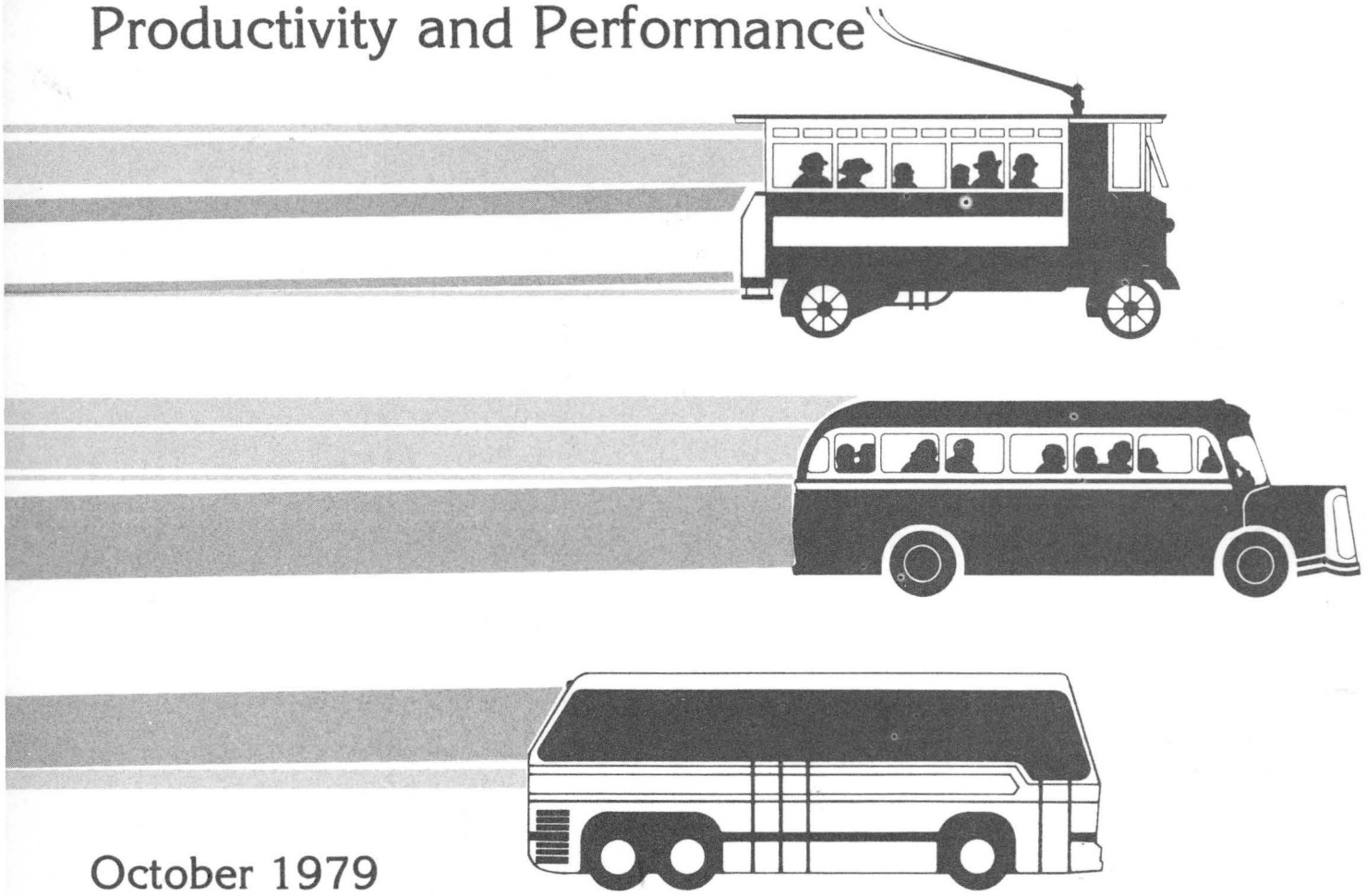
Transit Actions

Techniques for Improving Productivity and Performance



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URBAN CONSORTIUM

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PUBLIC TECHNOLOGY INC.

Transit Actions:
Techniques for Improving Productivity and Performance

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URBAN
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PREFACE

This workbook contains Actions which can cut the costs of providing transit services or improve system operating efficiency and effectiveness. The Actions were collected from local officials and transit managers, many of whom participated in a series of Transit Actions Regional Meetings held throughout the U.S. in 1979. Thus each Action has been tested and proven effective in one or more locations.

Most Actions were included because they required a low capital investment, had short-term payoffs, required limited staff time, or involved minimal institutional approvals. Background statistics on each of the properties from which an Action was received are presented in the Appendix. These numbers should help the reader determine if the Action would be appropriate for his or her system.

Some of the Actions are innovative, others, such as the use of part-time labor, and the designations of free-fare zones, have been considered for a long while but are now being tried on a large scale. Only a small number of the Actions may be new and appropriate to each reader, but the combined benefit from sharing and adopting a few good ideas will be great.

One transit system manager described the preliminary Transit Actions Workbook which contained forty Actions, in these terms:

> About 50% of the Actions have already been implemented by my staff. Another 30% of the Actions do not apply to my system for a variety of size and geographic reasons. I violently disagree with 10% of the Actions. But, the remaining 10% are great ideas that will save my system money.

The sponsors of this project would be pleased if each workbook reader pursued 10 or 20 new ideas for improving local system performance.

The three different perspectives presented in the beginning of this workbook emphasize the need to improve productivity and performance. The rest of the workbook is divided into five areas:

- Service Levels
- Transit Financing Policies
- Internal Management
- Labor-Management Relations
- Performance Measures

Each of the five sections is preceeded by several quotes as well as a speech given at one of the five regional meetings. The quotes and the speeches discuss the key issues for each section. A more detailed discussion of these issues can be found in Improving Transit System Performance: Proceedings of the September 1977 National Conference, available upon request from Public Technology, Incorporated.

Public Technology, Inc., for the Urban Consortium for Technology Initiatives, the American Public Transit Association, and the Intergovernmental Science and Engineering Technology Advisory Panel have selected improving transit productivity and performance as one of the most important urban transportation research and development needs.

With the support of the Department of Transportation, Urban Mass Transportation Administration, Office of Transit Management, and Office of Technology Sharing, Office of the Secretary, we are pleased to help meet this need through this project. It is our hope that widespread use of the Transit Actions Workbook will result in significant improvements to the productivity and performance of our nation's transit systems.

Acknowledgements

In addition to the many people submitting Transit Actions, the following deserve special recognition for their assistance in the development of this document.

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Public Technology, Inc.

Public Technology, Inc. acts as Secretariat to the Urban Consortium under the direction of John K. Parker, President. The UC/PTI Transportation Project consists of the following PTI staff and consultants.

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PERSPECTIVES ON PERFORMANCE

THE FEDERAL PERSPECTIVE

Robert H. McManus
Associate Administrator for Planning
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Urban Mass Transportation Administration
Washington, D.C.

The longer I work in public administration the more impressed I am with how difficult it is to communicate clearly--to say what one means to say and to be heard the way one means to be heard. This morning I have another chance to try it--this time on the subject of Productivity and Performance from the Federal perspective. I'll be brief, to try to improve the chances of being clear.

So far in this conference I have only heard a couple of comments which call for rejoinder. Not that I'm looking for the opportunity to do this, but I was somewhat surprised at Bill Stokes' comment that the Federal government doesn't yet know what use it will make of the data in the section 15 reporting system. And, in response to a question from the floor on whether performance measures would be used as a basis for making Federal grants, I believe Pete Stowell commented that he thought this was likely in time. That must have aroused Bill's worst fears, but before he could get to his feet Barry Locke retorted that if this came to pass we Feds had better get out of our offices and into the maintenance pits. I think the UMTA staff present will agree that we are already in the pits much of the time for one reason or another.

You will understand my sensitivity to Bill Stokes' comment when I tell you that my office manages the section 15 program. We don't always know which end is up, I'll concede, but we have been fairly clear about how we think the section 15 data is apt to be used by the several classes of users--only one of which is the Federal government itself. In fact, we were forced to be clear in order to get consent of the Office of Management and Budget to issue the regulation which implemented the system. OMB, sensitive to the requirements of the Federal Reports Act, was especially concerned that we not be any more demanding than absolutely necessary. For this reason, we specified two levels for reporting--a mandatory level (adequate for Federal purposes) and a much more detailed voluntary level, advocated by the Industry Committee. We designed the software to accept the detailed level of reporting, and offered financial assistance to operators who wanted to design their systems to report at that level.

We anticipate using the section 15 information for policy studies on the general condition of the industry, describing trends and so on--answering the kinds of questions we frequently get from the appropriations and substantive committees of the Congress. For example, What is the source of State and local funds for transit? How much for various functions? Passenger utilization? Vehicle utilization? We will publish a set of standard reports thought to be of general interest to all users of the system.

We expect that State and local governments and transit operators will be the ones doing the detailed management analysis. We do not anticipate developing standards as such, but describing values of indicators actually experienced by various sizes of properties, and essentially maintaining an information system about the industry.

As you know, UMTA has no direct role in the actual operation of transit systems--except as specifically required by law; for example, the half-fare off-peak policy for the elderly. We have the obvious stewardship responsibility to assure best possible utilization of funds by our grantees, but there are many things that are not and should not be part of UMTA's responsibilities. It has been emphasized by several successive UMTA Administrators that we do not believe that it is the Federal government's role to mandate performance measures, or to use such guidelines as a condition for the receipt of Federal grants. The desirability and feasibility of doing this were thoroughly considered in the policy studies preceding the enactment of the section 5 formula apportionment program, which, significantly, settled on factors which were unambiguous and could not be manipulated for allocation of the resource--population and population density.

The motivational element which we have always settled for is a plan. And it is in specifying the elements of the planning process where we come closest to being prescriptive. We describe a planning process consisting of a long-range element and a short-range element. For major capital investments considered in the long-range element of the plan we call for an alternatives analysis process. We describe the elements of that process, the factors which must be taken into account. We do not tell you what you may or may not build, but rather go into a juggling act which Walter Addison described in an earlier talk at this meeting. The conclusions emerge in a questioning process which permits our Federal system to work its magic.

With respect to short-range planning, we call attention to Transportation System Management. We are interested in the performance and productivity of the entire network, not just individual elements. We encourage attention to the imaginative uses of traffic authority and of pricing authority, and consideration of the best uses of the various modes. We will not tell you what your fare levels and operating ratios should be, but it is in keeping with our role to ask:

What is your fare policy?

What is your policy with reference to the operating ratio?

Don Scannell pointed out yesterday that it isn't such a hot idea to replace 700 buses in one year, and none for the next five years. The Federal government properly asks:

What is your equipment replacement policy and program?

What is your policy with respect to service levels and coverage?

I'll admit it sometimes sounds as though we're telling the world what to do. But the chalk line, though thin, is discernible, and I think we can keep from stepping over it--even when invited to, I might add.

I listened with interest to Mr. Dockendorf's description of Penn DOT's mass transit assistance program at yesterday's lunch. I am perfectly content to have the State of Pennsylvania lead the way in administering assistance programs in that manner. I would hate to attempt it at the national level. But Pennsylvania, New Jersey, New York, California, Massachusetts, Florida, Ohio, Wisconsin--to name a few which come to mind--are showing what is possible at that level in our Federal system with reference to the uses of performance measures and criteria in program administration.

To keep on this theme, the planning process is our tool for bringing into focus specific national interests at any point in time, within the general framework of our financial assistance programs, programs which otherwise, in many respects, are viewed and administered as entitlements. This is especially true of formula-apportioned resources. We are currently putting out a call for energy-contingency planning and air-quality planning, not to mention special efforts for the aged and handicapped and urban revitalization. We are not always able to say what we'll settle for, but let's not be too cynical about this. We are engaged in complex political and administrative processes within a complex but durable Federal system--thank God for that.

I ought not neglect to say a word about Metropolitan Planning Organizations. Whenever we consider how to give all these subjects force and effect in terms of an agent we turn to--you know who--the MPO. In all seriousness, we are quite conscious of the danger of overloading a fragile mechanism. On the other hand, we are not looking for miracles. This is a long game we are playing. When the joint planning regulations of UMTA and FHWA were promulgated in 1975, the basic idea was to forge a more effective link between planning and programming. This was seen as the biggest flaw in the process, and we needed an agent with the broadest perspective to put the juggling act together--to continue to use Walt's term. It was not intended that the MPO be the implementor of all of the follow-on action; rather, that it be the synthesizer of many elements. It must involve all the appropriate players and then add something of its own--the regional or comprehensive perspective. If the process were meaningful, we expected this would result in institutional reformation, and for that very reason we did not and will not specify the structure of the MPOs. Again, the trick is to let the Federal system work.

Lest I be too lofty and lengthy, let me try to do some synthesizing of my own--or perhaps more accurately, some wrapping up.

It seems to me that the Federal government is reasonably good at problem identification--not flawless, but reasonably good. At the macro level this results in major programs, such as the urban mass transportation program itself, and sub-activities such as TSM, special user group efforts, energy planning and so on.

If we fail to capture the ingenuity of all forces with a claim to be heard and to act in addressing the problems, we can make a mess of it. So a second major activity is experimentation, especially through research and demonstration programs. We make extensive efforts to collaborate with State and local authorities, and the academic and technical communities in identifying priorities for our research, development, and demonstration programs--both with respect to techniques and methods, and with respect to facilities and equipment. This activity helps to inform policy-makers, and to make policy credible by showing what will work--what is workable and effective.

A third role is information exchange, of the type we are conducting at this conference and at others like it on other subjects--paratransit, planning methods, labor issues, marketing, and so on. We are faulted for not doing better in this general area, but we are making a conscious effort to put together a more comprehensive information services program within Brian Cudahy's operation.

A fourth role is promotion of worthy results of R&D activities--rather than prescription. Our leverage includes planning and demonstration programs, in conjunction with our main-line financial assistance programs.

And finally, financial assistance itself--within limits. On that point, it would be nice if we could find some principles for determining the appropriate level of Federal financial assistance. But let's leave that question for another day.

THE TRANSIT OPERATORS PERSPECTIVE

B.R. Stokes
Executive Director
American Public Transit Association
Washington, D.C.

The American Public Transit Association represents the public interest for the improvement and expansion of public transportation throughout North America. We are working to assure that transit's role is recognized and relied upon in a long series of national policy areas. And, we are working to improve the effectiveness of transit services in all of our communities.

The discussions we will hold at these meetings are consistent with these objectives. That is why we have assisted Public Technology, Inc. in sponsoring these conferences.

Public transportation performance remains at the forefront of the issues which currently dominate APTA's policy endeavors. This is so for a number of reasons.

As providers of a public service, the transit community has a responsibility to its riders. We must offer comfortable transportation to go where the passenger chooses when the passenger chooses at the lowest cost. The transit community similarly has a responsibility to the taxpayer. Since transit is now a largely public enterprise, we are entrusted with public funds. This imposes upon us a commitment to invest these resources in a way that will bring the maximum return. This is why we attach the importance we do to transit performance.

APTA's interest in performance is dual in nature. On one hand, we must serve the interests of the public -- riders and taxpayers. As you know, a dramatic movement is taking place for accountability. Citizens and government leaders want to be secure in the knowledge that public dollars are going into responsible and beneficial programs.

On the other hand, we must serve our members. We must assist them in obtaining the tools and the skills to monitor and to evaluate their operations, and to make decisions on that basis.

We are meeting these needs in several ways. Under our Planning Committee structure, a Transit Performance Subcommittee has been at work for some time. Led by Planning Committee Chairman Dave Goss of the Greater Cleveland Regional Transit Authority, the subcommittee spent a portion of its most recent meeting in consultation with several UMTA officials. These representatives outlined a range of performance activities in which the Federal government is involved. The clear message which came out of the discussion was that the transit community is being challenged to meet the performance issue head on -- to establish an appropriate framework for performance evaluation and to define appropriate applications

for transit operators. Our performance framework must respond to transit needs and to public needs -- and it must lead to meaningful decisions and actions.

Our subcommittee is committed to meeting the challenge. They see three components to their role:

- Advising agencies that are conducting performance projects.
- Alerting and educating the transit community to the issues presented by performance measurement.
- Formulating a project which will expand operator understanding and identify information voids.

To begin with, transit performance has many meanings. I suspect that if we were to poll the audience on what transit performance means, we would get some very different answers. This is particularly true in light of the diversity of the group gathered here. However, I will wager that even a group of transit operators might answer the question with different points of view.

I would suggest that we need to define our terms as a first step. We need to make sure that we are all talking about the same things.

One area in which we tend to confuse our definitions involves performance measures and standards. Clearly, they are not the same animals. Performance measures are descriptions of any number of aspects of transit system operations. Standards are benchmarks. While each transit operator will need to establish his own set of performance criteria, an emphasis on performance standards may lead us in, what I consider, an unproductive direction. It suggests the comparison of one transit system with another and suggests that a single State or Federal standard could be developed.

APTA believes that it is meaningless to try to apply one set of performance measurements across the board and even more inappropriate to define standards.

It is a truism to state that our cities and towns, our States, and of course our transit operating entities are all unique -- their differences far outweigh their common features. In public transportation, the variety in operating conditions, service populations, local policies, and available resources that we find from urban area to urban area means that each system is unique. Each system is a product of varying local conditions. Comparisons which cannot account for those individual natures will never be able to provide meaningful and let me add -- usable -- information.

Another issue we face deals with the often conflicting goals which transit must serve. Performance goals will frequently compete with other service goals. Public policy aimed at meeting various social and

environmental objectives has created a dilemma for the transit operator. Transit services must respond to a variety of needs, including those of elderly and handicapped persons and residents of minority areas. At the same time, the Clean Air Act, local development goals, and additional Federal and State programs impose certain responsibilities. Often transit services that satisfy some of these needs do not look good when traditional performance evaluation techniques are applied. We need to address a balancing process for the conflicting commitments. We must determine what "good performance" really is and what it can be. And we must make these determinations at the local level, in accordance with each community's unique concerns.

As we sort out these issues and present our varying concerns and perspectives, it might be helpful to keep transportation performance as opposed to transit performance in the back of our minds as well. Public transit does not operate in a vacuum. We use roads that are used by other vehicles. We compete for land with other uses. I would raise the question, "To what degree is transit performance affected by non-transit forces? What activities outside the traditional sphere of public transportation will improve performance?" This perspective encompasses the notion of transportation systems management and the use of our entire transportation infrastructure to better purpose -- to do more with all of our existing transportation resources.

Another concern of APTA's relates to the linkage of data collection and data use. As our skills improve in collecting information about operations, we also need to understand how to use what we collect with greater sophistication. Much of our emphasis has been on collecting data to meet UMTA requirements and data requests. Perhaps we need to change the emphasis to the use of data internally to better our management and to improve our communication with the public. Rather than consistently shipping off data packs to Washington, we need to keep them in the front office -- to use the information to restructure organizations and operations as well as to fine-tune them.

Certainly, section 15 requirements complicate this issue. As of now, it is still unclear as to what UMTA will do with the data that is being submitted.

Another area of concern lies under the heading of transit financing. Today, public transportation services are supported by a combination of Federal, State, and local funds, as well as user payments in the form of fares. On each level, the assistance provided to transit is a function of policy. For instance, in a local community, financial participation is indicative of the prevailing attitude toward public services and of the importance attached to the mobility of residents. Local funding mechanisms tell us the amount of its resources a community will use to support transit services. What it does not tell us is how the transit system is performing. Factors such as farebox recovery rates remain the product of political decisions.

I do not mean to imply that financing and performance are unrelated. They are indeed related. An assured and stable financing source--be it any combination of resources--remains critical to transit system efficiency and effectiveness. Unless a transit operator knows with certainty that a permanent and reliable base of fiscal support exists, we will not be getting the most out of our public transportation investments.

For this to occur, locally as well as at other levels, there needs to be a full understanding by all of the participants on the urban scene of the costs, the constraints, and the opportunities associated with transit.

Perhaps the most important contribution we can make at conferences like these is to see and try to understand each other's perspective. We come from different professional backgrounds. Yet, we all have a stake in how public transportation performs. Let us try to forge a partnership in which the operators, government leaders, labor, and the general public will all be involved with the one goal of obtaining the most from our limited resources.

TRANSIT PERFORMANCE CHALLENGES

Richard Page
General Manager
Washington Metropolitan Area Transit Authority
Washington, D. C.

When I accepted the invitation to speak at this meeting, it was as the UMTA Administrator who approved these five conferences. I still approve, although my responsibilities changed substantially weeks ago. Now, as General Manager of the Washington Metropolitan Area Transportation Authority, I expect to listen, learn, and take back a number of helpful ideas about how to improve our productivity.

In thinking about my remarks to you, I noted that my first major speech as UMTA Administrator was to the predecessor to these regional meetings--the First National Conference on Improving Transit Performance at Norfolk, Virginia in September 1977. Now, in my first major talk since becoming General Manager of WMATA, I'd like to reflect on our progress as an industry in the two years since Norfolk, and suggest some challenges I hope we'll meet in the next two years, and the next decade.

No one needs to say to this audience that this industry is under a very intense spotlight. Senator Jackson is quoted on the morning news this morning as saying the situation in California will be occurring in all states over the next few months and years.

Today's headlines and the gasoline lines and the conditions in our own transit authorities point up the need for increased productivity more than ever. That's not a statement that our productivity is all that bad. It's simply the obvious recognition that these sessions are timely and the attention that all parts of the transit community are giving to performance and productivity is coming at the right time.

It's always helpful to step back and ask oneself why one is doing something. Let me give you four reasons why this is appropriate, four reasons to look hard now and in the future at the productivity of this industry.

First, in a time of inflation improved productivity is essential to keep costs from getting out of control.

Second, we live on tax funds to a great extent and tax funds are in short supply these days, at all levels of government, and they are being more closely scrutinized by more people than ever before.

Third, we must prove again the value of transit and demonstrate anew that we are providing transit as efficiently and as effectively as possible.

Fourth, with the shortages of gasoline, our own energy needs are increasing and our systems are becoming crowded. We are almost in the terrible predicament of saying we can't handle the success that is occurring. We are being called upon to expand capacity suddenly. Improved productivity is certainly one sure way to stretch the transit dollar and increase capacity.

In the last two years we've made great progress toward improving our performance nationwide. We've increased our service by adding route miles; we've upgraded our marketing programs and improved public understanding and acceptance of our services; and we've increased ridership. We've also started to take the subject of performance seriously. Yet, statistics that show declining productivity in both the public and the private sectors in general, and specifically in the transit industry, challenge this belief.

The transit turnaround has occurred and is heartening to all of us. With all of our recent success and with the success that may be coming faster than we can manage, we must look ahead. What do we need to work on in the next decade, instead of thinking what we may or may not have done in the past decade?

Let me cite some productivity challenges in six areas:

- labor-management relations
- financial management
- planning
- fleet management
- public services
- technology and applications

Walter Bierwagen dealt with labor management relations in an earlier speech, so I will concentrate on the other five areas. At least at WMATA, and I suspect elsewhere, I'm sure there are millions of dollars worth of potential savings that would result from our implementation of the most modern financial management practices. Financial management includes:

- revenue and expenditure forecasting
- identification of alternative revenue sources to supplement farebox revenues
- application of sophisticated accounting practices
- cash management and investment policy
- use of performance audits and other techniques to evaluate transit's financial performance

In each case, I'm sure, at least some of us are using exemplary practices. The examples mentioned in the Transit Actions Workbook indicate that.

Planning, considered in the context of performance improvement, is transportation system management. Some of you probably feel TSM'd to death, and I'm at least partially responsible for your feelings. However, TSM makes sense. It makes sense to get together with our local traffic engineer to implement measures such as bus signal pre-emption devices to shorten bus delays. It makes sense to get together with our parking managers to locate facilities and transit service so as to improve downtown circulation. And it makes sense to get together with local transportation policy-makers to identify alternative services such as taxi van-pool operations that might enhance our ability to move people, espcially during peak hours.

Of course, long range planning is also important. Efforts to revitalize and diversify downtown activities will increase transit patronage, as more and more people choose to work and live downtown.

I don't want to leave the subject of planning without mentioning the need for planning for energy conservation and energy contingency. If there were any Californians with us, I'm certain heads would nod in agreement when I suggest that transit is essential in an energy shortfall. Statistics from the Southern California Rapid Transit District underscore this point. In April, 1979 just prior to the gas shortage, weekday trips on the Southern California Rapid Transit District buses numbered 1,190,000. This represents a 10% increase over April 1978. On May 7, 1979, there were 1,440,000 trips made. This represents a 21% increase since April 1979. Jack Gilstrap tells me that buses on several lines are running at 170% load factors, and too many passengers are being left at bus stops.

The planning challenge with regard to energy is not just to accommodate additional riders, but to keep those riders after the shortage. If my judgment is correct, we haven't got much time to accomplish this.

The third area I mentioned is fleet management. By this I mean our efforts to assure that service is reliable. Judging from my experience in Seattle, I have concluded that our bus maintenance people are hard-pressed to keep the buses running on the streets. Fleets nationwide are getting older, harder to maintain, and less reliable. Maintenance staffs are dedicated workers with a difficult task.

Unfortunately, despite the overall growth in the UMTA capital grants program, bus purchases have not kept pace with the required twelve year replacement schedules. Although we suffer the criticism from our board members and elected officials, the public is the real victim of this situation.

Public services are the fourth area requiring our attention if we are to improve system performance. Public services include--

- market analysis
- public information
- citizen participation

Public services also include other activities that help us to understand the needs and attitudes of our riding and non-riding constituency.

Finally, technology applications. If George Pastor were here, he would give an eloquent statement on this subject and many of you probably can too. In part, it is the practical use and application in this industry of the computer. Let me give you a personal example: A report prepared by WMATA over a year ago identifies as much as $4 million in annual operating costs that could be saved if WMATA were to use, computerized scheduling system and to employ data processing in a sophisticated manner in several different areas in our authority.

UMTA has helped fund these programs, RUCUS, SIMS and other management information system of various kinds, some of which have been adapted as part of section 15. However, it's not really enough money to pay for that software or to even pay for the conversion in an authority. The task really lies in getting the workers to use that system to help improve the maintenance or to help improve the scheduling.

I referred already to the technological weaknesses in some of the equipment:

- lifts that don't work
- air conditioners that don't work
- the need for more testing
- development of components

One of my biggest disappointments as a Federal official, was being unable to develop the right partnership with industry and with the people who are going to use industry's products so that those new products would come into service and be tested and be reliable. The application of technology is an important point which can increase our costs but can also bring real savings.

Each one of those topics as well as labor management relations deserves a full speech, but I'm not going to attempt that here. In these six areas, we have our work cut out for us.

I. SERVICE LEVELS

I do not think that a politician really wants good transit productivity or performance, rather he wants a lot of transit lines running through his home district with 10, maybe 12 minute headway, low fares, perhaps a quarter, and new equipment, regardless of the cost. He certainly doesn't want a lot of money spent on maintenance. Maintenance by and large provides benefits which materalize during the term of the office of the foul fellow who beats him in the next election and not during his term of office.

The Honorable Richard Smith
Councilman
City of Dallas
Chairman
Transportation Committee
National League of Cities
Dallas, Texas

There is no dogma about service levels and characteristics; these are established on a policy basis which reflects the public purposes and goals of those who make a decision that, for whatever local reasons, public transportation is an essential public service.

Jack Gilstrap
General Manager
Southern California Rapid Transit District
Los Angeles, California

BRIEFING ON SERVICE LEVELS

The Honorable Charles Royer
Mayor, City of Seattle
Seattle, Washington

Seattle is noted for giving to the Federal government and to the country: Brock Adams in the Department of Transportation, Dick Page at the Urban Mass Transportation Administration, Aubrey Davis of the Department of Transportation, and Frank Raines at the Office of Management and Budget -- a rather mixed bag of people. Aubrey, Page, and Secretary Adams dream up grand schemes, and Frank Raines tears them apart.

We do, however, have another national weapon in the form of Warren Magnuson, who is also from Seattle, and who sits on the Senate Appropriations Committee. He puts most of the schemes back after Frank Raines is through with them. And we're counting on Maggie pretty heavily this year, I might add.

I'm here for a learning experience. I'm taking on the responsibility of the policy job in transportation for the National League of Cities this year. This is a critical year for transportation, and one of my primary goals will be to secure a little money for all of us.

I was at a meeting hosted by the nation's mayors, who were reviewing the President's budget. A reporter from the New York Times Magazine was writing a story about how liberals in this country are coping in these rather grim and gray times of tax revolts and budget cutting. This reporter asked me how I was coping, and I told him that this liberal Democrat was doing such exciting things in my city as repairing bridges, fixing the sewers, sweeping the streets, and trying to buy a few more buses and trolleys for our transit system.

I also told him I was not having very much luck finding the dollars to do even those very unexciting and unsexy pieces of the public business. The political rhetoric today is ripe with the uninspiring. One hears "no growth", "hold harmless", and "back to basics" more than one hears the inspiration of new programs, new dollars, and new ideas. Even the national inspiration has gone underground with the New Foundation, which, as nearly as I can figure, symbolizes either a strict undergarment holding us in, or a more durable, though surely less expensive, underpinning holding us up.

All of this is quite uninspiring to those of us in government, especially those of us who are new to government and have some good ideas. We want to be creative, and we want to build and invest for the future.

But maybe the reality of these days is not quite as grim as the rhetoric we have been hearing. I'm here to talk about the business of transporting people. Let me begin by telling you a couple of stories out of the old days of high political rhetoric and big ideas in government, and how far we've come in transportation alone.

As some of you know, we make Boeing airplanes in Seattle. The flight line at Boeing field is an excellent barometer of Seattle's economic well-being. In bad times, Boeing field is an enormous parking lot for a dwindling number of employees' cars. In good times, it's a parking lot for airplanes waiting delivery. At the moment it's full of airplanes, and the employees have a serious parking problem. One of the reasons for that happy situation is that the Federal government swallowed its own high political rhetoric of a few years ago and decided, by one vote in the U.S. Senate, to become a second-class world power. Our political and our business leaders jumped on the SST as a symbol of speed and progress, and never let us forget that we were courting national disaster by not funding it.

With the clear view of hindsight, look at the real first-class powers in the world, and how they handled this problem. If the United States could not or would not build the SST, Britain and France surely could, and did. After spending $4.28 billion, 14 production models were built. Each plane cost $267 million to produce. Quick arithmetic will tell you $267 million is $33 million less than the Federal government appropriated to purchase new buses in fiscal year 1979. Only 9 of the 14 planes were finally sold -- for $80 million a piece, $187 million below cost.

Once in the air, the operating cost of the Concorde is $78 million a year. If you do not pay taxes in Britain or France, there's absolutely no better way to get to Caracas. The Caracas run, according to those who have taken it, is especially personal and fast. The plane is running at 30% capacity.

The Concorde is a triumph of national pride and politics over managerial common sense. The United States government aimed Boeing in the direction of managerial common sense by refusing to fund further development of an American version of the SST. Today, Boeing's common and fat and unattractive everyday large and efficient airplanes create the most uncommon profits for the Boeing Company.

The day the President announced normalization of diplomatic relations with the People's Republic of China, Boeing announced the Chinese purchase of two fat, fuel-efficient 747s, presumably full of Coca-Cola. Now I don't want to gloat any more over the Concorde. As California's Jerry Brown is fond of saying, even the age of limitations has its limitations.

As a new mayor, I inherited a bigger and faster and better kind of transportation system in my own city. I also inherited all of the high political rhetoric that goes with big freeway construction. I'm talking about a $1 billion road that is 6 miles long. I pointed out that $1 billion is a lot to spend on a 6-mile piece of asphalt. It is nearly all of the Federal transportation dollars the State of Washington will get for the Puget Sound Region. I suggested that perhaps we should not try to squeeze all of those dollars into a 6-mile long suburban commuter corridor.

I pointed out that to dredge up from 20 to 40% of the gas tax for the State match to build the Seattle Interstate 90 link might be a political problem for those of us who would have to go to bat for the gas tax. I also pointed out that perhaps we ought to be thinking about doing the things necessary to spend the money we have on several smaller and less sexy projects around the region. This includes unfunded projects badly needed by lots of people living outside of the 6-mile corridor. The reaction has been predictable: "The Mayor is no visionary, he wants to buy buses and transit lanes, he's a small and beautiful freak, and a small thinker."

Like those who said it was not important to get to Caracas higher and faster in the SST, I am seen as jeopardizing, by my position on I-90, the need for one person in one car to travel the distance unfettered and unstopped between Boston and Seattle in roughly six minutes, the new national goal.

What I'm trying to say with those two stories is that managerial common sense -- investing prudently in systems that are in place, enhancing expensive services already functioning -- may very well be the most visionary course and the proper course we can follow as public officials facing tight budgets.

Let me tell you a little bit about how we're trying to do that with Seattle Metro. Our problems are certainly yours. How do we keep pace with the growth of industry, given no-growth Federal and local budgets, and given the absolute certainty that a real gasoline shortage will drive our passenger growth curve off the chart? In the private sector, it occurs to me that an executive reporting to the board would say, "Our sales are going up and we are doomed."

Our transit agency in the Seattle-King County region is governed by a 37-member council of elected and appointed officials representing the many and different political jurisdictions in the region. We suffer all the small city big city pulling and mauling that you might expect. But we also try to think regionally -- and sometimes we succeed.

A peculiarity of our transit agency is the fact that it started out as a county-wide sewer agency designed to clean up our magnificent in-city lake, Lake Washington. And Metro did such a good job of bringing all the jurisdictions together in accomplishing the so difficult task of cleaning up a huge lake that the voters entrusted Metro with another basic service, public transit.

Metro took over a deteriorating city transit system, as well as the small country transit system that was privately operated. Both of the systems were competitive, uncomplementary, and unprofitable.

They were caught in the grip of problems facing all transit agencies in the late 1960s. When Metro took over transit in 1972, it also got a piece of the locally-generated sales tax revenue, plus revenues from the State motor vehicle excise tax. These funding sources, coupled with new Federal programs for capital grants, have allowed us to build an excellent all-bus transit system in the region.

Over the past year we show a passenger growth rate of 10%. We can hardly provide enough seats during morning and evening peak periods for all those who want to ride Metro buses. We have a howling success on our hands; that is, a success that gives us, in Seattle, several reasons to howl, as public officials.

The headline in yesterday's Sunday paper in Seattle reads, "Metro buses can't keep up with crowd." The article goes on to outline the plight of one of Metro's passengers. "Marilyn Anderson walked to her bus stop the other day, and was dismayed when her bus did not come. She was even more dismayed when the next two buses went by without stopping, because they were already overloaded with standing passengers. It meant she was going to be late for work. Finally, about half an hour after she reached the bus stop, a coach rolled to a stop, even though it seemed to be overloaded, too. "Mine was the last body pressed into the bus,' she said. 'I had to squeeze.' "

Miss Anderson's problem is not unusual. Patronage on our buses, as I've said, increased 10% last year, against a forecast of 7%. Last week full Metro buses of the kind I described had to pass waiting passengers 63 times. That's better than last October when we reached a high-water mark, and drivers reported they had the unpleasant task of passing up would-be riders 120 times in one week.

I'll tell you, and the Metro riders will tell you, and the Metro drivers will tell you, that when you pass people up very often, they begin to wave at you. But they don't use all their fingers.

Metro's bus fleet and its budget limits the amount of new service we can offer. As you know, it costs about $25.00 an hour to run a bus; a new bus costs at least $105,000, and it takes more than a year to procure one. The Federal no-growth commitment to new-bus purchases in fiscal year 1979 is $300 million, one-third of the cost of our 6-mile long Interstate link. We could spend a third of that $300 million right now on new bus and trolley purchases in Metro. So we're trying to cope. We're trying to manage and cope better.

