system was operating well enough to allow Palm Tran to eliminate six temporary customer service operator positions. Palm Tran believes the cost of acquiring the system will be returned within the first year of operation. (West Palm Beach, Florida)

**23. Sante Fe Trails saves between $45,000 and $60,000 a year after installing machines that electronically issue passes on board the vehicles. Prior to the new equipment, the agency lost a dollar per pass in commissions paid to commercial outlets. (Santa Fe, New Mexico)

**24. The Ann Arbor Transportation Authority Purchased GIF Trim units and eliminated the need for paper punch transfers. The automated transfer helps eliminate disputes regarding the validity of fares and helps prevent fare abuse such as roundtrips that had previously been made with transfers. These machines help reduce the expense associated with the printing of transfers and also make the bus operator's job easier while helping buses keep schedules by reducing the time and effort associated with issuing transfers. (Ann Arbor, Michigan)

**25. The Ann Arbor Transportation Authority reports savings realized from the utilization of Trapeze run cutting software. This software has helped save two runs, one bus and two operator positions. (Ann Arbor, Michigan)

**26. WMATA co-located its call center functions into one centralized high-tech center in Silver Spring, Maryland. The new center offers audio text interactive voice response and telephony applications that provide a wide range of information over a touch-tone phone without the use of a live agent. By using a variety of technologies, combined with an experienced customer service staff, WMATA information is now available 24

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hours a day. These enhancements have led to an improvement in the call capture rate from an average of 84 percent to 90 percent or better. Customer complaints concerning busy phone lines have been reduced from an average of 32 per month to zero most months. Together with WMATA's Ride Guide (described below), the interactive voice response system will allow the system to provide information to customers an additional 1.4 million times (a 50 percent increase over the live agent operation) without additional staffing. (Washington, D.C.)

****27.** The Port Authority of Allegheny County (PAT) installed a new computer scheduling system, which they expect will save around $4.25 million a year in labor costs. (Pittsburgh, Pennsylvania)

****28.** WMATA's Ride Guide is an automated trip planner that is accessed on the agency's website. The trip planner tells riders how best to travel to their destination, from door to door, by bus or rail in the Washington metropolitan region. In its first year of operation, the Ride Guide began by providing an average weekly 9,000 completed itineraries and grew to more than 25,000. Today, the Ride Guide averages 100,000 trip itineraries a month. Usage is especially heavy between 9 a.m. and 6 p.m. on weekdays, suggesting that customers often access the system while at work. (Washington, D.C)

****29.** Burke International Tours installed vehicle management systems onboard their buses. These systems monitor vehicle performance, fluid usage, and can also tell how long a coach idles for, and if the driver decelerates too fast. The operations manager estimates that in 1996 $35,000 was saved because the system increased mileage from the "low 7s to 8 miles per gallon."

****30.** Five Seasons Transportation and Parking has saved almost $100,000 per year in reduced overtime, spread time, and make up time in the transit system bid runs by utilizing Run Cutting Bus Scheduling software. This was accomplished by using at first Teleride Sage software and hardware and software purchased from Siemens Integrated Local Government division in Cedar Rapids, Iowa. (Cedar Rapids, Iowa)

****31.** Five Seasons Transportation and Parking uses The Mirenco Driver Max and Alcohol Fumigation Program for 37 of its diesel buses. The combination of alcohol fumigation in buses and computerized throttle control, taking into account wind speed, grade, and driver habits has helped improve fuel economy, and has resulted in reduced particulates, black smoke, and brown smoke The alcohol is injected into the chamber

before the diesel fuel. When diesel fires, the water in the alcohol turns to steam, thus creating more oxygen to help diesel burn more completely. The alcohol keeps the engine running cleaner. The alcohol used is only $.75 per gallon, and fuel economy has improved by 18%, resulting in a savings of over $300,000. (Cedar Rapids, Iowa)

**32. Pierce Transit uses various professional Internet sites to post vacant positions to get nation-wide exposure, targeted to those who are qualified and interested. This has been an especially useful technique when trying to fill planning and information systems positions. Pierce Transit saved $8,000 to $10,000 annually in print advertisement in 2001 using these electronic recruitment strategies. (Tacoma, Washington)

Relatively Low-Tech Solutions That Save Labor and/or Parts Costs

Advances electronics are not the only technical solutions for reducing costs. Investments in brake lathes, metal benches, portable shelter cleaning equipment, and using waste oil for heating facilities are among the many examples of low-tech solutions that are saving transit agencies money:

1. Sheboygan Transit acquired a Star brake lathe that turns the brake drums and the brake shoes as a matched pair. This operation allows for more even wear and longer brake life. The truck type brake lathe that was replaced would leave high spots on the brake shoes that would lead to poor break-in wear, glazing, and shorter brake life. By increasing the mean time between brake jobs, the number of brake jobs for the life cycle of the vehicle is reduced. This reduces labor associated with the brake overhaul process. The initial acquisition cost of the brake lathe was $45,000. With the agency paying only 10 percent of the capital cost, the brake lathe has more than paid for itself in the savings noted above. (Sheboygan, Wisconsin)

2. The Metropolitan Bus Authority drilled a deep water well and installed a water pump at a cost of $15,780, primarily to provide water needed for bus washing. Savings over prior costs of water service provided by the local utility is approximately $48,000 per year, or 0.14 percent of the annual operating budget. (San Juan, Puerto Rico)

3. RTC will replace existing concrete/wood bus stop benches with low-maintenance metal grate benches in Reno. This will reduce the considerable amount of time and materials

the agency incurs repainting benches marred with graffiti from youth gang activity at frequently targeted bus stops. (Reno, Nevada)

4. Shelter window washing is a time consuming activity at RTC (up to three times weekly). Bus shelter windows are now cleaned with a portable power washing unit, using recycled water, with glazing spot-cleaned between power washing. The power washing reduces the time necessary to keep the shelters clean, and the recycled water minimized glazing streaking. (Reno, Nevada)

5. Investing in RECARO seats has reduced workers' compensation back injuries significantly at SunLine Transit. (Thousand Palms, California)

6. MetroLink utilizes mini-high platforms at its stations with bridge plates for people in wheel-chairs, eliminating the need for mechanical lifts which require maintenance. (Los Angeles, California)

7. The introduction of high pressure, hot water, mobile wash teams has increased the effectiveness of the station cleaning operation at New York City Transit. With the expansion of the mobile wash vehicle fleet to 50, it will be possible to realign night station cleaning operations so that mobile wash teams substitute for cold water wash teams, to reduce the overall cost of cleaning by $1,163,000. (New York, New York)

8. MUNI has had considerable problems with assaults on bus operators, resulting in injuries and expenses. Their maintenance personnel have designed and installed a full operator area enclosure to protect them from assaults on a demonstration basis on 60-foot articulated MAN buses. (San Francisco, California)

9. Community Transit uses waste oil for heating the maintenance building, thereby reducing the cost of heating, and eliminating the cost of disposing of such waste oil. (York, Pennsylvania)

****10.** Bus shelters featuring art may be less likely to become targets of vandalism. Transit maintenance officials in Portland, Oregon have begun asking that artworks be placed in areas likely to be targeted with graffiti, etching, scratches, or the like. Tri-Met recently decided to start sandblasting glass panels at all its bus stops to curb vandalism. Each year, approximately 750 glass panels are so severely scratched by vandals that they must be replaced at a cost of about $200 each. Tri-Met's art office will remove vandalized panels, sandblast them with motifs designed by artists, and reinstall them.

Etching the glass by sandblasting removers the scratches at a cost of under $20, which is expected to save Tri-Met at least $100,000 annually. (Portland, Oregon)

Acquiring Vehicles that Reduce the Cost of Operations and Maintenance

Fleet standardization is not as popular as it once was. Transit agencies are benefiting from "rightsizing" their fleets to ensure that supply fit's the demand for service. More agencies are realizing savings in fuel from smaller vehicles and alternative fuel vehicles

1. Sheboygan Transit has started replacing 35-foot coaches with smaller (24- to 27-foot), more fuel-efficient vehicles where demand requires no more than that size bus. They were not successful in negotiating a wage differential for operators based on size of buses. However, they estimate the 25-foot buses purchased in 1996 provide 50 percent better fuel economy in the 6.5 to 7.0 mile per gallon range, versus 4.2 miles per gallon among the 35-foot coaches. This will save them $35,000 per year, or 1.5 percent of their annual operating budget. (Sheboygan, Wisconsin)

2. Ben Franklin Transit is acquiring a 26-passenger mega van to convert passengers from two 15-passenger vans into a single 26-passenger van. The mega van is used to transport employees to a federal nuclear reservation. The cost of operating and maintaining the vehicle ($14,000) is completely recovered from fares paid by the passengers, as well as the capital replacement costs. The mega van is operated by one of the passengers, just as in a vanpool. This also helps avoid the $150,000 annual cost of operating an express bus. (Richland, Washington)

3. Golden Gate Transit has purchased new 45-foot buses with 57 seats versus the 39 seats in current buses, resulting in annual savings from a reduction of more than 200,000 vehicle miles and 6-7 bus operator positions without any increase in vehicle maintenance costs. (San Francisco, California)

4. SCRT's fleet of 95 CNG buses (comprising 47 percent of the total bus fleet) has proven to be reliable, with lower maintenance costs than their diesel counterparts. In addition, the price of CNG (on an equivalent energy basis) is considerably less than that of diesel fuel, resulting in a savings in operating costs of about $2 million per year. However, the total additional capital costs of acquiring the fleet and fueling facility was about

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$7.5 million more. Consequently, it will take about four years to "break even" on the investment. (Sacramento, California)

Facility Investment to Reduce Operating Costs

New Transit facilities can be extremely expensive, but the savings to be realized from adding or consolidating facilities can provide far greater returns in reduced operating expenses. Of course, the transit agency typically pays only the local share for these facilities, thereby multiplying the cost savings achieved.

