
SPECIAL REPORT 217

New Organizational Responses
to the Changing
Transit Environment

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New Organizational Responses to the Changing Transit Environment

Proceedings of a Conference
Norfolk, Virginia
December 2-4, 1987

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Preface

The political, financial, and demographic environment in which urban public transportation operates is changing. The concept of a national conference on organizational responses of transit providers to this changing environment emerged during the 1985 Annual Meeting of the Transportation Research Board (TRB) and gained momentum as a result of the 1986 transit committees' summer meeting in Seattle, Washington, which focused on the market-driven strategy being developed by Seattle Metro. The Urban Mass Transportation Administration of the U.S. Department of Transportation agreed, in late 1986, to sponsor the conference, and participants in the session on the Public Transportation Agency of the Future at the 1987 TRB Annual Meeting began to define the scope and focus of the conference.

The National Research Council appointed a 10-member steering committee, which was cochaired by Joseph Alexander, Board of Supervisors, Fairfax County, Virginia, and Patricia VanMatre McLaughlin, Manager of Local Assistance Programs, Los Angeles County Transportation Commission, and included representatives of local governments, regional governmental entities, transit organizations, and the academic research community.

The conference, held in Norfolk, Virginia, December 2-4, 1987, was intended to review the effectiveness of various organizational options and strategies, analyze the institutional structures within which transit agencies operate, and explore the compatibility of organizational options and operating environments. Participants assessed the responses of transit agencies to the changing environment, the effectiveness of the different forms of transit organization, and probable future trends.

This special report contains the findings of the conference and six of the resource papers that served as a point of departure for the workshop discussions. In addition, José A. Gomez-Ibañez, Harvard University, spoke on experience with privatization in the United Kingdom; David L. Gunn, New York City Transit Authority, discussed recent developments in New York; Larry Miller, Regional Transportation Authority, reported on changes that are occurring in Phoenix; A. H. Savage, Niagara Frontier Transportation Authority, provided insights on the Canadian perspective; and Andrew Damiani, Tidewater Transportation District Commission, and Charles Anderson, Dallas Area Rapid Transit, shared their reflections on the workshop reports.

The conference was the result of the efforts of many individuals. The steering committee devoted considerable time and thought to organizing the conference. Members of the TRB Committees on Public Transportation Planning and Development, on Transit Management and Performance, and on Public Transportation Marketing and Fare Policy also made significant contributions.

Richard L. Oram served as consultant to the steering committee. In that capacity, Oram, who specializes in strategic and technical planning and program development assistance for transit service, marketing, and fare-related programs and projects, helped define the scopes of the workshops and drafted the final report.

James C. Echols, Executive Director of the Tidewater Transportation District Commission, Norfolk, Virginia, was the local host. Peter B. Everett, Nigel H. M. Wilson, and Willard L. Stockwell; Gordon J. Fielding and James C. Echols; and George J. Scheuernstuhl and Philippos Louikissas led the workshops.

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Executive Summary

The Conference on Organizational Responses to the Changing Transit Environment was held in Norfolk, Virginia, December 2-4, 1987. Sponsored by the Urban Mass Transportation Administration (UMTA), the conference was intended to assess the effectiveness of transit organizational structures now being used, and those developed in recent years, and to identify further organizational changes appropriate to the new conditions and pressures transit faces. It was believed that contemporary guidance on organizational change would emerge to assist those addressing this topic on the local level. Findings were presented in resource papers and presentations and further refined in workshop discussions.

RESOURCE PAPERS AND PRESENTATIONS

A primary resource paper by Theodore Weigle, Jr. (see Part II of this report) on changes that are affecting transit provided a context within which participants could consider organizational change. Weigle used strategic planning methods to identify key pressures and trends that transit must accommodate. The most important challenges and opportunities faced by the industry were identified. These include the needs to

- Take more global and strategic views,
- Develop flexible services for suburban areas,
- Aggressively work with the private sector to develop better market conditions for transit and more cost-effective service, and

- Better meet cost control and efficiency mandates.

Transit must move away from the idea of an all-encompassing service suiting all needs and become more of a "niche business," tailoring services to specific market segments and opportunities. Innovative agencies recognize the need to create demand and become fully involved in suburban problem solving through zoning commissions, transportation management associations in partnership with corporate and development interests, and other existing and new mechanisms. Gaining business community support is imperative. This type of outreach is a new organizational and operating strategy that aggressive local agencies are now pursuing. In these and other ways, transit needs to be run more like a business—more entrepreneurially.

John Dyer and Philip Ringo provided thought-provoking commentaries on Weigle's paper. Dyer spoke of the changes that are being stimulated by external and internal factors. Externally motivated changes include

- Dynamics of the urban environment,
- Shift in funding from federal to local sources, and
- Accomplishments of the automobile industry in reducing fuel consumption and pollution.

Internal causes of change include

- Realistic reevaluation of transit monopolies,
- Active involvement of local political leaders in transit issues and their difficulty in grappling with related issues such as urban sprawl and deficiencies of infrastructure, and
- Continued rise in transit costs.

Dyer also suggested that this might be an appropriate time to reconsider the role of the federal government. UMTA's legislative rationale might be re-evaluated, and tax and other factors, which distort urban transportation and make transit less effective, might be reviewed. Dyer sees no single model for suburban strategies; he stressed the need for flexibility. He suggested that new "templates" for urban design are needed, because even the automobile system is no longer working. Major policy-level intervention is needed. Dyer hopes that a new statement of the federal role in transit will emerge during the next few years but believes that this process should begin on the local level: improving awareness of the key issues through local meetings, workshops, policy initiatives, and the like is the way to proceed.

Phil Ringo stressed the importance of operations and management action. A focus on service and the consumer should be the basis of the business of transit. Ringo suggested that the industry has many weaknesses but also some

valuable strengths. Managers have been faulted for both innovation and conservatism, and Ringo fears that transit is losing its best managers. Yet he thinks the industry is coming of age and is now better able to deal with the complex issues it faces. Transit's ability to generate taxpayer support in an era of fiscal restraint indicates its strength. Ringo equates success with voter support and political stability, and suggested that the bases of success are

- Clear local agreement on transit's mission,
- Predictable funding,
- Stability in management and union leadership,
- Effective communication and support between transit and planning agencies, and
- Emphasis on operations and customer service.

In a resource paper, Patricia VanMatre McLaughlin and Nigel Wilson (see Part II of this report) categorized new organizational forms that are appearing in the United States and outlined the different intents of the new organizations. A key distinction among these new models is whether they are self-imposed or externally mandated; three variations or models exist in each category. These models seek primarily to change agencies by increasing efficiency, improving effectiveness, or refocusing attention on areas of traditional strength. They often involve application of strategic planning methods.