Several years ago Seattle decided to buy articulated buses to serve more commuters with fewer units. We've also put in with-flow exclusive transit lanes throughout our central business district at our peak hours. We get a faster and smoother running system at the most traffic-congested time of the day, and we're saving money and operating costs as well as providing more effective transit service.

Probably the most important thing we've done was at the bargaining table. And that was to secure a part-time labor agreement for our drivers. The part-time peak-hour driver basically makes our operating economics as attractive as rail.

Beyond these steps, we've set up a special committee of the full Metro Council to deal specifically with the evaluation of service. Over the last two years this subcommittee on service evaluation has wrestled with the difficult problem of shifting little-used service to peak-hour

service. The committee has established service performance criteria and standards for different routes. If routes fall considerably below those standards, the committee considers changing the route by cutting back service, eliminating it, or combining it with another route. Public hearings -- delightful public hearings -- are held in the affected communities. This gives us a good idea of the level of emotional violence we must deal with in order to make those small, cost-effective changes. Currently we're trying out a major service innovation called shuttling. When we have two or three routes running parallel to each other, but serving different neighborhoods, they are combined into one route at night and on weekends.

These are, admittedly, a few small changes. They're not big new systems, they're not especially sexy ideas, but they work. We think they're good managerial common sense. They provide very few headlines, even fewer political points for those public officials who advocate them. But they do serve to protect the investment we have in a good, practical, existing system.

Seattle is waiting for the day when the Federal government can make the same level of commitment, in will and in dollars, to the urgent needs of the public transit systems that serve our increasingly less-mobile, poor, elderly, and urban-anchored citizens as it did to the Interstate highway system.

Until that day even good liberals and innovators and excited new people in politics are just going to have to learn how to apply their skills and their rhetoric to fixing up what we have, building slowly on what is there. And that is not a small challenge.

Transit Action

ACTION : Installed radio-dispatched, demand-activated, multi-route deviation service from bus stop to bus stop during periods of low ridership, principally at night.

GOAL : To provide equal or better service to passengers while effecting cost savings by transit operator.

ISSUES : Continued budgetary pressures dictated the need for more effective use of funds. Low nighttime ridership encouraged experimentation in selected areas of city.

DETAILS : Passengers can go to either 1 or 2 terminals and board the bus at fixed times, or they can call to be picked up en route at any stop. At present, 13 routes are served by 4 radio-dispatched buses and mini-buses replacing 7 line buses.

In all cases we have provided better service. In some cases we have doubled the frequency and we have reduced our costs for this service over earlier conventional service approximately 33%. Public reaction is exceptionally favorable and there have been no complaints whatsoever concerning this service.

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St. Petersburg, FL 33704
(813) 893-7487

Transit Action

ACTION : Staggered school hours.

GOAL : Improve service to high schools using existing system capacity

ISSUES : San Diego has a shortage of "Little Yellows" (school buses), yet between 5,000 and 6,000 students need bus transportation each day. Because of crowded peak conditions, student transportation demand was not being met with regular service, since any given vehicle could only deliver one partial load of students, mixed in with other patrons, per A.M. peak period.

DETAILS : Since, as a result of Proposition 13, no additional vehicles could be purchased to meet this surplus of student demand, the local Board of Education agreed that staggering school starting times would be the best approach. Staggering times vary among schools, depending on transit availability and demand, the maximum being about an hour. No special routes have been provided, but routes and schedules have been modified to integrate the new patrons into a smooth system. San Diego has an advanced RUCUS installation which facilitates such changes.

San Diego also supplements its regular fleet with older, non air-conditioned buses during peak periods. These are used sparingly on heavy demand routes, as a means of extending the life span of the fleet. In the hottest summer weather when school is out, these older, non air-conditioned buses are pulled out of service.

All students needing transit service have been provided it. Vehicles on some routes are now able to transport two and three loads of students during the A.M. peak. A few teachers have complained about the time changes, but the School Board has been quick to quell the opposition. The Board remains in strong support of the program.

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Mass Transit Administration
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Baltimore, Maryland 21230
(301) 539-6281

Transit Action

ACTION : Reduce miles and hours of service across the LANTA system during FY 1977-1978.

GOAL : Hold the line on expenses while maintaining system ridership at FY 1976-1977 level.

ISSUES : Revenues from governmental sources (local, State and Federal) for FY 1977-78 were projected to remain at the FY 1976-1977 levels. To avoid a budget deficit, the board opted to review its entire system-on a route basis - with the objective of reducing the miles and hours of service. Staff was directed to maintain a reasonable level of service to all portions of the community.

DETAILS : All routes were carefully reviewed based on the revenue generated per service hour. In those cases where the revenue to operating cost ratio fell below 30%, a detailed evaluation of headway requirements, route spacing and service hours available was performed. Modifications were made in each sector of the service area based on this detailed analysis. The changes took the form of route consolidations, frequency reductions, overlap elimination and route length changes. All changes were made with full knowledge of the effects they would have on driver work schedules. After a 3 month trial period, certain additional modifications were made to eliminate any major problems created.

A comparison of FY 77-78 statistics to those of FY 76-77, showed a 10.3% reduction in miles operated, 10.9% reduction in hours operated and 0.2% reduction in expenses against a 7.3% increase in the C.P.I. Ridership decreased by only 2.8% and passenger revenue decreased 2.1%.

CONTACT : Armando V. Greco
Lehigh and Northampton Transportation Authority
12th & Cumberland Streets
Allentown, PA 18103
(215) 435-6771

Transit Action

ACTION : Broker contracts between school districts and private contractors for school bus service.

GOAL : To reestablish school bus service that was eliminated due to Proposition 13.

ISSUES : With the elimination of most home-to-school transportation by several school districts in San Mateo County, SamTrans moved to meet the increase in student ridership on the public transit system. Several existing routes were extended or revised to bring the routes closer to schools that had eliminated home-to-school transportation. In cooperation with the home-to-school districts, adjustments in school schedules and transit schedules were made to accommodate students on existing routes. In areas where there was insufficient service on existing routes to meet the peak hour student transportation demand, SamTrans added eight additional buses.

There are many areas throughout the County where SamTrans is unable to meet the specialized home-to-school transportation demand because of the volume of students at certain hours and the lack of equipment. Because of this, SamTrans became the transportation broker.

DETAILS : Utilizing surplus school buses, SamTrans contracted with a private operator to provide bus drivers and supervisors, and has also contracted with the school districts to maintain the buses. SamTrans also installed fare boxes and two-way radios in the buses, optimized routings and scheduling, collects fares, and oversees the administration of the program. The transportation is provided to students on a user fee basis. The fare is 15¢ a ride. The revenue generated by the fare offsets approximately 30% of the operating costs. The deficit is absorbed by the participating school districts based on a per mile charge within each school district.

The net result of the program has been a dramatic reduction in the transportation cost to those participating school districts.

CONTACT : Bill Sullivan
San Mateo County Transit District
400 South El Camino Real
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San Mateo, CA 94002
(415) 573-2252

Transit Action

ACTION : Special buses were added on mainline routes during peak hours to improve service to the public schools.

GOAL : Increase peak period capacity on main line routes servicing schools.

ISSUE : High ridership of students inconvenienced the regular adult riders.

DETAILS : After delivery to schools in outlying areas, buses were used to help main line routes maintain schedules. This also created runs that were long enough to avoid paying guarantee time.

Schools receive the same level of service while better service is provided on major lines for the general public during the peak periods at no additional cost.

CONTACT : Tom Drengson
Madison Metro
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Madison, WI 53704
(608) 266-4165

Transit Action

ACTION : Cut service frequency on poorly and marginally-patronized routes.

GOAL : Reduce the number of bus runs.

ISSUES : Because of the large reduction in budget, the transit board required a cut in service. A typical action is to cut poorly-and-marginally-patronized routes. This leaves some areas with no service and can reduce patronage on other routes.

DETAILS : The Metropolitan Transit Commission determines whether or not to continue a bus route or individual trip based on a measure called "subsidy/passenger". Subsidy per passenger is defined as the cost of service minus the revenue divided by the patronage for that route or trip.

The Metropolitan Transit Commission does not allow bus routes to operate in excess of $1.25 subsidy/passenger. However, individual bus trips on a route may go as high as $1.50 subsidy/passenger. Trips or routes exceeding these ceiling standards are either modified to bring them into compliance or discontinued.

Service for 1,800 of the system's 90,000 daily route miles was cut. Patronage before the cut was 200,000 per day. Patronage dropped by 0.005%.

CONTACT : Fred Haywood
Metropolitan Transit Commission
801 American Center Bldg.
St. Paul, MN 55101
(612) 221-0939

Transit Action

ACTION : Westwood Minibus Shuttle

GOAL : Relieve congestion in Westwood Village and to alleviate the shortage of parking spaces.

ISSUES : The Westwood Chamber of Commerce complained that there was limited parking for movie theaters, restaurants, and bars and that the merchants were losing business as a result.

DETAILS : The shuttle operates on Friday nights (6:52 PM - 2:20 AM) and on Saturday mornings (11 AM - 2:20 AM). The fare is 10¢. In the early stages of the program,counter cards with fares and routing information were distributed to the public through the merchants. The Westwood Chamber of Commerce also produced a short film that was shown at local theaters prior to the movie.

The service has been running for several years, and the merchants as well as the Chamber of Commerce consider it a success.

CONTACT : Connie Ward
Southern California Rapid Transit District
425 S. Main St.
Los Angeles, CA 90013
(213) 972-6651

Transit Action

ACTION : Establish auto free zone in downtown business area.

GOALS : To improve service and running time in downtown area; to provide a shopper's mall for pedestrian safety; to encourage autoists to park in suburban areas and to utilize public transportation.

ISSUES : The downtown area was congested with traffic and pedestrian safety was a concern.

DETAILS : In order to implement the action it was necessary to obtain funding for traffic and signal changes, and to gain the cooperation of the merchants, the traffic and police departments, the MBTA and the public. Additional operators and vehicles were required in the extension of routes.

In general, the establishment of an auto free zone has met with approval in Boston. However, the extension of routes has led to a reduction in revenue since it is no longer necessary to transfer.

CONTACT : Emily Lloyd
Commission of Traffic and Parking
City Hall - Room 721
Boston, MA 02201
(617) 725-4675

Transit Action

ACTION : Integration of five transit systems.

GOALS : Reduce costs and service overlaps.

ISSUES : Prior to 1974, San Diego was served with three bus and three Dial-a-Ride systems -- all publicly-owned. Routing and scheduling were not coordinated, and transfer from one system to the next required payment of additional fares. Because of this fragmented coverage, many origin-destination combinations were difficult or impossible and many potential trips were deterred.

DETAILS : Pushed by San Diego's Comprehensive Planning Agency, San Diego Transit Corporation integrated its service (a regional mode) with the two other major bus companies and three Dial-a-Ride companies, plus AMTRAK and intercity buses. Scheduling is done together for all the transit and paratransit operations, routing has been re-worked to improve compatibility, and intercity terminals are now served directly. Each system accepts the other's transfers.

This approach has greatly improved transit access for most persons in the San Diego area. Many new trips are now possible. Because of the transit agency's computer facilities, integrated routing and scheduling was not difficult to achieve. Transit officials cite the costs of this integration as almost negligible. Since it was promoted by the regional government, few institutional problems have occurred.

CONTACT : Roger Snobel
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San Diego Transit Corporation
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(714) 238-0100

Transit Action

ACTION : Reduce frequency on selected lines; re-vamp run-cutting strategy to minimize allowance time.

GOAL : Reduce the number of driver runs.

ISSUES : Due to budget constraints it became necessary to trim operating expenses. It was felt that a combination of a slight service reduction in areas of high frequency and creation of more productive driver runs would produce the necessary savings.

DETAILS : Lines with greatest rush-hour frequency were surveyed to ascertain which, if any, could tolerate a one-minute lengthening of headway at no inconvenience to the public. In addition, the RUCUS run-cutting strategy was altered in a renewed effort to reduce allowance time. While this ultimately resulted in slightly more built-in overtime on some runs, the net effect was a reduction in the number of operators required.

No measureable decrease in ridership was apparent on the lines involved. The number of runs was reduced by 2%.

CONTACT :
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SIMILAR PROGRAMS:
Timothy Lett
CITRAN
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Fort Worth, TX 76102
(817) 870-6200

Transit Action

ACTION : Curtail service on routes where ridership in certain time periods is extremely low.

GOAL : Reallocate available system mileage to more productive uses.

ISSUES : To continue RTA's service expansion program, it became necessary to reallocate services performing in an unproductive manner to more productive areas. At the same time, the Board of Trustees was committed to continue all routes in all time periods. Therefore, it became necessary to identify areas of service where there was low passenger utilization so that an equivalent amount of service could be shifted to more productive areas.

DETAILS : A standard of 15 passengers per vehicle hour was used to gauge the performance of individual routes in all time periods. Routes operating below this standard became candidates for selective service reductions.

For example, Route A is generating 10 passengers a vehicle hour during the weekday evening base time period while buses are running every 30 minutes. To bring Route A within the acceptable standard of productivity, service in the weekday evening time is reduced from a 30 minute frequency to a 45 minute frequency.

RTA was able to improve the productivity of the service and minimize the unfavorable impact of a reduction in transit service. The span of service on individual routes was preserved while considerable amounts of mileage were shifted to areas where routes were exceeding acceptable system load standards in peak and off-peak time periods and enabled RTA to add new routes and services without increasing the overall operating budget.

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Greater Cleveland Regional Transit Authority
1404 E. 9th Street
Cleveland, OH 44114

SIMILAR PROGRAMS : Carolyne Nelson
Tri-County Metropolitan Transportation
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Transit Action

ACTION : Flexible work hours in central business district.

GOALS : To reduce peak vehicle and operator requirements, reduce peak hour vehicular traffic, improve running time, and increase passenger ridership.

ISSUES : It was necessary to overcome initial resistance to changes in work habits, and to coordinate changes in work hours between various business, commercial, and government constituents.

DETAILS : The support of the Chamber of Commerce, political leadership, and media was secured in order to implement the proposed changes. A task force was established to contact appropriate commercial and government establishments to phase in flexible work hours. The program was implemented within the MBTA before going outside.

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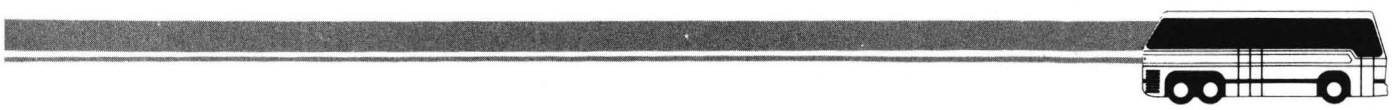
II. TRANSIT FINANCING POLICIES



The MBTA could completely do away with advertising provided it replaced the advertising revenue with the interest earned on $10 million at 10%. The net income from advertising is up by 120% since 1973, and this growth shows no sign of stopping.

John R. Launie
Treasurer/Controller
Massachusetts Bay Transportation Authority
Boston, Massachusetts

Transit puts a relatively small percentage of its gross activities into marketing, when compared to, for example, Proctor and Gamble or Ralston Purina. If you've ever been the subject of a telephone survey from a fast food operation, you know the depth that the surveys go into. From a cost-benefit standpoint, it may well be that a good marketing research program can generate enough ridership -- and hence, more annual revenue than the costs of the marketing program in the first place.

Nicholas S. Stoer
Senior Budget Examiner
Office of Management and Budget
Executive Office of the President
Washington, D.C.

Because of growing competition for local funding support, it is increasingly important that the operating ratio be maintained at as high a level as possible. Success in the effort will reduce the drain on local funds and insure that federally allocated funds are sufficient for the task of providing necessary public transportation.

K.E. Schreiber
Chief
St. Petersburg Municipal Transit System
St. Petersburg, Florida

BRIEFING ON TRANSIT FINANCING

Frank Raines
Associate Director
Economics and Government
Office of Management and Budget
Executive Office of the President
Washington, D.C.

Usually there are two sets of speeches that we give. One is typically about things concerning the budget as a whole, in which we know more about the subject than our audience. The other is on particular aspects of the budget and program, in which our audience knows far more about the subject than we do. Today is one of the latter occasions.

I would like to share with you the perspective of someone who works in an area in which mass transit has high support, in an Administration that has increased its support to mass transit. I will concentrate on the transit performance, evaluation, and productivity items that you are discussing at these meetings. However, I would like to tie them into a broader perspective, because I think that that is the context in which you will be undertaking your efforts.

Yesterday, Mayor Royer properly described the conditions you will be working under during the next few years. We will be experiencing a very tight Federal budget, and a number of you will be facing very tight State and local budgets. The Federal share of the gross national product is being reduced -- it has gone down from over 22% to 21%. The Federal deficit is also being reduced. We are assigning priorities to a wide range of items in which there is a Federal interest. And in some cases we are taking a zero-based approach -- looking at programs to decide whether the Federal interest is sufficient for the Federal government to continue its activities in connection with them, or if it is more appropriate to another level of government.

There is an effort at the State level to force a balanced budget through a Constitutional convention. This effort, regardless of its success, will accelerate Federal program cuts in many areas. These cuts will come at a time when many State and local officials fervently hope for an expansion of Federal assistance.

The key question in our mind is, What is it that the Federal government can get from its investment in mass transit? There is no presumption that mass transit is to be one of the highest priorities in the Federal government, for the simple reason that it is not one of those things that only the Federal government can do effectively. Only the Federal government can raise and support armies. Only the Federal government can implement foreign policy. Only the Federal government can run a social security system on a nationwide basis with permanent participation.

There is a wide range of programs, and mass transit is not the only one, in which the Federal government is involved because it has greater resources than State and local government, greater flexibility in its taxing ability, and a national perspective and ability to allocate funds to areas which do not have sufficient resources to support an activity. In times of difficult and tight budgets, those are the activities that will be looked at most critically. And those are the ones that are going to have to have the best answers as to why additional investment is necessary.

One of the things that I heard in a workshop session was this very question, "Why not a presumption for mass transit, and why should you use performance measures, for example, in terms of resource allocation?" The thrust of my remarks is that performance measures, and an ability to show what mass transit can really do, are the key to insuring sustained funding at the Federal level. The one thing you do not want to do is to become a public utility. If one looks at the public utilities, their low esteem and their inability to call upon public finances for their support, they are not a good model to follow. It would be far better to be able to say that transit should be supported because it achieves the high goals of the Federal government.

From the Federal perspective, urban personal transportation is relatively inefficient and imposes a wide range of costs far beyond those that the individual directly pays to meet his transportation needs. It imposes costs in terms of use of petroleum and energy resources. It imposes costs in terms of the investment necessary to sustain transportation, particularly when it is highway-related, that requires continuing funds from Federal sources. It is also very costly in terms of its impact on air quality.

A solution that is obvious to the people at this meeting, but one that may not be obvious when we get into the kinds of tight budget discussions that I think will come in the next few years, is that mass transit is an effective tool for reducing these costs on a national investment basis. The assumption is that mass transit is more efficient than other modes of personal transportation, and that is why mass transit should be supported. Mass transit is the most effective way to move people in an urban environment without the additional costs incurred in the usual mode of personal transportation -- one person in a two-ton automobile.

Now, increasing the impact of mass transit on the urban personal transportation system will require a sophisticated marketing strategy and a more precise and sensitive pricing policy. Marketing, as I heard in a workshop in which I participated, is often thought of in the very narrow sense of marketing equals promotion. I understand no more about marketing than I know about mass transit. But I do know that marketing, if seen in its broad sense, is what many of you would think of as strategic planning, long-term planning, an ability to match resources with need. However, you should think of it in terms of marketing because you are dealing in a competitive atmosphere. You are a competitor trying to obtain a larger share of the market, and you are competing against

norms to which people have adjusted over time. Significantly increasing transit's share of trips will require strategy far beyond mere advertising and moving buses efficiently back and forth on a route. It will require detailed planning with that major objective in mind.

To begin a marketing strategy, the market must be defined. That's why I've talked about urban personal transportation. Your business is not simply running buses on a set route and attracting people to ride them. It is to obtain the maximum percentage of those trips within the urban environment. And as all of you know, there is a wide variety of purposes for personal transportation. What percentage of those trips are being taken on mass transit? And you've got some very, very difficult competitors, including automobiles, carpools, and vanpools. There is also a need to segment the market, so that you can determine where you are apt to get the greatest shifts to transit. There's a need to look at work-related, school-related, shopping-related, personal, and recreational travel. And most importantly, there's a need to differentiate your product from that of the other modes.

I heard one person say that no one wants to ride a bus; therefore, you somehow have to find a way to force people onto a bus. That is the wrong approach to take, because the differentiation of mass transit need not be a negative one. In many ways riding mass transit is far more desirable than utilizing other forms of personal transportation. Transit must prove that to the public. The transit community has undertaken several programs to improve their competitive edge over other modes of travel. Some of these include bus priority lanes to improve travel times, greater comfort through air conditioning, smoother rides, better vehicle design, and innovations in transit pricing.

More importantly, there is a need to utilize the marketing tools more effectively. You've got to do marketing analysis. But more especially, you've got to look at ways to improve the general appeal of mass transit. A more sensitive pricing policy is also needed. The normal approach to pricing is to see how much money can be recovered from the farebox, see how much money you can get from State and local sources, and hope the rest of the money will be provided by the Federal government. When I examined the statistical sheets provided with the Transit Actions booklet, I could not find any kind of overall trend or rationale in the source of funds category. Some transit systems recover 60% of their operating costs from the farebox, while other systems recover only 20% from the farebox.

It may be that at the local level someone has determined that riders should pay a certain percentage of the cost because they get that proportion of the total benefits provided by mass transit; that the local general taxpayer should pay another percentage of the cost because they've got cleaner air and a lower investment in highways; and the Federal government should pay another set percentage because it benefits in terms of its interest in pollution, resource allocation, and fuel economy. That may well be the case. I have some doubts that that is the way those percentages were arrived at.

There is a need to have a more sensitive pricing policy so that when the Department of Transportation asks for funds for mass transit and the Office of Management and Budget asks, "What is the money for and why are we doing this?" the Department of Transportation can answer, "This is the benefit we're getting from mass transit and it is the most efficient means of achieving these benefits."

I'm somewhat concerned that in the generation of overall local financial support there is such a narrow view as to who benefits. The question is usually the farebox versus general taxes. But there seems to be no interest in trying to recover some of the costs of mass transit from other beneficiaries.

Employers, who without mass transit would have to find other ways to move their employees to their place of work and who obtain a substantial benefit from on-time, consistent service regardless of the weather, should pay for their share of the benefits.

The single greatest benefit to current highway users in terms of being able to move effectively on the highways is the fact that mass transit has taken thousands of people off the highways, making it possible to avoid additional investment in highways. Highway users seem to be potential supporters of mass transit and they ought to pay their fair share for mass transit.

If it were not for what mass transit is doing to reduce emissions from automobiles, local industry would have to invest even more money in pollution controls in order to meet local air quality standards. Local industry is clearly a beneficiary of mass transit and should be included in any pricing policy.

Not many people view mass transit as a public health expenditure. However, in terms of the anti-pollution benefits I've mentioned, this is another set of beneficiaries who are getting a free good. There is no pricing policy that is aimed at recovering that benefit from those persons.

There is a dwindling number of mass transit enthusiasts, like myself, who believe that mass transit in and of itself is good and that if we fight for mass transit, somehow the world will be better off. As the cost of transit to the general taxpayer rises, fewer people will say, "No matter what, mass transit is good and they don't have to prove it to me."

There are alternative ways to deal with the problem of urban personal transportation. Land use policy, taxing policy, carpooling and use of vans, some of which could reduce to half the number of cars on the road, perhaps overnight, if we were to mandate them. Various highway construction policies can constrain the use of various modes. Mass transit is economical in terms of conserving our use of energy sources; however, if the Federal government requires improved fuel economy for automobiles, transit's relative benefit compared to automobiles will be worsened. New emission control systems, new transportation safety policies, and new parking policies, are among the whole range of competitive solutions that might provide efficient and inexpensive urban personal transportation. Mass transit is one solution. Most experts would agree it is probably one of the best and allows the most freedom.

The question will be, "Can anyone show that mass transit is the most efficient way to meet our transportation needs?" I think that as you look at your criteria for judging performance, rather than see this as a threat, it is far better to see it as your own weapon, your own tool, to engage in the national debate about getting transit a greater share of the Federal pie. Efforts to hold down the Federal budget as a percentage of Gross National Product mean that no area currently in the budget can grow by a larger percentage than the Gross National Product. This year the overall growth is 9%. Mass transit's growth rate has been higher than that during the last several years. This creates the need to push somebody else out of the pie. I can assure you that there are lots of other people who are trying to find candidates to be pushed out of the pie.

The more mass transit can show that it is more efficient and more effective in achieving the goal of urban personal transportation without the cost that we know exists in connection with the use of the private automobile, then the more likely it is to sustain itself. The easier it is to argue for money from people like me, the easier it is for me to argue with the people on the energy side and the defense side of the Office of Management and Budget, and the easier it is for the President to argue with the Congress that this is an area of useful investment. So I encourage you to take a hard look at these issues and to think about them as a context for your discussions here.

Transit Action

ACTION : Employer Subsidy Program.

GOAL : Get employers to pay partial costs of employee's transit trips.

ISSUES : Employers pay considerable sums for parking, either through the construction of lots or the subsidizing of employees' parking costs. Good transit service is often available, though many are not aware of it, or of the potential benefits and cost savings of subsidizing transit ridership rather than parking.

DETAILS : The transit agency, through persistent personal effort, has developed a comprehensive employer subsidy program currently involving 17 major businesses. Employers generally buy monthly passes for $20 a piece and resell them to employees at lower rates (usually $10). In selling the program, transit officials stress 3 points:

- Costs -- subsidizing transit may be considerably cheaper than doing the same for parking, or constructing parking facilities.
- Punctuality -- transit runs reliably in all weather.
- Alternative Mode -- transit usage eliminates many excuses for not appearing at work ("my car won't start").

The MTA offers to perform a company origin-destination survey for employers considering participation. MTA is also sensitive to corporate budget cycles and to the fact that businesses with franchises in other cities must often treat employees uniformly as a matter of company policy. The MTA has beefed up sales efforts with small incentive programs (like "Energy Week") which typically provide a week's free service to companies joining.

Revenue increases from the program cover the full cost of the Consumer Relations Supervisor's salary. This effort has led to the State's committal of $65,000 for financial assistance to employers participating in such programs.

CONTACT : Jim Windsor
Des Moines Metropolitan Transit Authority
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Des Moines, IA 50309
(515) 283-8111

Transit Action

SIMILAR PROGRAMS:

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Theodore Brennen
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Charles Thomas
Sacramento Regional Transit District
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Sacramento, CA 95810
(916) 444-7591

Tom Brengson
Madison Metro
166 S. Fair Oaks Avenue
Madison, WI 53704
(608) 266-4165

Transit Action

ACTION : The county purchases bus passes for all employees.

GOAL : To reduce the parking requirements in the central business district and increase transit ridership.

ISSUES : Parking in the central business district is severely limited.

DETAIL : The county will pay the equivalent of approximately $8 - $10 per month for these bus passes. This employee fringe benefit will be paid for out of the County's General Revenue Fund. Bus passes will be issued to all County employees monthly. Bus routes will be restructured to better serve the County Administration Building. This program will be administered by the County, and will go into operation in the fall 1979.

CONTACT : Gary Gleason
Santa Barbara Metropolitan Transit
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Santa Barbara, CA 93102
(805) 3364

SIMILAR PROGRAM : Lawrence Jackson
Long Beach Transit
1300 Gardenia Avenue
Long Beach, CA 90813
(213) 591-8753

Transit Action

ACTION : Trade transit advertising space for space in other media.

GOAL : To increase marketing visibility at a low cost.

ISSUES : CTA wanted to increase passenger revenue.

DETAILS : A reciprocal arrangement was initiated between the bus/rail systems and the newspaper, TV and radio media, involving a simple trade of advertising space. No money was exchanged.

The new advertising via the different media has proved very successful and has saved CTA money it would normally spend to advertise.

CONTACT : Paul Kole
Chicago Transit Authority
Merchandise Mart
P.O. Box 3555
Chicago, Illinois 60654
(312) 664-7200

Transit Action

ACTION : Radio traffic reports from transit dispatcher.

GOAL : Provide peak-hour traffic reports to radio stations in exchange for promotion spots.

ISSUES : Because of Pittsburgh's congestion, poorly maintained streets, severe winters, and detours due to bridge closings, bus drivers radio in traffic conditions along major routes periodically so that those and subsequent runs might be modified to circumvent or compensate for bottlenecks and delays. This is costly (equipment, dispatcher, labor problems), At the same time this information was being collected--information which could be valuable to automobilists--traffic helicopters were duplicating the effort at great expenses.

DETAILS : Pittsburgh transit officials now provide traffic information for a major local radio station. The station periodically switches over to the transit dispatcher who goes on the air live with an up-to-the-minute traffic report which he receives from drivers on key routes. ("And now, here's John Doe from PAT with the latest traffic report"). Thus the transit system gets instant and recurrent publicity. In addition, the radio station airs special advertisements designed by the station's professional advertising staff, specifically for the transit system.

Both the transit system and the radio station save considerable amounts of money. The former does not have to pay for radio advertisements, the latter for a helicopter and its pilot.

CONTACT : Michael Kelly
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(412) 237-7000

SIMILAR PROGRAMS:

David R. Peironnet
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Knoxville, TN 37917
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Transit Action

SIMILAR
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Alan Kiepper
Metropolitan Atlanta Rapid Transit Authority
2200 Peachtree Summit
401 Peachtree Street, N.E.
Atlanta, GA 30308
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David Pesch
Metropolitan Transit Authority
1100 MTA Lane
Des Moines, IA 50309
(815) 283-8111

Transit Action

ACTION : Annual pass.

GOAL : Increase ridership; increase revenue; simplify fare handling; decrease loading and unloading time.

ISSUES : Traffic congestion is severe in Pittsburgh, and a stagnant population makes ridership increases difficult to achieve.

DETAILS : Since 1973, Port Authority Transit (PAT) has sold annual permits; riders were required to deposit a small cash drop plus additional zone fares. In 1979, PAT switched to an Annual Pass for $175.00 which required no cash drop except for travel into outlying areas. With 50¢ base fares and 255 work days per year, heavy transit users stand to gain considerable savings. Yet because of other factors, PAT feels economic risks are low.

Pass sales are up 20% from 1978. In addition, monthly and weekly permit sales have not been affected. Total revenue and ridership is up--although other system changes have contributed. The program simplified cash handling, speeds up loading time, and improves the property's cash flow -- interest can be collected on the money now in transit authority coffers at the beginning of the year. PAT also feels that cheating -- "illegal" sharing of the pass -- helps the system by introducing new riders to it. Only one person can use a pass at one time, and except for the peak period, excess capacity exists anyway.

PAT officials feel that once a person invests in a long-range pass, he or she is committed to use transit; such an approach should improve ridership greatly.

CONTACT : Bill Millar
Port Authority of Allegheny County
Beaver and Island Avenues
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(412) 237-7372

Transit Action

ACTION : Sale promotions for transit-fare prepayment.

GOAL : To determine how prepaid discounts for bus passes and tickets affect ridership.

ISSUES : None

DETAILS : There were two sale periods in this UMTA-funded project. During the first sale in early 1978, monthly passes and 10 and 20 ticket books were sold at 20% off the regular price. The second promotion in the fall of 1978 offered monthly passes and 10 ride ticket books at a 40% reduction. Use of passes and tickets rose dramatically during the sale.

Market research -- through surveys of transit riders and the general public -- is being used to determine the effectiveness of marketing, the impact of discounted prepayment instruments on ridership, and the characteristics of riders who use the discounted tickets and passes.

CONTACT : Ed Colby
Public Transit Administration
City of Phoenix
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SIMILAR PROGRAMS :

Patricia Gregory
City of Austin
Urban Transportation Department
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Austin, TX
(512) 477-6511 Ext. 2280

Larry Carter
TAL-TRAN
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Tallahassee, FL 32304
(904) 576-5134

Stephen R. Welch
Delaware Authority for Regional Transit
P.O. Box 1670
Wilmington, DE 19899
(302) 658-8960

Transit Action

ACTION : Establish an intercarrier, universal transfer program.

GOAL : Encourage the development of an integrated and coordinated transportation system on a regional basis.

ISSUES : The RTA transit system is composed of more than 20 suburban bus carriers and the bus and transit services of the CTA. Prior to RTA's creation, passengers wishing to transfer from one carrier to another had to pay 2 separate fares. This imposed a serious barrier to intercarrier travel.

DETAILS : In October 1976, RTA established a universal transfer program. This program allows passengers to transfer between all RTA-funded bus and rapid transit carriers. Transfers sell for 10¢ on all regular and premium fare services, and for 30¢ on local and feeder bus services. This pricing establishes basically a 60¢ go-anywhere-fare. Transfers allow up to 4 hours of unlimited riding.

During the first month of operation, 104,000 universal transfers were sold. Monthly transfer sales now total well over 550,000.

CONTACT : Michel Nielsen/Jud Lawrie
Regional Transportation Authority
300 North State Street
Chicago, IL 60610

SIMILAR PROGRAMS : R. Raleigh D'Adamo
Westchester County
County Office Building #1
White Plains, New York 10601

Transit Action

ACTION : Weekly Bus Pass

GOAL : Simplify fare payment for regular riders and encourage transit use for non-peak trips.

ISSUES : The backbone of the transit system is its daily riders. Measures that improve and encourage regular transit use strengthen the transit system for all.

DETAILS : The MCTS offers a weekly bus pass at $5.00, ten times the regular adult fare. This pass is transferable. A 2% commission is returned to the retail outlets that sell them. The pass is valid from Sunday through Saturday.

Over 20,000 passes are sold each week. An average of 21.1 rides per pass are made. Over 40% of all total adult rides are made through use of the weekly pass.

Use of the weekly pass also improves passenger boarding time. Costs associated with collection and distribution of the pass to outlets are more than offset by cost savings in cash collection and counting.

CONTACT : Kenneth J. Warren
Milwaukee County Transit System
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SIMILAR PROGRAMS:

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Robert Godding
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Ruth Sargent
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Transit Action

ACTION : Free fare in central business district.

GOAL : Reduce traffic congestion by encouraging peripheral parking, increase retail activity downtown, increase mobility, conserve gasoline and improve air quality.

ISSUES : Air quality was poor and congestion in the downtown area was problematic.

DETAILS : The regular cost per passenger for the overall system had been 90¢. Implementation of the new system added 4¢ per passenger, for a new total of 94¢. The City of Seattle funded the project.

Traffic congestion and air pollution were reduced by 2%, retail sales were increased by 1%, or $5 million/year. The system induced more people to ride, thus increasing mobility. Overall, the project met all of its goals without straining the city budget.

CONTACT :
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SIMILAR PROGRAMS:

Daniel Hoyt
Niagra Frontier Transportation Authority
Metropolitan Transportation Center
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(716) 855-7371

Peter Cass
Tri-County Metropolitan Transportation
District of Oregon
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Transit Action

SIMILAR PROGRAMS: (Cont'd)

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Capital District Transportation
110 Watervliet Avenue
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Herb Pense
Manchester Transportation Authority
110 Elm Street
Manchester, New Hampshire

Janie Manning
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Forth Worth, TX 76102
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Transit Action

ACTION : Free fare in off-peak periods.

GOAL : Increase transit ridership and productivity.