1. Palm Tran operates in one of the largest counties east of the Mississippi, and is actively expanding its service. It determined that building a new satellite operating facility would be cost effective. Although $1 million in local match was required to build the $5 million facility, the location saves the agency $800,00 per year in operating costs due to reduced deadhead mileage, or $16 million in current terms over the useful life of the facility. (West Palm Beach, Florida)

2. The KYD Yard is a joint-use facility for Metra Electric District maintenance-of-way and mechanical departments. Located within the new $34.8 million facility are shops and welfare facilities for mechanical, signal, communications, electrical, track, buildings and bridges, and substation maintenance personnel; outdoor storage; office space; and a new fueling facility. Also located at KYD Yard is a heavy car repair shop that replaced a leased facility, a passenger ticketing/communications center, and the district police department. In total, operating and maintenance functions previously performed at six different locations were consolidated at this one facility, savings $1.4 million annually (2 percent of the overall budget). Additional savings come from improved inventory control, operational management control, and more efficient utilization of labor and equipment. (Chicago, Illinois)

3. SunLine Transit's opening of the Indio Clean Air Center has resulted in the second largest area of savings to the agency with the reduction of deadhead hours and miles. This facility houses 12 out of 40 buses which now begin and end their routes in their service areas. The same facility houses SunLine's paratransit service and saves the agency over $60,000 a year by owning versus leasing. (Thousand Palms, California)

4. The consolidation of SEPTA management into one office building at 1234 Market Street will result in a $95 million reduction in operating expenses over the estimated 30-year useful life of the building due to eliminated rent payments. (Philadelphia, Pennsylvania)

**5. ECAT enjoys improved efficiencies by having its garage and operating center located next to the transfer facility serving the downtown area of Pensacola. This helps reduce costs in terms of operator travel time to relief points, deadhead mileage, and road calls. (Pensacola, Florida)

**6. Metro Transit in Minnesota earned $90,000 in rebates from their local power company for energy-savings measures built into their new bus storage and maintenance facility. The rebate was largely due to efficient boilers, and using natural day-lighting design and sensor-operated light fixtures in little used rooms. (Minneapolis, Minnesota)

Capitalization of Operating Expenses

The majority of transit agencies are taking advantage of the flexibility now available in using capital funds for maintenance expenses that have been operating expenses in the past. A few good examples are provided below.

1. LYNX uses urbanized area formula capital funds for the capital cost of contracting to cover the capital costs of paratransit, leasing administrative and operating space, and purchasing associated capital and maintenance equipment. Total savings realized is $2.8 million annually. (Orlando, Florida)

2. Tolls generated by local expressway authorities are used as soft match for Section 9 capital dollars, savings $2,054,500 annually at LYNX. The downside of this technique is that the toll revenue credits are not "real dollars," resulting in a total capital budget that is reduced by 10-20 percent. However, the savings to a local transit agency by not having to fund the local share for federal capital dollars is substantial. The Metro-Dade Transit Agency has done the same thing, savings $2.3 million in 1996. (Orlando and Miami, Florida)

3. The Metro-Dade Transit Agency also optimizes operating funds through the use of federal capital revenue for planning and capital maintenance activities, including $2.5

million of capitalized Metrobus, Metrorail, and Metromover vehicle repairs. (Miami, Florida)

Vehicle Maintenance Techniques That Extend the Life of Vehicle Systems and Parts

A number of systems identified various bus components and maintenance practices that help reduce costs by extending the life of vehicle systems and parts, such as transmission retarders, synthetic fuel, oil analysis, aluminum wheels, etc.

1. At Napa Valley Transit, engine, transmission fluid, and coolant analysis are performed periodically on all buses. They perform opacity testing monthly on all buses, and penalize their contractor for any failed opacity tests. (Napa, California)

2. PENTRAN estimated that aluminum wheels on thirty-nine 1991 Flexible Metro buses produced a projected annual cost savings of $70,000 as a result of extended brake life, elimination of heat-related tire damage, zero painting costs, and increased fuel efficiency. (Hampton, Virginia)

3. Recycling oil filters and utilizing cleanable and reusable oil filters have proven to be less expensive than disposable oil filters in the long run at Connecticut Transit. (Hartford, Connecticut)

4. Transmission retarders have been used to extend brake life and reduce the number of brake jobs at a savings of $76,445 per year at LYNX. (Orlando, Florida)

5. At LYNX, oil samples are taken every 3,000 miles and sent to Chicago to determine if fuel has slipped into the crankcase, which can ruin an engine within 48 hours of use, requiring a full engine rebuild. Estimated savings are $100,000 per year. (Orlando, Florida)

6. Community Transit uses a synthetic transmission fluid that doubles the interval between fluid changes. Transmission retarders have doubled brake life. (York, Pennsylvania)

**7. SunLine Transit tested rear wheel seals made by Federal Mogul of Southfield, Michigan to help solve an industry-wide leakage problem. Under normal transit conditions, heat causes the seals to fail and begin to leak. SunLine tested several versions of the seals on 10 of its buses and determined which was the most successful. They were able to demonstrate the seals could run much beyond the normal life of 6,000 to 12,000 miles and only had to be changed at regularly scheduled maintenance every 48,000 miles. Results from the test also helped put the seals into production, and they are now commercially available. (Thousand Palms, California)

Key Lessons Learned in Theme V–Maximizing Capital Budgets

1. *The evidence is mounting*–Transit systems often agonize over the value of investing in certain technologies. It is clear that a number of agencies have very positive reports on the benefits of certain technologies such as automated passenger counters, automated scheduling, and automated telephone customer service. There are fewer, but still positive, experiences with transfer machines, automated ticket vending machines, desktop publishing, automated vehicle location systems, and traffic signal pre-emption equipment. More systems firmly maintain that alternative fuel vehicles are less expensive to operate and less expensive over the life cycle of the bus. Many of these technologies are applicable to paratransit as well as transit.

2. *Low tech counts, too*–Ideas requiring less sophisticated solutions can come from anywhere in a transit agency, and all should be explored for their effectiveness. Employee suggestion awards can encourage the development of creative ideas centered around standard equipment.

3. *Right-size the fleet and facilities*–Just as agencies carefully review how they allocate service hours in their communities, they should also examine how they comprise their fleet and allocate their major facilities. Smaller buses save fuel, while larger buses can provide extra capacity at reduced costs. Train consists can be reduced in size to reduce electrical costs and general wear and tear, while providing a greater sense of security for passengers. Similarly, transit agencies should carefully determine if there are more savings in consolidating or decentralizing facilities.

4. *Capitalize operating expenses if desirable*–Capital budget dollars can be used to pay for the capital costs associated with a contracted service. Soft match such as toll revenue

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credits can reduce local dollars needed for securing capital grants. More transit maintenance expenses, previously paid for with local operating dollars, can now be paid for with federal capital grants.

5. *Long live the thing*–Transit agencies report savings as a result of reducing the frequency of certain maintenance procedures or extending the life of vehicle components. Examples include recycled oil filters, synthetic lubricants, transmission retarders, aluminum wheels, and frequent oil analysis. Transit agencies would be well served to establish an electronic clearinghouse among their maintenance functions to share information on what is working and what is not.

THEME VI

Improved Management of Internal Resources

This theme is rather broad and includes the activities transit agencies are taking to reduce expenses through better management of their organization., resources, and processes. As one transit manager of a northeastern transit agency who had to enact considerable cost cutting has noted, the general media and business reaction was "Its about time you stopped begging and started managing." While that might be a little harsh, the fact of the matter is that transit agencies were able to be a bit lax in years past. Managers must now explore all opportunities to trim unnecessary expenses. The techniques described in this theme reflect a response to the need to question the status quo. They deal with a more thorough examination of internal matters, versus opportunities for partnerships or cooperative ventures.