Common to all three externally directed change models is the separation of policy functions from operating responsibility. This is a precursor to thinking broadly about transit and the best means of achieving policy objectives. The three externally directed innovations discussed are the cooperative model, second- and third-generation reorganization, and the takeover model. Although all six models are being used as new transit organization strategies, and all appear to have promise, it was emphasized that experience with any of them to date is preliminary and that there has been limited evaluation of their effectiveness.

WORKSHOPS

Three workshops were charged to review the topics presented and asked to focus specifically on organizational alternatives, evaluation and selection of organizational options, and implementation of organizational change. Major workshop findings follow.

A recurring and central point of all discussions was that transit organizations need to develop more influence, directly and indirectly and over the short and longer term, on land use decisions and traffic impact issues. It is recognized that transit agencies have largely failed to affect land use decisions in

the current ring of suburbs, but that new suburban projects and attendant growth will continue. New opportunities, big and small, exist for transit agencies to be included in land use decisions, such as development site design and approval, through traffic mitigation initiatives or through organizations such as metropolitan planning organizations, regional or city planning agencies, advisory groups, or other bodies. The key point is that transit's potential land use impacts need to be better asserted if more favorable land use conditions are to be achieved. Transit organizations cannot passively accept the market conditions they face; they must work to improve them. It is vital that transit organizations work with employers, developers, and other private-sector interests that shape the transit market and with other public-sector bodies, such as zoning and planning agencies, that shape private-sector behavior. Promoting regulatory innovations such as the traffic reduction ordinances introduced in some cities also has promise. Transportation management associations or other new entities could be created to help in this market development task.

The strategic importance of land use suggests that it should be reflected not only in the function and behavior of transit organizations, but also in their organizational makeup and, perhaps ultimately, in their organizational form. "Interlocking directorates" under which transit policy board members also serve on boards of planning, zoning, development, or other related agencies might be a pragmatic way for transit agencies to gain more influence on the resolution of land use issues. Increased outreach by transit management is another approach; increased overall staff effort in this area was also suggested.

Participants expressed a preference for organizational options that would promote the separation of policy and operations. Separating policy from operations facilitates innovation, flexibility, and cost control. Pursuing this may entail establishing policy boards responsible for strategic functions such as defining the service area; selecting strategies; assuring financing; and establishing revenue goals, performance standards, and incentives. The operator or operators then perform route planning, operations, maintenance, and other day-to-day functions, and perhaps engineering and construction activities.

Another agreed-on priority is to increase transit's flexibility and ability to create new services to serve suburban areas cost-effectively. Flexibility is not now common in transit, but the industry must become more flexible if suburban and cost-control challenges are to be met. Although more local control of and diversity in services, fares, and other parameters are desirable, care must be taken to ensure that system integration, cohesiveness, and other consumer-sensitivity concerns are not slighted as multiple operators are introduced. Some form of regional coordinating body, operators' association for marketing purposes, or similar strategies needs to be developed and maintained.

Workshop discussions evaluated five different organizational models for transit against financial, operational, institutional, social, and other criteria. The five alternatives were

- Conventional regional authority (transit monopoly);
- Expanded traditional agency, with diversified services and a more strategic view;
- Organization with a separate policy board and a single operator;
- Organization with a separate policy board and multiple operators; and
- Policy board operating in a laissez-faire fashion (experience in the United Kingdom since deregulation).

It was clear that all of the options have strengths and weaknesses and that the desirability of their application depends most on local factors, but the options under which policy is separated from operations are becoming more common and are quite appropriate for addressing current problems and trends.

It was noted that many transit agencies have been slow to implement organizational change to evolve into new and more effective organizations. Even though unpredictable funding may make it difficult, transit agencies must act more strategically and, given the difficult environment they face, become champions of change. Change must be pursued in both the external environment and the internal organization. Leadership that can obtain and maintain the ability to pursue change, by effectively engaging existing and new resources, easing existing constraints, and reaching out to all key parties, is the most vital resource of all.

Some participants expressed the opinion that, when considering available options, transit agencies tend to take too narrow a view. Transit agencies must broaden their scope and develop new strategies to meet public needs in urban transportation over both the long and the short run. The expanded role that transit can play in addressing current urban transportation problems, and in avoiding future problems, needs to be better appreciated. The full range of available options and the institutional and other changes that may be needed to bring desired impacts to the fore must be better understood locally. Transit personnel have key roles to play in making these messages heard and understood and in advancing the organizational and other changes that are needed if transit's ability to serve in a changing environment is to improve.

State legislatures are often best positioned to stimulate transit organizational change because they are most responsive to regional issues. However, they are also not fully informed technically. It was suggested that changes imposed by legislatures not be too prescriptive; specific solutions should be left to agencies and practitioners charged with implementation. There is also merit to the incremental as opposed to the "one-shot" approach to achieving a new transit organization. Before new organizations are created, modifying

existing ones to increase their ability to solve new problems or implement newly conceived strategies should be considered.

Continuing to share ideas in this area is a high priority. Regional meetings on the organizational effectiveness of transit were suggested to focus on local situations and stimulate change. Technical assistance in sharing information and otherwise pursuing these ends was also suggested. Such assistance is appropriate because many agencies have limited staff resources in this area.

Stressed above all else was that a clear understanding of local transit goals forms the basis of any existing organization or potential organizational change. No single organizational form is appropriate to all needs. The most desirable form depends on local conditions, pressures, opportunities, and other factors such as state law, functions performed, geography, politics, funding sources, local leadership, and culture and traditions. Organizational form follows function and expectations.

Part I

Conference Highlights and Findings

1

Pressures for Change and Visions of the Future

Key presentations from the opening plenary session are reviewed in this section.

PRESENTATION BY THEODORE WEIGLE, JR.

Theodore C. Weigle, Jr., Executive Director of the Chicago Regional Transportation Authority, delivered a presentation entitled Reshaping Public Transportation for a Reshaped Public (see Part II of this report).

Weigle used strategic planning perspectives to provide a context in which participants could consider organizational change. He reviewed environmental and other changes prompting transit organizational changes; identified key pressures to which the industry must respond; and suggested challenges, choices, opportunities, and strategies that the transit industry could embrace. His presentation included a statistical review of transit's postwar trends, and many of his points were supported by reference to provision of transit in the Chicago area where the Regional Transit Authority (RTA) uses strategic planning methods. Weigle's presentation, purposely provocative, was intended to provide conference participants with stimulating points of view for further discussion in the workshops. A synthesis of his major points and opinions follows.