ISSUES : Some 2/3rds of the total trips in the Denver region are for non-work purposes. The majority of these occur during off-peak periods. This market is one which transit has the capacity to serve but, in general, has had limited success in attacking. In order to promote the use of public transit, fares were eliminated in the off-peak periods.

DETAIL : The Regional Transportation District obtained UMTA funds for a one-year experiment ending in January of 1979. The total budget for the experiment is $6.8 million, of which half is UMTA-funded.

Fares on all regular services are free on weekdays, except from 6 A.M. - 8 A.M. and 4 P.M. - 6 P.M., and all day Saturdays and Sundays.

Off-peak ridership was up 50% during the demonstration. Two months after the demonstration, only 13% of the new riders had been lost.

CONTACT : John Gaudette
Regional Transportation District
1325 South Colorado Boulevard
Denver, CO 80222
(303) 759-1000

SIMILAR PROGRAM: Richard Hollanger
New Jersey DOT
1035 Parkway Avenue
Trenton, N.J. 08625
(609) 292-5722

Transit Action

ACTION : Increase off-peak ridership in downtown through a downtown business-subsidized fare reduction program.

GOAL : To increase off-peak service effectiveness.

ISSUES : None

DETAILS : Long Beach Transit provides a 5¢ fare approximately 15 days a year on all routes serving downtown Long Beach.

As a method of enticing shoppers to travel to downtown businesses, the Downtown Business Association advertises and pays the fare differential during off-peak hours (10 A.M. - 4 P.M.). The program is aimed at lengthy sales and Christmas peak periods.

Thus far no additional vehicles have been required and ridership has increased up to 30-40% during the 5¢ days.

CONTACT : Thomas Narrigan
Long Beach Transit
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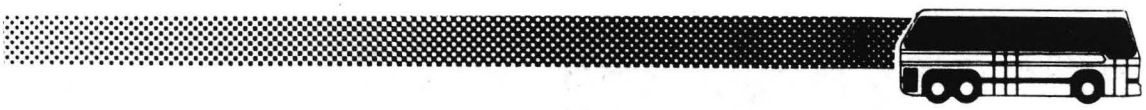

Transit Action

ACTION : Periodic "Free Days" for public transportation.

GOAL : Increase ridership.

ISSUES : The public transit system is relatively new and in need of promotional activities.

DETAILS : Downtown merchants advertise in the local media about free ridership on all bus routes for a designated day. The Transit Board subsidizes the costs of running the fleet for that day.

Ridership increases tremendously on "Free Days" (at least 7 times the usual number of riders).

CONTACT : Nick M. Polles
Richland County Transit Board
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Mansfield, OH
(419) 747-6287

SIMILAR PROGRAMS: Roger Downey
Minneapolis-St. Paul Metropolitan Transit Commission
801 American Center Bldg.
160 E. Kellog Blvd.
St. Paul, MN 55101
(612) 221-0939

Transit Action

ACTION : Budget preparation by supervisors and top management personnel.

GOAL : Prepare budgets which meet each division's needs.

ISSUES : The new budget process placed responsibility for the annual budget on supervisors as well as top management.

DETAILS : Previously, the managing director simply told the supervisor what their budgets would be. With the new budget system, supervisors of transportation and maintenance forecast each of their line items. Then the managing director and the controller analyze these items with each supervisor.

This method has improved the morale of the supervisors and has increased productivity.

CONTACT : Jack R. Lanich
Springfield Mass Transit District
928 South 9th Street
Springfield, Illinois 62703
(217) 522-5531

Transit Action

ACTION : Special contract with University of Georgia to allow students to use university ID as a transit pass on existing transit system.

GOAL : Provide increased transit mobility to university students; relieve strain on parking near University of Georgia campus; aid riders and speed transit operations by use of "flash card" procedure; and financially assist Athens Transit System.

ISSUES :
1) Very high student car registration to parking space supply ratio (more than 3:1).
2) Existing on-campus private bus system allowed student ID to be used as "flash card" with fare deducted from quarterly student fee, but service provided was limited.
3) Many students lived away from campus and needed to commute.

DETAILS : The special contract arranged with the University of Georgia administration provides that the quarterly payment for use of the transit system be deducted from student fees.

The contract minimized need for private campus bus system to buy new equipment and hire more operators to handle demand where parallel service exists with ATS in high ridership areas. The program also increased ATS ridership, relieved pressure on parking facilities, both on and off street, increased operating speeds and general transit productivity. The contract was renewed for a third year and generates large and stable transit revenue.

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Athens, GA 30601
(404) 353-1444

SIMILAR PROGRAMS:
Gary Gleason
Santa Barbara Metropolitan Transit
P.O. Box 355
Santa Barbara, CA 93102
(805) 953-3364

Transit Action

ACTION : Nickel Week following transit strike.

ISSUES : None.

GOAL : To minimize ridership loss due to a strike.

DETAILS : The base transit fare was reduced to 5¢ for one week following the strike and ridership was restored to pre-strike levels.

CONTACT : Rita Potts
Queen City Metro
6 East Fourth Street
Cincinnati, OH 45202

Transit Action

ACTION : The Big Buck and a Half (weekend pass).

GOAL : To increase transit ridership during weekends.

ISSUES : The program was initiated during the 1973-74 gasoline shortage to give families an alternative mode of travel.

DETAIL : The pass is sold by the operators. It is valid for 4 people (maximum of 2 adults) to ride anywhere on PAT from 10:00 A.M. on Saturday until 4:00 A.M. on Monday. "Adult" is defined as 16 years of age. The flash pass is always the same color but is stamped with the weekend date.

Weekend ridership has increased 14% since 1974.

CONTACT : Michael Kelly
Port Authority of Allegheny County
Bewer and Island Avenues
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(412) 237-7000

Transit Action

ACTION : Elimination of time restriction on Sunday transfer.

GOAL : Increase transit ridership

ISSUES : Ridership levels and passenger revenues on Sundays are generally low. Fare promotions can be implemented with relatively minimal impact upon total revenue and without increasing operating costs.

DETAILS : For all Sundays in August 1978, transfer time restrictions were eliminated. Because the transfer can be used on any route in any direction, it in effect became an all-day pass.

The promotion proved successful as a short-term program. The long-term impact has not been documented. Average Sunday ridership during the promotion was 99,850 rides, an increase of 61% over expected ridership of 62,025. Average Sunday cash and ticket revenue increased by 4% from $11,700 to $12,200.

CONTACT : Kenneth J. Warren
Milwaukee County Transit System
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Milwaukee, WI 53208
(414) 344-4550

Transit Action

ACTION : Replace special downtown shuttle routes with 10¢ fare zone called "Dimetown".

GOAL : Reduce costs and improve service.

ISSUES : Specially painted weekday downtown circulators on fixed routes at a 10¢ fare were successful, but increased shuttle service would have been unduly expensive. The Kansas City Area Transportation Authority eliminated this special service and allowed riders on all lines within the downtown area for 10¢.

DETAILS : Many lines travel through the downtown area with excess capacity, especially during midday, evening, and weekend period. The establishment of Dimetown allowed use of this capacity, while at the same time increasing the coverage and service periods of downtown circulator service. Dimetown required a change in fare payment method from standard pay upon boarding method; on trips moving away from the center of downtown, passengers are asked to pay upon leaving the bus.

Intra-downtown trips doubled from 2,500 trips to 5,000 trips a day.

Estimated net savings.....$180,000.....annually.

CONTACT : John Q. Waterman
Kansas City Area Transportation Authority
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Kansas City, Missouri 64108
(816) 471-6600 Ext. 215

Transit Action

ACTION : Test period for service and revenue changes.

GOALS : To simplify and improve the credibility of the approval process, to collect feasibility data, and to increase the number of changes finally adopted.

ISSUES Changes in service and revenue frequently meet with resistance in the approval process. Often payoffs are difficult to estimate, and planning studies and forecasts have only limited credibility with many members of the community. Years of debate discourage implementation efforts.

DETAILS : Following discussions with the local community, changes in service and revenue are adopted on a six-month basis. This approach not only simplifies the approval process, but the data collected helps determine long range feasibility and helps the transit agency prepare for the public hearing process which must precede permanent implementation.

This approach has simplified and shortened approval and has soften resistance within the community. Approximately 50% of the changes are approved for permanent installation after the trial period.

CONTACT : Bruce C. Frame
Mass Transit Administration
109 East Redwood Street
Baltimore, Maryland 21202
(301) 383-3434

Transit Action

ACTION : Toys-for-fare program.

GOAL : To improve the transit system's image; to focus attention on transit in the community; and to help needy children during Christmas.

ISSUES : Transit systems perpetually have problems obtaining financial and political support.

DETAILS : For a two week period preceding Christmas, riders were permitted to substitute toys for fares. Riders placed small toys in a collection bag as they boarded; larger toys were collected by arranging to have them picked up. Toys were collected after the P.M. peak, and a community organization ("Goodfellows") distributed them to needy children. Agency officials requested new or slightly used toys worth more than the 50¢ base fare; drivers, however, were instructed to accept whatever they were given. Toys in need of repair were sent to Goodwill before being distributed.

Twelve thousand-plus toys were collected, mostly new ones. The agency lost an estimated $6,000 in revenue but the program received extensive news coverage both during and after the 2 week period, much of it prime time. Transit officials were invited to discuss the program on several local T.V. talk shows. Politicians and local officials applauded the program, claiming it would make it easier for them to muster financial support for the transit system. Transit officials feel program benefits far outweighed program costs.

CONTACT : Andrea Nelson
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Memphis, TN 38101
(901) 528-2857

SIMILAR PROGRAM : Dean Herick
Transit Authority of Northern Kentucky
11th and Lowell Streets
Newport, KY 41071
(606) 431-2730

Transit Action

ACTION : Establish new fare structure with free transfers.

GOALS : Increase revenue and ridership; create equitable fare structure.

ISSUES : Multi-zoned fare structure inherited from 10 former private operators was confusing and inconsistent. Virtually no transfer privileges existed. This discouraged ridership and revenue growth.

DETAILS : Flat 50¢ intra-county fare established. Free transfer initiated, good on two connecting buses going in the same general direction. (Fares slightly higher on long routes to New York City subways). Free transfer also issued with Senior Citizen/Handicapped 1/2 fare.

Fare box revenue increase of $500,000 during the year following the fare restructuring, along with a commensurate rise in ridership. Steadily increasing ridership and revenue ever since.

CONTACT : Andrew G. Schiavone, Executive Officer
Metropolitan Suburban Bus Authority
1640 Hempstead Turnpike
East Meadow, New York 11554

Transit Action

ACTION : Riders order monthly passes by telephone, using credit cards.

GOAL : To increase ridership and make discount ridership more convenient.

ISSUES : The advantages of using a discount monthly pass are often offset by the inconvenience of purchasing it and by the fact that its value diminishes if bought after the first of the month.

DETAILS : Through a local bank, Boise's transit agency established a special Merchant's Account whereby a transit patron could order a pass by telephone by citing his or her Mastercharge or Bank Americard-Visa number. The transit agency then sends out the pass by mail. There were virtually no set-up costs, and distribution costs were approximately 50¢ per pass (postage, handling, reimbursements to credit card companies, etc.) Monthly passes sell for $11.00, and involve a $2.25 per month discount if fully used.

This new program has not affected pass sales much as yet. Many users, however, commented that they do not always purchase passes because of difficulty in getting to the bank (sales outlet). The program has eliminated a needless monthly ritual for many elderly and handicapped riders. The greatest benefit has been in simply making economical transit ridership more convenient.

CONTACT : Len Engel
Boise Urban Stages
P.O. Box 9016
Boise, ID 83707
(208) 336-1010

SIMILAR PROGRAM (CONT'D): Jay Goodwill
Port Authority of Allegheny County
Beaver and Island Avenues
Pittsburgh, PA 15233
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SIMILAR
PROGRAM
(CONT'D):

Tom Maddol
San Francisco Municipal Railway
949 Presidio Avenue
San Francisco, CA 94115
(415) 558-5441

Transit Action

ACTION : Develop new fare structure.

GOALS : Make fares easier to understand, increase revenue, and make fares equitable with respect to distance travelled.

ISSUES : Prior to July 1977, the fare structure had modest provisions for charging higher fares for some of the longer radially-oriented trips. But the system required much effort in checking passenger tickets, while generating little additional revenue. Those riding long distances were heavily subsidized.

DETAILS : A new fare structure, which abandoned the radial concept and based distance step charges on freeway travel distance, was adopted. Any service using a freeway and having these additional charges was labeled "express." Other services are called "local," and are subject to a flat fare only.

The restructuring greatly simplified fares from the viewpoint of the vast majority of riders, who utilize the local service and typically take only short trips. Subsidies for long-distance riders were reduced by capturing additional revenue from most of those who actually rode long distances. Although there was a loss of approximately 9% of the long distance riders, overall ridership is now up 3%. The operating ratio has increased from .35 to .46.

CONTACT : Ed Vandeventer
Southern California Rapid Transit District
425 South Main
Los Angeles, CA 90013
(213) 972-6131

Transit Action

ACTION : Turnstiles which accept any combination of coins and sell transfers.

GOALS : To increase the number of fares collected per man-hour paid and reduce waiting time for customers.

ISSUES : During the peak period, riders disliked the inconvenience of waiting in line.

DETAILS : More than 100 multi-coin turnstiles have been introduced in rapid transit stations. These turnstiles are especially useful at stations where severe peaks of ridership would otherwise require inefficient use of fare collecting personnel.

In the past 2 years, we have achieved a reduction of 4% in the man hours paid for fare collection with a net savings after maintenance and revenue collection costs of at least one-half that amount.

CONTACT : H. R. Hirsch
Chicago Transit Authority
Merchandise Mart
P.O. Box 3555
Chicago, IL 60654
(312) 664-7200

Transit Action

ACTION : Sell passes for use on both bus and rail.

GOAL : Improve intermodal coordination and increase ridership.

ISSUES : Metro's complex fare structure is inconvenient for intermodal transfer.

DETAILS : The "Flash Pass" costs $10 and is valid for 2 weeks. The pass is good for $5 worth of subway rides, and unlimited bus usage for the two week period. The passes are sold at banks and numerous retail outlets. They generate increased patronage for both bus and rail without any revenue loss.

CONTACT : Tom S. Brinton
WMATA - Office of Marketing
600 Fifth Street NW
Washington, D.C.

SIMILAR PROGRAMS: James Kaempf
Regional Transportation Authority
300 N. State Street
Chicago, IL 60610
(312) 836-4000

Transit Action

ACTION : Suburban zone charges were dropped in the Missouri portion of the service area.

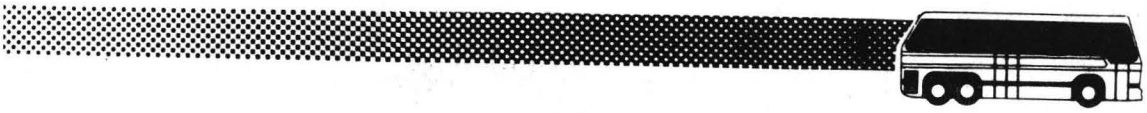
GOAL : To provide lower cost transit service and increase ridership.

ISSUES : Suburban passengers riding buses into the City of St. Louis had to pay 10¢ zone charges in addition to the 25¢ base fare (30¢ for express). Some commuters were paying 90¢ per trip.

DETAILS : Surplus sales tax funds were available to cover projected deficits so the zone fares were eliminated for a trial period of six months, which was extended indefinitely because of the positive effects of the reduced fares. The reduced fares also affected central area residents who use the bus to go to suburban jobs and shopping centers.

Weekday ridership on the system increased 4%, Saturday ridership increased 11%, and ridership on express lines from the suburban areas increased 13%. One route experienced a 56% increase when the maximum fare went from 90¢ to 30¢. Generally, the impact of the fare reduction was well received. The deficit for this fare change was slightly less than $1 million annually.

CONTACT : Jerome Kirzner
Bi-State Development Agency
3869 Park Avenue
St. Louis, MO 63110
(314) 771-1414



Transit Action

ACTION : Photo ID flash pass for students.

GOALS : To increase the usage of regular DTA service by school students, and to reduce the amount of vandalism and rowdyism on DTA coaches caused by this student ridership.

DETAILS : The DTA proposed to two local school districts that its students be offered free rides (later reimbursed) on regular DTA service only with a photo ID card. This card was developed and funded by the school districts and is now being used. The local Police Departments were very cooperative in setting up a discipline program to reduce vandalism and rowdyism by students on the buses.

The DTA's revenue payments have increased sharply due to increased ridership by school students. Vandalism and rowdyism by students riding the buses has been reduced to less than ¼ of its previous levels. The public image of the DTA Service has improved because of less rowdy students. Bus operator morale has also improved.

CONTACT : Dennis Jensen
Duluth Transit Authority
2631 West Superior Street
Duluth, MN 55806
(218) 722-4426

Transit Action

ACTION : Established a rail subsidy program acceptible to both the railroad and the subsidizing public agency.

GOAL : Retain the railroad as a major mode of public transportation.

ISSUES : Railroads have been subsidized through purchase of service agreements, which are cumbersome, complex, and costly. Also, extensive negotiations, monitoring, and audits often are associated with a purchase of service arrangements. An alternative subsidy program could eliminate these negative aspects.

DETAIL : The District, faced with a recent application for abandonment of commuter rail service by Southern Pacific Railroad and a fare increase of 90% (amended to 25%), needed to select a strategy for salvaging commuter rail service on the San Francisco Peninsula. Purchase of service contract proved to be too costly and difficult to negotiate. The District selected a plan in which the railroad sells tickets at a 30% reduction and then submits a voucher, as proof of sale, for reimbursement by the District. This program is also shared by the City of San Francisco and Santa Clara County Transit District.

The advantages of such a program are its unique form of indirect subsidy, and ease of implementation.

Ridership stabilized during the first 2 months of service, reversing 2 decades of ridership declines that followed successive railroad fare increases, and greater private auto availability. To date, the Transit district has enrolled more than 9000 SamTrans commuters, an increase of 37% from May 1977.

CONTACT : John Mauro
San Mateo County Transit District
400 S. El Camino Real
Room 400
San Mateo, CA 94402
(415) 573-2252

Transit Action

ACTION : Introduction of a flash pass with magnetic tape for central business district employees in a staggered work hour demonstration.

GOAL : To increase revenue efficiency and increase central business district worker ridership without adding peak service.

DETAILS : The DTA is proposing a demonstration that would include a flash pass distributed through central business district employers who stagger their hours. On-board card readers would record ridership information (user, employer, time, route, etc.) and the company would be billed on a per ride basis. The company then would deduct the proper amount from the employees check. To promote this further the DTA proposes a tax credit be given to the rider from the state.

To date, the tax credit has been passed in the Senate, but the House has not yet had the chance to review it. Program should start January 1, 1980.

CONTACT : Dennis Jensen
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Duluth, MN 55806
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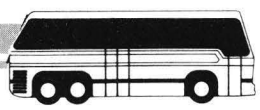
III. INTERNAL MANAGEMENT



As a private citizen serving on the Los Angeles County Transportation Commission, I am interested in ensuring the effective use of our tax dollars. For, after all, isn't the existence of a public agency justified only to the extent that it provides effective and efficient service to the public?

The expenditure of public funds must be closely scrutinized. The individual taxpayer may choose to invest or not to invest in I.B.M. However, the individual taxpayer is by definition, an investor in public transit.

Therefore, management must continually seek the means to improve the return from the public transit resource. The public, who pays the bill, deserves no less.

Wendell Cox
Member
Los Angeles County Transportation Commission
Los Angeles, California

A number of transit systems have found a way to expand their support services by using employees who are paid through CETA to staff information offices, to serve as dispatchers, or to do additional maintenance work.

We are aware there are continuing difficulties and administrative problems with the local prime sponsors and administrative agencies who carry out the program, but we think it is something that the transit community ought to explore.

The Honorable Mortimer L. Downey, III
Assistance Secretary for Budget and Programs
U.S. Department of Transportation
Washington, D.C.

BRIEFING ON INTERNAL MANAGEMENT

Phillip J. Ringo
President and Chief Executive Officer
ATE Management and Service Company, Incorporated

I've been asked to brief you on the subject of internal management. That's not the most exciting subject that you're going to deal with during these two days. It's not very sexy -- even the name sounds like a lower gastrointensinal disorder; internal management -- yuk!

But I think it's very important, and I feel strongly about it. In this briefing, I want to do four things. One, is to give you a definition; two, is to make an assertion about the general state of internal management in the industry today; third, is to identify briefly my candidates for internal management improvement and give you some specific examples; and then, fourth, to admonish both transit operators and policy makers about some of their perceptions and attitudes toward internal management.

So I'm going to define, assert, identify, and admonish -- that's my something-for-everybody speech.

Definition, first. To me, internal management consists of those actions or activities that can be taken by management, exclusive of policy considerations, and that have an impact on official implementation of approved capital and operating budgets. That's a lot of fancy words to say, within your control, as a manager, "How can I get more bang for the buck?"

For purposes of my definition, and for the workshop discussions later this morning, I'm excluding three things -- service design, fare policy, and labor-management relations. When you take these out, you take out an awful lot of impact on the bottom line. I've also excluded marketing -- not because I don't believe in marketing -- but because if we include that subject, that's all we'll talk about.

Now, let me make my assertion. I think that in any transit system, there are tangible, internal management improvements which can be made. I don't think a perfect transit system exists. I don't think any manager would say that that was the case. In my experience, I find the vast majority of transit managers know how to make these improvements and, in fact, are making these improvements.

However, when you exclude service design, fare policy and labor-management relations, you're talking about actions which, in total, can affect only seven or eight percent of total expenses. And many of these are one-time reductions.

Let me also say that even a one percent decrease in expenses is very substantial, and shouldn't be overlooked.

Let me give you some examples. In the proceedings of the Norfolk Conference on page 101, there are some categories where we ought to look for internal management improvements. Let me just hit those quickly, and suggest that you might want to talk about them in the workshop session. I maintain that these are the areas in which the most significant payoffs are attainable.

The first is Management Techniques. I know that's almost a catch phrase, but I'm talking about things that have been shown to work in other management arenas -- things like management by objectives, performance appraisal, personnel management, development of a management information system, development of a coherent management structure -- things that you can do without policy guidance from your board. And things that have a demonstrable effect on the bottom line.

The second is Training and Manpower Planning, which is probably the most important area of internal management control. I'll give you an example. In one of our managed systems -- Minneapolis-St. Paul -- we found that the safety records of operators in the age group 22-25 was superb for the first 2 years and, then, after 2 years it just fell off the table.

We didn't understand that, but what we did to correct it was to go in after 18 months and do some retraining, and that cured the problem. That kind of thing had a tremendous impact, not only on accident costs, but on insurance rates.

Insurance and Claims. Many of us are paying as much as 10% of our operating expenses for insurance. I don't have any cure for that, but I know that there is a tendency sometimes to just absorb that cost and say the hell with it. There are, however, things management can do to reduce claims appreciably and, in turn, reduce insurance costs.

Internal Security. Cash handling. As the fare box becomes less important, there is a tendency to forget that transit is a cash business, and that cash has a way of not ending up where it ought to -- which is in the bank. My estimate is that overall, around the country, between 2 and 4% of all the cash that should end up in the authority's bank account does not end up there because of pilferages and loss. And that's a lot of money.

We had one case where this was out of control -- but through a series of progressive disciplines and, ultimately firing 9 people, we increased farebox revenues from $15,000 a month to $47,000. They were stealing $30,000 a month.

Purchasing and Stores. Let me give you an example. When you take inventory per bus as a measure and you factor out different types of fleets, you will see in the transit industry a wide range of inventories per bus -- ranging from $300 to as high as $3,000.

That's the kind of thing that you can control through good internal management. A factor of 10 is in how inventories are managed is absurd. And higher-than-needed inventory levels cost money.

Capital Investment. I'm a real fan of RUCUS -- computerized run cutting and scheduling. RUCUS has shown over and over again, when properly implemented, that you can reduce operating costs through an intelligent application of the computer.

Facility Location and Design. Sometimes we see situations in which a transit system is going to build a new facility, and a local architect, who knows nothing about building a bus garage and is only going to build one in his career, puts it together. It's not practical, and all too often you have to live with it for the next 50 years.

Preventive Maintenance is the final area of possible efficiencies that I want to mention today. I don't think I need to belabor it, because that's one that all of us are aware of.

Now, for my admonishment. Even though internal management improvements are not going to turn transit around, it may still be the most important area for the manager's concern.

We've got a lousy image in transit. Some of it is deserved, some of it not. But I think it is a fact of life that when outsiders rank good managers, when they rank American management techniques, transit isn't on the list.

Nothing turns off the policy maker quicker than perceived or actual waste in a transit system -- and nothing turns off a rider or a potential rider faster than a dirty bus, a broken air conditioner, or a breakdown. And those are things that we can work on.

From the policy makers' standpoint, it is important that transit managers seek greater efficiency and better internal management. But keep the payoff in perspective, don't expect magical change that's going to cut the deficit by 50%. It's just not going to happen. There should be steady progress, and you should push for that, keep it in perspective.

Transit Action

ACTION : Utilize waste motor oil for heating.

GOAL : To use waste motor oil for supplementary garage heat.

ISSUES : Cost savings; environmental and energy considerations.

DETAILS : CNY Centro's maintenance director designed a simple transfer pump and filtering system so that waste motor oil, previously a costly disposal problem, can be used as an additional fuel source. The apparatus prepares the oil for boiler system use.

For the last 3 years, 10,000 - 15,000 gallons of waste motor oil have been burned per year at a savings of $5,000 to $7,500 annually.

CONTACT : R. Fiermonte
CNY Centro, Inc.
614 S. Salina Street
Syracuse, NY 13202
(315) 424-1234

Transit Action

ACTION : Oil Quality Analysis

GOAL : To reduce oil consumption.

ISSUES : To ensure proper lubrication, oil was routinely changed long before its life span in most vehicles.

DETAILS : At each 3,000 mile inspection, maintenance personnel take an oil sample. The sample is sent to a laboratory where it is tested for acidity, viscosity and harmful particulates (cost: $3.00 per analysis).

In most cases, the oil is judged to be reusable. As a result of the program, the average bus now runs 18,000 miles per oil change -- cutting oil consumption costs by 33% (the 18,000 mile inspection is a major one, and provides an ideal opportunity for a timely oil change).

CONTACT : Brian R. Adcock
North Suburban Mass Transit District (NORTRAN)
900 E. Northwest Highway
Des Plains, IL 60017
(312) 297-0135

Transit Action

ACTION : Oil Level Check

GOAL : Accurate measurement of oil level in engines.

ISSUES : Oil level was checked by maintenance employees during fueling and lubrication of buses. Excessive oil consumption and emissions had been noticed, but the cause of the problem was not clear.

DETAILS : Maintenance crews were instructed to check the oil in each coach before starting the engine, instead of checking after the engine had been stopped for 3 to 5 minutes.

Oil consumption, not including oil changes, has been reduced to 25% of its former level.

CONTACT : L. L. Heil
CITRAN
2304 Pine Street
Fort Worth, TX 76101
(817) 870-6200

Transit Action

ACTION : Mix #1 and #2 diesel fuel for urban bus usage.

GOAL : To cut fuel costs.

ISSUES : More miles per gallon were needed to provide a more economical bus service.

DETAILS : #2 diesel fuel (used by Greyhound, Trailways, etc.) provides for better mileage per gallon, better engine lubrication, and decreased engine wear than #1 diesel fuel. It is also less expensive as it costs less to refine. The drawbacks of #2 fuel are that it produces more exhaust fumes of a more distinctive odor. A combination of the two fuels may produce a gas mixture that is more efficient and economical but that will not significantly increase urban air pollution.

CONTACT : Carmen E. Turner
Washington Metropolitan Area Transit Authority
600 Fifth Street, N.W.
Washington, D.C. 20001
(202) 637-1234

Transit Action

ACTION : Use of Freon 12 as a coolant in bus air conditioners.

GOAL : (1) Reduce maintenance and fuel costs; (2) reduce vehicle downtime; (3) improve cooling consistency of buses.

ISSUES : Air conditioners in buses are a major maintenance problem. In warm weather, failure many times means that the vehicle must be pulled out of service until the damage is repaired. Common problems include seals blowing and compressors failing. In Minneapolis/St. Paul, 15 to 20 units per day would commonly fail (out of 300 air conditioned buses).

DETAILS : Freon 12 was substituted for the standard Freon 22. Conversion costs were $100 to $120 (including 4 hours labor) per vehicle.

Since switching coolants a year ago, only 6 air conditioners out of 180 units failed. Freon 12 costs 1/3 as much as Freon 22, and creates only 25% of the pressure on AC components (thus, seals don't blow, etc.). It also takes less power to operate a vehicle using Freon 12 -- thus greater fuel efficiency. However, some minor adjustments must be made in driving. This coolant loses cooling capacity when engine speeds are below 1500 r. p.m., so drivers have to "rev" their engines slightly during idling (at stops, lights, etc.) Also, maintenance officials elsewhere state that the coolant will not work in TRANE Systems.

CONTACT : Jerome S. Mallak
Metropolitan Transit Commission
St. Paul, MINN. 55101
(601) 827-4071 Ext. 728

Transit Action

ACTION : Turned off bus engines during layovers which exceed three minutes.

GOAL : To reduce fuel costs and conserve fuel.

ISSUES : Mileage per gallon of fuel was very low, and total fuel consumption was high, resulting in high fuel costs.

DETAILS : A directive was issued to all operators. Random checks are made of buses in layover to determine operator adherence to the policy.

While mileage for the system has remained constant, a reduction of 20,000 gallons of fuel per year is maintained.

CONTACT : Joe Kursch, Jr.
Peninsula Transportation District Commission
3400 Victoria Blvd.
Hampton, VA 23661
(804) 722-2838

Transit Action

ACTION : Drivers drive buses through the service line and into the storage garage.

GOAL : Reduce the number of maintenance employees during peak return times.

ISSUES : The past practice has been for drivers to bring vehicles onto the property and maintenance employees to take them through the service line. The only time an operator would store a bus is when it did not have to be serviced.

DETAILS : This agreement allows the company--at the time of the pick--to designate which runs will be taken through the service line by the operator. Time is included in the run or biddable tripper for this activity.

This procedure has allowed five maintenance employees to do other work during the peak return period, and the flow is much smoother.

CONTACT : Richard Long
Capital District Transportation Authority
100 Watervliet Avenue
Albany, New York 12206

Transit Action

ACTION : Honor system certification process for elderly and handicapped riders.

GOALS : To save certification costs and to improve convenience for, and good will with, elderly and handicapped passengers.

ISSUES : When the half-fare requirement of the section 5 program came into effect the transit agency was faced with the task of certifying elderly and handicapped riders. This would have involved staffer working full-time for 3 months, plus plastic cards (50¢), plus coordination with social service agency groups in order to develop criteria for admission to the reduced fare program. Also, it would have taken months for all passengers to be certified to ride at a discount, since the transit agency had limited staff available to conduct the process.

DETAILS : The General Manager decided that it would be less expensive to dispense with the certification process altogether. Instead, the elderly and handicapped were informed that they could simply ride for 1/2 price, and that no questions would be asked. In other words, "If you feel that you are elderly or handicapped, merely pay 1/2 fare". Drivers were instructed not to enforce the program whatsoever--regardless of their judgment, drivers were not to challenge any 1/2 fare patrons. This also removed union obstacles to implementation .

Transit officials claim that cheaters can be "counted on the fingers of one hand". In addition, many elderly and handicapped who can afford to, still pay full fare (for reasons of dignity, etc.). Officials feel that less of them would do so if they had the opportunity to "legitimize" their ages or handicaps through a formal process.

Transit officials saved approximately $10,000 with this approach. Additional revenue from qualified riders paying the full fare is difficult to estimate.

CONTACT : Len Engel
Boise Urban Stages
P.O. Box 9016
Boise, ID. 83707

Transit Action

ACTION : National Transit Intern Project

GOALS : Train college students, both graduate and undergraduate, to assume management responsibilities; provide transit properties with administrative assistance during the interim training period.

ISSUES : Throughout the transit industry a need for new management exists. Few college graduates realize the employment opportunities in the industry.

DETAILS : Sponsored by the Urban Mass Transportation Administration and administered through APTA the NTIP provides full-time employment for the intern during the summer, and part time work during the regular school year. CITRAN's interns go through the operator training course, rotate through each department, and spend several months in the department in which they are most interested or which needs assistance.

CITRAN is participating in the NTIP's 3 year project. Two interns are currently employed. The intern from the first project has assumed the responsibilities of grant administration and budget analysis. Interns bring a fresh academic perspective to transit problems.

CONTACT : John Bartosiewicz
CITRAN
2304 Pine Street
Fort Worth, TX 76102

Transit Action

ACTION : Management by Objective.

GOAL : Increase overall system performance.

ISSUES : The management of a large public agency requires the integration of purpose and direction. Definite productivity targets, if set at every level in the agency, provide a sense of direction and serve as a measuring device. If they are linked to merit pay, they can provide incentives traditionally lacking in the public sector.

DETAIL : Each division in the Transit Department has specific goals to achieve each year. (Reduce overtime by X%, reduce complaints by X%, reduce accidents to X per million miles). These goals are reviewed each month at a regular staff meeting. The goals are charted in graph form on 4" x 6" sliding boards in the management information center. These charts are also used as information tools when briefing public officials and people from other agencies.

Progress toward meeting individual objectives is measured and solutions to problems relating to objectives are actively pursued. Each year salary increases for top and middle management are based on performance in achieving MBO goals.

CONTACT : Chuck Collins
Seattle Metro
821 2nd Avenue
Seattle, WA 98104
(206) 447-6666

SIMILAR PROGRAM : Jim Reading
Central Ohio Transit Authority
51 N. High Street
Suite 8000
Columbus, OH 43215

Transit Action

SIMILAR PROGRAM CONT'D:

Dennis Jensen
Duluth Transit Authority
2631 West Superior Street
Duluth, MN 55806
(218) 722-4426

Art Gaudet
Transit Authority of Northern Kentucky
11th and Lowell Streets
Newport, KY 41071
(606) 431-2734

Richard Demko
Bay Area Rapid Transit District
800 Madison Street
Oakland, CA 94607
(415) 465-4100

Ed Colby
Public Transit Administration
251 West Washington
Phoenix, AZ 85003
(602) 262-7242

Transit Action

ACTION : Hire senior citizens to keep bus shelters clean.

GOAL : To provide bus riders with clean shelters.

ISSUES : SEMTA could not keep bus shelters clean due to limited staff.

DETAILS : Senior citizens are contracted at the rate of $50.00 per month per shelter to keep it clean. They receive cleaning materials and supplies and a red wagon to carry them.

The success of the program has been excellent. Those shelters being cleaned by senior citizens are well-maintained.

CONTACT : Grover Teague
Department of Transportation
1301 E. Warren
Detroit, MI 48207
(313) 224-1500

Transit Action

ACTION : Bus pre-heaters installed.

GOAL : Reduce fuel consumption and wear and tear on buses.

ISSUES : Buses must be stored outdoors due to lack of indoor storage facilities. During extremely cold weather engines had to be kept running all night or buses would not start in the morning. This wastes fuel and increases engine wear.

DETAILS : Electric pre-heaters were installed for buses. When out-of-service, these buses are "plugged in" to the heating system to maintain engine block warmth, thus resulting in lower oil viscosity and quick start-ups.

Approximately 24,000 gallons of diesel fuel were saved during Winter 78/79. Service reliability improved because engines were not running constantly during extremely cold weather.

CONTACT : Andrew G. Schiavone
Metropolitan Suburban Bus Authority
1640 Hempstead Turnpike
East Meadow, NY 11554
(516) 542-0315

Transit Action

ACTION : Installation of traffic signal pre-emption system at heavily travelled intersections.