"It isn't evil that is ruining the earth, but mediocrity. The crime is not that Nero played while Rome burned, but that he played badly."
—Ned Rorem

Reorganization/Reduction in Force

Many transit agencies have no choice but to reduce the size of their staff in order to balance their budget. The general approach is to downsize administration staff first. This avoids reducing actual service, and it also avoids possible penalties associated with contractual obligations when eliminating bargaining unit employees. Attrition and retirement provide opportunities for less painful staff reductions, but more proactive measures have also been successful.

1. Sheboygan Transit modified position responsibilities upon the retirement of a maintenance supervisor. The existing evening supervisor was laterally transferred to maintenance supervisor, and the safety and training officer was laterally transferred into the evening supervisor position. With only two operator classes a year, the safety and training officer position was eliminated savings $30,000 per year, or approximately 1.5 percent of the budget. There has been no apparent reduction in service quality or supervisory performance. (Sheboygan, Wisconsin)

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2. Through attrition, COTA is shifting job responsibilities to do more with less. It is projected that COTA will save $450,000 (or 1 percent of the annual operating budget) in reduced staff cost. As administrative employees leave, through retirement or to other job opportunities, each position is evaluated thoroughly to determine if that position's responsibility can be spread out amongst existing staff people. However, up to this point there has been no decrease in productivity. (Columbus, Ohio)

3. A reorganization effort that took three years was coordinated in-house by senior management, Human Resources, and the unions, resulting in an annual savings of $6.6 million at BART. Sixty-seven Administrative/Management positions were reduced, as well as 27 Line Service positions across all departments. The District offered a severance package to 20 managers, which included three weeks pay for every year of service (contractual) and accrued vacation, sick leave, and holidays. The cost of the severance package totaled $2.1 million that was expended entirely during FY 1996. Beginning with FY 1996, annual savings total $6.6 million, or 2.5 percent of the proposed operating budget. These actions also enabled the District to streamline the management structure to support a movement towards flattening the organization. (Oakland, California)

4. The Metro + Plus and fixed-route units were combined at Madison Metro, allowing the position of Metro + Plus Operations Managers to be eliminated. The Transit Store, which was within 10 blocks of the Administrative Offices was closed, enabling the elimination of another position and the cost of rent for the facility. Five other positions were also eliminated. These actions resulted in savings of $420,000 annually, or 2 percent of the budget. (Madison, Wisconsin)

5. A major organizational review has aimed at streamlining management and ensuring that the front-line employees have the tools, training, and support required to provide quality bus service at New York City Transit. The agency has significantly reduced the central staff devoted to budget, human resources, material control, information systems, and labor relations. Division or borough level staff have also been reduced 75 percent. These actions will save $5,318,000 annually. (New York, New York)

6. New York City Transit is reorganizing the depot structure to create a separate route management unit to provide self-sufficient depots and centralize the road control function. Depot staff will ensure that buses and operators are fit for service; route manag-

ers will focus on reliability. This will generate a savings of $2,141,000 annually. (New York, New York)

7. As part of Miami-Dade County government, MDTA participated in an early retirement program which was used by 125 MDTA employees. The county offered to pay program participants $300 per month or full payment of the County's cost of single health coverage in a County approved group health plan (medical and dental) for a minimum of eight years and payment of 100 percent of the employees' sick leave balance as well as other leave balances. MDTA was encouraged by the County to also delay refilling budgeted positions as long as possible to generate offsetting savings for leave payouts unless it resulted in clear service disruptions. The use of overtime and temporary agency employees was also prohibited. (Miami, Florida)

8. METRO staff, together with consultants, reviewed operational functions over a two-year time period and eliminated 204 salaried positions, or approximately 17 percent of its total salaried work force. This was achieved without a material negative impact on any of METRO's programs. Through careful analysis of METRO's needs versus resources, position eliminations involved recombining work previously dispersed among several positions to eliminate vacant positions, a sizable early retirement offer to free some positions for elimination (accompanied by the recombining of management functions previously dispersed among multiple positions) and to allow replacement for other positions at lower salaries, and some layoffs of persons whose functions were no longer required by the size or nature of METRO's programs. This effort saved approximately $10.5 million per year, or 4.5 percent of the operating budget. (Houston, Texas)

9. SEPTA targeted 510 administrative positions for elimination in FY 1997. Most of this reduction was achieved through retirements, including an early retirement package offered to employees. The consolidation of SEPTA management into one office building has also resulted in administrative savings. There were expenses involved in this downsizing program, including additional pension costs, incentive stipends offered to employees not eligible for early retirement, actuary costs, unemployment costs, and out-placement costs, totaling $3.5 million. However, the agency anticipated saving $25 million in 1997, or 3.5 percent of its annual operating budget. (Philadelphia, Pennsylvania)

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10. Attrition-based headcount reductions totaling more than 700 positions were conceived and initiated in 1990 and continued through 1995 in order to slow the rate of operating cost growth at Long Island Rail Road. Avoidance of layoffs and/or furloughs was desirable to avert incurring multi-year, contractually-defined payments (of up to 60 percent of pay for up to five years) to employees whose jobs were eliminated. This in-house technique resulted in significant reductions to payroll and benefit expenses. Allowing natural attrition to occur to achieve downsizing is not an innovative technique. However, it does minimize the impact on individuals as the process transpires. (Jamaica, New York)

**11. The use of part-time employees in place of full-time employees or temporary employees for certain administrative functions over the course of a year saves Charlotte Transit Services over $17,000 per year. These part-time employees are used to pass out weekly paychecks, to attach financial data and bulletins to employees' checks, to fill in for full-time employees who are on vacation or sick leave, and to work in the money room. Savings are realized because of lower health insurance benefits, no vacation benefits, and the avoidance of paying overtime to full-time employees for some of the functions above. (Charlotte, North Carolina)

**12. MARTA offered early retirement to 206 people and is netting approximately $3 million dollars annually in savings. Employees can normally retire with full benefits when they reach 80 points (one point for each year they have been with the agency, and one point for each year of their age). The agency gave those people with 75 or more points five more points to encourage them to retire. With the retirement of these individuals, MARTA was able to reorganize and eliminate over 100 positions. While some of those who took advantage of the early retirement effort have been retained on a contract basis during the transition, they do not receive benefits. (Atlanta, Georgia)

**13. The mass transit system and the parking authority in Cedar Rapids, Iowa were combined, creating the Five Seasons Transportation and Parking Authority. This has resulted in parking revenues that are used for transit, a new 1,000+ space park and ride lot that increases transit ridership, and a joint development intermodal facility with a new hotel, daycare, and senior citizen center. The agency estimates that the combination of parking and transit functions have saved the citizens of the area over $1,180,000 in local taxes. (Cedar Rapids, Iowa)

**14. The Transportation District Commission of Hampton Road (Hampton Roads Transit) was formed as a result of merging the Tidewater Regional Transit District Commission and the Peninsula Transportation District Commission. These two agencies were located on opposite sides of the bay, less than 15 miles apart. While no final study has been completed documenting the total cost savings, a staff report done shortly after consolidation occurred reported a variety of annual savings, including $256,000 in administrative staff reductions, $134,000 by consolidating purchasing, and $423,000 by consolidating contracts for fuel purchases and getting better bulk purchase rates. Other savings included cancellation of towing contracts (since one agency already owned a tow truck which could now be used by the new merged agency) and the consolidation of telephone services under a new contract. Perhaps most important of all, the new merged agency feels it has gained new presence and clout in the state legislature and at the federal level as well, which they hope will result in larger state and federal capital grants. (Hampton Roads, Virginia)

Contract/Outsource or Retain Functions

Each transit system needs to examine its functions and conduct a cost benefits analysis of whether it is better to perform the functions with in-house staff or through an outside source, if possible.