Transit managers need to take a more global view of their industry and product, apply business tools such as market segmentation, and think of transit more as a business than a public service. Developing strategic plans that

address the true problems of the business, and accepting fewer of the traditional constraints, would orient managers to the hard choices and opportunities that they should face. Transit should not rely solely on government support or try to simply maintain the status quo; it should pursue change actively.

A statistical review of the "before suburbia" and "after suburbia" industry shows that from the peak of 22 billion passenger trips in 1945, transit ridership has fallen dramatically to about 9 billion now. Although industry employment dropped after World War II, since 1970 it has been increasing. Overall, the transit industry has become less productive than it once was, as its markets have changed.

Financial indicators show significant cost escalation since the 1970s and that fare revenue has grown only slowly. This results in a present industry revenue-to-cost ratio of about 37 percent. Persistent unwillingness to price transit correctly, unwillingness to make hard choices on labor costs, inflationary and super-inflationary cost increases, the deployment of new (traditional) services in suburban settings where they are inherently less effective are the basic reasons for these trends.

Demographic trends vital to the provision of transit are another key dimension of any strategic review. During a 50-year period, dramatic urban growth has been evident, but it has been skewed, almost exclusively, to suburban areas, especially in the past 25 years. Twenty-three percent of Americans, 35 million people, lived in suburbs in 1950, but by 1984 this number had become 105 million or 44 percent of the total. From this, it is clear that the "market opportunity" for transit has been more in the suburbs than in its traditional service areas.

The population trends are underscored by employment trends. Jobs have increased faster than population because of female participation in the paid work force. Smaller household sizes, double-income households, and increased discretionary income and the resulting increased emphasis on service and quality are trends that can be related to this employment growth.

With few exceptions, areas of fast growth in the United States are in the more recently developed West and South; and the older, larger, "rust belt" cities have lagged. Disproportionate growth in population and jobs in these growth areas and a tremendous change in the character of employment in even the slow-growth areas have been evident in recent years.

One of the key reasons for transit's decline is that we missed the trend. Transit did not respond adequately or on time, and the suburbs grew without it. Transit stayed where transit was, where it was known to work. Transit has not been known as a flexible industry with the capacity to change. Although some of transit's markets have held their own (rush-hour commuting from older areas) and some new markets have been created (suburban park-and-ride

service to business districts), other transit markets have disappeared (off-peak use or reliance on transit for access to manufacturing jobs). Perhaps because defensive times were not conducive to innovation or perhaps, because of regulatory constraints, transit has not had the capacity, the capability, the leadership, or other prerequisites to shift its business to where the action is.

Transit has emphasized trips bound for the central business district (CBD) and focused its investments there. In Chicago, 68 percent of the inbound work trip market is captured by transit. Yet this vital function has also been a fairly stable market not a growth market, as opposed to the major expansion of travel demand occurring in the suburbs. The lack of easy transit solutions for suburbia, (i.e., those that simply extend the basic product and delivery formula) and an inability to develop more elaborate or appropriately tailored solutions have made the potential for suburban gridlock a contemporary reality. No one anticipated such drastic changes in commuting patterns, and thus transit missed an opportunity that we might have captured. With few exceptions, transit has not been effective in creating new markets for its business. It has failed to innovate at the pace needed to cope with the enormous changes experienced.

It is appropriate to think of federal institutions as providing direction and leadership on American problems. Yet routine block grants provide little incentive to carefully review emerging trends; instead, they have a tendency to reinforce the existing system. Federal funding has been market oriented, not in the business sense of responding to perceived need but in the political sense of creating markets where they do not arise of their own accord. The federal program has led us into investment decision making in markets in which we do not perform well. The lack of a clear strategy may have helped create transit where it did not belong. We did not understand whether or how to compete where growth and change were occurring.

The following four factors could help strengthen decision making for allocating transit resources:

- Different sized systems —The needs, strengths, and performance of the different segments of the industry have to be better defined and reflected in the policies that drive the industry. Transit is not a simple, single-purpose product; simple solutions will not resolve its complex market position. We need change and to recognize and accept that change always presents winners and losers.
- Interplay of traditional and nontraditional modes—We must not be bound by tradition; we must identify viable strategies for getting into nontraditional services. Innovative or alternate services can not only expand the market but can also make traditional services stronger. Because their viability is defined by local market factors, the identification and development of new services are dependent on assertive actions by forward-thinking local managers and policy makers.

- **Market demand versus existing infrastructure**—Protecting investment in infrastructure, as in New York and Chicago, is vital to maintaining market share, but, as large as this need is, if it is all-consuming there is no “new market” growth. In different measures, this balance is faced in every city.
- **Cost recovery**—Transit needs to exercise more discipline. Subsidies can create inefficiencies or be used to rationalize marginal service.

Political equity is at the heart of the matter. Regional agencies are regional revenue mechanisms of income redistribution. Suburbanites have an interest in seeing the urban system work well, but they also justifiably want something done in the suburbs. Political muscle is being flexed, but rather than let this worry us, we must see it as an opportunity. We should be anxious to fill transit niches that develop in rapidly expanding areas. Transit may evolve into a “niche business”; the notion of an ubiquitous service or entity that will meet everyone’s travel requirements is simply wrong. We can fill niches without sacrificing our infrastructure, but part of doing this well is emphasizing cost-effectiveness in these markets. Tough choices will determine whether we want to stay in these markets. Disinvestment of existing assets, along with not serving suburban needs, should also be considered in resource allocation decisions. Transit can grow only in the suburbs.

Advantage can and should be taken of the lack of answers in suburban areas. Suburbanites feel victimized and must be part of the solution, not part of the problem. Even if we do not know what the solution is, we cannot ignore this opportunity. We must form a culture with the suburbs and their leaders to understand their problems and find new opportunities. For example, the RTA is providing some subsidy for a suburban vanpool program and a challenge grant program in suburban Cook County that seeks market niches, provides local technical assistance on traffic abatement, and is developing a model land use zoning ordinance to encourage transit use. I see our role as being very much involved in local and regional planning, that is, working to create demand not just to serve it.