GOAL : To realize a travel time savings of 15% and reduce bus delays by 25%.

ISSUES : To make transit a more attractive alternative to the auto, travel time and waiting time had to be reduced.

DETAILS : The traffic signal pre-emption system was installed at 12 intersections along a main arterial in the City of Concord. Equipment was installed on buses travelling to shopping centers and the BART station in Concord. The equipment can be operated continually, but it is activated by the driver. The total cost for equipment and installation was $121,125.

After six months of operation, bus travel time was reduced by 10% and schedule reliability improved. Bus delay was reduced by 36% and the number of times the bus stopped in traffic decreased by 18%. Pedestrian traffic was unaffected. The savings amount to $24,000 annually in bus operating time.

CONTACT : Richard Mitchell
City of Concord
1950 Parkside Drive
Concord, CA 94519
(415) 671-3169

SIMILAR PROGRAMS: Robert Rhoades
Transportation Department
Southeastern Pennsylvania Transportation Authority
200 West Wyoming Avenue
Philadelphia, PA 19140
(215) 456-4000

Robert Taube
Metropolitan Transit Authority
401 Louisiana, P.O. Box 61429
Houston, TX 77208
(713) 225-1151 x. 429

Transit Action

ACTION : Sandblasting rust.

GOAL : (1) Remove rust without removing metal; (2) reduce maintenance time and labor costs; (3) make rust removal easier for maintenance personnel; (4) get rusted buses back into service quickly.

ISSUES : Rust appears in many places on different buses. New buses still under warranty had to be recalled to the factory. An alternative, and one used on older buses, was hand-sanding -- a tedious process requiring days of work which often resulted in scraping away so much metal as to require filling. Employees disliked the arduous nature of the task, yet in 1976 the Union resisted the transit agency's efforts to contract out the work needed on 15 new buses still under warranty.

DETAILS : Transit officials decided to set up a special sandblasting stall, large enough to accommodate even articulated buses (55'). This stall had pressure shields instead of windows, side and overhead hatches, dust collection vacuums, protective equipment for the workers, and a track for scaffolding on either side of the vehicle platform. The facility cost about $4,000 to $5,000 (1977) and the 2 sandblasting machines about $1,500 a piece.

The process takes 3 hours as opposed to an average 3 days per bus -- plus it doesn't remove metal. The operation is now constrained by the paint department which can't keep pace with it. The Union and employees are happy with the arrangement. System capacity is about 2 buses per day, more than adequate to handle PAT's 1000 buses and other miscellaneous equipment. It paid for itself the first year.

CONTACT : Frank DiPietro
Port Authority of Allegheny County
Beaver & Island Avenues
Pittsburgh, PA 15233
(412) 237-7000

SIMILAR PROGRAMS :

Tereasa S. Paneblanco
Division of Public Transportation Operations
Florida Department of Transportation
Tallahassee, Florida 32301
(904) 488-7390

Dave Forkenbrock
University of Iowa
North 246 Oakdale Campus
Iowa City, Iowa 52242
(319) 353-5001

Transit Action

ACTION : Installation of Random Access Microfiche system for display of information needed by telephone agents.

GOAL : To increase productivity of agents, improve quality and reliability of information provided to callers, and reduce training time for agents.

ISSUE : The Chicago Transit Authority provides telephone information services for city (CTA) and suburban (RTA) operations. Call rates have experienced significant growth and to provide the proper level of service (i.e. high capture rate and reliable, consistent information) was needed.

DETAIL : The Chicago Transit Authority has expanded and upgraded transit information services over the past few years. This has involved construction of improved working facilities, improved telephone equipment, installation of free telephone lines for the suburbs, expansion of the number of agents, and installation of 30 microfiche units. Plans are to upgrade to 40 units in the first quarter of 1979 and to investigate computer control of the microfiche system. The microfiche system holds all schedule information and through indexing of materials and special button labels permits direct access within three seconds to information, timetables, route maps, fares, etc. Much of this information is also required by the CTA System Control Center for use in handling non-routine operation situations, e.g., accidents, fires, bus breakdowns,etc. Accordingly, the Control Center has installed and is using 3 units with plans to install additional units in 1979.

These actions have resulted in a large increase in operator productivity even though suburban calls, which are more difficult to handle, make up more than 40% of the total. Training time for new agents has been reduced from 6 to 10 months to 3 to 4 weeks, and operator morale is high.

CONTACT : Tom Coyne
Consumer Services
Chicago Transit Authority
Merchandise Mart
Box 3555
Chicago, IL 60654
(312) 664-7200

Transit Action

ACTION : Answering service provides bus information during slack periods.

GOALS : To improve efficiency and reduce information service costs and to relieve personnel from evening, weekend, and holiday assignments.

ISSUES : Information requests during slack periods are uneven. Because it was hard to get operators to work on a limited part-time basis, much of an employee's time was spent doing nothing. Employees also didn't like working nights, weekends and holidays.

DETAILS : An answering service performed information services during evenings (after 6 P.M.), weekend and holidays on a per-hour, contract basis. Personnel were trained just like transit personnel (3 or 4 weeks). While hourly wages were comparable to those paid transit employees, answering service employees could work part-time on the transit switchboard and part-time on regular assignments; two or three persons working from 6 - 8 P.M., one person thereafter, and four on Saturdays.

CONTACT : Fred Gilliam
Memphis Area Transit Authority
P.O. Box 122
Memphis, TN 38101
(901) 528-2881

Transit Action

ACTION : Pre-position service vehicles at maximum use locations.

GOAL : Reduce the response time for road calls to save man hours and to minimize passenger inconvenience when minor breakdowns occur.

ISSUES : Because of the large area covered by MSBA, the response time on road calls by service trucks was very long.

DETAILS : Two service trucks were assigned to MSBA's two busiest terminals during the peak hours. This cut the road service response time for minor breakdowns, thus enabling buses to be returned to service more quickly.

An estimated 1,030 man hours were saved during the first quarter of 1979 (121 hours by mechanics and 909 hours by bus operators). The quick response time also increased MSBA's service reliability and reduced passenger inconvenience.

CONTACT : Andrew G. Schiavone
Metropolitan Suburban Bus Authority
1640 Hempstead Turnpike
East Meadow, NY 11554
(516) 542-0315

Transit Action

ACTION : Utilize extra-board drivers in non-driving functions.

GOAL : The Iowa State Department of Transportation and the Iowa City Council want to implement a low-cost public relations and marketing campaign.

ISSUE : The budget required that this be done without additional staff.

DETAIL : Iowa City Transit schedules at least one back-up driver. If this person was not needed to drive, the driver was simply paid call time. Presently, this driver does the following:

1) Assists the clerk and dispatcher in answering telephone requests for route and schedule information.

2) Delivers maps and schedules to distribution points, keeps schedule racks full and up-to-date.

3) Answers correspondence related to schedules information and assembles packets of transit information for distribution by Welcome Wagons.

4) Rides when new routes are placed in service or routes are cut back to inform passengers orally (or by distributing schedules) how the service change can help them or minimize their inconvenience.

5) Assists the manager in other related duties, as required.

Several other transit improvements make success difficult to quantify, but this year's ridership is up over 14%. The cost, on the other hand, is negligible because non-productive time is being fully utilized. The Extra-Board drivers have generally been happy with the new arrangement, as formerly they were either sent home with only show-up pay or else sat around getting bored. No work was taken away from any bargaining-unit employee.

CONTACT : Hugh A. Mose, Jr.
Iowa City Transit Authority
410 East Washington Street
Iowa City, IA 52240
(319) 351-6336

Transit Action

ACTION : Implemented the "Help System" which strategically locates buses along routes to help drivers stay on time.

GOAL : Improve on-time performance.

ISSUES : A significant number of runs were late.

DETAILS : The number of on-street supervisors was increased and several open-ended trips were begun. At the end of a trip, a bus was to follow the supervisor's orders.

Initially, the Union and its membership were upset about the program because the driver did not know when he would be getting home. However, management rarely used the open-trippers for overtime. Most assignments were for guaranteed time. The open trippers were able to help buses that were late or overloaded.

Prior to the program only 60% of the runs were on time. Presently over 90% of the runs are on time.

CONTACT : Don Castle
Transit Windsor
1570 Kildera Road
Windsor, Ontario
Canada N8W 2W3
(519) 944-4111

Transit Action

ACTION : Hire mentally retarded and physically handicapped persons to straighten crumpled dollar bills.

GOAL : To reduce delays in getting collected fares to the bank.

ISSUES : Dollar bills must be unfolded and flattened before they can be counted and deposited into the bank. It is difficult to find people who will perform this time-consuming but necessary task.

DETAILS : Two persons, one who is mentally retarded, the other who is physically handicapped and confined to a wheelchair, were hired full time as clerks to flatten dollar bills.

The hiring of these two persons has worked out well in solving the Port Authority's problem and providing employment to these two handicapped individuals. Fellow employees are proud of this program.

CONTACT : Jim Maloney
Port Authority of Allegheny County
Bewer and Island Avenues
Pittsburgh, PA 15233
(412) 237-7310

Transit Action

ACTION : Installation of agency-sponsored job-limited personnel in the maintenance department for the cleaning of vehicles.

GOAL : To improve overall productivity in cleaning of vehicles at a reasonable cost.

ISSUES : None

DETAILS : Mentally and physically handicapped people were hired through agencies in the Cincinatti area to clean vehicles. The employees were not only dedicated to the work, but the agencies themselves were willing to provide the start-up supervision and specific training that was necessary. Job protection for these employees was important as they were unqualified to take any other position. Pay scale was important for organization productivity, but was compromised with the union to allay their concern that installation of the new personnel would adversely affect their pay scales.

The program has resulted in expanding the quantity of cleaning production by some 300%, and the buses are cleaner.

In the past, the job turnover in the mechanical department was highest when cleaning was an entry-level job. In this new program, there have been only 2 forced terminations and 1 resignation out of 14 positions over a 3 year period.

Contract rates for this job classification remain high as compared to pay scales normally available to these individuals. These rates are considerably lower than other mechanical department employees.

CONTACT : Rita Potts
Queen City Metro
6 East Fourth Street
Cincinnati, OH 45202
(513) 621-9450

Transit Action

ACTION : Installed a radio system in road supervisors' cars which combined the work of the supervisor and the dispatcher.

GOAL : To reduce the number of supervisors and dispatchers but to maintain a sufficient number in the field to provide necessary supervision of drivers.

ISSUES : There was a need to have road supervision at night when the value of a radio system is greatest.

DETAILS : In cooperation with Motorola, radio devices with an alpha numeric keyboard and screen were developed and installed in road supervisors' cars. After 7:30 P.M. the control console operator continues the shift in the car, allowing the supervisor/dispatcher to perform the function of a main console operator in the field. The road supervisor thus maintains contact with vehicles on the road.

The needs of the district were met, and a full return on the investment will be realized within 2 1/2 years.

CONTACT : Charles W. Thomas
Regional Transit
P.O. Box 2110
Sacramento, CA 95810
(916) 444-7591

Transit Action

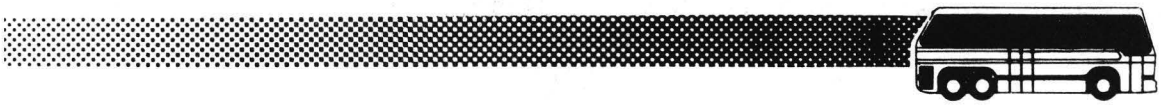
ACTION : Arrange for the use of park-and-ride facilities at little or no cost to the transit agency.

GOAL : Decrease capital investment involved in establishing park-and-ride facilities.

ISSUES : None.

DETAILS : To date 22 park-and-ride lots have been obtained from private industry (at no cost) in order to provide parking for new customers.

CONTACT : W. Gary Crawford
Masstrans
300 E. California
Oklahoma City, OK 73104
(405) 231-2601



Transit Action

ACTION : Standardize advertising display frames.

GOAL : Generate more advertising revenue.

ISSUES : MBTA has the oldest subway in the United States. Over the years, many sizes and types of displays were developed to accommodate various advertisers. Fewer but more effective displays were desired.

DETAILS : MBTA now has uniform display sizes for the nationally-accepted two-sheet (46x60) and locally-popular six-sheet (60x144) poster frames. Many remaining poster frames were repositioned to strategic locations, heightening viewer awareness.

As advertiser demand increased, the frames sold out, which permitted premium prices. Maintenance costs were reduced by eliminating many of the odd-sized frames.

CONTACT : John Launie
Massachusetts Bay Transit Authority
50 High Street
Boston, MA 02110
(617) 722-5000

Transit Action

ACTION : Development of Step-Wise Run-Cutting strategy to accommodate three and four piece runs at MTA in Baltimore.

GOAL : Develop computer assisted scheduling technique to cut the number of three and four piece runs.

ISSUES : More than 1/3 of the operator assignments consist of 3 or more pieces, primarily due to the large number of school trippers operated by the MTA. RUCUS software did not have the capability to reduce these piece runs.

DETAILS : A full system computer schedule data base to replace the largely-duplicate MTA computer and manual data bases was implemented in June, 1977. On-line data file management, editing, and reporting routines were developed to maintain the data base on a continuing basis.

Improved techniques for bus assignment were applied for selected school and peak period trips, and showed significant operating cost savings for the MTA primarily through a reduction in the number of AM peak period buses. The stepwise multi-piece run cuts were generated for the Bush Division (over 300 buses) in fall, 1977. This showed operator pay-hour savings of 2.7% with more straight runs and fewer operators. On the basis of these results, the MTA is proceeding with systemwide run cutting implementation.

CONTACT : Gary Turnock
Mass Transit Administration
1515 Washington Boulevard
Baltimore, Maryland 21230
(301) 539-6281

Transit Action

ACTION : Special Transit Training Classes for Social Service Agency Employees.

GOAL : Increase revenue and ridership on existing services, and avoid costs of special services for Medicaid clients.

ISSUES : The Social Services Department requested that special bus routes be set up to bring Medicaid-eligible people to a large area medical center and to reduce Medicaid taxi transportation costs.

DETAILS : Instead of setting up special routes, MSBA held special classes for those who authorized Medicaid transportation, showing them how regular routes could be used to reach the medical center and other Medicaid destinations. Route maps, a set of schedules and bus information telephone numbers were given to each person in class.

Only those individuals whom doctors can certify as unable to use buses are authorized taxi transporation. Social Services reimburses patient bus fares instead of taxi fare. MSBA gained additional riders and revenue.

CONTACT : Paul Gawkowski
Metropolitan Suburban Bus Authority
1640 Hempstead Turnpike
East Meadow, NY 11554
(516) 542-0315

Transit Action

ACTION : Production line inspection services during the manufacture of new buses.

GOAL : Improve vehicle acceptability and reliability prior to taking delivery.

ISSUES : Acceptance issues should be resolved at the plant, not via the revenue system.

DETAILS : An on-site inspection team is assigned to plant inspection to represent the buyer from the beginning of the assembly line to acceptance. Many problems have been identified and resolved at the plant which otherwise would not have been discovered until revenue service.

CONTACT : James C. Moran
Bureau of Public Transportation
24 Wolcott Hill Road
P.O. Drawer A
Wethersfield, Connecticut 06109

Transit Action

ACTION : Installation of a transparent environmental curtain at exits to bus washing service lanes.

GOAL : To prevent equipment freeze-ups, reduce service lane heating costs, and eliminate chilly atmosphere for personnel.

ISSUES : SEMTA's buses -- washed daily -- are driven through a service lane washing area. Because of the short cycle time, doors were left open. The resulting wind tunnel effect froze the equipment, wasted heat, and caused drivers to complain while spending considerable time trying to keep warm.

DETAILS : SEMTA purchased transparent, flexible vinyl strips to place at the service lane exits and entrances. These strips are pushed apart by exiting vehicles (drivers can see through them), but otherwise remain closed. In summertime, a strip holding loop fasteners is removed, and the curtain is stored.

The wind tunnel effect and driver complaints ceased, as did equipment freeze-ups. In addition, SEMTA officials believe that fuel savings in heating the washing area will cover the costs of the innovation in 1 year.

CONTACT : William Seifert
South Eastern Michigan Transit Authority
211 West Fort Street, Suite 1600
P.O. Box 333
Detroit, Michigan 48321
(313) 962-9800

Transit Action

ACTION : Interlining of express and limited stop services.

GOAL : Reduction in the number of buses required to service the express and limited stop routes.

ISSUES : The conventional approach to scheduling urban express services is similar to that used for regular bus routes, except that buses normally deadhead in the off-peak route direction. If several different express routes are operated, this procedure will probably result in the duplication of deadhead links and inefficient lay-ups because of the inconsistencies between route headway and vehicle round trip time.

DETAIL : Interlining optimizes this situation by making all buses available to make a revenue trip on all routes rather than being assigned on a route specific bases. The magnitude of the saving in vehicles is a function of the number of route to route links that can be made as well as the ability to make small shifts in individual route headways. Because of the number of possible links, the solution requires a computerized approach and in this instance, the RUCUS BLOCKS program with some additional routines has been used.

The system has been used since September 1975 when an initial saving of 9 buses in 144 (6%) as well as a 6% saving in platform time was achieved. Further improvements to the system introduced in 1978 have increased this vehicle saving to about 10%.

CONTACT : John Bonsall
Ottawa-Carleton Regional Transit Commission
1550 St. Laurent Boulevard
Ottawa,Ont. KIG 028
(613) 563-2654

Transit Action

ACTION : Install a computer-assisted vehicle maintenance management system.

GOAL : Improve overall productivity in vehicle maintenance.

ISSUES : Work productivity and detailed record keeping in bus maintenance had declined over the past several years. These two developments resulted in lowered vehicle reliability and a concomitant degradation of public service. Management sought a solution to this problem which would require neither a reinstatement of costly manual record-keeping procedures nor the imposition of productivity standards unacceptable to labor.

DETAILS : Through the use of one document for each maintenance job, a battery of computer programs summarize each mechanic's work activity on a weekly basis, each vehicle's repair history on a monthly basis, and the entire fleet's cost and failure rate values on demand. An important element of the system is the calculation of individual employee productivity measures based on comparisons of paid hours, actual performance times, and a set of standard repair times. The standard repair times were derived from an evaluation of actual bus repairs. tempered with first-line supervisory verification. Hence, the standards reflect actual employee skills and facility resources.

There has been an overall improvement in bus availability and reliability with no increase in personnel.

CONTACT : Greg Mitchell
Detroit Department of Transportation
1301 E. Warren Avenue
Detroit, MI 48207
(313) 224-6497

Transit Action

ACTION : Identify minimum number of bus operators, taking into consideration service requirements, labor contract constraints, and driver availability (absenteeism and overtime).

GOAL : To identify and maintain operator manpower level that will produce the most efficient utilization of the workforce while at the same time losing a minimum number of trips.

ISSUES : Two-thirds of Metropolitan Transit Commission employees are operators, and they account for 60% of a $63,000,000 operating budget. Within the constraints of our labor contract, and considering our service levels, (approximately a 3:1 peak to base ratio) the MTC makes every effort to efficiently utilize the operator workforce. Determining the total number of operators employed is the key to maintaining the high utilization of operators. Too many operators will result in increased payroll costs through increased guarantee payments while too few drivers may reduce costs but also result in losing an unacceptable number of trips.

DETAIL : We have identified for operator planning purposes the man-to-work ratio which measures driver requirements based on peak hour service levels. Before developing this measure, we closely analyzed the recent MTC history of employment levels, service levels, overtime work, absenteeism and the number of missed trips in order to establish the averages in each. Based on this analysis we have established a man-to-work ratio of 1.50. We feel this figures strikes a balance between absenteeism, overtime, and lost trips. This is a very sensitive figure. For example, a reduction of .01 in the ratio would reduce the deiver workforce by eight drivers and may result in up to 16 daily missed trips, unless offset by reduced absenteeism or increased overtime.

Part-time drivers have recently been hired under a new labor contract. The ratio was developed before this was allowed. While the ratio is conceptually correct, analysis is currently being conducted to determine the validity and accuracy of the 1.50 figure. Management is optimistic and use of the ratio should most efficiently utilize the driver workforce at the MTC while missing an acceptable minimum number of trips. By measuring and monitoring driver absenteeism and overtime, the MTC found that management attention to these areas has resulted in the continued ability to operate at a 1.50 ratio and not add additional driver personnel when missed trips increase.

Transit Action

CONTACT : John J. Capell
Metropolitan Transit Commission
801 American Center Building
160 E. Kellogg Boulevard
St. Paul, MN 55101
(612) 221-0939

Transit Action

ACTION : Provide a varied number of street traffic checking personnel.

GOAL : Pay for traffic checking on a part-time basis -- only when demand exists.

ISSUES : Because schedules are changed seasonally (three times per year) the demand for obtaining field data on passenger loads and running time varies greatly.

DETAILS : The Schedules Division -- in cooperation with clerical union. representation -- has been able to provide for a work force for field checking which ranges from zero to as high as 75 employees on duty at any one time. There is an "available" list of up to 125 employees. This group is managed by 2 full-time dispatching employees who may also perform field work. The part-time employees are recruited primarily from college students, pensioners, policemen, etc., and overall annual cost for checking amounts to approximately $200,000.

CONTACT : James J. McGrane
Transportation Department
Southeastern Pennsylvania Transportation Authority
200 West Wyoming Avenue
Philadelphia, PA 19140
(215) 456-4000

Transit Action

ACTION : Implementation of SEMTA Suggestion Program to enable SEMTA employees to suggest improvements for cash awards.

GOAL : (1) Improve service; (2) improve employment conditions; (3) reduce cost; (4) improve safety.

ISSUES : SEMTA is involved in many diverse activities, many which could be improved with a reliable communications system between employees and upper management. The SEMTA Suggestion Program was developed and implemented to provide a procedure for this communication.

DETAIL : The SEMTA Suggestion Program was implemented on February 5, 1979. It enables SEMTA employees, both hourly and salary, to make suggestions which they believe would improve SEMTA service, reduce cost, improve employment conditions, or improve safety. Suggestions are placed in one of three categories, which are shown below with award ranges.

Category A - Tangible	$15 - $2500
Category B - Intangible/Safety	$15 - $ 250
Category C - Intangible/Other	$15 - $ 250

The Suggestion Program is overseen by a Suggestion Committee which is made up of various professionals and union representation, and is responsible for final decisions.

Since implementation in February, SEMTA has received over 125 suggestions, of which 10% have been approved by experts making evaluations.

CONTACT : Drew Williams
Southeastern Michigan Transportation Authority
P.O. Box 333
Detroit, MI 48231
(313) 962-9800

SIMILAR PROGRAM : Ralph de la Cruz
SCRTD
425 South Main Street
Los Angeles, CA 90013
(213) 972-6000

Transit Action

ACTION : Encourage the use of new, directly applied viñyl advertising displays.

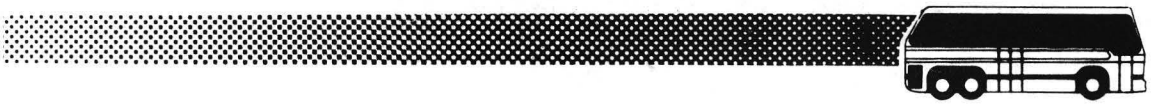
GOAL : Increase advertising revenue.

ISSUES : The old displays were not generating the desired advertising revenue.

DETAILS : The vinyl displays are sold in 4-month lots which means they are changed only 3 times a year instead of monthly.

CONTACT : John Launie
Massachusetts Bay Transit Authority
50 Elm Street
Boston, MA 02110
(617) 722-5000

SIMILAR PROGRAMS : Paul Kole
Chicago Transit Authority
Merchandise Mart
Box 3555
Chicago, IL 60654
(312) 664-7200



Transit Action

ACTION : Safety Incentive Program

GOAL : To reduce the rate of vehicle and passenger accidents.

ISSUES : Accidents have represented an increasingly serious problem that has been difficult to change. Indications are that although most operators who are involved in accidents know how to drive the bus properly, they lack the motivation to do so.

DETAILS : 100 operators were randomly selected from a total of 420 operators to test the effectiveness of the Safety Incentive Program over an 18-week period. The program consisted of a combination of team competition, performance feedback, and frequent low-cost incentives.

Results indicate that there was a 26.07% reduction in accidents over the 18-week period, increasing to 37.07% during the final 10 weeks. The Benefit/Cost ratio for the entire period was estimated at $5.13:$1.00, increasing to $7.87:$1.00 for the final 10 weeks. All KCATA operators are presently scheduled to be included in the program.

CONTACT: Robert Haynes, Russell Waesche, or Randy Pine
Kansas City Area Transportation Authority
1350 East 17th Street
Kansas City, MO 64108
(816) 471-6600

Transit Action

ACTION : Identify dangerous stretches of road by soliciting information from operators.

GOALS : Safer operations, reduction of vehicle wear.

ISSUES : The transit authority was unaware, for the most part, of where improvements in road conditions were most necessary.

DETAILS : A safety meeting with operators and transit board members was held in February. Operators were asked for a list and description of the most dangerous areas in their routes.

Areas that were noted as hazardous for driving are receiving the necessary attention.

CONTACT : Herb Pense
Manchester Transit Authority
110 Elm Street
Manchester, NH 03103
(603) 623-8801

Transit Action

ACTION : Creation of universal transfer form.

GOALS : (1) Reduce production cost of transfer forms. (2) simplify procedures. (3) improve operational efficiency. (4) provide better service to patrons.

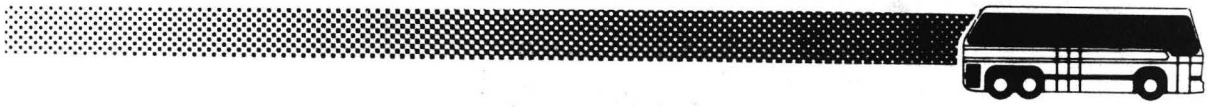
ISSUES : Bi-State had been using over 108 separate transfer forms each day that were also dated daily. The complicated transfer rules required operators to properly punch the form and accept them only at designated transfer points. Further, dispatchers each day had to sort out appropriate transfer forms to each driver in order for him to have the proper form on the individual routes that he worked.

DETAILS : Bi-State created one universal transfer form that was letter coded, thereby permitting unused transfer forms to be reused when the same letter again was designated for use on a subsequent day. This form could be used by any driver on any route by appropriately punching the correct information. Further transfer regulations were eased to permit passengers stopover privileges so long as the transfer had not expired.

An immediate savings of $50,000 was realized in the reduction of printing costs. Further, due to the liberalization of transfer restrictions, less time is required by the operator for scrutiny of the transfer form. Dispatchers have added time then to perform other duties.

CONTACT : Jerome Kirzner
Bi-State Development Agency
3869 Park Avenue
St. Louis, MO 63110
(314) 711-1414 - Ext. 234

SIMILAR PROGRAMS: Kenneth J. Warren
Milwaukee County Transit System
4212 W. Highland Blvd.
Milwaukee, WI 53208
(414) 344-4550



Transit Action

ACTION : Use of freeway cloverleaf as a Park n' Ride facility served by express buses.

GOAL : Provide express service to and from the downtown area.

ISSUES : Baltimore's downtown area has limited parking; streets are heavily congested throughout the day in many areas. Express bus service is constrained by the lack of conveniently located parking facilities in outlying areas.

DETAILS : Faced with the task of completing a partial cloverleaf on the Baltimore beltway (I-695), the Maryland Department of Transportation proposed as an alternative the construction of a heavily-landscaped parking lot within an already-completed portion of the cloverleaf. The landscaping helped sell the idea to the surrounding community. The facility has 237 parking spaces, and bus service to and from several downtown locations is provided every 15 minutes during the peak and every 60 minutes during the off peak. The project, which costs approximately $450,000, (half of which was spent on landscaping) was financed with 90/10 matching Interstate Funds.

The service recovers about 2/3 of its costs from the farebox--close to the system average. This revenue is, however, constrained by the limited parking facilities, presently utilized above capacity (about 260 cars). The service carries commuters, shoppers and reverse commuters. Two additional facilities for similar locations are in the design stage.

CONTACT : Gary Turnock
Mass Transit Administration
1515 Washington Blvd.
Baltimore, Maryland 21230
(301) 539-6281

Transit Action

ACTION : Implemented an Automatic Passenger Information System which monitors vehicles and provides passengers with accurate bus schedules.

GOAL : Improve public perception of reliability by providing better information, such as bus availability, at each stop.

DETAILS : The hardware for the system cost $311,000 and the annual operating costs are nearly $120,000. Buses on the six test routes have an odometer which transmits route progress via radio to a computer. The information is stored for retrieval by a customer. To get the exact arrival of the next bus at a particular stop, the customer dials three digits, followed by a two digit route number, followed by a stop number. The system also has management information system capabilities.

Patronage has so far doubled on one route and is 10% to 12% above the systemwide increase on five other test routes.

CONTACT :
Peter Travis
Mississauga Transit
975 Gillian Avenue
Mississauga, Ontario
CN L5C 3V1
(416) 279-5900

SIMILAR PROGRAMS :
Albert K. Meinze
Queen City Metro
6 East 4th Street
Cincinnati, OH 45202
(513) 621-9450

Transit Action

ACTION : Computerized Inventory

GOAL : To control, regulate, and supervise the inventory.

ISSUES : As a result of the annual auditor's report, recommendations were made to institute methods of reducing and controlling inventory within the finance department.

DETAILS : Through the application of a computer terminal, MATA is able to update inventory daily. A weekly printout is sent to the storeroom for comparison with the annual stock.

The purchasing and department storeroom have instantaneous update of current stock and large variances at the end of the year have been eliminated.

CONTACT : Frank Tobey
Memphis Area Transit Authority
701 N. Main Street
Memphis, TN. 37406
(901) 528-2881

Transit Action

ACTION : Passenger load factor data gathered via two-way radio.

GOAL : To reduce the need for hiring temporary employees to collect ridership data.

ISSUES : Prior to implementing this action, MATA employed a number of temporary employees to perform costly ridership counts for load factor studies.

DETAILS : At the request of the scheduling department, the radio dispatcher makes a request to the bus operator on the designated route to report the passenger count at designated points along the route.

Since eliminating the extra employees, operating costs have been reduced and manpower efficiency increased.

CONTACT : Don Burgess
Memphis Area Transit Authority
701 N. Main St.
Memphis, TN 37406
(901) 528-2881

SIMILAR PROGRAMS: James Heilig
Duluth Transit Authority
2631 West Superior Street
Duluth, MN 55806
(218) 722-5545

Transit Action

ACTION : Design, publish and distribute a brochure which provides information about all of the transit systems in the San Francisco Bay area.

GOAL : To make general transit information available throughout the nine-county San Francisco Bay area.

ISSUES : There is a lack of adequate information regarding rates and schedules on public transit in the San Francisco Bay area.

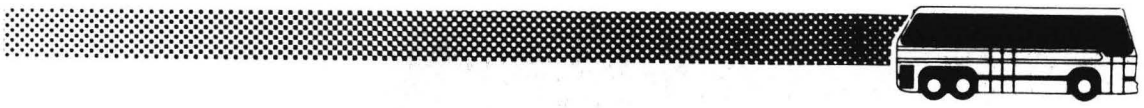
DETAILS : The Metropolitan Transportation Commission proposed a multi-colored map and a general description of available transit service. The description includes information on hours of operation, fares, transfers, senior and handicapped fares, and youth fares. Telephone information numbers including those of private transit operators, are provided as well.

The "Regional Transit Guide" was published in 1976 and revised in September 1978. The original printing of half a million was widely distributed and requests for the revised guide are just as high.

CONTACT : Sy Mobler
Metropolitan Transportation Commission
Hotel Claremont
Berkeley, CA 94705
(415) 849-3223

SIMILAR PROGRAMS: Jerry Hutchinson
Battle Creek Transit
75 Beacon Street
Battle Creek, MI
(616) 966-3474

Beth Beach
Sacramento Regional Transit District
P.O. Box 2110
Sacramento, CA 95810
(916) 444-7591



Transit Action

ACTION : Marketing Program.

GOAL : To inform the greatest number of citizens of CITRAN's services while controlling expenses.

ISSUES : From 1972 to 1977 CITRAN had used the marketing services of Whitherspoon Associates. While this approach produced some benefits it was determined that the process did not promote the most efficient use of marketing resources.

DETAILS : In September 1977, CITRAN began a new marketing approach. Reductions in media advertising were followed by a more personal approach. This consists of: slide presentations to public meetings and senior citizen gatherings, mini-courses at local schools, announcements attached to City utility mailings, and door to door literature campaigns.

Systemwide patronage has increased approximately 5% over comparable periods last year. The marketing campaign has contributed to this increase at a lower cost than the previous approach.

CONTACT : Janie Manning
CITRAN
2304 Pine Street
Fort Worth, TX 76102
(817) 870-6200

SIMILAR PROGRAMS: Jeffery Gubitz
Knoxville Transit
623 Gessamine Street
Knoxville, TN 37919
(615) 546-3752

Dennis Jensen
Duluth Transit Authority
2631 West Superior St.
Duluth, MN 55806
(218) 722-4426

Transit Action

ACTION : Short-turn subway service to provide close headway downtown - wider headway in suburbs.

GOAL : To provide an adequate level of service, in keeping with passenger demand at reasonable cost.

ISSUES : "U" shaped Yonge-University-Spadina line has a round trip distance of 35 miles. Passenger demand varies from the heavily used downtown "bottom of the U" to the more lightly used "legs of the U". Furthermore, this demand changes during different time periods.

DETAILS : During the A.M. peak period a 4 minute-42 second headway is operated over the entire line with a smaller "J" operation involving a further 4 minutes and 42 seconds headway superimposed in the heavily travelled downtown area - combined headway is 2 minutes and 21 seconds.

During the P.M. peak period the operation is similar except that there is no short-turn on one side of the "U", and headways are 4 minutes 30 seconds with a combined headway of 2 minutes and 15 seconds.

This action is of course predicated on the availability of turnaround facilities at the proper locations as well as in-depth knowledge of passenger flows by time periods.

This operation has been well received and is estimated to result in substantial cost reductions.

CONTACT : D. C. Phillips
Toronto Transit Commission
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Toronto, Ont.
M4S 1Z2
(416) 481-4252

Transit Action

ACTION : Use of parking management techniques to reduce the number of cars in the downtown area.

GOAL : Reduce traffic congestion.

ISSUES : None.

DETAILS : The principal techniques include:

- Conversion of all municipal parking lots and garages from metered parking to tenant parking to provide more flexibility in pricing.

- A surcharge on cars parked in city garages and lots between 6:30 A.M. and 9:30 A.M.

- A deduction on the daily parking fee for all day parkers who car pool (25¢ per hour per extra person).

- Four fringe parking lots with free parking and shuttle bus service at 15-minute intervals between 6:00 A.M. and 10:00 P.M.

- Reduced parking fees (10¢ per hour) for day time shoppers (after 9:30 A.M.) in municipal lots and garages in the downtown area after the first 2 hours.

The program also includes a sales campaign to get more people to use monthly bus passes. Each month the sales effort is moved to a new major employer building in the downtown area. Monthly passes are sold at 25% of their normal price and are good for a 3 month period. The concept is to provide a stimulus to attract new transit riders.

CONTACT : Warren O. Somerfield
City of Madison
Room 111
City-County Building
Madison, WI 53709
(608) 266-4761

Transit Action

ACTION : Creation of a service coordinating committee made up of those middle and top level management personnel who are directly involved in the planning, implementation, and monitoring of COTA's service and service developments.

GOAL : Streamline communication between those people accountable for COTA'S service and service development, and promote quick, accurate, and well-informed coordination for service monitoring and development.