1. Sportran outsources mapping, scheduling,, and demographic functions to the regional MPO through an interlocal agreement. They also outsource their planner to the MPO and pay for services with capital funds. (Shreveport, Louisiana)

2. The Regional Transportation Commission contracts out its money counting process to Armored Car Carrier. This saves approximately $20,000 annually in staff time. (Reno, Nevada)

3. Metro Area Transit retained its money counting functions, but reduced its costs by hiring part-time retirees to perform this function. (Omaha, Nebraska)

4. New York City Transit outsources the audit function and reduces cycle counts in order to save $250,000 annually and reduce five quota positions. (New York, New York)

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5. NYCT also outsources the facility management and maintenance functions in order to reduce total costs by 10 percent ($343,000 annually). (New York, New York)

6. One of the private carriers that had provided commuter rail service under contract to Metra transferred its operation to Metra through a sale and acquisition transaction. The acquisition (for $28 million) resulted in significant cost savings due to elimination of property depreciation reimbursement, management fee compensation, and coach leases, and reduced administrative expense. Estimated savings are about $2 million per year, or 3 percent of the annual budget. Additional savings were realized through improved resource management and other economy of scale opportunities, improved operational and management control, and improved labor utilization, providing over $6 million annually in lower budgeted costs than under the previous private carrier arrangement. (Chicago, Illinois)

7. NYCT terminated its contract for bus undercarriage coating and incorporated undercoating into the scope of programmatic maintenance for a savings of $931,000 annually. (New York, New York)

8. Sportran contracted out the paratransit operations function, but retained the maintenance and passenger certification functions. (Shreveport, Louisiana)

**9. SCAT contracts its Fleet Maintenance and Management to Ryder Systems, Inc. since 1987. This arrangement frees SCAT management from the administrative tasks of hiring, training, and supervising a staff of mechanics. The contract has eliminated the need to bid and purchase parts and fuel for SCAT's fleet. In addition, administrative tasks are reduced as Ryder submits monthly bills, which greatly simplify accounting functions. (Cocoa Beach, Florida)

**10. Miami-Dade Transit identified a number of repairs to their Metrorail fleet that they determined could be done less expensively in-house than through outside contractors. The agency projects savings of $101,803 per year for eight years by doing gearbox overhauls with their own staff versus contracting based on bids received. In addition, the agency expects to save $69,790 a year by repairing brake actuators with their own staff versus using private contractors, based on comparisons of actual costs over the past two years. (Miami, Florida)

**11. Tri-Met eliminated the $25,000 annual expense for contracted fire inspection services by paying for one of its own mechanics to become trained and certified by its insurance carrier to inspect the fire protection systems in its facilities. (Portland, Oregon)

Improved Methods of Procurement

Purchasing parts, consumables, and services constitutes the second highest expense for transit agencies, after labor. The prices paid for these items can be reduced through alternative methods of procurement. Agencies often benefit from investing in consultants with special expertise.

1. Sheboygan Transit broadened the amount of competition in the acquisition of bus parts. To speed up the process they developed a method of obtaining fax quotations from various vendors for bus parts. The agency believes it saved as much as $20,000 or a little less than 1 percent of the agency budget, on bus parts as a result of this process. (Sheboygan, Wisconsin)

2. Commercial Insurance (General, Property, Crime, and Auto) costs were reduced by over $200,000 per year by following a new two-tiered procurement that combines the best features of low bid and negotiation methods. The first phase involves the evaluation of brokers' proposals resulting in the selection of three brokers to provide services to Pace. Pace works with the three brokers to develop specifications for each specific type of insurance required. Unlike the open bidding approach, in which each broker is one of many to be considered, Pace's approach encourages brokers to devote the time necessary to develop the best possible specifications and obtain the best possible price. After obtaining input from the three brokers, a base bid specification is prepared and all three brokers are required to submit a price for the base bid specification. They are also allowed to propose alternative terms and conditions. The knowledge that the competition is limited to three identified brokers encourages more intense competition than would normally be found for a relatively small account such as Pace. Coverage has improved as well. The auto coverage limit has been increased from $1 million to $2 million, and the self-insured retention for the general liability policy has been reduced from $10,000 to zero. All rates are fixed for three years. (Arlington Heights, Illinois)

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3. At Connecticut Transit, a broker was selected jointly by management and the union to renew employee benefit coverages. By analyzing benefits, bidding coverages, and negotiating rates with various providers, the broker has saved the agency more than $700,000 with no diminution of benefits. Best of all, the broker's fee is paid by the carriers. (Hartford, Connecticut)

4. LYNX is leasing a Greyhound garage and 5-acre site for $77,250 per year instead of buying a comparable property and facility for $1.2 million. If used for 5 years, it will save $813,750. A similar 5.85-acre site that was a former trucking maintenance business also came available with a capacity of 80 buses. A five-year lease and improvements will cost LYNX $2.4 million versus $10 million for a new site, savings $7,600,000 over five years. (Orlando, Florida)

5. The Miami Valley Regional Transit Authority consolidated medical insurance coverage with one carrier and competitively bid when renegotiating the labor agreement. An insurance consultant was hired who worked first with management. The consultant structured an ideal program to win premium reductions, then solicited and evaluated bids. The consultant then participated in joint meetings of managements and labor where presentations were made by insurance companies. The consultant's fee was $10,000, but the authority realized a savings of over $500,000 annually. (Dayton, Ohio)

6. The Metropolitan Bus Authority decided to purchase, rather than lease, tires for its bus fleet. A lease contract was canceled and tires were acquired by purchase or were retreaded. The agency spent $6,637 to purchase a new tire changing machine, but the change resulted in a savings of approximately $250,000 annually, or 0.84 percent of the annual budget. (San Juan, Puerto Rico)

7. New Jersey Transit has utilized fuel hedging techniques for a number of years. By using oil futures to lock in at a fixed price, the agency has been able to stabilize fuel costs. The agency has the option, depending on market conditions, of locking in prices or floating with the market. Between FY 1990 and 1996, diesel fuel costs for the agency decreased by approximately $2 million, or 10 percent, despite an increase in service levels and gallons of fuel used during this period. (Newark, New Jersey)

8. MARTA enters into annual agreements with commodity brokers by competitive bid to "hedge" the price of diesel fuel. MARTA is currently using a "fixed-for-floating swap" in which a hedge price is negotiated (fixed) and each month the hedge price is compared with the average Atlanta cost for diesel (floating). If the average cost exceeds the hedge price, the broker pays MARTA the difference for the number of gallons of diesel in the contract for that month (which was determined based on MARTA's budget for diesel). The reverse occurs if the average cost is less than the hedge price. Fuel hedge saving totaled $2,276,611 from 1987 to 1995. Through nine months of FY 1996, MARTA saved $276,756. MARTA claims other utilities can also be hedged. (Atlanta, Georgia)

9. Fuel costs soared from $0.72 per gallon in 1991 to $1.09 per gallon by mid-fiscal year and continued to fluctuate thereafter at PAT. Diesel fuel swaps are implemented completely using in-house staff who arrange bidders, perform analyses, set pricing parameters, and stage the bid process. Only 20 hours of staff time are needed to complete the arrangement. PAT has experienced budget reductions of $0.12 per gallon since FY 1991 and realized a net benefit of $350,000 through 1996. (Pittsburgh, Pennsylvania)

10. Tri-Delta Transit reviewed the cost of maintenance items and found that the contractor could purchase some items at a much lower cost. Through a contract amendment, ECCTA reduced the cost of some maintenance items by 15 percent. (Antioch, California)

11. DART has taken advantage of the availability of Commercial Paper to establish a $300 million line of credit. The Commercial Paper has a maximum life of 270 days at interest rates of only 3.5 percent. DART continually rolls these funds to maintain access to a low interest rate for borrowing money to build the new light rail and commuter rail systems. (Dallas, Texas)

12. SEPTA has realized health care savings as a result of aggressive use containment, successful negotiations with major providers, and selective increases in the co-pay for Paid Prescription and Dental. Over $40 million has been saved since FY 1993. (Philadelphia, Pennsylvania)

13. With an annual electric power bill of $22 million, BART hired a consultant who, over a 10-year time frame and at a cost of approximately $150,000, assisted BART in applying for an allocation of 4 megawatts of electric power from the Western Area Power

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Administration. Once the allocation was received, a one-year effort was required to pass legislation requiring the local utility to deliver power from Federal Marketing Power Agencies to multiple points while continuing to treat the power as though delivered to a single meter. This resulted in annual savings of $1.2 million, or about 0.6 percent of the total operating budget. With the legislation in place, BART applied for and received a temporary allocation of 55 megawatts from Western and has entered into a 20-year contract with Bonneville Power Administration, another Federal Marketing Power Agency, to supply most of BART's power needs. This will result in annual savings of $5 to $7 million (2.5 to 3.3 percent of the annual operating budget). (Oakland, California)

14. San Diego Transit financed the purchase of 130 new coaches by using Certificates of Participation, which help the agency make necessary major purchases, beat the cost of inflation, and reduce maintenance expenses on an aging bus fleet. (San Diego, California)

15. Durham Area Regional Transit purchases tires with capital dollars, then sells virgin carcasses to trucking companies, tire recappers, etc., at double the cost of the local share for the tire when it was purchased new. New tires are always on buses, and the agency saves by making no local contribution to tire purchases. (Durham, North Carolina)

**16. Delaware Transit Corporation (DTC) currently purchases diesel fuel under a firm fixed-price contract. The contract is an agreement allowing DTC to purchase an unlimited quantity of No. 1 diesel fuel and No. 2 diesel fuel at a pre-stated price. The pre-stated price (contract price) is given on a per-gallon basis and includes all delivery and labor charges. This contract price remained in effect for the duration of a 36-month contract period, from July 1998 to June 2001, with the option to add a two-year term contract extension or reset the price six months prior to the expiration of the contract. The agreed upon price of fuel at the start of the contract period was $0.479 per gallon and increased 168% to $1.283 by February of 2000. The fuel contract saved $389,055 when compared to the cost of purchasing the same quantity of fuel from the State of Delaware. (Dover, Delaware)