How do we get into these new markets? Niches suggest modest starts, but big leaps can also be considered. We thus also need to focus on the yet-to-be developed suburbs. We may have to jump over the problems we now have in making new markets. This is financially and politically risky, but it could have great reward. In partnership with private developers, we might be able to use transit investments to offset both financial and political risks. This venture capital orientation is a way for us to become market makers. It will bring us to the land use decision-making tables. We can do this, and that we have not done so already is a failure. This strategy leads to a goal of the future: transit agencies must solicit and inspire vigorous private-sector participation in the design and funding of transit services.

Transportation management associations (TMAs) also hold promise as a mechanism for increasing transit use incentives, expanding public-private partnerships, and getting our interest focused more directly and productively on new markets. In suburban Chicago, Transit Options conferences have also been held as a way of presenting ourselves and beginning to address suburban problems and services.

Entrepreneurship needs to become the norm rather than the exception. This will be difficult if our attention remains focused on running the assets we now have. We have to think strategically. Even though action only happens through local leadership, we could expect federal support of the new strategies and ideas that emerge.

The time has come for us to either adopt nontraditional approaches to suburban transportation or admit that we cannot deal with the problems. If we cannot be part of those markets, we need to say so, concentrate on our historical markets, and find other ways to increase political concern for regional equity. Conversely, if we believe as I do that we have roles in these markets, we need to define them. We need to spend time trying to understand where we fit.

We can also try harder to influence the market position of our products; we have seen how better pricing and service improvements can build ridership. Demand for transit is always relative to the automobile market, and developing more incentives for transit use or disincentives for automobile use is not unrealistic. We must not only be market driven but market creating. We must behave not only as transit tacticians but as master strategists. We need more focus on strategies, and perhaps less on detail, in order to better decide where we want to be and when we can get there.

The RTA cannot afford to behave as a monopolistic, bureaucratic monolith or status quo defender. We must be able to get out of our own way—where there are opportunities we need to be flexible enough to grasp them. Instead of being independent, we must be full partners with local governments and private corporate and development interests. We are not at the right decision-making table now. Maybe we ought to think about major zoning concessions and letting the private sector be the majority interest in some of our deals.

Just as the highway interests are now looking to the post-Interstate era, we need to look beyond our traditional parameters. The future ground rules need to be very different from those of the past. We must recognize the industry's past as the past, take what is useful from it, and proceed.

To conclude, I propose that we learn to think strategically, become active players at development design stages, and look beyond transit to the whole spectrum of regional development issues.

COMMENTS BY JOHN DYER

John Dyer, General Manager of the Southern California Rapid Transit District in Los Angeles, commented on Weigle's presentation and suggested additional causes of change in the transit industry. A summary of his comments follows.

Transit agencies today face multiple challenges and complex environmental situations. I see three external causes of change as most important. One is the very dynamics of the urban environment that reflect concern over congestion, air quality, growth, new political alliances, changing composition of the population, changing public expectations, and other things. These concerns drive the political decision-making process. A second cause of change is the decline in federal resources, which is underscoring the importance of the local political process. The effects of disinvestment in infrastructure during the past 7 years are becoming quite clear and are beginning to affect private-sector investments as well. The third external change that has affected the transit industry has been the conversion of the automobile industry to a fuel efficient product, which combined with low fuel costs has multiplied the efficiency of the automobile system and erased the potential competitive advantage that transit might have scored after 1973.

I see four key internal causes of change. The first is the legitimate reevaluation of the transit monopolies that have existed for the last 25 or so years. Some see transit agencies as fat, inefficient, lazy, ineffective, or arrogant, or all of these. Spurring this reassessment is the successful deregulation of the airlines; increased competition has lowered fares but is not widely perceived to have affected quality. Perhaps there are things that the transit industry can learn from the airline deregulation story, such as how commuter and feeder services work with the trunk lines.

A second internal cause of change is really the internal thought process of policy persons at the state and local levels. Transit is perceived as failing to meet expectations or needs in urban environments. In some cases this may be just a matter of underserving those who need it, but in others it is the inability to meet those needs. Related to this is the third major cause of change, which I call the inability of local elected officials to cope with the complex issues they now have to face. Examples here are all of the suburban sprawl issues, infrastructure requirements, and other considerations related to land use. The no-growth movement manifests this inability to cope with the type, scale, and pace of growth that the marketplace is producing. It is clear that investment decisions on the private side are outpacing the necessary public investments related to them—that the public sector cannot keep up with the private marketplace.

The fourth internal change is the continued rise of transit costs. The prevailing image is that transit is a captive of labor. This also predisposes many public officials against further transit investments.

I agree with Weigle's comment that transit missed the suburbanization trend. Yet there was no funding available to address this in the 1940s and 1950s; indeed, not until after the late 1960s were significant sums extended. Historically it is true that land use drove transit successes, and it contributed equally to transit's decline. In short, transit is captive to land use, but land use decisions are not made by transit people but by our local elected officials and overall political process. We did miss the golden opportunity of the 1970s energy crises; at best, our response was a shoot-from-the-hip, knee-jerk reaction. Despite ridership increases of one-third or more, most agencies had no long-term or even near-term strategy for responding. As I said, the automobile industry recovered quickly and converted itself, and transit's problems are greater as a result. I also agree that transit agencies have difficulty getting out of their own way; too often they let previous conditions and practices govern the future.

I also find fault with federal policies. Too much attention is paid to the various changes in federal policy and posture as opposed to local needs, conditions, and opportunities. Federal operating assistance has become a basis for sustaining that which exists, as opposed to focusing on that which should be. The existence of subsidies that only prop up the existing structure, allowing continued cost escalation, has become one of the industry's soft underbellies.

Flexibility is poorly addressed in most urban areas. Although there is more opportunity in the suburbs, they are a thorny thicket. The administration's strategy of suggesting new approaches to the suburban problem is based on the unavailability of major funding, or the lack of interest in finding it, to support major new investments. Thus the federal emphasis on innovation for new structures, processes, and approaches may be based more on budget issues than on strategies that reflect what is best for cities. There is a need to reexamine the UMTA rationale and legislative dictates. Thought needs to be devoted to how federal and state investments, or provincial investments, are made in Canada, Europe, and other parts of the world. Foreign approaches to investments in transit capital and operations are totally different from those taken in the United States.

Reassessment of the federal position must also focus on the provisions in the law that are so beneficial to the automobile and detrimental to transit, such as the unlimited allowance for tax-free provision of free parking by employers and the limited comparable benefits for transit. The typical automobile commuter receives an annual parking subsidy of approximately \$2,000 in Los Angeles compared with the maximum \$15 per month benefit that transit users can get. That is a significant unleveling of the ball field. Moreover, in Los Angeles, about \$2.5 billion of real estate is tied up as parking. The bias introduced by this provision alone is enormous. Unless this and related

provisions are corrected at the federal level, I do not believe we will see major changes in local land use patterns. How profoundly this single provision affects land use in business districts, suburbs, and elsewhere is not widely recognized. This indicates how ingrained it is and how difficult it may be to change.