ISSUES : Past activities in scheduling, transportation, service development, and marketing had shown that critical information regarding existing or proposed COTA service did not flow in a timely, coordinated, and comprehensive manner. Often one section would be acting with different objectives and on different projects. Often crucial information would not be provided when needed because coordination had not been present.

DETAILS : Weekly meeting of management from scheduling, transportation, service development, marketing, administration, and the general manager discussed a full agenda of service problems; proposed service developments; mid-and long-range transit plans; new transit and traffic techniques; issues; goals, and objectives of COTA; performance criteria, etc.

The meetings ran for 5 months, during which time there was excellent attendance by all levels of management. Participation and cooperation have increased consistently. All disciplines are now involved in helping to improve COTA service, whereas only a fragmented approach existed before.

CONTACT : Richard Schultze
Central Ohio Transit Authority
51 North High Street
Columbus, OH 43215
(614) 228-3831

Transit Action

ACTION : Promote the use of chartered buses.

GOAL : Reduce traffic congestion and generate additional revenue at times when extra equipment is available.

ISSUES : University of Wisconsin football and hockey games generate more traffic than the streets can handle. Parking is hard to find close to the stadium. Large groups, such as conventions, often are in a position of having to move many people in a short time. Many buses are sitting idle during off-peak hours and weekends.

DETAILS : A marketing program has been developed to sell charter service to the community. This includes newspaper advertising, letters, bus signs and personal contact with the Greater Madison Convention and Visitors Bureau, hotel, restaurant and tavern owners, convention groups and others.

On football Saturdays, there are now as many orders for chartered buses as there are available drivers. Shuttle service is provided on a charter basis from a main U.W. parking lot to Camp Randall Stadium. Shuttle service is also provided to U.W. hockey games at the off-campus arena when they are played. Many convention groups now use chartered buses as an aid in planning the times and locations of their sessions.

CONTACT : Tom Drengson
Madison Metro
166 S. Fair Oaks Avenue
Madison, WI 53704
(608) 266-4165

Transit Action

ACTION : Institution of low cost computer mapping system.

GOAL : To develop low cost data analysis system for transit and paratransit sketch planning.

ISSUES : Rapid growth in the county makes it necessary to frequently update the planning data base and to revise transit services. The County Planning Agency can use the data base for a variety of general planning projects.

DETAILS : Computer system GMS II and Symap is used. The data base includes housing, soils, income, costal zone and wetlands, socioeconomic, sewerage probability information. An origin-destination trip table was developed from land use data with trip generation and distribution models. The mode split is presently done manually, but will later be computerized.

The system is being used for sketch planning, transit market analysis, ridesharing matchfinding, projections of future transportation demand, and other planning tasks.

CONTACT : Reynard Brown
Atlantic County Division of Planning
Guarantee Trust Building
Atlantic City, NJ 08040
(609) 345-6700

Transit Action

ACTION : Development of the Visual Scheduling and Planning Tool (VISPLAN)

GOAL : Improve schedule coordination at major transfer points during peak period, and interface schedule changes with RUCUS to determine manpower and fleet impacts.

ISSUES : There is a need to reduce the difficulty and time needed to make minor schedule modifications for improved schedule coordination.

DETAILS : The Utah Transit Authority (UTA) contracted with the University of Utah to develop an interactive graphics computer system capable of displaying each bus moving on the street network on every trip in the Salt Lake City area. The System (VISPLAN) allows the user to zoom in on specific locations to change schedules on individual trips, to "stop" the system at any point in time, and to output the adjusted schedules in a format compatible with RUCUS. The system displays the bus routes on a cathode ray tube as coded in the Urban Transportation Planning System (UTPS) network, with trip starting times as scheduled by RUCUS. Each bus is displayed with its route number. The user can also display and print the schedule of any particular trip he or she selects, and then adjust the schedule of that trip to reduce transfer time at key intersections. Schedules of all buses travelling through any intersection can also be printed.

The system is being documented and UTA staff are being familiarized with its use. UTA plans to begin applying the system by fall of 1979. In addition, the system is being considered as a tool to aid UTA information operators in responding to requests for schedule information.

CONTACT : John Inglish
Utah Transit Authority
P.O. Box 2430
Salt Lake City, Utah 84110

Tom Stone or Bob Siegel
Civil Engineering Department
University of Utah
Salt Lake City, Utah 84112
(801) 581-6931

Transit Action

ACTION : Solicit major employers for zip code information of employees.

GOAL : To determine the best type of transit service for employees (e.g., small bus, vans, carpools, etc.).

ISSUES : None.

DETAILS : Major employers are contacted and asked to provide employee zip code information. This information is then plotted on maps to determine worker concentrations. Employers are contacted again, informed of findings, and service possibilities are suggested.

Presently the program is expanding at the rate of two employers a week. Internal marketing programs, which provide specific schedule information, route changes, etc., are being coordinated. Employee responses are very good. The employers are also being asked to sell monthly passes through credit unions or cash offices.

CONTACT : Gary Krause
Southeastern Michigan Transit Authority
Detroit Bank and Trust Building, Suite 1600
211 West Fort Street
P.O. Box 333
Detroit, MI 48231
(313) 962-9800

Transit Action

ACTION : Low-subsidy alternatives to the private automobile.

GOAL : Reduction of peak-hour transit demand.

ISSUES : Vehicle traffic on the Golden Gate Bridge is at capacity during the peak period.

DETAILS : Various ride-sharing programs are being supported to reduce vehicular traffic on the Golden Gate Bridge. The Vanpool Program, financed through a UMTA demonstration grant, assists commuters to form and operate vanpools. The program has 35 vans. The Carpool Program provides toll-free passage at the bridge for carpools, and cooperates with a matching program. There is also a "Casual Carpool" demonstration project.

Golden Gate also supports the Club Bus Program for chartered bus service during the peak.

The number of carpools has doubled to 1,600 per day since 1976. The Club Bus Program carries 700 commuters daily. It is too early to measure the success of the Vanpool Program.

CONTACT : Jerome Kuykendall
Golden Gate Bridge, Highway and Transportation District
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San Francisco, CA 94129
(415) 457-3110

SIMILAR PROGRAMS : Gary Krause
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Detroit, MI 48231
(313) 962-9300

Dr. John A. Dyer
Metropolitan Dade County Transportation Administration
911 Courthouse
Miami, FL 33130
(305) 579-5311

Transit Action

ACTION : Prompt repair of all damaged transit vehicles.

GOAL : To improve the appearance of the operating fleet so it will be a more effective marketing tool.

ISSUES : The maintenance department was not following-up on damages to vehicles.

DETAILS : The night service foreman is given the responsibility of assessing the condition of each vehicle and noting any damages. The superintendent then schedules damaged vehicles for necessary repairs.

In this way, the operating fleet stays in excellent condition. Seldom is a damaged vehicle on the street. The improved appearance of the fleet has caused the drivers to have more pride in the system, and has consequently reduced the number of minor accidents.

CONTACT : Art Gaudet
Transit Authority of Northern Kentucky
11th and Lowell Streets
Newport, KY 41071
(606) 431-2734

Transit Action

ACTION : Located bicycle racks along bus routes and provided buses with pull trailers outfitted to carry bicycles.

GOAL : To increase the accessability of transit to bicycle riders.

DETAILS : Express route buses have trailers attached that carry bicycles for those who need other transportation at trip origin or end. Racks and lockers along the corridor route are located where transit stops do not penetrate into residential areas.

The program is currently being expanded under an UMTA demonstration grant.

CONTACT : Gary Gleason
Santa Barbara Metropolitan Transit District
550 Cota Street
Santa Barbara, CA 93102
(805) 963-3364

SIMILAR PROGRAM : Jay A. Goodwill
Port Authority of Alleghany County
Bewer and Island Avenues
Pittsburgh, PA 15233
(412) 237-7335

Transit Action

ACTION : Summer Schedule

GOAL : To reduce manpower and operating costs during July and August, months which traditionally have very low ridership levels.

ISSUES : Summer is a slow season and means of cutting costs were necessary.

DETAILS : The Authority prints a separate Summer schedule for July and August. The normal 1/2-hour headway all day is lengthened to 1 hour during off peak hours. This reduces operating costs.

The summer schedule saves the Authority approximately $30,000 for the two months in operating and fuel expenses.

CONTACT : Joseph G. Potzke, Jr.
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Lowell, MA 01851
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SIMILAR PROGRAM : Jerome Kuykendall
Golden Gate Bridge, Highway and Transportation District
P.O. Box 9000
Presidio Station
San Francisco, CA 94129
(415) 921-5858

Transit Action

ACTION : Internal manufacturing of small parts.

GOAL : Reduce the costs of purchasing parts.

ISSUES : Parts for buses and the time involved in waiting on delivery are expensive. By constructing parts in the maintenance department, MATA eliminates this expense.

DETAILS : A crew of six men in the machine shop adjust small bus parts when needed and make parts that are difficult to replace. Often the parts are of a higher caliber and operate more efficiently than those purchased from manufacturers.

CONTACT : Barney Hudson
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701 N. Main Street
Memphis, TN
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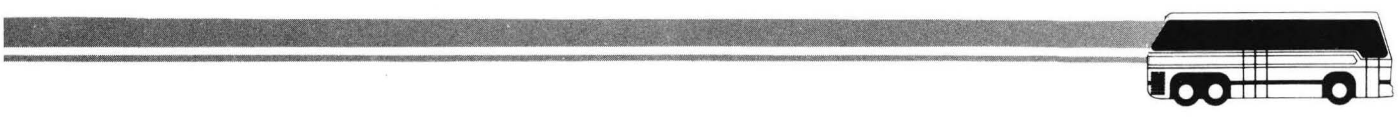
IV. LABOR-MANAGEMENT RELATIONS



The supplemental labor agreements signed by the transit unions and the MTA states that cost-of-living adjustments are to be tied to labor productivity improvements. The MTA and the unions set out to establish programs that would yield high productivity improvements. Seventy-two programs were identified by both parties as productivity programs.

When cost-of-living adjustments came before the Emergency Financial Control Board for approval, 50% of the productivity savings claimed by the Transit Authority and the Transit unions were declared invalid. The EFCB declared these savings invalid on the grounds that the programs established to produce these savings were service reductions instead of productivity improvements.

The key problem is that no single definition of "productivity" has been established. Had all parties concerned agreed to a definition before finalizing the Supplemental Labor Agreement, many of the problems could have been avoided.

Steven K. Kauffman
Executive Officer
Rapid Transit
New York City Transit Authority
Manhattan & Bronx Surface Transit Operating Authority
Staten Island Rapid Transit Operating Authority
New York, New York

Abuses in the past of the use of part-time operators have given organized labor some cause to be apprehensive when viewing the use of part-time personnel. However, if the problem is approached in a logical manner, and presented on the basis of expanding the work force, increasing services and improving the performance and productivity of the transit system, I find it hard to believe that there are many labor organizations that would continue to resist. A strong public transit industry benefits all who are involved in it.

Leslie R. White
Metro Transit Director
Metro Transit System
Kalamazoo, Michigan

BRIEFING ON LABOR-MANAGEMENT RELATIONS

Walter Bierwagen
Vice-President and Member of the General Executive Board
Amalgamated Transit Union
AFL-CIO
Washington, D.C.

Thank you for giving the Amalgamated Transit Union this opportunity to express some views concerning future aspects of labor-management relations in the transit industry.

For purposes of this discussion, I am assuming that many of the people present here today have had only limited contact -- if any at all -- with those of us on the union side of the transit industry. It is likely that many of those here have had no direct experience with problems of labor-management relations, with collective bargaining, or even with union contracts. I am sure that those who have had direct experience in this field will be patient while I take a few moments to express some elementary facts. The repetition may actually be helpful.

The Amalgamated Transit Union is the principal and dominant union in the local transit and over-the-road bus industry in the United States and Canada. It is an international union; it is one of the 106 national and international unions affiliated with the AFL-CIO. The ATU was founded 87 years ago in 1892. The ATU is a member-controlled, democratic institution. Each one of our approximately twenty-five hundred international and local union officers must come from within the industry, and are periodically subject to the democractic process of election. I, myself, have been subjected to the election process every 2 years since my first election as a full-time officer beginning in 1951.

Throughout most of the 87 years of our continuous existence we have been a private-enterprise-oriented union, subject to Federal laws, protected in our right to bargain collectively, and to withhold our services if circumstances required. Within our own union laws we have a provision that requires our local unions to offer to settle our disputes with our employers by final and binding arbitration; only if the employer refuses to arbitrate do our laws permit a strike to be sanctioned.

Since 1964, most of the industry has changed over from private enterprise to public ownership governed by public bodies.

These are but some of the elementary but essential facts about the Amalgamated Transit Union.

What I've been trying to say in these few historical facts is that the Amalgamated Transit Union is an experienced, self-respecting, obviously law-abiding, institution -- a microcosm of American democracy.

In order that I might sum up our views about the future of labor-management relations in the transit industry, I will pose a few rhetorical questions, such as:

How does ATU view the ability of the transit industry to effectively and substantially contribute to the achievement of the national transportation needs and energy goals?

What role will the ATU play in this traditional management stomping ground?

In response to the first question, "How does the ATU view the ability of the transit industry to effectively and substantially contribute to the achievement of the national transportation needs and energy goals?", I suggest that it is not necessarily an easy question. Mass transit, either as individual properties or as a national system, does not have clearly stated and measurable goals which must be achieved within any specified time, and, as a result, the public does not have a mass transit goal to support that commands an adequate share of community or national resources. Nevertheless, the public -- I suggest -- does have some conception of what it believes are our national transit goals. In general, the public sees mass transit as a necessary social function to serve only the young and the elderly, and the economically and physically handicapped. This public perception is buttressed by the fact that even though billions of dollars of Federal, State, and local tax money have been invested in mass transit, it has not substantially changed the ration of transit ridership. As a union, we are concerned that management's preoccupation with attempts to cut wages, eliminate employee benefits, reduce the use of manpower (thereby reducing service), employ so-called part-time workers are wasteful efforts in the direction of trying to reinvent the wheel. Prior to 1964, wages were substantially less, employee benefits and work rules were then what management aspires to today. There were only minimal daily and weekly guarantees, practically every bus driver was a part-time employee; yet, in spite of all this, the private enterprise system suffered its worst failure -- the demise of the private transit industry. The government's preoccupation with peripheral issues, such as jitneys, share-riding, van pooling, and car pooling, suggest that these are devices that were invented in 1964. In fact they were around in one form or another during the heyday of private-enterprise transit. They did not survive then; the only assurances we have that they will survive now come from the self-serving statements of advocates.

It is our view that the public will tolerate investments and those peripheral-like schemes after it is clearly demonstrated that the industry has maximized the return from the investment of tax dollars by substantially increasing the ridership ratio on the mass transit facilities, thus contributing equally substantially to the national effort in conservation of energy, improved environment, and reduction of the balance of payments deficit.

I suspect that you can gather from my remarks that we are concerned about transit's ability to effectively and substantially contribute to the achievement of the national transportation needs and goals.

We believe there is a joint responsibility, that rests upon labor and management, to seek remedies to problems by a continuing dialogue, by effective collective bargaining, and by instituting programs that are of benefit to the public interest and acceptable to the employees and to the employer.

Those of us in the union are not without hope. We believe there is much that must and can be done. As a union we expect to remain a viable force in the community, and in the nation. We can do so only as long as the industry in which we are employed remains a viable and constructive force in the community, and in the nation also.

This leads us to the second question, "What role will ATU play in this traditional management stomping ground?"

Well, we do not expect to just study, evaluate, and re-evaluate our role.

We have already determined to use all of the best tools and best talents available to us so that we can make an effective contribution to the task of achieving national goals. We expect positive and creative action on our part, and similar action and cooperation from management, support from the government, and understanding from our members -- the employees of the transit industry.

We expect to exert an activist role --

- in the area of training an industry labor force in job skills,
- in the area of training union officers and representatives in labor-management relations skills,
- in labor productivity programs --

  promoting labor efficiency and economy,
  helping to eliminate waste and duplication, and
  encouraging new methods and innovation,

- in the area of system productivity programs --

  reducing accidents and related costs,
  maximizing passenger and driver security,
  minimizing crime, and
  increasing ridership.

It is our view and our hope that through the initiatives we have already taken, that through enlightened Labor-Management Relations on both sides, that by greater reliance on dialogue and the collective bargaining process, we can all be more instrumental in improving productivity and improving the living standards not only of the employees but also of the general public.

We will do our part to halt the present reliance and preoccupation with attempts at unilateral application of schemes and devices whose ultimate result will be to impose on the public a transit future of "status quo--no growth."

For the moment we will be happy if what we said has caused you to think hard, and has been sufficiently provocative to stimulate you into active discussion both here and with your peers back on the job.

Transit Action

ACTION : Use of part-time drivers.

GOAL : Reduce guaranteed 8-hour pay for less than 8 hours of work.

ISSUES : Because of peak periods, most systems have drivers who work for less than eight hours pay. One solution is the use of part-time drivers. Labor is opposed to this because it may reduce the work available to full-time employees, including overtime. Labor is also concerned that part-and full-time employees may have conflicting goals with regard to pay schedules and job benefits, and may dilute the strength of the union.

DETAILS : Agreement allows use of part-time drivers, guaranteed 1½ hours pay a day at regular driver rates, on weekday assignments of less than 7 hours 11 minutes. Part-time drivers must join the union. Regular drivers are protected by a floor on the number of full-time workers. It was also agreed that all part-time employees would be layed-off first, and miss-outs would be filled from the regular drivers' extra board.

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SIMILAR PROGRAMS :

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Fort Worth, TX 76102
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Richard S. Page
Washington Metropolitan Area Transit Authority
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Washington, DC 20001
(202) 637-1234

Larry Stueck
San Mateo County Transit District
400 South El Camino Real
Room 400
San Mateo, CA 94402
(415) 573-2252

Transit Action

ACTION : Employ part-time employees as schedule information clerks.

GOALS : 1) To reduce turnover; 2) to increase effectiveness and courtesy; 3) and to reduce payroll costs (lower pay per hour, no fringe benefits).

ISSUES : The schedule information department at Centro has a high turnover, due to the routine nature of the job. The clerks are in a position where courtesy is extremely important. However, it is very difficult for a schedule information clerk to be courteous to the public for a continuous 8 hour period.

DETAILS : Centro eliminated all full-time information clerk positions and created part-time positions (20 hour week). We then worked with the Urban League and other social service agencies to fill these part-time positions with senior citizens and handicapped individuals.

The program was implemented over 2 years ago and has been a tremendous success. The senior citizen and handicapped employees who are delighted to be in the mainstream of business life, are very courteous and reliable. There was no turnover in these positions in the first 2 years of this program.

CONTACT : Joseph A. Calabrese
CNY Centro, Inc.
614 South Salina Street
Syracuse, NY 13202

Transit Action

ACTION : Establish a 4-day work week for first line supervisors.

GOAL : To make the first line supervisory positions more desirable.

ISSUES : Many well qualified and experienced bus drivers are reluctant to apply for first line supervisory positions since many times it often means a decrease in pay. On occasion, Centro hired from outside sources, thus abandoning its promote from within policy which is very important to employee morale.

DETAILS : All first line supervisory positions were rescheduled to 4 days a week, 10 hours per day. Within each department, these positions were rotated on a weekly basis so that no supervisor would work nights/ weekends on a regular basis.

This program has been a tremendous success. First line supervisory positions are in great demand, a dramatic change over the situation which existed several years ago. The shift rotation has also served to enlarge the supervisory position by requiring familiarization with all facets of all shifts included.

CONTACT : Joseph A. Calabrese
CNY Centro, Inc.
614 South Salina Street
Syracuse, NY 13202
(315) 424-1234

Transit Action

ACTION : Negotiated a labor agreement in which one-half of the cost-of-living adjustments are funded through productivity improvements.

GOAL : To improve labor productivity and decrease operating costs.

ISSUES : During New York City's fiscal crisis, transit workers' wages could not keep pace with inflation without unacceptable appropriations of funds to the Transit Authority.

DETAILS : For each productivity savings to which the MTA, the labor unions and the Emergency Financial Control Board agree, one-half of the savings is used to fund cost-of-living adjustments. The major barrier to date has been the absence of an agreed upon definition of what constitutes a productivity savings, as distinct from a service reduction.

This concept is a move towards giving transit workers the incentive to improve productivity.

CONTACT : Steven K. Kauffman
Metropolitan Tansit Authority
1700 Broadway
New York, NY 10019
(212) 330-3000

Transit Action

ACTION : Involved labor in the processes of revising service.

GOAL : Reduce labor-management conflict and increase operators' knowledge of service revisions.

ISSUES : Revisions to service frequently resulted in conflict due to Union dissatisfaction with allowed running time and run cuts.

DETAILS : Run cutting and scheduling were done and presented to the Union as part of the sign-up process. Concerns could not be resolved until the next sign-up period, after the deadline for revisions had passed. The timetable was rearranged to allow input prior to the scheduling and the final product prior to deadline. The Union sign-up team was trained by management and fully understands the process.

There have been no formal grievances on schedules or run cuts during the last 2 years.

CONTACT : Fred Underhill
Calgary Transit
P.O. Box 2100
Calgary, Alberta, Canada
T2P 2M5
(403) 277-9717

Transit Action

ACTION : Small group discussion sessions with labor union and management members.

GOAL : To improve communication between labor and management.

ISSUES : Pre-public management techniques used by on-street supervisors and barn foremen did not reflect current top-level management goals and practices. Labor and management did not seem to feel that problems could be discussed, acted upon, or solved by labor-management coordination.

DETAILS : Lower-level management felt that labor was unresponsive to job performance requirements. Labor felt harassed by management and felt that management was not able to provide for the well-being of union employees. An experienced psychologist was hired to conduct small group meetings between labor and management. The psychologist, through her unique style, was able to involve every participant and to draw out, focus, and elaborate upon complaints, suggestions and bad feelings. The sessions were intense and provocative.

Many lower and upper level management employees (especially those who were carry-overs from the pre-public days) feel less inclined to compare COTA now with the previous private company. They seem more willing to adopt newer management techniques. Labor is able to vent frustrations in a controlled manner and to interact with management in a constructive way.

CONTACT : Jim Reading
Central Ohio Transit Authority
51 North High Street
Columbus, OH 43214
(614) 228-3831

Transit Action

ACTION : Sensitivity training for drivers.

GOAL : To find ways for drivers to deal more effectively with passenger problems.

ISSUES : Drivers are important as the number one contact with the public, and therefore should have some knowledge of how to cope with unexpected or emergency situations.

DETAILS : An 8-hour program, consisting of 4, 2 hour modules, was initiated. Drivers attended each session, usually during splits in their work shifts. Classes consist of both experienced and somewhat experienced drivers who are expected to help each other, with some guidance from program directors. Conductors in our business are in charge of trains, collect fares, etc. The module deals with common operator-passenger disputes and consists of 3 short vignettes depicting every-day situations. The second module presents emergency situations that may arise during bus operation, and informs drivers of back-up systems. The third module deals with special populations (handicapped, juvenile, non-English speaking, etc.) and suggests ideas to help the drivers handle the unique problems of these individuals. The fourth module is a skill development, or role-playing, class where drivers actually act out different solutions that may work.

After 3 years, 4300 drivers have been trained. As yet there is no measureable success, but evaluations of the drivers have been favorable.

CONTACT : Joanne Bowman
Southern California Rapid Transit District
425 So. Main Street
Los Angeles, CA 90013
(213) 972-6378

SIMILAR PROGRAM : Tom Black
PENTRAN
3400 Victoria Blvd.
Hampton, VA 23661

Transit Action

ACTION : Use of all personnel as peak period drivers.

GOAL : To meet peak demand without hiring extra drivers who are not needed during the off-peak.

ISSUES : The Twin Cities area has a disproportionate peak demand. Peak requirements could not be met by the overtime of regular drivers.

DETAILS : Any employee can drive, as an overtime assignment, during the peak periods. Participating personnel (primarily maintenance employees, but occasionally schedule-makers, clerks, etc.) are given extensive driver training, but learn only the routes emanating from their garages, and are normally assigned short routes (like trippers). Approximately 30 employees drive regularly under this provision, although the contract limits participation to an emergency.

Transit officials claim that the provision affords them considerable flexibility in driver assignment and provides substantial cost savings over the hiring of additional drivers, for whom 8 hours work would not be available. There is plenty of overtime for the regular drivers, so the provision does not cut into their extra earnings.

CONTACT : Anthony Kouneski
Metropolitan Transit Commission
801 American Center Building
160 East Kellogg Boulevard
St. Paul, MN 55101
(612) 221-0939

Transit Action

ACTION : Maintenance teams are rewarded with trading stamps for exemplary performance.

GOAL : Improve the productivity of the maintenance department.

ISSUES : None

DETAILS : Maintenance teams were established. Teams with the best monthly performance record are rewarded with trading stamps. Teams promote greater individual responsibility through peer group pressure. The size of the winnings depends on the performance rating.

Literature on the program and catalogues of redeemable items are mailed to the employee's home to stimulate family pressure and interest for on-the-job performance.

Accidents, sick leave time, and late reports have all been reduced substantially.

CONTACT : Gerald T. Haugh
Long Beach Transit
1300 Gardenia Avenue
Long Beach, CA 90813
(213) 591-8753

Transit Action

ACTION : Employees receive ½ pay for unused sick leave as a pre-Christmas bonus.

GOALS : Reduce absenteeism and thereby reduce labor costs.

ISSUES : Many employees use up all their sick leave. Additional costs occur beyond payment for not working, as extra board drivers must cover all routes. Because sick days accumulate during inclement weather, service is occasionally disrupted.

DETAILS : Employees may receive ½ pay for up to ½ of their unused sick leave (5 days per year for employees hired after August 1, 1976, 10 days per year for those hired before). This is calculated only on the current year's sick leave.

Savings are expected to be significant for large properties with high absentee rates.

CONTACT : Steve Morris
Mobile Transit Authority
P.O. Box 2825
Mobile, AL 36601
(205) 438-1111

Transit Action

ACTION : Hired a medical team, which consists of a doctor, physical therapist, and two full-time nurses.

GOAL : To reduce the costs of Workman's Compensation and absenteeism.

ISSUE : The staff physician and Workman's Compensation Department monitor employees injured on duty to prevent abuses of Workman's Compensation.

DETAIL : Employees injured during the daytime shift are examined by the staff physician. Those injuries which occur during the night shift, and any severe injuries, are examined by doctors at one of three local hospitals. If employees are taken to the hospital they are also examined by the staff physician. Patients receiving physical therapy are seen by the staff physician if necessary.

The costs of physical therapy have been reduced substantially. Estimated savings are $15,000 a year.

CONTACT : Jim Maloney
Port Authority of Allegheny County
Bewer and Island Avenues
Pittsburgh, PA 15233

Transit Action

ACTION : Hire a licensed psychologist to assist employees with job-related or personal problems.

GOAL : To alleviate employee discontent.

ISSUES : A more relaxed and productive atmosphere can be maintained if employees know that someone can help with problems or grievances.

DETAILS : A licensed psychologist was hired full-time to provide counseling and classes for employees.

The service did help to promote a more comfortable working atmosphere. After a year, there was no longer a sufficient volume of referrals to justify employing a psychologist full-time. An agency is now being considered to handle employee problems on a person-to-person basis.

CONTACT :
Howard Beck
Regional Transportation District
1325 S. Colorado Blvd.
Denver, CO 80222
(303) 759-1000

SIMILAR PROGRAMS:

Richard Cody
Ottawa-Carlton Regional Transit Commission
1500 St. Laurent Blvd.
Otawa, Ontario
Canada, KIG 028
(613) 741-6440

Herb Pence
Manchester Transit Authority
110 Elm Street
Manchester, N.H. 03103
(603) 623-8801

Transit Action

ACTION : A doctor visits employees after 2 days of sick leave.

GOAL : To reduce absenteeism.

ISSUES : Absenteeism was increasing yearly, creating a financial burden for the commission.

DETAILS : A doctor visits the absent employee at home and determines whether the problem is medical, personal, or otherwise. Help is offered if the situation merits it.

In 12 months, operating costs had been reduced by $500,000 and there was a surplus of $123,000 in the benefit medical fund. Absenteeism decreased in that time period by 20%. Employees also showed an improvement in attitude.

CONTACT : Richard Cody
1500 St. Laurent Blvd.
Ottawa, Ontario KIG028
Canada
(613) 741-6440

SIMILAR PROGRAMS : Ralph de la Cruz
Southern California Rapid Transit District
425 South Main Street
Los Angeles, CA 90013
(213) 972-6651

William Hudson
Memphis Area Transit Authority
701 North Main Street
Memphis, TN 38101
(901) 528-2881

Transit Action

ACTION : Sick leave insurance and enforcement program to significantly reduce absenteeism and sick leave abuse.

GOAL : Reduce the use of sick leave from 18+ days/year/employee to less than 12 days/year/employee.

ISSUES : Abuse of sick leave is a major problem for most systems. Transit systems have traditionally believed that a standard sick leave system (accumulate 1 day/month of service) is unworkable in the transit industry. Transit drivers and unions often desire such a program when tied to an acceptable extended disability insurance program.

DETAILS : The labor agreement provided for a standard sick leave program and an acceptable extended disability insurance. Constraints on the use of sick leave specified in the contract included verified medical doctor's report acceptable to Metro, discipline for patterns of abuse, and the right to visit or call an operator at home to verify illness.

Sick leave use has been reduced from an average of 18+ days/year/employee to less than 10 days/year/employee.

CONTACT : Chuck Collins
Seattle Metro
821 2nd Avenue
Exchange Building
Seattle, WA 98104
(206) 447-6666

Transit Action

ACTION : Biddable Trippers

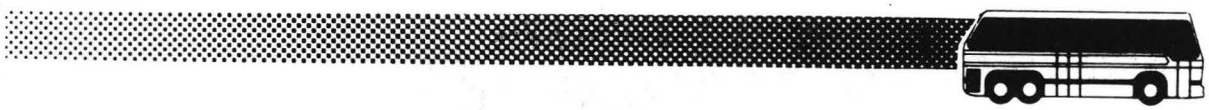
GOAL : Reduce the number of regular employees required to do all the work. Have the same driver do the same work each day.

ISSUES : The system has an A.M. peak requirement because of school service. Some of the work is not done if drivers decide they do not want to work overtime. The same driver does not have the same work each day.

DETAILS : Agreement allows for a list of trippers to be bid by seniority when regular work is bid. An operator is expected to work the tripper if his bid is successful. The pay is for a minimum of 2 hours. If the operator misses, the tripper can be rebid.

The number of regular operators has been reduced and the work requirements are being met more efficiently.

CONTACT : Tom Sharkey
Capital District Transportation Authority
110 Watervliet Avenue
Albany, New York 12206
(518) 457-2749



Transit Action

ACTION : Labor agreement, which permits 25% of the driver's assignments within a spread of 13 hours, 55% of the runs within a 12 hour spread, as well as spreads from 9 to 13 hours. A maximum of 2 1/2 hours may be deducted without pay.

GOAL : Reduce the amount of guarantees, and lower the number of total employees.

ISSUES : Since many of the routes operate within a 10 to 12 hour day, without spread times of up to 13 hours, SamTrans would be forced to 2, 5 or 6 hour runs. This would require exorbitant guarantees and a larger work force.

DETAIL : Excerpt from Collective Bargaining Agreement, Article 14, "Hours of Work":

Section 1. Work Day and Work Week
This work day for all full-time employees shall be a minimum of 8 hours of work on each of 5 days per week. Overtime for all full-time employees at the rate of time and 1/2 of the straight time rate shall be paid for all time actually worked in excess of 40 hours per week or in excess of 8 hours per day.

Section 2. Scheduled Runs
The District's scheduled runs for District Employees shall consist of the following:
(1) A minimum of 45% straight runs within a spread of nine (9) hours.
(2) No more than 55% of District runs within a spread of 13 hours.
Within (1) above the District may deduct a maximum of 1 hour without pay.
Within (2) the District may deduct a maximum of 2 1/2 hours without pay and the remaining hours worked in excess of 8 hours after said deduction shall be paid at the rate of time and one-half the straight time rate.

The SamTrans has established runs according to Article 14, Section 2 of the Collective Bargaining Agreement, and savings are being realized.

CONTACT : Larry Stueck
San Mateo County Transit District
400 South El Camino Real
Room 400
San Mateo, CA 94402

Transit Action

ACTION : Use of computerized run-cutting program to simulate the cost of changes in working conditions as input for labor negotiations.

GOAL : Identify quick response techniques for evaluating cost effectiveness in changes to work rules.

ISSUES : None

DETAILS : The transit system and the union used a computerized run cutting program (RUCUS) to simulate the cost of changes in working conditions as input for labor negotiations. The results demonstrated the high cost of changing the maximum allowable spread time, an issue of primary concern to the labor union. Interestingly, one of the simulations produced an unexpected cost savings by reducing the minimum and maximum platform time.

The simulations were able to identify cost savings which were acceptable both to management and labor which might have otherwise not been negotiated.

CONTACT : Nelson Melnyck
Toronto Transit Commission
1900 Yonge Street
Toronto, Ontario
Canada M4S1Z2

Transit Action

ACTION : The use of handheld calculators in labor negotiations.

GOAL : To speed the negotiating process by providing an immediate assessment of the impacts of various work rule changes.

ISSUES : The complex nature of labor negotiations demands a large amount of time to calculate the costs and benefits of proposed work rule changes.

DETAILS : Management anticipated work rule changes that were likely to be proposed and wrote programs which could be used on a pocket calculator. Supporting data was gathered before the negotiations began.

A proposal which took 2 days of manual calculations took only 2 hours using the calculators.

CONTACT : Lynn Kaye
Seattle Office of Policy Planning
306 Cherry Street
Seattle, Washington 98104

Transit Action

ACTION : Management meets with all drivers 4 times per year to discuss problems.

GOAL : To improve communication between labor and management.

ISSUES : Drivers are aware of route details, schedule problems, etc., that often are unknown to management.

DETAILS : The Employee Advisory Committee acts as a forum where drivers can air their views, make suggestions, and have personal contact with management officers.

The program is still in the process of being implemented but drivers have indicated equipment problems of which the management was not aware.

CONTACT : Genevieve Leary
Montgomery County DOT
6110 Executive Boulevard
Rockville, MD 20852
(301) 468-4065

SIMILAR PROGRAM : Phyllis Loobey
Lane County Mass Transit District
P.O. Box 1135
Eugene, OR. 97401
(503) 687-5581

Transit Action

ACTION : Develop and install bus maintenance work standards for planning and control of maintenance activities and for the determination of manpower levels.

GOAL : Contain the growth of maintenance expenses as fleet size increases.

ISSUES: : Maintenance costs have grown dramatically faster than the inflation rate. Fleet expansion and the opening of new maintenance bases requires and makes possible improved efficiency in maintenance activities. Work standards provide an opportunity to contain this growth and also to introduce improved management techniques. Labor has serious reservations about work standards, although "flat-rate manuals" are fairly typical in other vehicle maintenance areas.

DETAILS : Work standards were developed for one of Metro's four maintenance bases. Weekly productivity reports are generated for each shift and a weekly summary for the entire base is also produced.

The work standards have been successfully installed and have been in operation for 9 months. Ultimate success cannot be determined at this time, but the work standards are being installed at the other 3 maintenance bases and we anticipate a stabilization of manpower as the fleet continues to grow.

CONTACT : Chuck Collins
Seattle Metro
821 2nd Avenue, Exchange Building
Seattle, WA 98104
(206) 447-6666

SIMILAR PROGRAM : Joseph Dooley
Massachusetts Bay Transportation Authority
50 High Street
Boston, MA 02110
(617) 722-5728

Transit Action

ACTION : Development of a performance-based training program for bus operator trainees.