**17. The Southern Ohio Regional Transit Authority (Metro) in Cincinnati, Ohio utilized a tax-exempt lease financing technique to earn $387,000 dollars when purchasing their fixed-route and paratransit buses with local dollars in 2001. By using tax-exempt fi-

nancing to leverage local dollars, Metro benefited from the difference in taxable vs. tax-exempt interest rates. The tax-exempt lease terms are as follows: SORTA obtained two loans totaling $10,000,000 at a tax-exempt interest rate of 4.75% to purchase buses. The buses are paid for with the loan proceeds. Annual interest payments are payable at the end of the months, 12, 24, 36, 48, and 60. A balloon principal payment is due at the end of month 60. SORTA invests the $10,000,000 in Bank CD's, U.S. Treasuries, or U.S. Government Agency Paper such as Fannie Mae, Freddie Mac or the Federal Home Loan Bank at the taxable interest rate of 5.50%. The investment maturity dates are the same as the loan payment due dates. Investment proceeds are used to pay off the loan. A residual of approximately $387,000 remains after the loan is paid off with local dollars. The actual amount remaining is established the day that SORTA enters into the loan agreement based on the Treasury or Agency market rate or CD rate in effect at that time and date. SORTA may use these funds for its capital or operating needs. (Cincinnati, Ohio)

**18. Pierce Transit scans the Internet when looking for new equipment to get the best possible prices. They purchased many pieces of hardware at auction from failed dot.coms, saving bundles of money, and the equipment was new and included warranties. (Tacoma, Washington)

**19. The Eastern Contra Costa Transit Authority (Tri Delta) discovered that they no longer need to pay postage on mail that is sent from a public agency to people with disabilities. The post office worked with Tri Delta to identify provisions of federal law that allow such mail to be sent without postage, saving the agency thousands of dollars in postage each quarter. (Antioch, California)

**20. Calgary Transit is the first public transit system in North America to power its light rail transit system with wind-generated electricity. This program, being developed in partnership with Vision Quest Windelectric and Enmax, will provide 100 percent pollution-free operation on the system. Under the new, innovative program, Vision Quest has installed 12 additional turbines at its wind farm in southern Alberta and is selling wind-generated power to Enmax, Calgary Transit's supplier of electricity. The entire 100 -car C-Train fleet will be driven by wind power. This will avoid the annual generation of 26,000 tons of carbon dioxide that would have been produced by the burning of coal or natural gas for the generation of electricity for the system. The program is expected to provide greater budget stability for Calgary Transit by estab-

lishing a 10-year price structure for C-Train traction power. This structure will significantly reduce uncertainty that has resulted from the recent volatility in the Power Pool price of electricity. (Calgary, Canada)

Managing Major Expenses

Certain expenses are common among most transit agencies, particularly liability due to accidents, injuries, and absences. These and other cost factors such as energy utilization or marketing represent substantial portions of operating budgets that have been effectively reduced through focused efforts.

1. Connecticut Transit enjoys lower electricity rates by agreeing to run building generators when general demand for power is high. The local utility company provides every advantageous rate to customers who are willing to run generators during peak demand periods (mainly in the summertime). Connecticut Transit maintains standby generators in each division to operate essential equipment in the event of a disruption of electrical power. (Hartford, Connecticut)

2. The Miami Valley Regional Transit Authority had a good workers' compensation claims record, but they were subsidizing the state fund. The agency found a loophole in state statutes requiring all public bodies to be members of the state system. The new system costs about $300,000 per year, including stop-loss insurance, etc., but they realize a gross savings of $845,000 (or a net savings of $545,000 annually). (Dayton, Ohio)

3. Metro achieves ongoing savings through the implementation of an energy demand management program, installing electronic recording meters to provide for coincident demand, combining accounts to eliminate duplicate service charges, cycling equipment to shift the onset of heavy loads to off-peak periods, rescheduling work tasks to off-peak periods, reducing peak loads by controlling HVAC usage in maintenance yards, and consolidating hundreds of electric accounts into one billing invoice. The program requires hiring one person to establish a close working relationship with the utility company and to become knowledgeable of rate structures, components of rates, different periods for peak pricing, etc. Current cost savings are about $1 million annually, or 0.3 percent of the overall budget. (Chicago, Illinois)

4. A small in-house staff of industrial engineers in NJ Transit has implemented both demand-side management and supply-side management programs to produce annual savings in excess of $2 million per year in electric bills, plus another $500,000 in natural gas bills. The demand-side management concentrated on replacing standard fluorescent lamps and magnetic ballasts with energy-efficient tubes and electronic ballasts. The agency has also installed computerized building control systems in bus garages, major terminals, and other facilities to operate the lights, heating, ventilating, and air conditioning systems. On the supply side of management, negotiations with the electric utilities resulted in a three-year contract, which reduces the cost of traction power by about $500,000 per year. Over the course of three years, a capital expenditure of $5 million has produced $2.5 million per year in operating savings. (Newark, New Jersey)

5. PAT's hourly employees are required to furnish a certificate from an attending physician for illnesses of two or more working days in order to be compensated for absences due to illness. An inordinate amount of requests were being completed by the same physician. A decision was made to conduct an intensive review of all sick pay requests from the most recent two-year period. A special audit/review was performed by in-house staff. As a result of the special audit, 10 percent of all sick pay requests are now reviewed quarterly on a continuing basis. Knowing that sick leave requests are now subject to audit, employees' use of sick leave has been affected. PAT had averaged 4,500 requests annually prior to review and is averaging approximately 3,600 requests post review. This effort is estimated to save $280,000 per year. (Pittsburgh, Pennsylvania)

6. The Regional Transportation Commission performed a baseline marketing study to measure the public image of the agency and gain a better understanding of the types of individuals who used the public transit service. The information from that study helped determine where the agency's advertising/promotion efforts and funds were best placed, resulting in a net savings in advertising dollars of approximately $45,000 a year. Remaining marketing dollars were shifted to more effective and less costly promotional/marketing efforts. (Reno, Nevada)

7. CDTA now self-insures itself for workers' compensation and has established a Retrospective Plan. The carrier now does claims management and provides excess coverage.

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Claims are now significantly lower than former premiums, and the agency is saving approximately $100,000 annually. (Albany, New York)

8. SunLine assumes the risk of liability claims at the $125,000 self-insured retention level. This has contributed, in conjunction with in-house claims adjusting and safe driving records bolstered by training, between $50,000 and $75,000 a year in savings in insurance premium deposits. SunLine challenges every claim they feel is illegitimate (rather than settling), and their hard stance on these matters has discouraged further claims from being filed. (Thousand Palms, California)

9. BART is self-insured for both industrial and non-industrial disability (first six months) claims. A Third Party Administrator (TPA) is contracted to provide day-to-day case management and claims administration services. Directed by the Human Resources Department, the TPA is effective in driving the claims process to ensure that employees are provided the benefits for which they are eligible while also monitoring costs and return-to-work abilities. With the award of a contract to a new TPA in April 1995, all earlier "tail claims" (previously handled by three other administrators) were forwarded to the new TPA which has resulted in an increase in case closures and claim settlements. In addition the utilization of a Preferred Provider Network reduces treatment costs through the discount agreements negotiated with the treaters. (Oakland, California)

10. A Temporary Modified Assignment Program enables BART's recovering workers or those with minor injuries to return to modified or alternate assignments for a period of up to 90 days. This program reduces overall costs by minimizing the need for replacement payroll costs while also paying the disabled worker temporary disability benefits. The program creates a "win-win" as the employee's recuperation is often enhanced by the ability to return to an active duty status, the employee returns to a regular pay status, and District work is accomplished rather than being delayed as a result of the absence. The combined efforts on the Disability Programs Management efforts have saved the District approximately $1 million per year in costs that would have otherwise been allocated to Workers Compensation claims payment and/or reserve funding. (Oakland, California)

11. In 1991, Long Beach Transit's expenses for liability were $1.2 million and $1.3 million for worker's compensation (out of a total budget of $26 million). In 1996, LBT's expenses for liability have been reduced to $1 million and $800,000 for worker's com-

pensation (out of a total budget of $36 million). This $700,000 savings is attributed to tracking all risk costs closely and instituting light duty assignments for those on worker's compensation, while emphasizing training, accident investigation, and aggressively challenging false claims. This requires someone dedicated to tracking these matters, staying on top of attorney's costs, and making good evaluations. (Long Beach, California)

12. Metro Area Transit has experienced a reduction in absenteeism from 12 to 8 percent. This is attributed to two initiatives. First, the agency has mandatory meetings (held at three different times in one day) every quarter for every employee. The importance of safety is stressed (overtime is not paid for safety-related meetings) and the general manager gets the opportunity to share information and ideas with the workforce. One such idea is the importance of good attendance. Second, MAT stations a doctor at the agency offices two half-days a week, and a nurse five days a week. The doctor performs physicals, which helps to reduce absenteeism, health care costs, and worker's compensation. (Omaha, Nebraska)