I applaud Weigle for the excellent strategic planning work the RTA has done. It makes a lot of sense for all urban areas to begin to deal with these strategic planning concepts, but the key concern is implementing the desired changes. This brings me to 'tad's conclusions. Although the suburbs are the greatest growth areas, and the market cluster concept is appealing, answers need to be tailored very carefully to each urban area or miniurban area—I do not think there is one single model that will work. We simply have to become more flexible, with more products and more applications, and think through the directions we are taking as we go. I agree that we have to treat ourselves more as a business than we have in the past. But at the same time, I think the business we need to focus on most is the local policy-making process. Transit and regional planning agencies have had little if any impact on the land use and zoning process. Even the automobile culture today is trapped by the lack of planning. The only way to bring rationality to development in suburban areas is to deal with reconfiguration of land use, new templates for land use design, and new approaches to handling suburban growth. There are roles and opportunities for transit, and these need to be focused on at the land use and zoning level, not simply the operating level. Significant intervention at the policy level is necessary to lead us forward. For example, we should no longer allow unlimited parking to be provided or site designs that make transit service impossible.

In the next 3 years or so we need to rethink the federal role in transit. And I agree that cost containment is a top priority, but I do not think it is achievable unless we are willing to develop competition. We need to rationalize the political process that establishes labor contracts. But this initiative and those in the land use area need to advance at the policy level. Managers and staff alone cannot succeed against these "megaissues." Governing bodies and elected officials have to play a larger role in changing transit. Their role is too often a vacuum in many metropolitan areas. Politicians need to appreciate the significance of what transit can bring to the table. This significance needs to be articulated, and doing so is a good role for managers and staff.

I conclude by emphasizing the issue of flexibility. We need to accept the challenge of the uncharted future. We need more conferences like this one, with more policy makers in attendance. Politicians also need to recognize that bad decisions have been made in many metropolitan areas, driven by a marketplace that has traditionally responded to private needs, wants, desires, and demands; but that marketplace does not pay much attention to medium- or

longer-term effects. If we focus on building understanding in the near term, transit successes will follow. Otherwise, suburban gridlock will worsen to the point that local elected officials will be unable to survive. At that point, we will all be the worse for it.

COMMENTS BY PHILIP J. RINGO

Phil Ringo, Chairman of ATE Enterprises, provided additional comments on Weigle's presentation and on organizational changes in transit. A summary of his comments follows.

Tad Weigle's presentation covered the key concerns of demographics, market segmentation, resource allocation, strategic management and planning, and governments. I want to emphasize operations and management action. My perspective focuses on service design, service delivery, quality of service, and the consumer. Although governance issues are vital, in equal measure the delivery of service can make a transit operation live or die. Sometimes I wish the time spent trying to resolve political, organizational, or strategic issues could be devoted to better quality of service, with a more appropriate focus on the consumer.

In offering my current thoughts and impressions on the state of transit in 1987, I will portray the industry from both cynical and optimistic points of view. I am an optimist, but I will start with the negative view. Transit can be said to be more talk than action. We have a poor record of responding to change. We have a love-hate relationship with the federal government—we want the money but no guidance or restrictions. We can also be seen as increasingly bureaucratic and too often tied to measuring our success by the number of peak vehicles on the street and nothing else. Unwillingness to make tough decisions on labor and productivity is also common, as Weigle noted. We do not always make true cost comparisons—we make the right gestures but then play with the numbers. We make monuments to ourselves when alternatives already exist. We treat buses and other capital like throw-away items. We are faddish, always looking for something to change the basic business, such as privatization, marketing, or technology. We probably are losing the best and brightest people in the business. We punish both innovation and conservatism. We are either naive or unduly critical about involvement of the private sector, and sometimes hypocritical. I could show you privatization requests for proposals that are so restrictive that you would think the service to be provided was something totally different from what the public agency provides itself. And then phony cost comparisons are used anyway. These things are discouraging.

But I am an optimist. I see an industry coming of age with new leadership, sophistication, and practical abilities to deal with complex issues. Managers

now seek information and facts and present policy boards with alternatives instead of opinions. We consistently generate taxpayer support at the federal, state, and local levels. We have been masterful at maintaining that support—passing new levies in the face of taxpayer revolts. And there are lots of success stories in transit, from the largest to the smallest cities. There are good examples of realistic partnerships with labor and managers who develop an agenda and strategy for labor cost control. Privatization is used this way. There are good examples of partnerships with the private sector, and there will be more. I agree that leadership and flexibility are our primary needs, but I see them being met.

My view of organizational structures is this: Successful systems are those with performance indicators going the right way and those that are maintaining public acceptance as measured by voter support and political stability. I see four organizational characteristics of successful systems. The first is clear agreement between elected officials and transit policy boards on the basic mission of the transit operation, which is best quantified by a service standard. Second, a predictable local funding base, which puts money where the mouth is, also serves to put voters and politicians behind transit. Stability in operating management, on both the management and the union side and between them, is the third key to success. A positive rapport with the local metropolitan planning organization (MPO) is another dimension of stability. But stability can also go too far; it is indeed a key to the ability to innovate, but if stability forestalls innovation, risk taking, or flexibility, it is too great. Finally, there has to be an emphasis on operations and customer service.

Transit may have big problems and need lots of change, but we are not alone. The changes throughout the economy in the 1980s are remarkable, and the challenges that transit faces can be dealt with. We will face opportunities, and even though I am somewhat cynical about it, we now have a more balanced and realistic perception of the problems we need to address and thus are ready to take serious actions. And with people like those here and more efforts like today's, we will have the leadership we require.

2

Organizational Innovations

Patricia VanMatre McLaughlin and Nigel Wilson provided another resource paper for the workshops (see Part II of this report). These authors reviewed the range of organizational options that have emerged in the United States and added to the strategic options suggested by keynote speakers. The paper was presented by Nigel Wilson and is summarized in this section.

Pressures for change are related to financial, demographic, public scrutiny, and responsiveness concerns. These are seen to result in two fundamental approaches to reorganization, self-directed change and externally directed change. In addition, in the recent past the transit industry has experienced three generations of restructuring: the replacement of private operators by public agencies, the creation of regional funding and oversight agencies, and the current phase of change. The last concentrates on fiscal control; service coordination; flexibility in choosing service providers; and, in some cases, increased taxing and creative financing associated with new capital plans.