GOAL : To increase the amount of material that new operators learn and retain during their initial operator training course.

ISSUES : None

DETAILS : A training system based on the Personalized System of Instruction (PSI) was developed. The system was designed to be easy to administer to both large and small classes, and insure that students can demonstrate mastery over the material through frequent testing. In addition, it is designed to identify students who are having difficulty learning and to allow instructors to work with them on an individual basis.

Test scores at the end of classroom training were increased from 77.87% (traditional training method) to 87.02% using the PSI system. Three month follow-up scores for retention indicated that test scores increased from 78% (traditional training method) to 89% (PSI). Data from student opinion questionnaires indicated that they found the PSI system more desirable then the traditional classroom training.

CONTACT : Robert Haynes, Russell Waesche, Randy Pine
Kansas City Area Transportation Authority
1350 East 17th Street
Kansas City, MO 64108
(816) 471-6600

Transit Action

ACTION : Personnel exchange between the transit agency and regional government.

GOAL : To improve communication and understanding between operating and planning agency personnel, so as not to impede the approval of needed services.

ISSUES : None

DETAILS : Several representatives of the regional government and the transit agency participated in a 2-day orientation/action program at each other's facilities. Regional planners toured the transit system, observed operational activities such as scheduling, and engaged in actual decision-making. Transit personnel in return observed and participated in network analysis, forecasting, traffic assignment and other planning activities.

Although not measurable in quantitative terms, all participants as well as management claim the experience was well worth the effort. As a result, both agencies have experienced better cooperation in exchanging data, reduced misunderstanding and unfounded criticism of each other's decisions, and even greater assistance in helping to fill one another's vacant employment positions.

CONTACT : Gary Turnock
Mass Transit Administration
1515 Washington Boulevard
Baltimore, Maryland 21230
(301) 539-6281

Transit Action

ACTION : Drivers design and conduct training programs.

GOAL : (1) Improve the working relationship between labor and management; (2) establish needed driver improvement programs with minimal expense; (3) make program results visible to transit patrons.

ISSUES : Training programs should keep pace with new needs for effective service. Often, areas such as safety and comfort are given minor attention largely because instruction and employee participation can be expensive.

DETAILS : As part of its Professional Development Program, Des Moines MTA drivers play major roles in two special training programs:

(a) Defensive Driving -- the drivers who ask for this program are currently designing it, and plan to conduct it on their own time. Safety consciousness among drivers participating in program design has already improved.

(b) CPR(Coronary Pulmonary Resusitation) Training --Two drivers were selected to take the Instructors Course on their own time. They now conduct classes (twice a month, 2 1/2 hours each) for the other drivers. Instructors are paid full wage rates (total cost: $70 per month plus fringes, plus $300 for a manikin).

Only 20% of the drivers currently participate in the CPR Program, but all van drivers will be required to do so when the new E&H service begins in December. The Union is considering requiring all new drivers to take the course, and eventually all drivers may be asked to. Drivers completing the course wear a special patch on their right shoulder, a reassurance to passengers. The biggest program payoffs appear to lie, however, in improved management employee relations.

CONTACT : Steve Spade
Des Moines Metropolitan Transit Authority
1100 MTA Lane
Des Moines, IA 50309

Transit Action

ACTION : Hired an ombudsman to hear driver complaints at the end of bus runs.

GOAL : To increase communication and morale, and to prevent problems from becoming grievances.

ISSUES : Driver supervisors are usually too busy to stop and hear all driver complaints. If complaints are not adequately dealt with, mistrust between labor and management increases. Generally, acceptable solutions to driver complaints can be worked out by the ombudsman.

DETAILS : The ombudsman reports complaints to management and tries to work out a mutually acceptable solution. Presently, only one of the seven garages in the Port Authority's Transit System has an ombudsman.

Drivers feel that the hiring of an ex-bus driver for this position is the best way to handle their complaints.

CONTACT : Jim Maloney
Port Authority of Allegheny County
Bewer and Island Avenues
Pittsburg, PA 15233
(412) 237-7000

Transit Action

ACTION : Management Assistance Program

GOAL : To promote and ensure sound management.

ISSUES : In rural and small urban areas, there is a desperate need for good management skills.

DETAILS : The management assistance personnel can trouble-shoot management problems, and act as liasons between UMTA, the Iowa DOT, and transportation authorities. Seminars are organized in 12 areas as a means for managers to learn more effective techniques. The areas include: 1) public transit education, 2) marketing manual, 3) selection and programming of Regional Transit Service Alternatives, 4) measurement and analysis of transit system performance, 5) dispatching in small systems, 6) employee selection, 7) identifying and gaining potential ridership, 8) bus operators' training, 9) bus care training manual, 10) establishment of public transit goals for policy-makers, 11) specifications writing procedures and 12) benefits of coordinating and consolidating transit service.

The program has as its theme the idea that better performance will lead to bigger state grants, as such funds are distributed on a discretionary basis. The program has been implemented for 3 months, and managers and staff are pleased with its progress.

CONTACT : Frank Sherkow
Iowa DOT
5268 N. W. 2nd Ave.
Des Moines, IA 50313
(515) 281-4299

Transit Action

ACTION : Improve productivity of rapid transit run cuts.

GOAL : Increase train miles per man-hour paid.

ISSUES : None.

DETAILS : In CTA's newest contract, meal relief time, while still paid for, is no longer considered part of platform time. Platform time continues to be limited to 8 1/2 hours, but under the new agreement runs may now contain another trip within that time span.

So far, an overall reduction of 2% in manpower required to operate trains has been achieved. As each additional schedule comes up for review, this provision will yield further savings.

CONTACT : H. R. Hirsch
Chicago Transit Authority
Merchandise Mart
P.O. Box 3555
Chicago, IL 60654
(312) 664-7200

Transit Action

ACTION : Establish standards for disciplinary procedures code.

GOAL : Development of a reasonable disciplinary policy. This includes:

Rules should be reasonable, and the discipline should fit the infraction.

Rules and penalties should be known.

Discipline must be consistent and equally administered.

ISSUES : In many instances the penalties are not known, the discipline is not consistent, and it is not equally administered. The consequences of a poor disciplinary policy are many. The employees feel discriminated against (which in fact may be true). This can drastically reduce employee morale. In addition, the company can easily find itself losing case after case with the Union in the grievance procedure and at arbitration.

DETAILS : Every rule and regulation in Centro's manual has a corresponding disciplinary code.

EXAMPLE

Act	Regulation	Disciplinary Code
Smoking	Smoking while on duty in the bus or in any of Centro's buildings (except where specifically permitted) is prohibited by N.Y.S. Health Law Article 13-E and various ordinances.	(E)

Disciplinary Code

Class	Offense	
(E)	1st	Warning
	2nd	Warning
	3rd	1 to 3 Days Suspension
	4th	3 to 5 Days and Letter
	5th	Discharge

Transit Action

DETAIL (Cont'd) : Some rules carry a corresponding disciplinary code that is "to be determined by the circumstances". This allows management needed flexibility in cases such as accidents, not following the designated route, etc.

Management is very pleased with the success of this system. The bus drivers know what is expected of them, and the consequences of not performing properly. The supervisors have the procedure written out before them, which forces consistency. In the past 2 years we have not lost a grievance, and arbitrators have upheld the process.

CONTACT : Joseph A. Calabrese
CNY Centro, Inc.
614 South Salina Street
Syracuse, NY 13202
(315) 424-1234

Transit Action

ACTION : Include maintenance personnel as participants in the Bi-State bus roadeo.

GOAL : To acknowledge the important role of the maintenance division in the operation of the system.

ISSUES Operators were the primary participants in the bus roadeo which was established to identify and acknowledge the top drivers in the system. Maintenance personnel are also a skilled group of people whose contributions need to be acknowledged.

As a result of their involvement in this annual event, the morale of the maintenance personnel was boosted.

DETAILS : Major and minor defects were planted on buses and teams made up of maintenance personnel were selected. The team finding all the defects in the shortest period of time won.

CONTACT : Jerome Kirzner
Bi-State Development Agency
3869 Park Avenue
St. Louis, MO 63110
(314) 771-1414

Transit Action

ACTION : Drivers select the design and color of their uniforms.

GOAL : To increase morale among the drivers.

ISSUES : The previous transit service had included 2 separate bus lines. These merged into a new system for which a new image had to be defined.

DETAILS : There was a general campaign for the public to choose a color scheme for the buses of the new system. Drivers were asked to participate in the revamping process by choosing the design and color of their own uniforms. A few different styles were made standard dress.

The process has greatly boosted employee morale.

CONTACT : Larry Coffman
Seattle Metro
821 Second Avenue
Seattle, WA 98104
(206) 447-6666

Transit Action

ACTION : "Operator of the Quarter" Program

GOAL : To decrease absenteeism and tardiness, and to improve driver appearance, attitude, and morale.

ISSUES : None

DETAILS : Four times a year, drivers and their performances are evaluated to determine which driver deserves to be "Operator of the Quarter." The criteria for selection includes attitude, courtesy, safety, absenteeism, appearance, tardiness, public commendations or complaints, and on-the-spot evaluations done by staff members. A committee, composed of a general manager, dispatcher, shop foreman, starter, and the previous winner, rates the drivers on a point scale. The driver with the most points becomes "Operator of the Quarter." His reward is a $50.00 bonus and the placement of his name upon a special plaque for "Operators of the Quarter." If a driver should win more than once, there are additional rewards.

Since its inception 2 years ago, the program has had a very positive effect on the drivers. It has led to improved appearance, morale, courtesy, and attitude on the part of the drivers.

CONTACT : Joseph Potzka, Jr.
Lowell Regional Transit Authority
10 Kearney Square
Lowell, MA 01851

Transit Action

ACTION : Safety messages are played over the public address system on each bus to make passengers and drivers more aware of potential dangers.

GOAL : To reduce driver accidents.

ISSUES : Many accidents along transit routes are due to the insensitivity of the victim to dangerous conditions.

DETAILS : Periodically and on all rainy days a tape recorded musical lyric with a 20 to 30 second segment directed to driver and passenger safety is played over the Motorola communication system on the buses.

The effect of this action apart from other safety measures is difficult to determine. The whole safety program reduced accidents by 10% in Fiscal Year 1978 and an additional 19% to date for Fiscal Year 1979.

CONTACT : Gerald T. Haugh
Long Beach Transit
1300 Gardenia Avenue
Long Beach, CA 90813
(213) 591-2301

Transit Action

ACTION : Establish uniform policy and practices for handling of complaints.

GOAL : To ensure that every complaint is resolved and the complainant is contacted within 3 working days.

ISSUES : Every organization which deals with the public receives complaints. If the matter is serious enough for an individual to contact the Authority, it is considered worthy of investigation and resolution.

DETAILS : Standard pre-numbered forms are issued to each employee who is apt to receive a complaint. A record is kept of the serial numbers of forms which have been issued. Upon receipt of a complaint, the form is completed and referred to the proper individual for investigation and disposition. Every 4 months, the individual who issues the forms prepares a report dealing with the number of, types of, and disposition of complaints. This allows management to ensure that all complaints are handled in a timely manner.

Statistics indicate that complaints have been reduced and the management is assured that any problems are investigated.

CONTACT : Art Gaudet
Transit Authority of Northern Kentucky
11th and Lowell Streets
Newport, KY 41071
(606) 431-2734

SIMILAR PROGRAM : Jim Reading
COTA
51 North High Street, Suite 8000
Columbus, OH 43215
(614) 228-3831

Transit Action

ACTION : Provide employees with a hotline for messages.

GOAL : To improve communication among all employees to prevent rumors from spreading, and to promote in-house job opportunities.

ISSUES : Improved communication helps create greater cohesion among employees and encourages advancement.

DETAIL : A taped phone message by the public relations department provides employees with current information on important daily messages, job opportunities, outside work events such as parties and picnics, and general employee interest and new items. The tape is changed every few days or once a week.

CONTACT : Jim Maloney
Port Authority of Alleghany County
Bewer and Island Avenues
Pittsburg, PA 15233
(412) 237-7000

Transit Action

ACTION : Labor agreement identifying mutually acceptable discipline procedures.

GOAL : Provide systematic, progressive, and consistent discipline and document all disciplinary actions.

ISSUES : Because of a satellite base system and rapidly changing personnel policies, operations management found it difficult to provide consistent and well-documented discipline. The number of grievances and other labor disputes has grown dramatically over the past several years. Both labor and management were eager to find solutions to these problems.

DETAIL : The labor agreement provides for progressive discipline and clearly defined a series of thresholds to ensure consistent application of discipline. The computer system consists of turnaround documents which detail the type of discipline administered and are signed by both the employee and the supervisor. The document is then used as an input document which allows the system to automatically generate the next level of discipline when required. This provides an accurate and timely record of disciplinary action and automatically moves the driver through the progressive disciplinary cycle. To ensure consistent application of discipline, a point system of discipline thresholds was developed. As an employee accumulates points and approaches a threshold, counseling takes place. When the employee actually reaches a threshold specific action is taken.

The system is too new to fully assess its impact but is working very well at this time. In the short run it has solved the problems of inconsistency and documentation, but its long range impact will be determined by grievances and arbitrations which are only now being heard.

CONTACT : Chuck Collins
Seattle Metro
821 2nd Avenue
Exchange Building
Seattle, WA 98104
(206) 447-6666

Transit Action

ACTION : Evaluate applicants for supervisory positions by means of a written test.

GOAL : To help determine the best-qualified personnel for supervisory and management positions.

ISSUES : Over the years many unqualified individuals have been promoted to supervisory positions. A professional effort was needed to help select innovative people.

DETAILS : Personnel Laboratories of Stamford, Connecticut prepares and conducts the test which lasts a full working day. It is primarily designed to determine basic psychological characteristics (motivation, sincerity, etc.) of each testee, and provides some measure of aptitude as well. Test results are considered along with other variables in the process of choosing new supervisors.

Since implementation of the testing program, all recently-chosen supervisory personnel have demonstrated competence in their fields. The new program is considered an effective aid in determining personnel adjustments.

CONTACT : Art Gaudet
Transit Authority of Northern Kentucky
11th and Lowell Streets
Newport, KY 41071
(606) 431-2734

SIMILAR PROGRAMS: Joseph Dooley
MBTA
50 High Street
Boston, MA
(617) 722-5000

Transit Action

ACTION : Intensive interview conducted by management and union president with any employee who has a poor driving record or other disciplinary problem.

GOAL : Reduce accidents and improve labor-management relations.

ISSUES : None.

DETAILS : Management and the union president meet with the employee in a relaxed atmosphere. The employee is encouraged to discuss his work record, and how management can help him. Goals and objectives are outlined in a memorandum which the employee signs. Each party understands what is expected from the other.

Thus far accidents have been reduced by 20% and complaints by 95%. In the past, there were an average of 3 grievances annually taken to the National Labor Relations Board. Since the inception of this program 1 year ago, there have been none.

CONTACT : Carl Buchanan
Jackson Transit System
119 West Glick Highway
Jackson, Mississippi 49201
(517) 787-8363

Transit Action

ACTION : Negotiated an agreement with the transit union which provides for a lower operator wage rate for operators employed in specialized services for the elderly and handicapped and permits a portion of the specialized service program to be contracted to a private carrier.

GOAL : Maximize the quantity of specialized transit services within budgetary constraints.

ISSUES : RTA was contractually obligated to provide a specialized transit service for elderly and handicapped residents of the City of Cleveland. Insufficient funds were available to provide adequate levels of service to all areas under prevailing wage rates.

DETAILS : RTA determined the level of service that is necessary to satisfy the demand for specialized elderly and handicapped services. These could be implemented within budget constraints if the services were divided between transit union operators and a private contractor. The amount of service to be contracted was a function of the operator wage rate. The higher the operator wage rate, the greater the quantity of contract specialized service that would be required.

The RTA and union arrived at a 5-year agreement which provides for RTA operators employed in specialized service for the elderly and handicapped to receive 69% of the wage rate paid to an operator of a standard-size bus in line-haul service. Furthermore, 1/3 of specialized services for the elderly and handicapped may be contracted to a private operator to serve persons in outlying low-density suburban areas.

CONTACT : Donald G. Yuratovac
Greater Cleveland Regional Transit Authority
1404 East 9th Street
Cleveland, Ohio 44114
(216) 781-5100

Transit Action

ACTION : Reorganize Transportation Division and publish Drivers' Manual.

GOALS : Improve internal morale, reduce absenteeism, and improve bus operator relationships with public.

ISSUES : Lack of communication between management and bus operators, misinformation to the public, and the need for clear, consistent operating policies and procedures were problems of continuing concern to Tri-Met. Absenteeism, including abuse of sick leave and workmens' compensation programs, was becoming a serious problem.

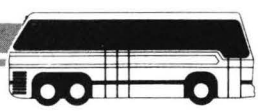
DETAILS : The position of Instructor was eliminated. Two new positions, at higher pay rate, were created: Driver Supervisor and Training Supervisor, for a net increase of 8 supervisory positions. Each Driver Supervisor has approximately 60 drivers assigned for frequent ride checks, maintenance of personnel records, and improved communication flow.

A Drivers' Manual was compiled by committee of drivers and edited by a staff committee. The Manual was reviewed by union representatives.

About 120 bus operators applied for the 8 open positions (former Instructors were guaranteed 10 of the 18 new positions). Absenteeism fell 5% in September from the year before, and a 15% reduction is expected for fiscal year 1980.

CONTACT : Carolyne Nelson
Tri-County Metropolitan Transportation
District of Oregon
4012 S.E. 17th Avenue
Portland, OR 97202
(503) 238-4830

V. PERFORMANCE MEASURES



I will repeat here a point which has been emphasized by several successive UMTA administrators -- and even a couple Deputy Administrators -- that we do not believe that it is the Federal Government's role to mandate performance measures, nor use such guidelines as a condition for the receipt of Federal grants. We are, however, increasingly concerned about the public's perception of the effectiveness of transit service since it ultimately reflects itself in the support Congress gives UMTA for its programs and the objectives of its programs.

Lillian C. Liburdi
Associate Administrator for Policy and Program Development
Urban Mass Transportation Administration
Washington, D.C.

We're approaching an era when there is some agreement on which performance indicators are useful and how they might be measured. I think we're coming to the stage of recognizing what performance indicators tell us. We're ready to go further, to use performance measures and performance indicators as real tools for managing transit so that it responds to the objectives of the local community.

Gordon J. Fielding
Director
Institute of Transportation Studies
University of California
Irvine, California

BRIEFING ON PERFORMANCE MEASUREMENTS

Brian J. Cudahy
Director
Office of Transit Management
Urban Mass Transportation Administration
*Washington, D.C.**

The term performance measure is, among other things, an ambiguous one. In addition, it is clearly this season's favorite buzz word, further complicating the matter of clear understanding.

Of course, the business of measuring transit performance is not new. True, there have been some new developments in recent months, but when an old-line garage supervisor asks why Bus #8361 is burning more oil than it should, he is, in fact, employing a performance measure.

One thing that seems to be new about today's renaissance in the field of performance measurement is a desire to measure properties one against another.

The work which G.J. Fielding and others have done in California began as an effort to supply California DOT with a system for evaluating the performance of those transit systems which the State was subsidizing. Obviously, then, the whole Fielding *et al.* effort is geared more to annual systemwide averages than to short-term variations within a single transit property. This is a distinction of some importance in understanding the current state of measurement. Unfortunately, it is also a distinction that tends to fog up very quickly.

Another major difficulty is that most discussions about transit performance and performance measures tend to trigger reflex actions rather than dialogue. The position classically attributed to the transit operator is both negative and frantic. Many operators deny there can ever be such things as performance measures; others express fear that this area of concern is nothing but a veiled attempt on UMTA's part to punish transit operators who fail to meet some yet-to-be-determined standard or standards. Perhaps the best expression of this general negativism and fear was the following comment heard a few months ago: "Don't even talk to us about performance measures until we've had 15 more years of Federal aid to eliminate the decades of neglect we have to work with every day."

On the other hand, there is this gem of wisdom: "There's no transit system that's so bad it won't do well in some performance category or other." Given such a situation, an operator can dismiss other categories as being not applicable to his unique situation. And presto, all transit systems turn out to have superior performance.

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There is another novel aspect to much of today's new interest in performance measurement -- an interest, incidentally, which has been largely fueled via UMTA's section 11 program of university research. It is an emphasis on the external side of transit. Efficiency is the general term used to characterize the internal measures -- quarts of oil per revenue mile or maintenance cost per vehicle -- while effectiveness is the term that describes transit's outward manifestations -- passengers carried per revenue mile or the percentage of a region's residential population served by transit. A further characteristic of Fielding's matrix that was developed for California is that many of the performance measures are not dynamic indices that, if examined regularly, supply management with periodic reports on the state of one's operation. They are, rather, static statements of what are (or should be) policy positions of a transit agency. The percentage of residential population served, for instance, is hardly a figure that a general manager would want to see on his desk the first thing each morning!

What we have, then, in much of today's general discussion about performance measurement, is virtually a problem of semantics. In many cases what is being measured is not the actual *performance* of a transit system on a day-to-day basis, but the basic *constitution* of the system -- regardless of day-to-day fluctuations. In others words -- and this perhaps is at the heart of the industry's fears on the general subject of performance measures -- many transit systems are beset with inherent characteristics that will forever have a substantial effect on the system's overall functioning. Percentage of dead-head miles to revenue miles, for instance, can be regarded as a performance measure. However, it generally reflects merely the location of a garage in relation to the service routes. Therefore, some of the more complex performance measures -- for instance, labor cost per revenue mile (or hour) -- will fluctuate from property to property largely on the basis of structural constraints, rather than as a measure of performance, strictly speaking. But when one property is compared with another in this category, we tend to examine the built-in -- and largely unmanageable -- constraints of the system, rather than show progress according to some kind of management plan.

Stated differently, the kinds of real progress in productivity that are possible are 1% and 2% improvements over time in specific areas of performance. But the motivation to achieve such progress does not follow from heavy-thumb comparisons wherein a given system is said to be "worse than" an overall average of some awful order of magnitude.

So performance measurement must be done with care and precision. One might speculate that a major component of the significant distrust this area manages to engender lies in a fear on the part of the transit operators that they will be judged by standards that do not reflect accurately their own peculiar characteristics. And, what immediately follows in any protracted discussion is a perception on the part of the transit operator that somehow or other he, the operator, is assumed to be operating at a substandard level, a level which some "pointy-headed bureaucrat" is about to come in and improve. This general perception on the part of the industry at times approaches paranoia. Yet it is a paranoia that is more or less steadily fed by pronouncements from the sidelines.

Transit clearly lacks the kind of single-number measure that seems to characterize many other industries-such as ton-miles in rail freight, gross billings in advertising, new starts in housing construction, and plain old sales in most other industries. The closest we probably come is cost per revenue vehicle mile, or hour. Even here, a means should be developed to factor in regional consumer price index variations so that Washington, D.C. doesn't have to contend with the cost-of-living in Bangor, Maine. And, of course, we must also realize that normal industry-wide, single-number indicators are largely measures of size and not performance. Performance equals profit in the corporate world, and this is usually regarded as private information. Publicly, corporations do not hesitate to measure themselves by their comparative size; but when all is said and done, it would seem there is no such thing as a single-number performance measure, inside or outside of transit.

A next-to-final point on section 15: In reviewing recent literature on transit performance, a constant theme is the general unavailability of certain kinds of key data, e.g., passenger miles. Also, a problem is this conclusion reached by Fielding: "Almost every common statistic relating to transit may be defined in more than one manner." Section 15 will solve these problems. Strictly speaking, section 15 will provide only annual numbers. However, the availability of such annual numbers in a variety of categories not currently available should assist those venturesome souls who wish to compare one property with another. Of course, the generation of this new data at the property level will often be done in such a way as to give management weekly or monthly readings of their own operation. UMTA, this year, intends to document some of the more creative uses properties are making of the entire section 15 apparatus.

And finally -- with perhaps a touch of foolhardiness -- here is a list of those performance measures that might usefully be examined on a regular basis by the chief officer of a typical bus property. Taken collectively, they should provide a timely and an accurate indication of how things are doing. Other measures will be used by other managers for their specialized areas, but this list is geared to the needs of the chief officer. The range column is not, of course, a statement of optimum performance. It is merely a rough-cut estimate of where the various performance measures might fall the first time around. For a given system to perform well, it must begin to improve upon its own performance in all the categories.

USEFUL PERFORMANCE MEASURES

Performance Category	Frequency Examination	Range
revenue passengers per revenue mile:		
systemwide	weekly	3.0 to 4.5
route-by-route	monthly	3.0 to 4.5
vehicle miles per road call	monthly	3200 to 3700
vehicle miles per quart of *added* motor oil	monthly	230 to 300
vehicle miles per accident	monthly	3500 to 10,000
missed trips	daily	0.5% or less
operating cost per vehicle mile	monthly	assuming an $8 per hour wage rate: $1.75 to $2.00
vehicle miles	monthly	
absenteeism:		
transportation	daily	5 to 10%
maintenance	daily	3 to 5%
average operating speed	annually	12 to 15 mph
total employees per million passengers	annually	30 to 40

Note: While revenue sources should be examined regularly, they are not included as performance measures.

Transit Action

ACTION : Establish telephone information performance standards.

GOAL : Improve information operator productivity.

ISSUES : Due to budget reductions, it was necessary to reduce bus service and eliminate some route information personnel. While these service changes stimulated more demand for route and schedule information, personnel had been decreased.

DETAILS : Before the staffing reductions, about 17 information calls per operator hour were being processed. Faced with increased workload demand with fewer personnel, the department implemented a 20-call per operator hour productivity standard, strengthened on-going retraining for employees who failed to achieve the standard, initiated improved productivity and attendance monitoring efforts, and standardized counseling and discipline procedures.

Before the personnel reductions, a total department staff of 140 operators averaged 10,000 calls per day. Despite a 36% personnel reduction to 90 operators, the department is currently processing 7,500 calls daily. To date, the department has realized a 15% improvement in productivity by increasing calls per operator hour to 19.5 and is continuing to move toward the 20 calls per hour standard.

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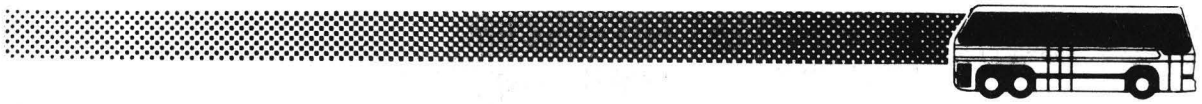

Transit Action

ACTION : Developed a productivity payment schedule for the OCTD demand-responsive service contractors.

GOAL : To provide better service by encouraging contractors to be more productive in terms of passenger vehicle hours.

ISSUES : None

DETAILS : Demand-responsive operators are paid a base amount of about $15.00 per hour, depending upon the service area. The rates per hour are then increased or decreased - based on the number of passengers carried per hour. Here is the schedule for adjusting the hourly rate:

0 - 1 passengers/vehicle hour	$0.75 (penalty)
1.1 - 2 passengers/vehicle hour	0.50 (penalty)
2.1 - 3 passengers/vehicle hour	0.25 (penalty)
3.1 - 7 passengers/vehicle hour	0
8.1 - 9 passengers/vehicle hour	0.50
9.1 -10 passengers/vehicle hour	0.75
10.1 -11 passengers/vehicle hour	1.00
11.1 -12 passengers/vehicle hour	1.25
12.1 -13 passengers/vehicle hour	1.50
13.1 -14 passengers/vehicle hour	1.75
14.1 -15 passengers/vehicle hour	2.00

Each contractor is given 15 minutes deadhead to pick up passengers. Contractors are allowed to exempt one vehicle from the productivity schedule in order to serve more difficult cases. Audits of contractor's trip sheets are performed to verify their service levels.

This program made contracted demand-responsive service more efficient and productive. The effectiveness of the service has been somewhat reduced because of the disincentive to serve sole passengers.

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Orange County Transit District
11222 Acacia Parkway
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Garden Grove, CA 92642
(714) 971-6200

Transit Action

ACTION : Implement performance comparisons among operating divisions.

GOAL : Stimulate performance improvements by highlighting areas of strong and poor performance for each division.

ISSUES : The District's active fleet of 2400 buses operates out of 11 different operating divisions. Although operating different lines in different geographical regions, each division is responsible for routine fleet maintenance, insuring service reliability, and controlling operator performance. Due to differences in operating characteristics and division sizes, comparisons of raw performance data among divisions are not meaningful.

DETAILS : Nine key division performance areas were identified and a method of standardizing a performance rating for each area was developed, based upon the system average in each category. A rating of 100 points was earned for meeting the system average with more or fewer points being earned for variances above or below the average. These ratings were calculated and totaled in a monthly "scoreboard" and resulted in a cumulative performance score and an identification of strong or weak areas for each division.

The major result of the effort was to identify areas where management attention was needed in each division, but this has been somewhat hampered by the use of the system average as the performance yardstick instead of a constant absolute standard. A shift to an absolute performance standard in each category was implemented in January 1979.

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Transit Action

ACTION : Installation of vis-a-fare units and a computerized system to count rail passengers and audit fare collection.

GOAL : To improve the validity of passenger trip information by station and route, and to improve the audit of rail fare collection.

ISSUE : The auditing of fare collections by a large number of rapid transit agents was a substantial manual task. Information on ridership was suspect because fare rates vary according to passenger type.

DETAILS : Passenger numbers and fares are recorded by a ticket agent on a push-button vis-a-fare unit. A register displays the information briefly as an accuracy check, and the turnstyle is tripped in the same process.

The units have been very successful. Accurate passenger information for each rapid transit station, route and passenger type is readily available due to the computerized system. The auditing of the fare collection process is greatly improved as well.

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Chicago Transit Authority
Merchandise Mart
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Transit Action

ACTION : A method of determining State operating assistance grants, based on constrained financial need and improved operating and financial performance.

GOAL : To distribute State operating assistance in a more equitable and predictable manner and provide incentives for improved transit performance.

ISSUES : For the past several years, the State appropriation for the transit operating assistance program has increased at an average annual rate of 3 1/2%, while transit operating deficits have increased approximately 12% per year. This underfunding has resulted in increased and decreased service.

DETAILS : The State has placed a ceiling on transit operating expenses and a floor on transit operating revenues to make sure projected operating deficits are reasonable based on national, state, and transit industry experience. The State provides financial bonuses to systems that demonstrate improved productivity based on four ratios that reflect improved transit efficiency and effectiveness.

Selected operating assistance grants have been determined to test this methodology. The results have been promising, as the awards seem to be more equitable than before.

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Mass Transit Assistance Division
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1215 Transportation and Safety Building
Harrisburg, PA 17120

SIMILAR PROGRAM : Wade Lawson
New Jersey Department of Transportation
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(609) 292-4160

Transit Action

ACTION : Development of a service policy for public transportation.

GOAL : To provide a uniform and effective basis for evaluating the relative costs, benefits and overall performance of individual services.

ISSUES : Previous to this program there had been no consistent service policy whereby the Board of Directors and the Advisory Board could determine desired levels of service and optimum allocation of resources.

DETAILS : The service policy establishes a basis for determining sub-standard services and outlines possible supplemental financing arrangements. Indicators, such as revenue received from selected routes, the types of passengers the routes serve, contiguous major highways, etc. are used. Decisions are then made as to which route changes would benefit the public, which services should be expanded, contracted, or eliminated.

This service policy on public transportation was adopted by the Board of Directors on January 7, 1976. With a few noteworthy exceptions, it has proved its worth.

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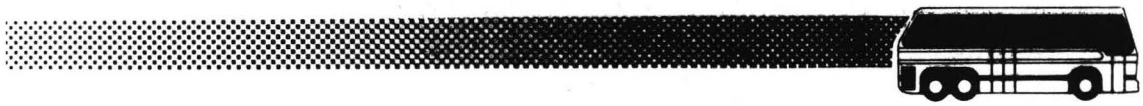

Transit Action

ACTION : Monthly public reports on Tri-Met's performance indicators.

GOAL : Establish Tri-Met's credibility as an efficient and effective transit agency.

ISSUES : Public transit depends upon public support and subsidy. The public mood, at least in Oregon, is anti-government and anti-bureaucracy. Only 25% of Tri-Met's service area population uses the bus two or more times per month -- a relatively small constituency.

DETAILS : With the adoption of the budget for fiscal year 1978-79, goals were set for improving six specific performance indicators which would reflect an improved effectiveness of service, efficiency of operations, and quality of service. Performance indicators used are:

Service Effectiveness:
- Total riders per vehicle hour.
- Operating revenue per operating cost.

Operator's Efficiency:
- Operating cost per vehicle hour.
- Work hours lost per regular pay hours.

Service Quality:
- Complaints per thousand passengers.

Press coverage has been positive. Also, management has received positive feedback and tangible support for specific programs from other jurisdictions and associations.

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(503) 238-4830

Transit Action

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Sacramento Regional Transit District
P.O. Box 2110
Sacramento, CA 95810
(916) 444-7591

Christopher B. Mulholland
Regional Transit Service, Inc.
1372 East Main Street
P.O. Box 3629
Rochester, NY 14609
(716) 288-6050

Transit Action

ACTION : Establish internal management analysis unit.

GOAL : Develop in-house capability for special research and performance auditing.

ISSUES : Because departments are staffed according to on-going workload demands, work on special or "once-only" projects could only be handled by diverting personnel from regular assignments or by engaging outside consultants. Furthermore, analysis of problems or program proposals by a concerned department may reflect a departmental perspective.

DETAILS : The Management Services Section was established to perform in-depth studies of organizational problems without regard to functional lines or normal organizational channels. These studies are requested by the General Manager or Executive Staff and are designed to develop specific recommendations for improved operations.

This unit has completed over 14 major studies of RTD operations, over 30 department performance audits and numerous additional reports. Also, it has developed over 200 proposals for strengthening District policies, procedures, and performance, and has recommended approximately $2 million in cost savings over a 3-year period.

CONTACT : Ralph de la Cruz
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Transit Action

ACTION : Use of vehicle hours instead of vehicle miles to measure breakdown rate, accident rate, etc.

GOAL : To give a more accurate estimate of cost effectiveness.

ISSUES : Per mile estimates were not an accurate measure of service costs, due to the high cost per mile on the crosstown routes and a low cost per mile on suburban routes.

DETAILS : A management information system is used to calculate vehicle hours and to determine service adjustments.

It is much more accurate in calculating vehicle statistics.

CONTACT : Genevieve Leary
Montgomery County DOT
6110 Executive Blvd.
Rockville, MD 20852
(301) 468-4065

Transit Action

ACTION : Development of a service performance analysis and reporting system.

GOAL : To improve feedback of route and schedule performance data for use in making route adjustments.

DETAILS : Long Beach Public Transportation Company is installing a computerized schedules performance analysis and reporting system (originally developed by Sage Management consultants of San Francisco), which provides for comprehensive passenger count, running time, revenue and cost, schedule adherence, level of service analysis and reporting capabilities for management, scheduling, and service planning applications. The system consists of three components to measure efficiency and effectiveness--performance indicators, schedules adjustment reports, and route review reports. These components directly correspond to the management, scheduling, and service planning functions. In addition, the system is designed to accommodate data collection by manual and automated means. The system is being applied in conjunction with a comprehensive route and schedules review for the Long Beach Transportation Company.

CONTACT : Larry Jackson
Long Beach Transit
1300 Gardenia Avenue
Long Beach, CA 90813
(213) 591-8753

Transit Action

ACTION : Use of cents per mile (C.P.M.) as a standard unit of comparison for all financial reports from preparation of budget to regular monthly progress reports.