13. Accidents were costing Metro Area Transit $400,000 a year. That cost has been reduced by $374,00 a year, to a level of $26,000 annually. They attribute this to challenging every questionable claim against the agency, and by stressing the importance of safety at their quarterly meetings with all employees. Their safety record has also allowed them to reduce their insurance costs from $350,000 to $62,000 annually (for an annual savings of $288,000). (Omaha, Nebraska)

14. Various techniques have been implemented at the Maryland Mass Transit Administration to reduce electrical consumption, including: (1) operating Metro rail car vehicles in coasting mode, (2) shutting down various Metro rail car systems during yard storage, and (3) assuring shop lighting is turned off during hours when not in use. Implementation of these cost-savings items is estimated to have resulted in over $500,000 in annual savings. (Baltimore, Maryland)

15. Sound management investment policies and an oversubscribing of the Bus Operator Pension Fund has enabled Golden Gate Transit to negotiate a reduction in its contribution to the Bus Operator Pension Fund, saving $3.5 million over a three-year period. (San Rafael, California)

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16. With joint union and management efforts, worker's compensation payouts have been reduced at SEPTA form $26 million in FY 1995 to $23 million in FY 1996, with a further reduction to $21 million in the FY 1997 budget. The Authority has achieved savings by reducing employee lost time injuries, and hiring a third party administrator to handle medical bills for employees on workers' compensation. However, the cornerstone of the program involves providing temporary duty jobs to employees who are injured and establishing a proactive approach in returning employees to their original permanent positions. (Philadelphia, Pennsylvania)

17. Palm Tran instituted safety programs four years ago and noticed a substantial decrease in liability experience pitted against premium. The agency converted its workers' compensation to a Retro Plan, which has the capability of saving up to 80 percent on workers' compensation premiums. In the first quarter of 1996, Palm Tran ran at 1.1 percent experience against premium. The savings are substantial and could reach $500,000 per year. (West Palm Beach, Florida)

18. After automobile insurance premiums skyrocketed to $1 million in 1986, RTC established a Self-Insured Retention (SIR) program in which RTC pays any loss up to $100,000 and contracts for insurance coverage about that amount up to $10 million. RTC simultaneously initiated a Safety Program to update driver training, and implemented two award programs for safe driving, including monetary bonuses. RTC also took a strong stance against potentially false accident claims, going to court even if their expenses exceeded what they could settle for. Total claims and paid losses have declined, and the agency has saved $3.7 million dollars over 10 years. In comparison to 1988, the premium has decreased by $395,169. (Reno, Nevada)

**19. The Port Authority of Allegheny County (PAT) reduced its costs of health care by $2.6 million annually by consolidating health care plans, increasing the co-payment for prescription and generic drugs and restricting the entry of newly hired employees into costly indemnity health plans. (Pittsburgh, Pennsylvania)

**20. Citifare developed "carrot and stick" policies that helped them control the costs of paratransit services. A policy was implemented to decrease the number of expensive and time-consuming "no-shows" by giving bonuses to people who do not cancel or no-show within an hour of the scheduled trip. Passengers are given a free trip for every 50 trips they take without being a no-show. In addition to this incentive, Citifare enforces a policy that suspends passengers if they have had more than six no-shows or late

cancellations in a 90-day rolling period. Passengers who are no-shows are also invoiced for the trips they missed. The results have been tremendous. Comparing the end of FY 2001 with the previous year, Citifare was able to provide 9,200 more rides; no-shows decreased from 4.9 percent of all trips to 2.1 percent, making 1,750 rides available to those who needed them; cancelled trips decreased nine percent, making 3,280 rides available; the number of denied trips decreased 12 percent, adding 680 trips; and customer satisfaction increased 14.7 percent despite fare increases and new policies. (Reno, Nevada)

**21. The Bi-State Development Agency established a "Penny Pinching Fuel Purchasing Committee". Based on the utilization of 6,000,000 gallons of diesel fuel annually, one cent saved per gallon can save $60,000 over the course of a year. This committee comprised of Budget and Procurement staff meets daily when prices are on the rise. They continually monitor, via the Internet, prices, trends, and significant events to allow them to track trends and time the purchase of fuel. Each buy is usually for the next two months. While there have been some negative results over the past two years, on balance this committee has saved the agency tens of thousands of dollars annually over the past five years. (St. Louis, Missouri)

**22. PAT saved $240,000 annually since it started operating two-car trains with one operator on the light rail transit system. (Pittsburgh, Pennsylvania)

**23. Five Seasons Transportation and Parking instituted an energy management system at its ground transportation center and maintenance facility, putting both facilities on an "energy diet". A computerized energy management system was installed to control the heating, cooling, and lighting of both facilities, including a waste oil furnace that is computer controlled and runs on used motor oil, gearbox grease and oil, and transmission fluid. New energy efficient ballasts and fluorescent light bulbs were installed as well as new energy efficient lighting in the mechanics work area and storage shed. In addition, motion sensors were installed on all light switches so the lights automatically turn off if no motion is sensed by the detector after five minutes. These actions resulted in saving 1,750,000 kilowatts and in excess of 63,000 cubic feet of natural gas. The agency saved $122,500 in electricity costs, $37,170 in natural gas costs, and $57,600 in foregone hauling charges for removing waste oil lubricants that are now used for fuel. The total savings has exceeded $217,270, and the agency received the Iowa Energy Leadership award from the Iowa Department of Natural Resources.

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**24. The Port Authority of Allegheny County (PAT) established a panel of physicians network to manage medical costs associated with workers' compensation claims, resulting in a $300,000 reduction in workers' compensation costs in FY 1999. (Pittsburgh, Pennsylvania)

**25. One method of reducing the cost of debt is by refunding outstanding debt when reductions in interest rates make this economic. Since 1991, the Los Angeles MTA has refunded $1.1 billion in outstanding debt, generating $51.4 million in economic savings. (Los Angeles, California)

**26. Under certain circumstances, the Los Angeles MTA has been able to incorporate the use of interest rate swaps (rather than using conventional fixed rate bonds) to further reduce its cost of debt on both new money and refunding transactions. For swap transactions, MTA issues variable rate debt and enters into a fixed payer interest rate swap agreement with a counterparty. Under the fixed payer swap agreement, the agency pays the counterparty a fixed interest cost each period, and in return, receives a payment equal to actual floating rate paid on the underlying bonds. The fixed rate the agency agrees to pay the counterparty is less than the fixed rate the agency would have paid on conventional fixed rate bonds, thereby generating debt service savings. (Los Angeles, California)

**27. Pierce Transit reactivated its subrogation program (collecting the cost of damages to Pierce Transit property from third parties) with successful results. In addition, the collection of "loss of use" damages became part of subrogation claims, which had not been done before. As a consequence, Pierce Transit's Risk Management section has recovered $41,070 in loss of use damages. (Tacoma, Washington)

**28. The Orange County Transportation Authority refinanced $67.2 million in Measure M bonds that is expected to save the authority over $2.6 million in interest expenses. OCTA's strong credit ratings and history of solid investor relations proved valuable in securing a combined rate of 3.69 percent on the reissuance of two bonds. (Orange, California)

**29. Metro North "declared war" on on-the-job injuries and the absence expenses that they caused. The New York Transportation Authority worked with Dupont to design programs to reduce OTJ accidents and adopted the following organizational philosophy:

All injuries are preventable
Management is responsible and accountable
Working safely is a condition of employment

The MTA developed databases to measure progress and action plans to implement. From 1996 to 1998 they reduced lost time due to injuries by 70%. They adopted a "Safety Statement" as follows:

We are committed to safety
Being injury free is the goal
There will be a safe working environment for all employees

The basic philosophy was changed at the agency. Before 1996, line employees thought safety was the Safety Department's problem and employees thought that management didn't care. This was changed by a total commitment whereby safety became a priority of everyone. Over a two-year time frame, the agency realized a savings of $13 million in reduced time lost due to injury. (New York, New York)

**30. PACE transferred the liability for all workers compensation and auto liability claims that occurred from 1984 through 1998 to an insurance company through a competitive proposal process. PACE paid Hartford insurance approximately $5.4 million to accept the liability and was able to reduce their claims reserve by $7.1 million, generating a one time income of $1.9 million which was used to help PACE meet the 40% recovery rate set for the agency by the Chicago RTA (the financial oversight authority in the greater Chicago area). A Loss Portfolio Transfer (LPT) is a method where one party transfers future claims payment obligations (for one or more past annual periods) to another party for a fixed sum. The difference between an LPT and an annual insurance program is that an LPT is for past periods of time (already occurred) and an annual insurance program is for events yet to occur. The seller of the portfolio is able to remove an amount of liabilities from their balance sheet. Properly done, an LPT is one of the few products in insurance that can be a "win-win" deal for both parties. Among the reasons an insurance company can accept the liability for substantially less than the amount of PACE reserves are the following:

- ⇨ PACE's return on its investments is much lower than the insurance company's earnings. The insurance company can earn substantially more because it does not have the restrictions on investments that a government agency has.
- ⇨ The liabilities assumed by an insurance company are often transferred to an offshore captive, with lower reserve requirements than exist in the United States. This allows the insurance company to use part of the premium for other business purposes.
- ⇨ There are tax considerations beneficial to an insurance company that are not available to PACE. There are also regulatory requirements that cause losses to be of some value to an insurance company.