Strategic planning is often used as a vehicle for self-directed change. Strategic planning tends to refocus an agency's efforts within the existing constraints, or advance efforts to modestly relax those constraints, and thereby reduce pressures that the organization faces. That the self-imposed change or strategic planning approach tends not to change the basic framework in which an agency operates usually results in its leading to lesser overall modifications than do externally imposed changes. Thus the critical issues are the effectiveness of self-directed change and the severity of organizational constraints within which the strategic plan must be implemented.

Externally directed changes respond to fiscal, ridership, or control issues. Although its genesis is at the local level, this kind of change is usually effected

by a state legislature. Resource allocation priorities or basic constraints defining services provided are the root cause of these more fundamental organizational changes.

Within the categories of self-imposed and externally mandated change, different strategies are apparent. The self-imposed changes that are observed exemplify three different strategies: increasing efficiency, improving effectiveness, and refocusing on areas of traditional strength.

For the strategy of increasing efficiency, the critical question is to what extent, within the existing public monopoly organizational structure for service provision, can substantial cost control and productivity increases be achieved? Examples in this area are the Massachusetts management rights initiative that redefined labor relations practices at the Metropolitan Boston Transportation Authority and the more classic strategic planning approach used by Port Authority Transit in Pittsburgh.

The strategy of improving effectiveness focuses on providing better service to diverse markets. This can involve refocusing the agency to provide a wider range of services, or identifying those markets that cannot be efficiently served by the agency and withdrawing from them to allow other operators to meet the needs. Seattle Metro is a prototypical market-driven organization, and the Washington Metropolitan Area Transportation Authority provides a good example of the selective withdrawal approach.

The strategy of refocusing on areas of strength is the opposite of market diversification and might be characterized as a "back to basics" approach. The idea behind this approach is to provide some services well and not overextend. Portland's Tri-Met is an example of an agency that, after pursuing a number of new initiatives that may have weakened it, is now focusing more on its primary functions of conventional bus service and implementation of a new light rail line.

Externally directed change also has three variations or alternate strategies. In all cases, a primary strategy is the separation of the policy-making function from the responsibility for operations management. This is a first step toward thinking more broadly about the appropriate role for transit and the best means of achieving specific policy objectives. The three different models of externally directed change are cooperative change, second- and third-generation reorganization, and the takeover model.

The cooperative model, as its name infers, achieves separation of policy and operations through active participation of the operating agency and the municipality. San Diego's corporate subsidiary structure for service provision, Phoenix's new Regional Public Transit Authority and the Dallas Area Rapid Transit are examples of agencies that are developing this strategy. In all of these settings, clear distinctions between operations and policy and other strategic issues are maintained.

Second- and third-generation reorganization involves the evolution of a preexisting regional policy-making and resource-allocating agency. The Los Angeles County Transportation Commission (LACTC) is an example of this. LACTC was established with broader powers than the dominant transit operator, Southern California Rapid Transit District (SCR TD), which it purposely did not replace. Its emphasis is on finance, coordination with the many localities, and development of a new light rail system. LACTC has not been beyond criticism, however; recent reorganizational initiatives by state legislators proposed its consolidation with SCR TD in an attempt to eliminate perceived duplication of effort and operational problems at SCR TD. Chicago's Regional Transportation Authority (RTA) is an example of reorganization with a continuing change of emphasis. The RTA was originally set up as a central policy and coordinating body with operating responsibilities in suburban areas, but mixed success of suburban services led to a refocusing on policy and oversight matters and establishment of a stronger corporate structure with subsidiaries for commuter rail, suburban service, and urban transit functions.

The takeover model of external change involves creating a new oversight and policy-setting agency over the existing transit operator and is usually the result of dissatisfaction with the existing agency. The classic example of this is in Minneapolis-St. Paul whose Regional Transit Development Board was created in 1984 by the state legislature to allocate funds, plan service, and contract with various public and private operators. Suburban jurisdictions have the option of contracting with private operators to replace the publicly operated services of the Metropolitan Transit Commission; five cities have done so and more are considering it. An essential change here is the increased decision-making authority given to suburban localities. Conditions similar to those in Minneapolis-St. Paul also appear to exist in Detroit.

In conclusion, it was noted that experience to date with these new organizational strategies is preliminary and that there has been limited evaluation of their effectiveness. This and the other background papers for the conference, and the workshop reports, provide only a start in clarifying the strengths and weaknesses of the new strategies and the pressures leading to their emergence, and are thus just a first step in guiding more informed local decision making.

3

Workshop Reports

Three workshops reviewed issues related to organizational changes in transit and the resource material just summarized. The workshops were charged to consider the need for organizational change, specify vital issues and driving concerns, evaluate the defined organizational alternatives, and consider factors vital to the effective implementation of organizational change. Discussion of all appropriate areas was also encouraged, however, and the full range of issues identified to guide workshop discussions proved to be more than any single group could focus on in depth. Although each group took a different approach to reviewing this broad subject, at the final plenary session of the conference, at which workshop reports were given, no major inconsistencies among the findings of the three workshops were indicated. The following is a combined report integrating the major discussions, conclusions, and recommendations developed by all three groups.

CHARGE TO THE WORKSHOPS

Session 1—Organizational Alternatives

In this session, participants discussed the pros and cons of the alternative organizational structures now being developed and explored the premises and promise of each. The following topics were considered.

- Do the existing organizational structures for providing public transportation need minor or major changes, or none at all? Can organizational reforms

be responsive to internal and external pressures for change? How do you determine if the current organizational structure is the best of all alternatives?

- Should the operation of public transportation services be separated from planning, policy, and financing functions? Will alternative structures help or hinder operations?
- How much decentralization in the operation of public transportation services is desirable?
- Can alternative organizational structures ensure that integration and coordination of services are maintained?
- How can alternative organizational structures affect funding stability?
- Can pursuit of new opportunities for private-sector involvement and support become the daily routine of public transportation agencies?
- Is organizational change just a large-city phenomenon? Do existing public transportation institutions work better in small and medium-sized cities?

Session 2—Evaluating and Selecting Organizational Options

In this session, participants reviewed the new organizational options being demonstrated in the light of various evaluation factors that can determine their applicability, such as different city sizes, degrees of regional integration, types of transit operations, and financial conditions. The discussion was intended to resolve questions such as

- How do you evaluate and select organizational structures appropriate to local needs?
- How effective are each of the organizational alternatives in meeting the financial, effectiveness, integration, responsiveness, equity, marketing, and other objectives that drive organizational change?
- What conditions or opportunities are most suitable for the introduction of each type of organizational change?
- What new skills, perspectives, and participants are important to the success of each organizational option?