GOAL : Increase management information.

ISSUES : A uniform system of comparing performance with budgets was necessary. The former system did not take into consideration monthly fluctuations in services provided.

DETAILS : Twenty-one of twenty-four of our bus operations are set up on a central computer at the home office. Monthly reports are generated showing the actual dollar amount and cents per mile for the current month, the same month in the year prior, the year to date this year, and last year. As the budget was drawn up on the same basis, comparison is easy. Consequently, management is much more aware of the costs of the service provided and from where the costs arise. It is a good management information tool.

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American Transit Corporation
120 South Central Avenue
St. Louis, MO 63105
(314) 726-9200

Transit Action

ACTION : System for collecting and processing line patronage data.

GOAL : To keep track of patronage on a detailed basis.

ISSUES : In the large scale service changes that were required several years ago, the rudimentary information on patronage was inadequate for making good decisions. A fairly detailed body of data was needed to change individual lines without diminishing productivity. There was also a need for some assurance that the changes would make the service more equitable.

DETAILS : A crew of 36 schedule checkers gathers field data continually, line by line. A battery of computer programs transforms the raw data into detailed information on riding patterns for each line. Recently a capability was added for breaking down line data into geographical areas. Any combination of census tracts can be specified.

Service change recommendations based on quantitative information have been much more readily accepted by everyone, and have allowed reduction in service miles by over 10% with no decrease in patronage.

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San Mateo, CA 94402
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Gary Foyle/Mike Bolton
Northeastern Illinois Regional Transportation Authority
Chicago, IL.
(312) 836-4000

Transit Action

ACTION : Measure bus operations, patronage levels, financial indicators, and fare policies on a monthly basis.

GOAL : Monitor bus performance.

ISSUES : Management determined that significant performance measures and indicators were either dispersed among many sources or were non-existent.

DETAILS : The Office of Budget and Management Analysis assembles and scrutinizes operational, financial, and managerial statistics from various offices which deal with bus operations and prepares a report with analytical interpretations.

Office directors and key management personnel are currently provided with over 50 indicators to compare bus operations on a month-by-month basis. These statistics indicate operational trends and historical comparisons. Analytical reviews point out strengths and weaknesses and provide management with status reports.

Upper level management in both financial and operational divisions continually cite performance reports as one of the major tools in the improvement of the bus system. Efforts that are now underway to refine current measures and develop other indices, such as comparison of operation to other public transit authorities, citizen perception indicators, and time-distance, origin-destination measures.

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Washington Metropolitan Area Transit Authority
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SIMILAR PROGRAMS:

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Seattle, WA 98104
(206) 447-6666

Larry Stueck
San Mateo County Transit District
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San Mateo, CA 94402
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Transit Action

ACTION : Development of a computerized accident data management information system.

GOAL : Provide accurate and easily accessible information on vehicle accidents for review, analysis, and evaluation.

ISSUES : Access to detailed information on accidents, and analysis of that information is a necessary prerequisite for a comprehensive safety program.

DETAILS : The data system is designed to produce monthly statistical reports and analysis of accident information. A performance and safety profile for each operator has been created. All information is designed to be instantly accessible on a site video terminal. The program is also designed to highlight the need for corrective action and evaluate the success of any accident control program.

The data system became operational in June, 1979.

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Kansas City Area Transportation Authority
1350 East 17th Street
Kansas City, MO 64108
(816) 471-6600

Transit Action

ACTION : Use of Comprehensive Operational Analysis (COA) technique to examine service effectiveness of routes and schedules at MATA in Memphis.

GOAL : Improve quality of service and cost effectiveness of providing service.

ISSUES : Ridership was declining.

DETAILS : COA is a manual process that combines on-board passenger counting with trailing surveys to examine existing service for degree of utilization. The COA technique also examines the degree to which traffic engineering improvements can assist bus traffic. New service ideas are generated by on the street examination of opportunities as well as a citizen input mechanism called "Tell Us Where To Go". Recommendations are presented in schedule specification format ready to be implemented. The COA was undertaken to develop a new service plan. The COA is readily updated using in-house resources.

The program generated an annual cost savings of at least $170,700 and also generated an additional $184,800 in revenue or a net reduction in the annual deficit of approximately $355,500.

CONTACT : Fred Gilliam
Memphis Area Transit Authority
P.O. Box 122
701 N. Main Street
Memphis, TN 38107
(901) 528-2881

Transit Action

ACTION : Conduct performance audits of support and operating units.

GOAL : Maintain an on-going evaluation of organizational performance.

ISSUES : To insure maximum return on transit resources there is a need for continual management performance monitoring.

DETAILS : Regular performance audits are made of all operating and support units. These audits include a review of department policies and procedures, organization structure, budget data, manpower requirements, workload factors, personnel practices, and productivity measures. Audit reports are forwarded to the Manager of Operations and the General Manager, who discuss them with the line managers in order to develop an action plan for improving performance.

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Los Angeles, CA 90013
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Transit Action

ACTION : Auditing Fare Box Collections.

GOAL : To have a complete and current knowledge of ridership by route and by time of day.

ISSUES : A means for measuring route effectiveness and transfers was needed.

DETAILS : Every 3 months drivers record fare box readings to the last significant 5 digits trip by trip for 1 week. Transfers are collected during the same time period and analyzed by route-to-route.

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Newport, KY 41071
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Transit Action

ACTION : Establishment of service guidelines for development of new transit services.

GOAL : To help ensure the effectiveness of new services.

ISSUES : Within the RTA service area, there are a wide variety of development patterns present -- ranging from high density concentrations in the City of Chicago, to very low density patterns in the outlying areas. In order to ensure the effective performance of our new services, it was necessary to define a set of service guidelines designed to help identify appropriate areas where new fixed route bus services might potentially be provided.

DETAILS : The guidelines were based on a review of appropriate subregional transit development programs, relevant national experience, and on an analysis of basic data collected about the region. The guidelines do not imply that areas in compliance with a minimum guideline will automatically receive service, or that those below will not; they are advisory only. In particular, the guidelines are most appropriate to fixed route services and are not intended to identify areas or situations where there is a need for special services like a dial-a-ride and other types of non-conventional transit. The guidelines are:

Factor	Guideline
Population	Minimum of 3,000 persons per square mile
Employment	Minimum of 500 employees per quarter square mile
Shopping Facilities	Minimum of 250,000 square feet of retail floor space
Higher Educational Facilities	Minimum of 1,000 students per site
Hospital Facilities	Minimum of 100 beds per site
Commuter Rail Stations	Minimum of 500 one-way boardings per station

Transit Action

The service guidelines that were developed have served as a basis for RTA's service planning efforts since FY '78. During FY '78, 50 new routes were established in the suburban area, bringing the total number of suburban routes to nearly 200. These efforts helped draw nearly 2.4 million new riders to the RTA system, an 11% increase.

CONTACT : Martin Reiner/Jud Lawrie
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300 North State Street
Chicago, IL 60610

Transit Action

ACTION : Developed computerized information system for obtaining on-time performance data and causes of train delays and annullments.

GOAL : Identify causes of train delays and annullments so that corrective actions can be taken to improve on-time performance.

ISSUES : Compilation of on-time performance data was done on a manual basis with a monthly summary prepared on the causes of delays and annullments. Pinpointing cause of delay and charging delay to the division responsible was subject to misinterpretation by the individual preparing the report.

An attempt to analyze causes of train delays was a time consuming process since it had to be done manually.

DETAIL : A computerized information system was developed for on-time performance records and causes of train delays and annullments. A computer terminal is used for the daily input of train delay data and the causes for these delays. Daily printouts show all train delays and annullments in a 24-hour period and for peak periods within that day. These daily reports are reviewed by each division (Car Equipment, Track & Structures, Transportation and Power & Signals) to ascertain that the cause of delay has been properly determined and charged to the division responsible. Inaccurate data is corrected through use of the computer terminal.

Monthly & annual reports of on-time performance are obtained on computer printouts. Information as to the number of delays and annullments attributable to a particular cause can be readily available through a "search" of the computer.

On-time performance data is received on a timely basis and monthly, annual or special reports are obtainable at the push of a button. The review and analysis of the daily reports of train delays and causes insures the accuracy of the data and generates corrective action.

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Port Authority Trans-Hudson Corp.
1 PATH Plaza
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Transit Action

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Southeastern Pennsylvania Transportation Authority
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Philadelphia, PA 19140
(215) 456-4000

Transit Action

ACTION : Develop a weighted crime index report.

GOAL : Establish a comparative device to evaluate crime statistics and determine trends in criminal activity.

ISSUES : PATH, like all transit systems, has criminal activity which encompasses both serious incidents (such as assault and battery) and minor offenses (trespassing and fare evasion). A suitable measurement device was needed to evaluate the severity of each type of criminal activity and to determine the total crime impact.

DETAILS : A crime index system was utilized to categorize crimes in major or minor classifications with associated point values. The categories and point values are:

CRIMES AGAINST THE PERSON (MAJOR)	POINTS
A - Murder, Rape, Assault & Battery, etc.	100
B - Armed Robbery, Extortion, Robbery, etc.	80
C - Indecent Exposure, Jostling, Pickpockets, Drunk & Disorderly	60
PROPERTY CRIMES (MINOR)	
D - Burglary, Criminal or Malicious Mischief, Grand Larceny (Over $200)	40
E - Petit Larceny, Mischief, Rock Throwing, etc. (Under $200)	20
POLICE ACTION (MINOR)	
F - Trespassing, Interfere-R.R. Operations, Violations - PATH Rules, Farebeats, Drugs	10

Each month the number of incidents in each category is determined. The total is then multiplied by the point value for that category, and a score is obtained. The total crime index activity for the month is the sum of the scores of all categories (A thru F). This total monthly activity score can be compared from month to month in the same year or against the same month in a prior year to determine trends in criminal activity. They are also averaged out annually to compare yearly criminal trends.

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BACKGROUND STATISTICS

BACKGROUND STATISTICS

The information on the following pages has been provided to give the reader of the Transit Actions Workbook a sense of how large a system is, and under what conditions the performance improvements were implemented. Ridership information was provided by the American Public Transit Association. All other information was provided by each transit property. Every attempt has been made to insure the information accurately reflects circumstances at the end of 1978, but some of the numbers may have changed since this information was compiled.

Most of the terms are self-explanatory, but the four below need some explanation:

- Top Operator Wage Per Hour - hourly wage without fringe benefits.
- Annual Operating Budget - unless otherwise noted, this is for the 1978-1979 fiscal year or 1978 calendar year.
- Revenue Sources by Percentage - this presents the operating revenue (and not capital expenditures).

  the category of Other may include advertising, charter and non-recurring revenues.
- 1978 Ridership - this represents the number of times a person boarded a transit vehicle during 1978.

Jurisdiction and Property	Population of Service Area	Number of Vehicles	Number of Employees	Top Operator Wage per Hour	Fare Structure	Base Fare	1978 Ridership	Annual Operating Budget	Revenue Sources By Percentage
Albany, NY Capitol District Transportation Authority	700,000	230	425	6.75	zone	40¢	12,876,000	$9,323,000	Federal 27% State 8% County — Local 8% Farebox 50% Other 7%
Allentown, PA Lehigh and Northampton Transportation Authority	290,000	65	129	8.00	flat	35¢	4,671,982	$3,200,000	Federal 34% State 29% County 13% Local — Farebox 34% Other —
Athens, GA Athens Transit System	49,000	16	25	4.92	flat	30¢	428,600	$384,000	Federal 28% State — County — Local 28% Farebox 38% Other 6%
Atlanta, GA Metropolitan Atlanta Rapid Transit Authority	1,090,000	842	2,548	8.28	flat	25¢	82,356,000	$50,300,000	Federal 12% State — County — Local 62% Farebox 24% Other 2%
Atlantic City, NJ Atlantic City Transportation Company	150,000	45	120	6.90	zone	40¢	3,374,500	$2,500,000	Federal — State 52% County — Local — Farebox 48% Other —
Austin, TX Austin Transit System	341,500	71	194	5.84	flat	35¢	6,321,500	$4,070,700	Federal 38% State — County — Local 32% Farebox 30% Other —
Baltimore, MD Mass Transit Administration	1,832,900	1039	2,092	8.675	zone	40¢	111,081,000	$53,560,100	Federal 23% State 18% County — Local — Farebox 58% Other 1%
Battle Creek, MI City of Battle Creek	80,000	28	39	5.83	flat	35¢	1,200,000	$1,000,000	Federal 41% State 33% County — Local 6% Farebox 18% Other 2%
Boise, ID Boise Urban Stages	100,000	23	45	5.80	flat	25¢	831,000	$1,000,000	Federal 35% State 35% County — Local — Farebox 30% Other —
Boston, MA Massachusetts Bay Transportation Authority	2,763,400	1970	6,554	9.3125	zone	25¢	151,400,000	$233,502,000	Federal 14% State 35% County 1% Local 27% Farebox 20% Other 3%

Jurisdiction and Property	Population of Service Area	Number of Vehicles	Number of Employees	Top Operator Wage per Hour	Fare Structure	Base Fare	1978 Ridership	Annual Operating Budget	Revenue Sources By Percentage
Buffalo, NY Niagara Frontier Transportation Authority	1,384,000	473	946	7.78	zone	40¢	43,120,000	$22,334,100	Federal 25% State 10% County — Local 8% Farebox 57% Other —
Calgary, Alberta Calgary Transit	520,000	503	1,250	8.12	flat	45¢	52,512,000	$32,000,000	Federal — State — County — Local 51% Farebox 49% Other —
Chapel Hill, NC Chapel Hill Community Transit	43,100	30	78	5.71	flat	30¢	1,733,000	$1,260,000	Federal 35% State — County — Local 35% Farebox 27% Other 3%
Chicago, IL Regional Transportation Authority	7,435,100	4897	17,155	9.23	flat	50¢ CTA 30¢ sub. bus 85¢ com. rail	678,296,000	$501,240,000	Federal 10% State 24% County 8% Local 1% Farebox 57% Other —
Cincinnatti, OH Queen City Metro	915,000	442	943	7.06	zone	30¢	38,941,000	$21,428,600	Federal 28% State 3% County 1% Local 38% Farebox 30% Other —
Cleveland, OH Greater Cleveland Regional Transit Authority	1,700,000	1085	2,500	8.05	flat	25¢	114,502,000	$72,600,000	Federal 15% State — County — Local 57% Farebox 26% Other 2%
Columbus, OH Central Ohio Transit Authority	920,000	273	623	7.38	flat	50¢	17,950,000	$14,600,000	Federal 27% State 6% County — Local 22% Farebox 45%
Concord, CA (Contract with AC Transit)	100,000	11	Contracts with AC Transit	8.03	flat	25¢	668,000	$1,185,000	Federal State 89% County — Local — Farebox 11% Other —
Dallas, TX Dallas Transit System	900,000	457	960	6.72	3 zones	60¢ 75¢ 95¢	26,550,000	$20,535,000	Federal 17% State 1% County — Local 19% Farebox 51% Other 12%
Denver, CO Regional Transit District	1,583,000	622	1,412	7.90	flat	50¢	43,124,000	$39,287,000	Federal 8% State — County — Local 79% Farebox 13% Other —

Jurisdiction and Property	Population of Service Area	Number of Vehicles	Number of Employees	Top Operator Wage per Hour	Fare Structure	Base Fare	1978 Ridership	Annual Operating Budget	Revenue Sources By Percentage
Des Moines, IO Des Moines Metropolitan Transit Authority	260,000	90	157	6.52	flat	50¢	4,040,000	$2,310,150	Federal 30% State 5% County — Local 25% Farebox 40% Other —
Des Plaines, IL North Suburban Mass Transit District	600,000	112	214	7.89	zone	50¢	5,024,000	$4,400,000	Federal — State 14% County 1% Local 2% Farebox 76% Other 7%
Detroit, MI Southeastern Michigan Transit Authority	1,600,000	890	1,978	7.91	zone	50¢	63,361,000	$71,630,000	Federal 23% State 31% County — Local 4% Farebox 41% Other 1%
Duluth, MN Duluth Transit Authority	135,000	106	182	7.16	flat	35¢	5,304,000	$3,863,250	Federal 23% State 51% County — Local 26% Farebox — Other —
East Meadow, NY Metropolitan Suburban Bus Authority	2,000,000	295	750	7.14	flat	50¢	22,204,000	$23,800,000	Federal 5% State 5% County — Local 40% Farebox 50% Other —
Eugene, OR Lane County Mass Transit District	217,300	67	225	7.28	zone	35¢	3,590,000	$6,400,000	Federal — State — County 77% Local — Farebox 18% Other 5%
Flint, MI Mass Transportation Authority	330,000	65	121	6.01	flat	35¢	3,207,200	$2,716,500	Federal 37% State 28% County — Local 11% Farebox 18% Other 6%
Fond du lac, WI Fond du lac Area Transit	39,000	12	20	6.05	zone	35¢	340,757	$459,000	Federal — State 48% County — Local 24% Farebox 24% Other 4%
Forth Worth, TX City Transit Service	677,000	106	240	5.75	flat	40¢	5,180,000	$4,175,200	Federal 29% State — County — Local 27% Farebox 42% Other 2%
Hampton, VA Peninsula Transportation District Commission	271,700	104	172	6.32	zone	40¢	4,814,900	$3,832,500	Federal 31% State 2% County — Local 29% Farebox 31% Other 7%

Jurisdiction and Property	Population of Service Area	Number of Vehicles	Number of Employees	Top Operator Wage per Hour	Fare Structure	Base Fare	1978 Ridership	Annual Operating Budget	Revenue Sources By Percentage
Harrisburg, PA Cumberland-Dauphin-Harrisburg Transportation Authority	380,000	81	140	7.30	zone	35¢	4,810,000	$2,908,250	Federal 50% State 33% County 12% Local 5% Farebox — Other —
Hartford N. Haven, Stamford, CT Conn. Bureau of Public Transportation	1,913,300	371	724	6.95	flat	35¢	27,678,000	$15,000,000	Federal 33 1/3% State 33 1/3% County — Local — Farebox 33 1/3% Other —
Honolulu, HI Honolulu City and County Bus System	718,400	350	1,025	7.58	flat	25¢	66,827,000	$27,200,000	Federal 12% State — County 52% Local — Farebox 36% Other —
Houston, TX Metropolitan Transit Authority	2,300,000	567	1,549	7.62	zone	40¢	44,185,000	$49,694,100	Federal 3% State — County — Local 81% Farebox 16% Other —
Iowa City, IA Iowa City Transit	48,000	20	48	5.75	flat	25¢	1,521,194	$900,000	Federal — State 11% County — Local 49% Farebox 40% Other —
Jackson, MI Jackson Transit System	78,000	20	40	5.00	flat	30¢	1,120,000	$500,000	Federal 50% State 12% County — Local — Farebox 38% Other —
Jacksonville, FL Jacksonville Transportation Authority	650,000	192	300	7.24	zone	35¢	15,200,100	13,000,000	Federal 25% State — County — Local 25% Farebox 50% Other —
Kansas City, MO Kansas City Transportation Authority	1,327,000	303	650	7.40	zone	40¢	23,012,000	$21,000,000	Federal 331/3% State — County — Local 33 1/3% Farebox 33 1/3% Other —
Knoxville, TN Knoxville Transit Authority	195,000	80	135	7.00	flat	40¢	6,921,200	$3,250,000	Federal 33% State 10% County — Local 23% Farebox 33% Other 1%
Lansing, MI Capital Area Transit Authority	229,000	47	150	8.05	flat	35¢	3,613,000	$4,700,000	Federal 37% State 33% County — Local 13% Farebox 17% Other —

Jurisdiction and Property	Population of Service Area	Number of Vehicles	Number of Employees	Top Operator Wage per Hour	Fare Structure	Base Fare	1978 Ridership	Annual Operating Budget	Revenue Sources By Percentage
Long Beach, CA Long Beach Transit	450,000	142	318	7.69	flat	25¢	1,180,000	$9,400,000	Federal 27% State 38% County — Local 2% Farebox 27% Other 6%
Los Angeles, CA Southern California Rapid Transit District	10,000,000	2621	6,606	8.32	zone	45¢	325,100,000	$214,060,000	Federal 22% State 35% County — Local — Farebox 40% Other 3%
Lowell, MA Lowell Regional Transit Authority	94,000	27	50	5.08	flat	30¢	1,497,500	$2,100,000	Federal 32% State 16% County — Local 16% Farebox 36% Other —
Madison, WI Madison Metro	212,000	151	230	6.42	zone	25¢	13,374,000	$8,294,000	Federal 16% State 21% County — Local 24% Farebox 39% Other —
Manchester, NH Manchester Transit Authority	120,000	32	80	6.15	zone	40¢	1,700,238	$897,000	Federal 25% State — County — Local 24% Farebox 50% Other 1%
Mansfield, OH Mansfield Transit	60,000	14	32	3.55	flat	40¢	81,360	$400,000	Federal 50% State 15% County — Local — Farebox 3% Other 32%
Memphis, TN Memphis Area Transit Authority	727,000	315	612	7.83	zone	60¢	20,328,000	$17,525,400	Federal 27% State 1% County — Local 25% Farebox 45% Other 2%
Miami, FL Metroplitan Dade County Transit Agency	1,600,000	550	1,400	7.26	flat	50¢	65,284,000	$52,410,900	Federal 16% State — County — Local 38% Farebox 44% Other 2%
Milwaukee County, WI Milwaukee County Transit System	30,000	578	1,357	7.70	flat	50¢	66,008,000	$30,319,800	Federal 24% State 12% County — Local 6% Farebox 58% Other —
Minneapolis/ St. Paul, MN Metroplitan Transit Commission	1,800,000	1029	1,940	8.79	zone	30¢	88,607,000	$63,000,000	Federal 15% State 32% County — Local 23% Farebox 30% Other —

Jurisdiction and Property	Population of Service Area	Number of Vehicles	Number of Employees	Top Operator Wage per Hour	Fare Structure	Base Fare	1978 Ridership	Annual Operating Budget	Revenue Sources By Percentage
Mississauga, Ontario Mississauga Transit	272,000	145	310	8.35	flat	50¢	12,693,800	$8,244,000	Federal — State 17% County 35% Local — Farebox 47% Other 1%
Mobile, AL Mobile Transit Authority	300,000	40	90	5.55	flat	50¢	3,091,000	$2,012,000	Federal 26% State — County — Local 27% Farebox 47% Other —
Montgomery County, MD Gaithersburg Ride-On Silver Spring Ride-On	175,000	53	173	7.92	flat	25¢	3,824,000	$3,950,000	Federal — State — County — Local 70% Farebox 30% Other —
New Orleans, LA New Orleans Public Service, Inc.	540,000	443	1,259	6.52	flat	30¢	86,429,600	$24,122,800	Federal — State — County — Local 53% Farebox 45% Other 2%
Newport, KY Transit Authority of Northern Kentucky	250,000	106	181	6.62	zone	40¢	5,214,000	$4,797,500	Federal 25% State — County — Local 5% Farebox 53% Other 17%
New York, NY New York City Transit Authority	10,000,000	11,824	44,000	8.575	flat	50¢	1,371,844,000	1,400,000,000	Federal 6% State 8% County 6% Local 23% Farebox 56% Other 1%
New York/ New Jersey Port Authority Trans-Hudson Corporation	16,500,000	292	1,007	9.10	flat	30¢	52,472,000	50,300,000	Federal — State — County — Local — Farebox 25% Other 75%
Oklahoma City, OK Masstrans	500,000	70	125	4.96	zone	40¢	1,950,000	$2,900,000	Federal 38% State — County — Local 26% Farebox 26% Other 10%
Orange County, CA Orange County Transit District	1,900,000	404	885	8.13	flat	35¢	19,265,000	$29,200,000	Federal 41% State 31% County 1% Local 12% Farebox 15% Other 8%
Ottawa, Ontario Ottawa-Carleton Regional Transit Commission	476,000	736	1,754	7.53	flat	60¢	89,974,000	$42,308,200	Federal — State 18% County — Local 26% Farebox 53% Other 3%

Jurisdiction and Property	Population of Service Area	Number of Vehicles	Number of Employees	Top Operator Wage per Hour	Fare Structure	Base Fare	1978 Ridership	Annual Operating Budget	Revenue Sources By Percentage
Philadelphia, PA Southeastern Pennsylvania Transportation Authority	4,000,000	2667	6,700	7.10	zone	50¢	318,629,000	$274,000,000	Federal 17% State 22% County 11% Local — Farebox 50% Other —
Phoenix, AZ Phoenix Transit	1,200,000	242	360	7.27	flat	40¢	11,477,200	$12,690,100	Federal 32% State — County — Local 31% Farebox 37% Other —
Pittsburgh, PA Port Authority of Allegheny County	1,920,100	1099	2,850	8.50	zone	50¢	99,751,000	71,800,000	Federal 13% State 28% County — Local 7% Farebox 50% Other 2%
Portland, OR Tri-County Metropolitan Transportation District of Oregon	954,800	530	1,340	8.71	zone	45¢	39,712,000	41,501,000	Federal 11% State — County — Local 58% Farebox 31% Other —
Poughkeepsie, NY Dutchess County Department of Planning and Transportation	240,000	7	12	5.50	zone	30¢	87,000	$300,000	Federal 50% State 25% County — Local — Farebox 25% Other —
Rochester, NY Regional Transit Service, Inc.	660,000	235	546	7.87	flat	50¢	20,553,000	$14,022,000	Federal 28% State 10% County 11% Local 4% Farebox 43% Other 4%
Sacramento, CA Sacramento Regional Transit	750,000	223	546	7.98	zone	35¢	15,000,000	$15,270,700	Federal 30% State 40% County — Local 6% Farebox 23% Other 1%
Saint Louis, MO Bi-State Development Agency	1,500,000	1142	2,200	7.73	flat	25¢	67,000,000	$65,690,500	Federal 21% State 10% County 30% Local 14% Farebox 23% Other 2%
Saint Petersburg, FL St. Petersburg Municipal Transit System	270,000	76	165	5.10	zone	30¢	6,628,100	$3,700,000	Federal 26% State — County — Local 26% Farebox 48% Other —
Salt Lake City, UT Utah Transit Authority	850,000	366	800	6.11	zone	15¢	8,538,000	$18,000,000	Federal 25% State — County — Local 63% Farebox 12% Other —

Jurisdiction and Property	Population of Service Area	Number of Vehicles	Number of Employees	Top Operator Wage per Hour	Fare Structure	Base Fare	1978 Ridership	Annual Operating Budget	Revenue Sources By Percentage
San Antonio, TX VIA Metropolitan Transit	825,000	397	848	6.67	zone	25¢	24,749,000	$21,961,000	Federal 23% State — County 47% Local 4% Farebox 17% Other 9%
San Diego, CA San Diego Transit Corporation	1,200,000	290	800	9.53	flat	40¢	32,461,000	$27,500,000	Federal 22% State 36% County — Local 10% Farebox 31% Other 1%
San Francisco, CA Bay Area Rapid Transit	2,357,400	430	2,206	10.53	zone	25¢	44,565,000	$95,229,000	Federal 4% State — County 58% Local 2% Farebox 34% Other 2%
San Francisco, CA Golden Gate Bridge Highway and Transportation District	230,000	258	480	8.14	zone	50¢	8,930,000	$19,683,000	Federal 5% State 17% County — Local 28% Farebox 50% Other —
San Francisco, CA Municipal Railway	680,000	1000	3,000	8.75	flat	25¢	160,000,000	$87,276,000	Federal 11% State — County — Local 58% Farebox 31% Other —
San Jose, CA Santa Clara County Transportation Agency	1,300,000	300	934	9.30	flat	25¢	20,167,000	$41,745,000	Federal 16% State 49% County — Local 24% Farebox 11% Other —
San Mateo, CA San Mateo County Transit District	580,000	220	330	7.00	zone	25¢	12,929,000	$14,600,000	Federal 19% State 59% County — Local — Farebox 22% Other —
Santa Barbara, CA Metropolitan Transit District	160,000	62	135	6.99	flat	35¢	4,800,000	$3,249,900	Federal 30% State 36% County — Local 4% Farebox 30% Other —
Seattle, WA Municipality of Metropolitan Seattle	1,186,000	847	1,813	9.09	zone	40¢	64,299,000	$47,750,760	Federal 5% State 25% County 43% Local — Farebox 23% Other 4%
Springfield, IL Springfield Mass Transit District	125,000	42	75	8.00	flat	25¢	2,212,700	$2,613,000	Federal 37% State 34% County — Local 10% Farebox 18% Other 1%

Jurisdiction and Property	Population of Service Area	Number of Vehicles	Number of Employees	Top Operator Wage per Hour	Fare Structure	Base Fare	1978 Ridership	Annual Operating Budget	Revenue Sources By Percentage
Syracuse, NY CNY Regional Transit Authority	360,000	181	330	6.60	zone	35¢	14,324,000	$8,900,000	Federal 31% State 11% County — Local 11% Farebox 43% Other 4%
Tallahassee, FL Taltran	90,000	40	52	5.09	flat	30¢	1,390,000	$930,000	Federal 26% State — County — Local 26% Farebox 48% Other —
Tampa, FL Tampa Bus Lines	400,000	80	156	4.88	flat	50¢	4,252,000	$4,033,000	Federal 26% State 1% County 6% Local 17% Farebox 43% Other 7%
Toronto, Canada Toronto Transit Commission	2,100,000	2300	7,884	8.00	flat	55¢	551,678,000	$198,200,000	Federal — State 15% County — Local 15% Farebox 70% Other —
Trenton, NJ Mercer Metro	320,000	102	204	6.89	zone	40¢	6,695,500	$5,323,900	Federal — State 50% County 15% Local — Farebox 35% Other —
Washington, D.C. Washington Metropolitan Area Transit Authority	2,306,700	2032	5,890	8.52	zone	50¢	159,190,000	$175,300,000	Federal 10% State 3% County — Local 33% Farebox 44% Other 10%
Westchester County, NY Department of Transportation	1,000,000	231	520	6.80	flat	50¢	22,272,100	$5,050,000	Federal 24% State 20% County 56% Local — Farebox — Other —
Wilmington, DE Delaware Authority for Regional Transit	310,000	100	160	7.91	zone	40¢	6,409,000	$5,600,000	Federal 30% State 30% County — Local — Farebox 40% Other —
Windsor, Ontorio Transit Windsor	200,000	91	225	7.53	flat	50¢	7,944,000	$6,000,000	Federal — State 20% County — Local 17% Farebox 63% Other —

AGENDA

TRANSIT ACTIONS
REGIONAL MEETINGS

LOS ANGELES AGENDA

Los Angeles Hilton

Wednesday, January 10, 1979

8:00 - 9:00 a.m.
REGISTRATION - Check Room, Ballroom Level

9:00 - 9:30 a.m.
CONTINENTAL BREAKFAST - Garden Room East

9:30 - 10:45 a.m.
OPENING SESSION - WELCOME
Garden Room West

- Alinda C. Burke, Vice President, Public Technology, Inc.
- Brian J. Cudahy, Director, Office of Transit Management, Urban Mass Transportation Administration
- B. R. Stokes, Executive Vice President, American Public Transit Association
- Jack Gilstrap, General Manager, Southern California Rapid Transit District

PANEL DISCUSSION ON TRANSIT SYSTEM EFFECTIVENESS

- Moderator
  Jack Gilstrap
- State Perspective
  D. J. Smith, Principal Consultant, Committee on Transportation, California State Assembly
- Local Perspectives
  Wendell Cox, Commissioner, Los Angeles County Transportation Commission
  Honorable Baxter Ward, Supervisor, Los Angeles County
- Transit Agency Perspective
  James P. Reichert, General Manager, Orange County Transit District

10:45 - 11:00 a.m.
COFFEE BREAK

11:00 - 12:30 p.m.
SMALL GROUP WORKSHOPS ON TRANSPORTATION SYSTEM EFFECTIVENESS

12:30 - 2:30 p.m.
WORKING LUNCH - Garden Room East

- Moderator
  Ray Remy, Deputy Mayor, City of Los Angeles

Wednesday, January 10, 1979 (continued)

WORKING LUNCH (continued)

- Keynote Address
  Adriana Gianturco
  Director, CALTRANS

- Local Concerns
  Honorable Richard Smith, Councilman, City of Dallas, and Chairman, Transportation Committee, National League of Cities

- Transit Financing Briefing
  Barry M. Goodman, Executive Director, Metropolitan Transportation Authority, Houston

2:30 - 4:00 p.m.
SMALL GROUP WORKSHOPS ON TRANSIT FINANCING POLICIES

4:00 - 4:15 p.m.
COFFEE BREAK

4:15 - 5:45 p.m.
PERFORMANCE ACTIONS CAUCUSES
- Federal, State and Local Officials
- Finance, Operations and Schedules
  Marvin L. Holen, President of the Board, Southern California Rapid Transit District
- Transit Managers
  Jack Gilstrap, General Manager, Southern California Rapid Transit District

6:00 - 7:30 p.m.
RECEPTION - Garden Room East

Thursday, January 11, 1979

8:00 - 8:30 a.m.
CONTINENTAL BREAKFAST - Garden Room East

8:30 - 9:15 a.m.
PLENARY SESSION - Garden Room West
- Reports from Performance Actions Caucuses
- Performance Audits
  Jerome C. Premo, Executive Director, Los Angeles County Transportation Commission
- Performance Measurement Briefing
  Gordon J. Fielding, Director, Institute of Transportation Studies, University of California, Irvine

Thursday, January 11, 1979 (continued)

PLENARY SESSION (continued)

- Internal Management Briefing
  Philip J. Ringo, President & Chief Executive Officer, ATE Management & Service Co.