Hartford Insurance was very impressed with PACE's valuation and claims administration practices and allowed PACE to continue to manage the claims for Hartford Insurance and decreased the net premium to PACE to reflect their administrative costs. (Arlington Heights, Illinois)

Reengineering Internal Processes

Although details were often sketchy, some transit agencies reported that they were re-thinking various processes to determine how they could be accomplished less expensively. Reengineering normally refers to radical changes in the way an enterprise accomplishes its mission. The types of changes reported were more in line with total quality management reviews, but they do demonstrate transit's growing ability to question how it is doing business.

1. At Long Island Rail Road, organizational analysis and process re-engineering are two techniques used to supplement the attrition-based staff reductions. It has been used to review administrative functions for efficiency opportunities including operating department functions (track installation, motor rebuilds) and contract reviews. (Jamaica, New York)

2. SCAT employs the concept of multi-tasking through designating one bus operator position as "Utility Bus Operator" who is responsible for bus benches, shelters, bus stop signs, and other miscellaneous duties. This position also fills in for driving assignments when needed. (Sarasota, Florida)

3. Bus Maintenance intervals have been modified at the Maryland Mass Transit Administration Scheduled maintenance intervals have been extended from 6,000 to 9,000 miles with an estimated annual cost savings of approximately $2.5 million. This change has been in effect for a year and little if any increase in other maintenance costs have been noted as a result. (Baltimore, Maryland)

4. At Madison Metro Transit, one full-time Sales Outlet Coordinator position was replaced by a part-time cashier in 1991, by using UPS and mail services to distribute tickets and passes to and from sales outlets in 1991 and computerizing the process of issuing tickets and passes. This technique saves $12,000 annually. (Madison, Wisconsin)

5. At New York City Transit, the midnight shift is responsible for a very low proportion of total issues from storerooms. By pre-issuing commonly -used materials, the Material Division can close the 33 storerooms located in bus depots and care maintenance shops on the midnight tour. (New York, New York)

6. New York City Transit raised the petty cash limit to $500 and allowed the use of credit cards to purchase small items. This reduced the procurement quota by 10 positions at a savings of over $600,000 annually. (New York, New York)

7. Sportan (Shreveport, Louisiana) now relies more heavily on contacts with other transit systems instead of consultants to find solutions to problems.. The Center for Urban Transportation Research, through funding from the Florida Department of Transportation, will tie all transit systems in Florida electronically to allow the 20 agencies to share e-mail. This more flexible form of communication will provide more effective communication among the agencies to obtain assistance on problems from each other, and share information on successes (and failures) among transit systems within the state. (Shreveport, Louisiana)

8. By utilizing a Total Quality Management process, Pierce Transit has reduced a rebuild process from six weeks and $928 per unit to no wait time and $357 per unit. The agency also aggressively pursued warranties on vehicles as well as components, saving more than $200,000. (Tacoma, Washington)

9. A Currency Unfolder Incentive Program was designed by PAT to reduce the cycle time for depositing farebox receipts and to recognize exceptional performance in the routine task of preparing currency for deposit. Each Currency Unfolder was required

to process a minimum of $8,000 dollar bills daily. The following incentives were paid for average monthly processing.

Average Daily $ Value	Incentive
8,000	-0-
10,000	$50
12,000	Additional $25
14,000	Additional $25

The program resulted in a reduction of three Currency Unfolder positions at an approximate annual savings of $86,000. Other benefits included improved cash flow, reduction of cycle time from farebox to the bank, improved attendance, and a reduction in departmental overtime. (Pittsburgh, Pennsylvania)

10. Citifare has developed a new approach to driver run picks that is "Outside the Box." Drivers construct their own workweek from a list of available pieces of work and days off. Management still decides how the bus blocks are divided into pieces – late or early straights, how small or large the pieces are, minimum/maximum hours per week, etc. – but how those pieces are selected or linked for a workweek is left to the drivers. Typical bids total 38.85 hours. Report, turn-in, and travel time amount to 3.5 percent of total hours and the amount of bid overtime is less than two-tenths of one percent. Spread time or intervening time penalties are not required, there are no hours guaranteed, and breaks are not built into the runs. The flexibility that drivers have in the process made these practices unnecessary or undesirable. Estimated annual savings are $296,700. (Reno, Nevada)

11. Regional Transit Service initiated a TQM program during FY 1996 to control the costs of parts and repair parts usage. Buses were overheating, causing parts to breakdown, with attendant costs of replacing buses in service. The problem was found to be the use of improperly-mixed concentrates in the bus cooling systems. The agency switched to premixed products with the proper balances of water and ethylene glycol. Nearly $500,000 was saved as a result of the initiative. (Rochester, New York)

**12. Two employees at the Houston Metropolitan Transit Authority developed an Intranet-based Project Information System that allowed them to e-mail project reports to the Federal Transit Administration. Previously about 10,000 sheets of paper per month were needed to send the report to all the appropriate staff, but now this is accomplished by sending a single Acrobat file. (Houston, Texas)

**13. Pierce Transit has all of its printers set at default to draft mode. This stretches their toner up to three times the normal life, and if they need to print in an enhanced (or normal) toner coverage, it just takes a click of the mouse to set. (Tacoma, Washington)

**14. METROLink is an Internet subscription service created by Houston METRO that provides up to date route and schedule information via email as well as METRO news, detour, and special event shuttle information. Part of the intent of creating METROLink was to reduce the agency's costs in terms of schedule printing and maintaining schedule racks on private property. After the first distribution of marketing materials through METROLink, METRO was able to remove 50 public guide racks from non-METRO facilities such as major office buildings and medical complexes. METRO worked with transportation coordinators in the office complexes to help spread the word about METROLink, put signs up where schedule racks used to be, and also arranged for information about METROLink to be included as "check stuffers" to employees in the buildings where schedule racks were being removed. These racks cost METRO $1,100 apiece to maintain on an annual basis. Within a year they were able to remove almost 100 racks through the service area for a savings of more than $100,000 annually. In addition, the agency saved approximately $90,000 a year in printing costs by reducing the number of bus schedules from 17 million to 13 million. After two years of operation, METROLink has almost 10,000 users. The majority of the users are commuter riders who work within business districts such as downtown Houston or the Texas Medical Center. Bus route schedules and other items available on METROLink are in pdf format and can be downloaded. Also, since this information is available through email, customers are kept advised of upcoming changes to route schedules automatically. (Houston, Texas)

**15. The Regional Transportation District (RTD) in Denver employees a "One-Stop-Job-Shop" strategy for hiring bus operators, general repair mechanics and service workers. While unemployment hovered at two percent in the region, RTD was sensitive to the effects of hiring delays as prospects go to the fastest offer. Prior to initiating this new

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hiring strategy, processing of applicants for vacant jobs was sequentially based on progressive events and would literally take at least two months from start to finish. The One-Stop-Job-Shop now incorporates all of the following in one day: review the motor vehicle record for eligibility; complete the application; test; interview; administer the drug screen; authorize the criminal background check; and send for DOT physical. The total hiring process has been reduced from two months to 17 days, helping to reduce the amount of overtime RTD must pay operators to fill vacant runs. In addition to reducing the amount of time it takes to hire someone, this process has increased the "hiring yield" from 6.6 percent to 12.1 percent. (Denver, Colorado)

**16. The Regional Transportation District (RTD) instituted a number of changes to help retain their bus operators in a region where it is an employee's market due to very low unemployment. The agency has reviewed its run cuts and driver assignments to provide for more "family-friendly" work shifts and have managed to increase straight runs on the weekends by 10 percent more than required by the collective bargaining agreement. RTD also recognized the peculiar burdens of working the Extra Board by providing an additional $.75 an hour for those who work the assignment. These combined efforts have reduced first-year operator attrition from 54 percent to 28 percent, translating to significant savings due to employee retention. The cost of recruitment and corollary training for one bus operator has been computed to be $10,000. (Denver, Colorado)

Key Lessons Learned in Theme VI– Improved Management of Internal Resources

1. *Take advantage of less painful opportunities*–Normal attrition and retirements provide opportunities to reconsider responsibilities and assignments among remaining staff. Early retirement incentive plans are another means of quietly reducing administrative costs. These types of actions should be considered on a regular basis to help avoid more drastic changes that might be needed at a later time.