Session 3—Implementing Organizational Changes

The final session generated workshop conclusions, including suggested directions for the most workable solutions. The following topics were discussed.

- A plan is one thing; getting it off the shelf, onto the table, and into place is another. How do you identify and harness advocates for organizational change?

- What is the role of executive management in instituting change?
- What is the role of the public transportation policy board in increasing organizational effectiveness? How do structure, membership, relationship with staff, and other factors affect their ability to respond?
 - Evolution versus revolution: Are there strategic planning or other internal strategies that can help public transportation agencies achieve new goals?
 - Are state legislatures in the best position to initiate change? If so, what are the advantages—and drawbacks—of their involvement?
 - What federal initiatives might help improve the organizational structures of local public transportation?

ORGANIZATIONAL CHANGE

A basic statement on the subject of organizational change is that a clear understanding of a transit agency's goals is vital to considering the effectiveness of any existing organization or potential organizational change. The most desirable form of organization depends on the conditions, pressures, opportunities, and other factors of the specific environment. There is no single most desirable solution. Organizational form should follow function, and the intended, actual, and needed functions of various agencies in varying geographic, political, and other settings are quite different.

Factors that need to be considered in developing a new organizational structure include the following. (These are not in priority order.)

- State law—What is mandated? What is permitted? What is discouraged?
- Geography—Constituency and jurisdictional factors are vital considerations and are also related to financing requirements.
 - Funding sources—The existence or absence of dedicated local funding can be both a pressure for and an impediment to organizational changes.
 - Functions performed—Distinction among policy, planning, financing, and operations is important and should be highlighted organizationally.
 - Leadership—Personal factors can play a vital role in determining the need for organizational change and may also be a prerequisite to achieving it.
 - Politics—The equity issue appears to be dominant in shaping political pressures.
 - Accountability—Responsibility for accounting to the state legislature, local officials, another oversight agency, or other groups is a key organizational concern.
 - Federal regulations—Although not a dominant influence, regulations on service provision, fiscal accountability, labor provisions, and so forth can substantially affect organizational effectiveness and structure.

- Culture and traditions—What is acceptable in one locale may not be in another. The relative delegation of authority that an entity has or could have strongly affects organizational design and efficiency.

A recurring and central point in all discussions of this subject is that transit organizations need to begin developing more influences, directly and indirectly, on land use and traffic impact issues. Efforts to this end need to be initiated in modest ways in the short term if more significant impact is expected in the longer term. It is recognized that transit agencies have failed to affect land use decisions in the current ring of suburbs, but suburbanization pressures will continue and new developments and infilling will occur. These are opportunities, and transit agencies must work to be included in land use decision making, such as site design and approval processes or through the metropolitan planning organization (MPO), regional or city planning agency, or similarly charged body. Transit agencies should also initiate or participate in traffic-reduction efforts in existing suburban problem areas. Transit personnel need to take an active part in making land use improvements and forging linkages with developers and employers. Transit personnel must advocate more rational land use planning and traffic management. This is best done early and specifically in the development process, but, even when early opportunities are missed, other opportunities to be involved in mitigating traffic impacts arise (promoting development of transportation management associations or other ways of increasing incentives and expanding transit markets). At present, this involvement may have to be voluntary and without a lot of "clout," but in time, by sitting in on meetings and zoning appeals and seeking other opportunities for exposure and influence, the transit community will begin to have an impact. In the longer term, more formal agreements fostering the desired types of development or travel incentives can be expected to emerge, such as the land use and traffic reduction ordinances that some communities are now adopting. Seattle Metro has produced a model ordinance that it encourages its jurisdictions to adopt.

This area represents a major strategic opportunity for transit, and its time may have finally come, but goals will only be achieved if transit agencies give land use planning the attention it deserves, not just part-time staffing. Although small transit agencies will not be able to devote substantial staffing to land use or other medium- or long-term developmental activities, the need for these efforts remains; perhaps MPOs or other agencies can become more supportive of these ends. Moreover, if agencies in larger or leading communities succeed in these areas, "spill-over" effects will carry some of these successes to smaller communities, assuming that efforts are taken to disseminate information on these programs through the industry.

Again with the caveat that it may not apply to smaller communities, it was generally agreed that a principle of transit organizational design should be the

separation of policy and operations. This is commonly observed in reviewing innovative organizational structures, and such separation tends to promote service innovation and strategic thinking overall. This shift would also help reinforce the long-range planning and land use policy focus that is lacking in many communities. When an agency is not tied directly to operating capital, it is freer to look for other opportunities for service provision, expansion, market development, and the like. Within an agency and in smaller areas where two transit bodies are less easily justified, this principle can also be applied by achieving the appropriate separation of responsibilities between the transit policy board and its managers and staff. This distinction increases the policy focus of transit boards and supports the managers in their tasks. Focusing the policy board's influence on strategic matters and limiting its operational role can be challenging and at times difficult, but also quite productive.

Other concepts suggested as organizational principles, some of which are implicit in the preceding paragraphs, include the following: First, transit agencies should think strategically about transportation improvements for the entire jurisdiction and their current and potential markets and be champions of change. Agencies need leadership that can recognize or create strategic opportunities and establish and maintain sufficient political authority to pursue these opportunities. This strategic transit development process should involve both highway and transit interests; appropriate state, county, and municipal agencies; developers and employers; and all others who do or can play a role in defining the transit market.

It was suggested that the best directors of a transit policy board would be elected municipal or other officials who could provide an "interlocking directorate" among the transit body, MPO, zoning commission, and other groups and thereby secure more direct interface with land use concerns, development strategies, regulatory controls, and other opportunities for improving transit's strategic position. An organizational structure that facilitates this (e.g., one that ensures the involvement of the most important local officials) may in some cases be preferable to an elected board or having members designated by a mayor or county executive.

Flexibility in service provision is another key concern. Although each agency should have autonomy to establish its own policies on fares, cost-revenue ratios, and levels of service, care must also be taken to ensure that system integration, cohesiveness, and other consumer-sensitive concerns are not neglected as the number of operators increases. Some type of regional coordinating structure, informal association for marketing purposes, or other appropriate management strategies should be maintained. In addition, it was noted that performance standards that are consistent with the strategic view of the agency and those it represents should be maintained and relied on as a primary management tool.