9:15 - 10:15 a.m.
SMALL GROUP WORKSHOPS ON PERFORMANCE MEASUREMENT

10:15 - 10:30 a.m.
COFFEE BREAK

10:30 - 11:30 a.m.
SMALL GROUP WORKSHOPS ON INTERNAL MANAGEMENT

11:30 - 1:30 p.m.
SITE VISIT, SPECIAL TOPICS DISCUSSIONS, BOX LUNCH

1:30 - 2:30 p.m.
PLENARY SESSION - Garden Room West

- Alfonso Linhares, Chief, Technology Sharing Division, Office of the Secretary, U.S. Department of Transportation
- Federal Perspectives
  Honorable Terrence L. Bracy, Assistant Secretary for Governmental Affairs, U.S. Department of Transportation
  Charles F. Bingman, Deputy Administrator, Urban Mass Transportation Administration
- Labor-Management Relations Briefing
  Walter J. Bierwagen, Vice President and General Executive Board Member, Amalgamated Transit Union

2:30 - 2:45 p.m.
COFFEE BREAK

2:45 - 4:30 p.m.
SMALL GROUP WORKSHOPS ON LABOR-MANAGEMENT RELATIONS

SMALL GROUP WORKSHOPS - LOCATIONS

Group 1 - Wilshire Room B - Leader: Jesus Garcia

Group 2 - Wilshire Room C - Leader: Gerald Haugh

Group 3 - Wilshire Room D - Leader: J. F. Hutchison

Group 4 - Wilshire Room E - Leader: James P. Reichert

Group 5 - Assembly Room West - Leader: Philip J. Ringo

SAN FRANCISCO AGENDA

Sheraton Palace Hotel

Tuesday, February 6, 1979

8:00 - 9:00 a.m.
REGISTRATION - Foyer, Ralston Room

8:30 - 9:30 a.m.
CONTINENTAL BREAKFAST - Rear, Ralston Room

9:30 - 10:20 a.m.
OPENING SESSION - WELCOME
Ralston Room

- Honorable Dianne Feinstein, Mayor, City of San Francisco
- Alinda C. Burke, Vice President, Public Technology, Inc.
- Honorable James Self, Vice Mayor/ Councilman, City of San Jose, Member, Transportation Task Force, Urban Consortium for Technology Initiatives
- Dee Jacobs, Regional Director, Urban Mass Transportation Administration
- B. R. Stokes, Executive Vice President, American Public Transit Association
- John B. Wentz, General Manager, Public Utilities, City of San Francisco

10:20 - 11:20 a.m.
PANEL DISCUSSION ON TRANSIT SYSTEM EFFECTIVENESS - Ralston Room

- Moderator
  E. R. Peter Cass, General Manager, TRI-MET, Portland
- State Perspective
  Honorable Walter Ingalls, Assemblyman, California State Legislature
- Regional Perspective
  Honorable Rodney Diridon, Chairman, Santa Clara County Board of Supervisors, and President, Association of Bay Area Governments
- Federal Perspective
  Aubrey Davis, Regional Representative of the Secretary, U.S. Department of Transportation
- Transit Agency Perspective
  John Simpson, Executive Director and General Manager, Denver Regional Transit District

11:20 - 11:30 a.m.
COFFEE BREAK

Tuesday, February 6, 1979 (continued)

11:30 - 12:30 p.m.
SMALL GROUP WORKSHOPS ON TRANSIT SYSTEM EFFECTIVENESS

12:30 - 2:30 p.m.
WORKING LUNCH - Ralston Room

- Keynote Address
  Honorable Charles Royer,
  Mayor, City of Seattle

- Performance Measurement Briefing
  W. Nels Rasmussen, Chairman of the Board, Sacramento Regional Transit District

2:30 - 4:00 p.m.
SMALL GROUP WORKSHOPS ON PERFORMANCE MEASUREMENT

4:00 - 4:15 p.m.
COFFEE BREAK

4:15 - 5:45 p.m.
PERFORMANCE ACTIONS CAUCUSES
- Federal, State and Local Officials
  Forty-Niner Room
  Honorable Robert L. Neir, Mayor,
  City of Kirkland, Washington
- Finance and Operations Staff
  Bonanza Room
  Lawrence Stueck, Senior Transportation Planner, SAMTRANS
- Transit Managers
  Royal Suite
  Curtis Green, General Manager, San Francisco Municipal Railway

6:00 - 7:30 p.m.
RECEPTION - One Presidio Terrace
San Francisco

Wednesday, February 7, 1979

8:15 - 8:45 a.m.
CONTINENTAL BREAKFAST - Ralston Room

8:45 - 10:00 a.m.
PLENARY SESSION - Ralston Room
- Reports from Performance Actions Caucuses
- Federal Government Perspectives
  Frank Raines, Associate Director
  Economics & Government, Office of Management and Budget, Executive Office of the President

Wednesday, February 7, 1979 (continued)

PLENARY SESSION (continued)

George J. Pastor, Associate Administrator for Technology Development and Deployment, Urban Mass Transportation Administration

- National Issues
  Clifford Graves, Member, ISETAP, Administrative Officer, County of San Diego
- Internal Management Briefing
  Robert J. Shamoon, Assistant General Manager for Operations, AC Transit

10:00 - 10:10 a.m.
COFFEE BREAK

10:10 - 11:30 a.m.
SMALL GROUP WORKSHOPS ON INTERNAL MANAGEMENT

11:30 - 1:30 p.m.
SPECIAL TOPIC DISCUSSIONS, BOX LUNCH, (BART Headquarters)

1:30 - 2:15 p.m.
PLENARY SESSION - Ralston Room

- Labor-Management Relations Briefing
  Charles T. Collins, General Manager, Seattle Metro
- Transit Financing Briefing
  Lawrence D. Dahms, Executive Director, Metropolitan Transportation Commission, San Francisco Bay Area

2:15 - 3:15 p.m.
SMALL GROUP WORKSHOPS ON LABOR-MANAGEMENT RELATIONS

3:15 - 3:30 p.m.
COFFEE BREAK

3:30 - 4:30 p.m.
SMALL GROUP WORKSHOPS ON TRANSIT FINANCING POLICIES

Wednesday, February 7, 1979 (continued)

SMALL GROUP WORKSHOPS - LOCATIONS

Group 1 - Forty-Niner Room - Leader: E. R. Peter Cass

Group 2 - Golden Gate Room - Leader: James Graebner

Group 3 - Royal Suite - Leader: John T. Mauro

Group 4 - State Suite - Leader: James Rae

Group 5 - Bonanza Room - Leader: William Strong

Group 6 - Parlor D - Leader: Lawrence Stueck

ATLANTA AGENDA

Dunfey Atlanta Hotel

Wednesday, March 14, 1979

8:00 - 9:00 a.m.
REGISTRATION - Foyer, Castle Ballroom

8:30 - 9:00 a.m.
CONTINENTAL BREAKFAST - Rear of Castle Ballroom II

9:00 - 9:45 a.m.
OPENING SESSION - WELCOME
Castle Ballroom II

- Honorable Carl Ware, President, Atlanta City Council
- Gary Barrett
  Public Technology, Inc.
- Houston P. Ishmael, President, American Public Transit Association
- Johnnie G. Clark, Member, Board of Directors, Metropolitan Atlanta Rapid Transit Authority

9:45 - 11:15 a.m.
PANEL DISCUSSION ON TRANSIT SYSTEM EFFECTIVENESS - Castle Ballroom II

- Moderator
  Alan F. Kiepper, General Manager, Metropolitan Atlanta Rapid Transit Authority
- State Perspective
  David C. Robinson, Director, Public Transportation Division, North Carolina Dept. of Transportation
- Local Perspective
  Ralph H. Hines, Chairman of the Board, Metropolitan Transit Authority, Nashville, Tennessee
- Federal Perspective
  Douglas R. Campion, Director, Southeastern Region, Urban Mass Transportation Administration
- Transit Agency Perspective
  Kenneth E. Schreiber, Chief, Municipal Transit System, St. Petersburg, Florida

11:15 - 11:30 a.m.
COFFEE BREAK

Wednesday, March 14, 1979 (continued)

11:30 - 12:30 p.m.
SMALL GROUP WORKSHOPS ON TRANSIT SYSTEM EFFECTIVENESS

12:30 - 2:30 p.m.
WORKING LUNCH - Castle Ballroom I

- National Perspectives
  Honorable Mortimer L. Downey, III, Assistant Secretary for Budget and Programs, U.S. Department of Transportation

  Nicholas S. Stoer,
  Senior Budget Examiner, Office of Management and Budget, Executive Office of the President

- Performance Measurement Briefing
  Ernest R. Gerlach, Director, Metropolitan Dade County Transportation Administration

2:30 - 4:00 p.m.
SMALL GROUP WORKSHOPS ON PERFORMANCE MEASUREMENT

4:00 - 4:15 p.m.
COFFEE BREAK

4:15 - 4:30 p.m.
PLENARY SESSION - Castle Ballroom II

- Internal Management Briefing
  C. L. Moffitt, General Manager, Columbus Transit System, Columbus, Georgia

4:30 - 5:45 p.m.
SMALL GROUP WORKSHOPS ON INTERNAL MANAGEMENT

6:00- 7:30 p.m.
RECEPTION - King Arthur Ballroom II

Thursday, March 15, 1979

8:15 - 8:45 a.m.
CONTINENTAL BREAKFAST
Rear, Castle Ballroom II

8:45 - 9:45 a.m.
PLENARY SESSION - Castle Ballroom II
- Federal Government Perspective
  Lillian Liburdi, Associate Administrator for Policy and Program Development, Urban Mass Transportation Administration
- National Activities
  Carlton McMullin, City Manager, Little Rock, Arkansas, and Member, ISETAP
- Labor-Management Relations Briefing
  Ernest R. Gerlach, Director, Metropolitan Dade County Transportation Administration

9:45 - 10:00 a.m.
COFFEE BREAK

10:00 - 11:30 a.m.
SMALL GROUP WORKSHOPS ON LABOR-MANAGEMENT RELATIONS

11:30 - 1:30 p.m.
SITE VISIT, SPECIAL TOPIC DISCUSSIONS, BOX LUNCH (MARTA Headquarters)

1:30 - 2:00 p.m.
PLENARY SESSION - Castle Ballroom II
- Transit Financing Briefing
  Manuel Padron, Director of Marketing and Planning, Metropolitan Atlanta Rapid Transit Authority

2:30 - 3:15 p.m.
SMALL GROUP WORKSHOPS ON TRANSIT FINANCING POLICIES

3:15 - 3:30 p.m.
COFFEE BREAK

3:30 - 4:30 p.m.
PERFORMANCE ACTIONS CAUCUSES
- State and Local Officials
  King Edward Room
  Lowell T. Livingston, Mississippi State Highway Department
- Planning & Operations Staff
  King Henry Room
  Michael D. Kidd, Transit Coordinator, Charlotte Transit System

Thursday, March 15, 1979 (continued)

PERFORMANCE ACTIONS CAUCUSES (continued)

- Transit Managers
  Sir Gareth Room
  Alan F. Kiepper, General Manager,
  Metropolitan Atlanta Rapid Transit
  Authority

SMALL GROUP WORKSHOPS - LOCATIONS

Group 1 - King Edward Room - Leader: Ernest R. Gerlach

Group 2 - King Henry Room - Leader: Fred M. Gilliam

Group 3 - King William Room - Leader: Woodrow L. Moore

Group 4 - King Canut Room - Leader: Harvel Williams

DETROIT AGENDA

Radisson Cadillac Hotel

Monday, April 9, 1979

8:00 - 9:00 a.m.
REGISTRATION - Foyer, Founders Room

8:30 - 9:00 a.m.
CONTINENTAL BREAKFAST - Rear of Founders Room

9:00 - 9:45 a.m.
OPENING SESSION - WELCOME
Founders Room

- Moderator
  Stewart Fischer, Chairman, Transportation Task Force, Urban Consortium for Technology Initiatives, & Director, Traffic and Transportation Dept., City of San Antonio
- Theodore G. Weigle, Jr.
  Regional Director,
  Urban Mass Transportation Administration
- John P. Woodford, Director,
  Michigan Dept. of State Highways and Transportation
- Stanley G. Feinsod, Executive Director-Policy & Programs, American Public Transit Association

9:45 - 11:15 a.m.
PANEL DISCUSSION ON TRANSIT SYSTEM EFFECTIVENESS - Founders Room

- Moderator
  Larry E. Salci, General Manager, Southeastern Michigan Transportation Authority
- State Perspective
  Joby H. Berman, Director,
  Division of Public Transportation,
  Illinois Department of Transportation
- Local Perspective
  Honorable Paul R. Soglin,
  Mayor, City of Madison, Wisconsin
- Federal Perspective
  Douglas Kelm, Regional Representative of the Secretary,
  U.S. Department of Transportation
- Transit Agency Perspective
  Stanley G. Feinsod, Executive Director-Policy & Programs, American Public Transit Association

11:15 - 11:30 a.m.
COFFEE BREAK

Monday, April 9, 1979 (continued)

11:30 - 12:30 p.m.
SMALL GROUP WORKSHOPS ON TRANSIT SYSTEM EFFECTIVENESS

12:30 - 2:30 p.m.
WORKING LUNCH - Founders Room

- Greetings
  Conrad Mallett, Director
  Dept. of Transportation
  City of Detroit

- Performance Measurement Briefing
  Steven Dodge, Project Manager
  Institute for Urban Transportation
  Indiana University

2:30 - 4:00 p.m.
SMALL GROUP WORKSHOPS ON PERFORMANCE MEASUREMENT

4:00 - 4:15 p.m.
COFFEE BREAK

4:15 - 5:45 p.m.
PERFORMANCE ACTIONS CAUCUSES
- State & Local Officials - Room 617
  Judy Bowser, Alderman, City of Madison, Wisconsin
- Finance & Operations Staff - Normandie Rm.
  Don Edmondson, General Manager, Grand Rapids Area Transit Authority
- Transit Managers - Room 618
  William L. Volk, Managing Director, Champaign-Urbana Mass Transit District

6:00 - 7:30
RECEPTION - Founders Room

Tuesday, April 10, 1979

8:15 - 8:45 a.m.
CONTINENTAL BREAKFAST - Rear, Founders Room

8:45 - 9:45 a.m.
PLENARY SESSION - Founders Room
- National Activities
  Honorable Thomas Anderson,
  House of Representatives,
  Michigan State Legislature

Tuesday, April 10, 1979 (continued)

PLENARY SESSION (continued)

- Internal Management Briefing
  Terrell W. Hill, Assistant to the Executive Director, Chicago Transit Authority

9:45 - 10:00 a.m.
COFFEE BREAK

10:00 - 11:30 a.m.
SMALL GROUP WORKSHOPS ON INTERNAL MANAGEMENT

11:30 - 1:30 p.m.
SITE VISIT, SPECIAL TOPICS DISCUSSIONS, BOX LUNCH

1:30 - 2:15 p.m.
PLENARY SESSION - Founders Room

- Labor-Management Relations Briefing
  Thomas Turner, President, Metro-Detroit Council, AFL-CIO
  Leslie R. White, Metro Transit Director, Metro Transit System, City of Kalamazoo
- Transit Financing and Marketing Briefings
  Hector Chaput, General Manager, Ottawa-Carleton Regional Transit Commission
  Paul J. Kole, General Finance Division Manager, Chicago Transit Authority

2:15 - 3:15 p.m.
SMALL GROUP WORKSHOPS ON LABOR-MANAGEMENT RELATIONS

3:15 - 3:30 p.m.
COFFEE BREAK

3:30 - 4:30 p.m.
SMALL GROUP WORKSHOPS ON TRANSIT FINANCING POLICIES AND MARKETING

SMALL GROUP WORKSHOPS - LOCATIONS

Group 1 - Room 617 - Leader: James E. Reading

Group 2 - Room 618 - Leader: Larry E. Salci

Group 3 - City Club # 1 - Leader: Gregory Mitchell

Group 4 - City Club # 2 - Leader: Terrell W. Hill

Group 5 - Normandie Room (M) - Leader: Warren O. Sommerfeld
City Club # 3 (T)

BOSTON AGENDA

Boston Park Plaza Hotel

Monday, May 21, 1979

8:00 - 9:00 a.m.
REGISTRATION - Check Room, Stanbro Hall

8:30 - 9:00 a.m.
CONTINENTAL BREAKFAST - Rear of Stanbro Hall

9:00 - 9:45 a.m.
OPENING SESSION - WELCOME - Stanbro Hall

- Gary L. Barrett, Project Manager, Public Technology, Inc.
- Honorable Kevin White, Mayor, City of Boston
- Robert L. Foster, Chairman, Massachusetts Bay Transit Authority
- Brian J. Cudahy, Director, Office of Transit Management, Urban Mass Transportation Administration
- B. R. Stokes, Executive Vice President, American Public Transit Association

9:45 - 11:15 a.m.
PANEL DISCUSSION ON TRANSIT SYSTEM EFFECTIVENESS - Stanbro Hall

- Moderator
  Emily Lloyd, Commissioner of Traffic and Parking, City of Boston
- Federal Perspective
  Peter N. Stowell, Regional Director, Urban Mass Transportation Administration
- State Perspective
  Barry M. Locke, Secretary of Transportation, State of Massachusetts
- Transit Board Perspective
  Daniel T. Scannell, Member of the Board, Metropolitan Transportation Authority, New York
- Public Transit Agency Perspective
  Walter J. Addison, Administrator, Mass Transit Administration of Maryland

11:15 - 11:30 a.m.
COFFEE BREAK

11:30 - 12:30 p.m.
SMALL GROUP WORKSHOPS ON TRANSIT SYSTEM EFFECTIVENESS

Monday, May 21, 1979 (continued)

12:30 - 2:30 p.m.
WORKING LUNCH - Ballroom West

- Greetings
  Jeffrey C. Stern, Chairman, Urban Consortium for Technology Initiatives, and Director of Regional and Intergovernmental Programs, Department of City Planning, New York

- Keynote Addresses
  Walter J. Bierwagen, International Vice President, Amalgamated Transit Union

- Richard S. Page, General Manager, Washington Metropolitan Area Transit Authority

- Transit Financing Briefings
  David Z. Plavin, Executive Officer, Financial Planning & Corporate Services, Metropolitan Transportation Authority, New York

- John Dockendorf, Chief, Mass Transit Assistance Division, Bureau of Mass Transit Systems, Pennsylvania Department of Transportation

2:30 - 3:30 p.m.
SMALL GROUP WORKSHOPS ON LABOR-MANAGEMENT RELATIONS

3:30 - 3:45 p.m.
COFFEE BREAK

3:45 - 4:45 p.m.
SMALL GROUP WORKSHOPS ON TRANSIT FINANCING POLICIES

4:45 - 5:45 0.m.
PERFORMANCE ACTIONS CAUCUSES

- State and Local Officials - Room 433
  Constantine Sidamon-Eristoff, Board Member, Metropolitan Transportation Authority, New York
- Transit Managers - Room 431
  Christopher B. Mulholland, Assistant General Manager, Regional Transit Service, Rochester, New York
- Finance & Operations Staff - Room 406

Monday, May 21, 1979 (continued)

PERFORMANCE ACTIONS CAUCUSES (continued)

- Transit Performance: Research and Development Needs - Room 402
  Walter Scheiber, Executive Director, Washington Metropolitan Council of Governments

6:00 - 7:30 p.m.
RECEPTION
Parkman House
33 Beacon Street

Tuesday, May 22, 1979

8:15 - 8:45 a.m.
CONTINENTAL BREAKFAST - Rear of Stanbro Hall

8:45 - 10:00 a.m.
PLENARY SESSION - Stanbro Hall

- Federal Perspectives
  George McCarthy, Regional Representative of the Secretary, U.S. Department of Transportation
  Robert H. McManus, Associate Administrator for Transportation Planning, Management, and Demonstration, Urban Mass Transportation Administration
- Local Issues
  Honorable Frank Francois, Councilman, Prince George's County, Maryland, and Member, ISETAP
- Internal Management Panel
  Moderator
  John T. Doolittle, Jr., Principal, Booz, Allen & Hamilton, Inc., Philadelphia
  John R. Launie, Treasurer/Controller, Massachusetts Bay Transportation Authority
  James R. Maloney, Executive Director, Port Authority of Allegheny County

10:00 - 10:15 a.m.
COFFEE BREAK

Tuesday, May 22, 1979 (continued)

10:15 - 11:30 a.m.
SMALL GROUP WORKSHOPS ON INTERNAL MANAGEMENT

11:30 - 1:30 p.m.
SITE VISIT, SPECIAL TOPICS DISCUSSIONS, BOX LUNCH

1:30 - 3:30 p.m.
PLENARY SESSION - Stanbro Hall

- Transit Performance and Productivity Measurement Briefings
  John Lawe, International Executive Vice President, Transport Workers Union, and President, Local 100, New York
  Steven K. Kauffman, Executive Officer - Rapid Transit, Manhattan & Bronx Surface Transit Operating Authority, Staten Island Rapid Transit Operating Authority
  Robert C. Buchanan, Senior Vice President, ATE Management and Service Co., Inc.
- Energy and Transit Productivity
  Michael Padnos, General Counsel, Brockton Transit Authority
- Performance Standards
  Franz K. Gimmler, Regional Director, Urban Mass Transportation Administration, Philadelphia

3:30 - 3:45 p.m.
COFFEE BREAK

3:45 - 4:45 p.m.
SMALL GROUP WORKSHOPS ON TRANSIT PERFORMANCE AND PRODUCTIVITY MEASUREMENT

SMALL GROUP WORKSHOPS - LOCATIONS

Group 1 - Room 433 - Leader: Robert C. Buchanan

Group 2 - Room 402 - Leader: Warren Woodruff

Group 3 - Room 406 - Leader: Will Scott

Group 4 - Room 401 - Leader: Joseph Dooley

Group 5 - Room 414 - Leader: James R. Maloney

REGIONAL MEETING ATTENDEES

Mildred Abbott	Miami Valley Reg. Transit Authority, Dayton
W. O. Ackermann, Jr.	Southern California Assn. of Governments
W. J. Acquario	New York State Dept. of Transportation
Walter J. Addison	Mass Transit Administration, Baltimore
Virginia Ainslie	N. E. Ohio Areawide Coordinating Agency
Donald Alford	Urban Mass Transportation Administration, Region IV
Bill W. Allen	Chattanooga-Hamilton Co. Reg. Pl. Commission
John L. Allison	California State Dept. of Transportation, CALTRANS
Steven Alperstein	Albany Metropolitan Planning Commission, Albany, Ga.
Sherri Y. Alston	Minnesota Dept. of Transportation
Gary Andersen	Illium Associates, Seattle
Larry Anderson	Kentucky Reg. Planning & Dev. Agency
Lois Anderson	Snohomish County PTBA Corp., Washington
Thomas Anderson	State of Michigan, House of Representatives
Warren T. Anderson	Baltimore City Dept. of Planning
Joachim Ansorge	Dutchess County Dept. of Planning, Poughkeepsie
Robert E. Armstrong	Eastern Contra Costa Transit Authority, Calif.
R. Keith Armstrong	GM Urban Transportation Lab, Cincinnati
AlvaLee C. Arnold	City of South Pasadena
Jean R. Arthur	Regional Transportation District, Denver
Richard A. Ashby	Bechtel, Inc., San Francisco
David R. Ashcraft	Vancouver Transit System, Wa.
David Ashley	City of Helena, Montana
Richard Atwater	Clark County Planning, Las Vegas
Leo P. Auger	Allen County Reg. Transit Authority, Ohio
Douglas Avis	North San Diego County Transit District
Elisabeth A. Baer-McLeod	Santa Cruz Metropolitan Transit District
Ronnie S. Bailey	City of Portsmouth, Virginia
Sharon M. Bailey	Atlanta Constitution
Michael A. Bair	San Bernardino Assn. of Governments
Al Baker	Iowa Dept. of Transportation
Scott Baker	Peat, Marwick, Mitchell & Co., Wash., D. C.
William Baker	Birmingham City Council, Alabama
Paul J. Ballard	American Transit Corporation, St. Louis
James C. Barbaresso	Oakland County Road Commission, Michigan
Michael Barnes	Southern California Rapid Transit District
Thomas Barreira	Fay, Spafford & Thorndike, Inc., Boston
Gary Barrett	Public Technology, Inc.
Bruce Barror	Rides Transit Authority , Vermont
Ann Barry	Association for Public Transportation, Boston
Rodney Bartholomew	San Francisco Municipal Railway
C. Barton	San Francisco Municipal Railway
John Bartosiewicz	City Transit Service, Ft. Worth, Texas
George Basmadjian	Detroit Dept. of Transportation
Harold E. Bastin	City of Kansas City
John W. Bates	Metropolitan Atlanta Rapid Transit Authority
Sharon L. Batini	Arcada Mad River Transit, Calif.
J. B. Baxter	California State Dept. of Transportation, CALTRANS
Preston K. Bayle, Jr.	Illinois Transportation Study Comm.
Edwin L. Beck	City of Albuquerque, Transportation Dept.

J. Beckham	San Francisco Municipal Railway
James A. Beckwith	Wisconsin Dept. of Transportation
Glenn E. Behm	San Francisco State Dept. of Transp., CALTRANS
Will Behrens	California Dept. of Transportation
Dean Bell	City of New Orleans
A. B. Berger	California State Dept. of Transp., CALTRANS
William E. Berk	AC Transit, Oakland, Ca.
Joby H. Berman	Illinois Dept. of Transportation
E. Bessner	San Francisco Municipal Railway
Walter J. Bierwagen	Amalgamated Transit Union, Wash., D. C.
Charles F. Bingman	Urban Mass Transportation Administration
Thomas N. Black	Peninsula Transportation Commission, Hampton, Va.
Jack A. Bloom	Dept. of Public Works, City of Chula Vista
Nancy Blum	Grand Rapids Area Transit Authority
L. Paul Bobo	City of Charlotte, N. C.
Michael Bolton	Northeastern Illinois RTA
Rich Boulger	Arthur Andersen & Co., San Francisco
Judy Bowser	City of Madison, Wisconsin
Diane Boyd	Urban Mass Transportation Administration
Terrence L. Bracy	U. S. Dept. of Transportation, Wash., D. C.
Ted Brennan	Southern California Rapid Transit District
James D. Brogan	Michigan State University, Dept. of Civil Eng.
Ab Brown	City of Riverside, California
C. Brown	San Francisco Municipal Railway
Larry Brown	Albany Metropolitan Pl. Commission, Albany, Ga.
Reynard Brown	Atlantic County Government, Atlantic City, NJ
Roosevelt Brown	Southern California Rapid Transit District
Sonya A. Brown	U.S. Dept. of Transportation, Phila.
Joe Browne	California State Dept. of Transportation, CALTRANS
David Brunson	Cumberland County Joint Planning Board, N. C.
Mary-Evelyn Bryden	Orange County Transit District, California
Carl S. Buchanan	Jackson Transit, Mississippi
Robert Buchanan	ATE Management & Service Co., Inc., Va.
Alinda C. Burke	Public Technology, Inc.
Ed Burke	Regional Transportation District, Denver
Fred B. Burke	Public Technology, Inc.
Charles N. Burleson	San Francisco Municipal Railway
James H. Burnette	Arthur Young & Co., Atlanta, Ga.
Sheila Burns	City of New Orleans
C. C. Cady, Jr.	Metropolitan Transportation Commission, Berkeley
Joseph Calabrese	CNY - Centro, Inc., Syracuse, N. Y.
Douglas R. Campion	Urban Mass Transportation Administration, Ga.
Stanley M. Cann	Florida State Dept. of Transportation
William T. Carpenter	Southern California Assn. of Governments
Larry Carter	TALTRAN - City of Tallahassee
John R. Caruolo	Urban Mass Transportation Administration, Phila.
Roy Casas	Urban Mass Transportation Administration, Reg. VI
E. R. Peter Cass	TRI-MET, Portland, Ore.
Don Castle	Transit Windsor, Ontario
Walter J. Cattin	GM Transportation Systems Division, Warren, Mich.
Norm Chafetz	Urban Mass Transportation Administration, Chicago
R. J. Chalifoux	3M Company, St. Paul, MN
Robert H. Chamberlain	TALTRAN - City of Tallahassee
Hector Chaput	Ottawa-Carleton Reg. Transit Commission, Canada

Carrie Chassin	City of Los Angeles
John Chernisky	Federal Highway Administration, Washington, DC
Robert C. Chioino	California State Dept. of Transportation, CALTRANS
John Christensen	San Francisco Municipal Railway
Michael Christoffer	Snohomish County PTBA, Wa.
Lincoln Chu	California State Dept. of Transportation, CALTRANS
Ben Chuck	California State Dept. of Transportation, CALTRANS
Valentine Chun	Metropolitan Transportation Commission, Berkeley
Johnnie Clark	Metropolitan Atlanta Rapid Transit Authority
Susan Clippinger	City of Boston
Chester E. Colby	City of Phoenix
William Cole	City of Alexandria
D. Coles	San Francisco Municipal Railway
Lou Collier	Southern California Rapid Transit District
Charles T. Collins	Municipality of Metropolitan Seattle
Steven B. Colman	DeLeuw, Cather & Co., San Francisco
R. Conoly	San Francisco Municipal Railway
Sally H. Cooper	U. S. Dept. of Transportation, Phila.
L. Coquia	San Francisco Municipal Railway
Homer L. Cornell	Albany Metropolitan Planning Comm., Albany, Ga.
John M. Cosby	Kentucky Dept. of Transportation
Joseph J. Costanzo	Merrimack Valley Reg. Transit Authority, Mass.
Larry Cothran	Daniel, Mann, Johnson & Mendenhall, Los Angeles
Mike Cousino	Eau Claire Transit, Wisconsin
Wendell Cox	L. A. County Transportation Commission
Ralph Cramer	Chittenden County Transportation Authority, Vt.
Harold L. Crane	Chicago Area Transportation Study
Jonathan R. Crane	Professional Engineering Associates, Inc., Michigan
W. Gary Crawford	City of Oklahoma City
Robert Creecy	City of Portsmouth, Virginia
Robert W. Crockett	California State Dept. of Transportation, CALTRANS
Karin Croft	Massachusetts Bay Transportation Authority
William H. Crowell	Polytechnic Institute of New York
John R. Crowley	Regional Transportation District, Denver
Brian J. Cudahy	Urban Mass Transportation Administration, Wash., D. C.
James Cummings	New York State Dept. of Transportation
Langdon Cummings	Vermont Agency of Transportation
Jose Da Cunha	Metropolitan Transportation Commission, Berkeley
Lawrence D. Dahms	Metropolitan Transportation Commission, Berkeley
James S. Daniel	Topeka Metropolitan Transit Authority
R. J. Datel	Calif. State Dept. of Transportation, CALTRANS
Aubrey Davis	U. S. Department of Transportation, Seattle
Philip A. Davis	Dept. of Transportation, Manatee County, Fla.
James F. Dawson	Connecticut Dept. of Transportation
Ernest V. Deeb	Massachusetts Bay Transportation Authority
A. R. De la Cruz	Southern California Rapid Transit District
Jack Delaney	Long Island Railroad
Stephen L. Delaney	Town of Danvers, Public Works, Mass.
Frank DeRose, Jr.	Dept. of Transportation, Lansing
Roger DeVries	Regional Transportation District, Denver
Mary Dick	City of Madison, Wisconsin
Kenneth S. Dinen	Sacramento Regional Transit District
Rodney Diridon	Santa Clara County Board of Supervisors
Tony Dittmer	Urban Mass Transportation Administration, Reg. IV

E. A. Docimo	City of Montebello, Calif.
John Dockendorf	Pennsylvania Dept. of Transportation
Steven Dodge	Institute of Urban Transportation, Indiana
James W. Donaghy	Worcester Area Transportation Co., Mass.
Helen Doo	U. S. Dept. of Transportation, Wash., D. C.
Joseph P. Dooley	Massachusetts Bay Transportation Authority
John T. Doolittle, Jr.	Booz, Allen & Hamilton, Inc., Phila.
George T. Dore, Jr.	Brevard County Planning Dept., Florida
Mark J. Dorfman	Montgomery Dept. of Planning & Dev., Ala.
Mortimer L. Downey III	U. S. Dept. of Transportation
Sandra Draggo	Capital Area Transportation Authority, Michigan
John A. Drayson	D. C. Dept. of Transportation
H. A. Drosdat	California State Dept. of Transportation, CALTRANS
John Duncan	Lower Pioneer Valley Reg. Planning Comm., Mass.
Bridges Dwight	Greene County Transit Board, Ohio
Fred C. Dyer	Lane Transit District, Eugene, Ore.
William C. Eaton	Los Angeles County Transportation Comm.
Lutz D. Ecker	Saint John Transit, Canada
Beverly Edmond	Urban Mass Transportation Admin., Ga.
Don Edmondson	Grand Rapids Area Transit Authority
R. E. Ehlers	Sacramento Regional Transit District
L. Elliot	San Francisco Municipal Railway
George Ellman	Metropolitan Transportation Comm., Berkeley
Norman Emerson	U. S. Dept. of Transportation, San Francisco
Jerry Emmerich	Madison Transit Utility, Wisconsin
Barry Engelberg	Southern California Rapid Transit District
Alan Erenrich	Metropolitan Atlanta Rapid Transit Authority
Glenn Erikson	City of San Francisco
Marta Espantman	Southern California Rapid Transit District
Stuart Eurman	Urban Mass Transportation Admin., Calif.
David Ewing	Transportation Research Board, Wash., D. C.
Jim Fairchild	Douglas County & Carson City County, Nevada
Davis Fairman	City of Highland Park, Illinois
Henry Fandrel	Detroit Dept. of Transportation
Robert Farrell	City of Los Angeles
Darrel M. Feasel	Peninsula Transportation District, Hampton, Va.
Mark Fedorowicz	Southeastern Michigan Transportation Authority
Brad Feinberg	Atlanta Regional Commission
Stan Feinsod	American Public Transit Association
Dianne Feinstein	City of San Francisco
Donn Fichter	New York State Dept. of Transportation
G. J. Fielding	Institute of Transportation Studies, Calif.
Angelo Figone	San Francisco Municipal Railway
Ronald J. Fisher	Urban Mass Transportation Admin., Wash., D. C.
Stewart Fischer	City of San Antonio
Donald M. Fisk	U. S. Dept. of Commerce, Wash., D. C.
Gordon Fitzell	Chattanooga Area Reg. Transportation Authority
Dennis J. Fitzgerald	Capital District Transportation Authority, Albany
Barbara Flurry	Public Technology, Inc.
Martin Flusberg	Multisystems, Inc., Mass.
Glen Ford	Urban Mass Transportation Admin., Texas
Bob Fornes	South Coast Area Transit, Calif.
Anthony Fortuno	Southern California Rapid Transit District
Bill Foster	Southern Calif. Rapid Transit District
Robert L. Foster	Massachusetts Bay Transportation Authority

Robert Foy	Mass Transportation Authority, Mich.
Gary Foyle	Chicago Reg. Transportation Authority
Gary Frachiseur	Urban Mass Transportation Admin., Reg. IV
Frank Francois	Prince George's County, Maryland
A. Franke	San Francisco Municipal Railway
Norman J. Freitag	San Francisco Bay Chapter, Sierra Club
John Frewing	TRI-MET, Portland, Ore.
Stanley H. Froid	Tudor Engineering Co., San Francisco
Gary Gallagher	Seattle Metro
Scott L. Galloway	Sant Cruz Metropolitan Transit District
Jesus N. Garcia	California Dept. of Transportation
Ruth B. Gavis	Neighborhood Transportation, Baltimore
Paul Gawkowski	Metro Suburban Bus Authority, N. Y.
Ernest R. Gerlach	Metropolitan Dade County Transportation Admin.
P. Douglas Gerleman	Urban Mass Transportation Admin., Chicago
Adriana Gianturco	California State Dept. of Transportation, CALTRANS
Richard E. Giegling	California State Dept. of Transportation, CALTRANS
Fred M. Gilliam	Memphis Area Transit Authority
Jack Gilstrap	Southern California Rapid Transit District
Franz K. Gimmler	Urban Mass Transportation Administration, Phila.
Alyson J. Ginsburg	Office of County Attorney, Miami
Murray Gintis	EOTC
R. N. Girdhar	Ministry of Transportation & Communication, Canada
Steve Githens	Dept. of Public Transportation, Indiana
Roy E. Glauthier	DAVE Systems, Anaheim, Ca.
Robert Goldman	ISETAP, Wash., D. C.
Richard Golembiewski	Detroit Dept. of Transportation
Marvin Golenberg	SG Associates, Inc., Boston
Pete F. Gomez	Via-San Antonio Metropolitan Transit, Texas
A. R. Goodplatte	Massachusetts Bay Transportation Authority
Barry M. Goodman	Metropolitan Transportation Authority, Houston
Jay A. Goodwill	Port Authority of Allegheny County, Pittsburgh
Rosanne Goustin	KPOO News Radio, San Francisco
James Graebner	Santa Clara County Transportation Agency
Linda S. Graebner	Booz, Allen & Hamilton, San Francisco
George R. Grainger	Urban Mass Transportation Admin., Calif.
Clifford Graves	County of San Diego
Curtis Green	San Francisco Municipal Railway
Rachael Grier	City of Savannah, Ga.
Hugh Griffin	Division of Mass Transportation, CALTRANS
Lewis G. Grimm	Barton-Aschman Associates, Inc., Wash., D. C.
David H. Grosse	City of Torrance, Calif.
Larry K. Grossman	Dept. of Planning & Community Development, Va.
Jeffrey L. Gubitz	Knoxville Transit, Tenn.
Earlene Guinn	Public Technology, Inc.
George T. Hague	City of Philadelphia
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