2. *Use outside help if appropriate*–Having expert advise from an organizational specialist can provide objective recommendations on highly sensitive issues, particularly when layoffs are likely to be necessary. Agencies undergoing substantial reductions in force should keep employees informed of the status of organizational review, and provide as

much assistance as possible in out-placing employees who will no longer be with the organization.

3. *Do what you do best, and outsource the rest*—There are many functions currently performed by transit personnel that could be done by other public sector agencies or private specialists. Each function should be reviewed accordingly.

4. *Go with the pros*–When reviewing major expenses such as insurance that is also acquired by many other public and private agencies, take advantage of the greater availability of expertise (such as brokers) that can save your agency substantial dollars.

5. *Minimize the surprise*–The purchase of fuel is a major part of transit agencies' budgets. Fuel hedging can stabilize the price of fuel and help avoid unexpected expenses in the middle of a budget year.

6. *Follow the money*–While there are opportunities for savings throughout a transit agency, it makes sense to look at the areas of greatest expense to realize the greatest savings. Liability insurance, fuel, workers' compensation, health insurance, absenteeism, and energy management serve as primary examples. It often makes good sense to hire experts or to increase in-house capabilities in such areas. The more you know about the company you purchase from, the more apt you are to be able o work with them in acquiring the best deal.

7. *Assume the responsibility*–Many, if not most, transit agencies have enacted self-insurance programs. This causes them to be accountable for every claim, but also provides the opportunity to save money if their claims are less than the amount they budgeted for self-insurance. This greater accountability creates an environment of wanting to minimize risks and maximize rewards. This has resulted in more emphasis on safety, fewer accidents and absences, and reduced costs. Transit agencies are also well served by challenging all questionable claims again them, regardless of the possibility of settling for payments less than the cost of defending against the claim.

8. *Reduce absenteeism*–A number of transit systems have had success using third party administrators to provide day-to-day case management and claims administration services. Light duty or temporary modified assignments discourage those who might abuse workers' compensation benefits, while providing valuable service to the agency. Auditing sick pay requests on a random basis has proven effective in reducing the use of sick leave. Having doctors or nurses perform physicals on-site has also proven successful in reducing absences and keeping employees healthier.

Conclusions

Transit agencies clearly have many experiences to share that can help their counterparts reduce costs or generate new revenues, without resorting to raising fares or cutting service. The bottom line results are typically new revenue or savings of between 5-10 percent of an operating budget (though it could be considerably more). While this does not completely solve transit agencies' funding problems, it certainly helps the bottom line and avoids passing costs on to passengers to whatever degree possible.

It is very difficult to try to condense this report into a few words of wisdom. It was difficult enough to condense all the ideas submitted by transit agencies into six different themes. However, there is at least one thing that is striking in its irony. The term "Mass Transit" conveys an image of a singular type of one-size-fits-all service, which might have been an appropriate term more than fifty years ago when land use and public transportation were more closely aligned with each other. A monolithic service provider could serve the needs of most people living in more compact communities. Given today's urban sprawl, there is no hope that a single type of transit service provided by an insular agency can succeed. The automobile has clearly spoiled us, but can also teach us what people want. People crave flexibility and convenience. Their needs frequently change. Classical mass transit is only applicable in certain markets. Transit agencies now need to focus on providing options, staying in tune with changing market needs, and providing service supply that is consistent with demand. As Rob Gregg of the Center for Urban Transportation Research has said, "Mass Transit has to change its focus to Mass Customization." There needs to be more emphasis on *personalizing* transit's interactions with passengers and the communities it serves.

Many of the types of actions that have resulted in increased revenue or cost savings are a result of customized agreements with a host of new partners, more flexible service and fares, or creative cooperative agreements with public and private entities. Many of these activities succeed on the basis of working hard to establish relationships with as many different entities as possible. Fortunately, these relationships do not only result in cost-savings or revenue-generating opportunities. They also help to build broader support for public transit in the community. They create more energy from more sources to promote transit options.

Transit agencies that are having success in developing these types of relationships are taking advantage of the natural linkages that exist between themselves and other entities. America is a nation characterized by mobility. After food, shelter, clothing, and a job, mobility might be the next most important necessity. And the fact is that people can't obtain some of those other necessities without mobility. One-sixth of the nation's economy is based on transportation functions. It should be no wonder that there are linkages to explore and relationships to build. Transit systems can leverage their capital, their service, their ability to link people to places, and their goodwill to establish new opportunities to reduce costs or generate revenue. Transit agencies must find ways to maximize positive energy from every one of their employees and as many members of the community as possible. Sometimes all they need to do is ask. The more transit systems show they care about others, the more others will show they care about the transit system. The more other care about the transit system in a community, the greater its chances of securing friends, partners, and funds.

The pressure on transit systems' budgets is not expected to end anytime soon. All transit systems must continue to become more self-reliant. This is consistent with the broader national themes of greater individual responsibility, welfare reform, and devolution of authority from federal to more local jurisdictions. Just as individuals will need to improve their skills, so are transit agencies being asked to be more creative and self-reliant. This report hopes to contribute toward the accomplishment of these goals.

Appendix A
Survey

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CENTER FOR URBAN TRANSPORTATION RESEARCH

Date, 1996

Director
Transit Agency
Address
Address
City, State, Zip

Dear _____

The Center for Urban Transportation Research (CUTR) at the University of South Florida has been awarded a grant to identify the creative ways transit agencies are either saving money or generating new revenues during these difficult fiscal times. As federal funding decreases and anti-tax sentiments increase, transit agencies are becoming more reliant on their own skills and resources to generate necessary funding. Your help is needed to allow us to identify outstanding examples of transit efficiencies that can be shared with, and duplicated by, other agencies.

This is not a typical "check the box" closed-end survey. We are asking each transit agency in the United States and Canada to provide a narrative description (not just a listing) of the five most effective and/or creative ways they have either generated new revenues or saved money. We are only interested in those actions that have clearly resulted in savings or new revenues, without causing losses in ridership. The information you share will be of great value to other transit agencies as will the information you gain from others. Numerous Congressional representatives speaking at the recent APTA Legislative Conference stated that transit must do a better job of proving it is efficient and thereby worthy of continued federal support.

An attachment to this letter contains several examples of how different transit agencies are finding creative ways to save money and/or generate revenues. The examples are only intended to be suggestive. We hope that you will surprise and amaze us with your unusual techniques! CUTR will provide awards to the agencies with the most innovative methods. Your system will be profiled in CUTR's publications, and information on your techniques will be sent to other industry journals as well. We expect the survey results will be presented at the APA Annual Conference in October 1996. All of the information collected will be made available through the Internet. Of course, every agency that responds to the survey will receive a copy of our report.

If there are any questions, you may call me at (813) 974-9847, send a fax to (813) 974-5168, or send an e-mail to *volinski@cutr.usf.edu* at your convenience. Please mail, fax, or email your completed responses no later than June 21, 1996. If it is not possible to write your responses, please call me (or have an assistant call me) directly and I will take your information over the phone. As a former transit director, I'm aware of the volume of material that crosses your desk and I want to make your participation as easy as possible. Thank you in advance for your cooperation.

Sincerely,

Joel Volinski, Deputy Director for Transit
Attachments

The University of South Florida is an Affirmative Action/Equal Opportunity Institution.

National Transit Efficiencies Survey
Center for Urban Transportation Research (CUTR)

As part of the work program for the National Urban Transit Institute (NUTI), which is funded through a grant from the U.S. Department of Transportation, the Center for Urban Transportation Research (CUTR) at the University of South Florida (USF) is conducting a national survey to identify innovative ways transit agencies are saving money and/or generating new revenues.

Please provide a brief narrative description of the ***five most effective methods*** used by your agency that have generated new revenues and/or saved money. To save time, if you already have information compiled (e.g., articles, brochures, videos, Internet home pages, etc.) that describes your innovative techniques, please provide us with that information. If not, you may use the reverse side of this form and attach as many pages as needed to describe each method. Please make copies of this form and distribute to each department that you wish to participate in this survey.

Please answer the following questions when describing each of the five techniques:

1. What Technique has your agency used that has saved money or generated new revenues?
2. What agency initiative, concern, or problem prompted the implementation of the technique?
3. What was the period of time between concept definition and actual implementation? (e.g., less than a year, several years, etc)
4. Was the technique implemented in-house, with contracted support, or through a partnership?
5. What are the implementation costs? (e.g., operating, capital, etc)
6. What are the net operational impacts (e.g., dollars saved or generated) in absolute terms and expressed as a percentage of your overall budget?
7. Why is the technique considered a success for your department/agency?
8. Does the technique apply across modes or is it mode specific?

Please complete the following information:

Name of Transit Agency: _____
Name of department completing survey: _____
System size (number of vehicles): _____
Address (street, city, state, zip): _____
_____
Name and title of contact person for this survey: _____
_____
Telephone number: _____
Fax number: _____
E-mail address/Internet address: _____

Please mail, fax, or e-mail your responses by June 21, 1996 to:

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Appendix B
Survey Participants

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