EVALUATION OF ORGANIZATIONAL OPTIONS

An in-depth evaluation of the major organizational alternatives was a primary product of this workshop. Five organizational options (Table 1) were assessed against a range of financial, operational, institutional, social, and other criteria. Key observations provided on the different alternatives include the following.

Alternative A is the typical or traditional regional transit authority that most cities have. This agency usually has a limited strategic view and a limited product line—typically only fixed-route and scheduled services—with the exception of services for the elderly and the handicapped. These agencies usually are monopolies and provide a high level of coordination and a readily marketed product. This type of organization entails integration of policy and operations and little or no contracting or related practices that involve private or other operators. It usually has only indirect if any focus on land use planning, demand management, or other market-shaping concerns.

Advantages of Alternative A include its high degree of coordination and control, which can “fix” accountability. This also aids development and maintenance of a coherent public image for the regional transit network, and facilitates regional transit marketing. Given the unified nature of service, there may be less potential for conflict among operators or jurisdictions, and more potential for quality control. A certain “comfort factor” is also associated with this option, because it is the existing, known entity in most regions and its practices are largely consistent with those of other public-sector functions such as police and fire services. For smaller systems, the single-operator model may minimize overhead expenses, given the relatively limited amount of planning and coordination that is done and the additional staff and management costs that may be introduced by involving multiple operators, land use planning, or other broader concerns.

TABLE 1 ORGANIZATIONAL OPTIONS FOR PUBLIC TRANSPORTATION

Alternative	Description	Examples
A	Traditional regional transit authority	Many
B	Expanded or diversified RTA model	Seattle Norfolk
C	Separate policy and operations: single service provider	Reno Minneapolis–St. Paul
D	Separate policy and operations: multiple service providers	San Diego New York Chicago
E	Deregulation model	United Kingdom outside of London

The disadvantages or limitations of Alternative A are many. Most important is that it usually involves little long-range and land use planning linkages and often has limited strategic planning capabilities. It also incorporates few if any incentives for maintaining efficiency. As a monopoly public service, it is vulnerable to dominance by labor interests and short-term political expediency (e.g., unwillingness to adjust fares as may be necessary). Its unimodal focus can create tunnel vision or excessive internal preoccupation. Despite the enhanced ability to advertise a single and highly coordinated system, its product orientation (instead of a customer or market orientation) may make it rather remote from its customers and their true needs. In some cases this is manifested as resistance or inability to change. Product instead of market orientation can also work against coordination with other modes where they exist (e.g., resistance to the introduction of vanpools or coordination with other operators' services instead of a regional marketing focus on all mobility options). This model shows particular vulnerability in suburban areas, where it tends to be perceived as inequitable in its allocation of costs and benefits to different jurisdictions. Given the tendency to operate more as a political than a service organization, management as well as policy leadership of traditional agencies may be more politically based and therefore more vulnerable than under other options.

Alternative B is a regional transit agency that is in some ways similar to the traditional agency (Alternative A) but that has also taken important steps to provide or coordinate an expanded range of services such as various types of paratransit, develop a strategic view, and emphasize product evolution and engagement of the market to enhance transit's position. This is not yet common in the industry. Seattle Metro's market-driven strategy is the most complete example of this model. Tidewater Regional Transit in Norfolk, Virginia, is an example in a smaller setting where land use planning opportunities are less pronounced. This organizational strategy often emerges as an incremental step away from the Alternative A model; it may be the product of strategic planning or some other internal reorientation.

Key advantages of Alternative B are its enhanced ability to match services to needs and the attention that is paid to impacts of development on land use and transit markets. This model can produce more effective operations and serve more diverse and often smaller submarkets. It displays greater flexibility in the short term and has more potential to adapt to changing future conditions. Given its market rather than operations or political orientation, it will tend to pay more attention to analytical issues and thus offers more potential for objective decision making. In general, it offers the opportunity to increase the market share of and public support for transit service. Because Alternative B is an adaptation of Alternative A, many of the latter's positive attributes are maintained.

A key disadvantage of Alternative B is that it may be more difficult to manage because of its diffuse and less-focused scope of endeavor. Related to this is the increased difficulty of measuring performance (e.g., balancing the required emphasis on or priorities of different modes). It is also difficult to measure success in addressing long-term land use objectives.

Negotiating in the often diffuse land use planning context, and from the weak position that transit is often in, requires ongoing dedicated efforts at a senior level, which many agencies may not be able to provide. Multiple types of service may introduce greater overhead costs due to the need for more staff coordination efforts or the necessity of maintaining different types of vehicles. Difficult labor and possibly legal issues can also be introduced as a transit agency begins to develop alternate services.

Alternatives C and D are variations on the separation of policy from operations. Whether service is provided by public or private operator is not the vital distinction here (though differences between public and private operation appear to help stimulate the emergence of these models). The distinction between Alternatives C and D is that for Alternative C the policy board sets the agenda of one operator, whereas under Alternative D the board sets policy and contracts with several operators. In both cases, the responsibilities of the policy board typically include defining service areas, allocating budgets, and defining revenue goals and, perhaps, fare policy. The policy board may also own equipment, set performance goals and standards, and provide performance incentives. The operator or operators perform route planning, operations, maintenance, perhaps engineering and construction, and other functions. Under the multiple-operator scenario (Alternative D), the operators may also own capital. The distinction between Alternatives C and D may not be permanent. Introduction of a separate policy board governing a single operator may be an initial step toward introduction of multiple operators.

A key positive aspect of both of these alternatives is the limitation of political influence on operations. The separation of roles is less clear under Alternative C—multiple operators underscore the rationale and need for a policy board, but its function is generally the same regardless of the number of operators involved. One exception to this is in the marketing area: with a single operator, most marketing functions may be performed by the operator; with multiple operators, the need for consistency, comprehensiveness, a cohesive image, centralized customer information services, and so forth suggests that some marketing functions be retained by the policy body. Some marketing opportunities can only be captured through a joint approach (e.g., employer fare subsidies) or offer particular economies of scale when coordinated (e.g., radio advertising). More focused marketing, perhaps at the route level, is then undertaken by individual operators.

Corollaries to the limitation of political influence on operations are the facilitation of a broader long-range view by the policy board and the provision

of clearer objectives for the operator. Cohesiveness and other system attributes associated with the traditional agency (Alternative A) are maintained in this model without the weaknesses that combined policy and operations introduce. These benefits apply to both Alternatives C and D.

Disadvantages of Alternative C include the problem of defining and maintaining clear roles and the potential for overlap of responsibility. These are often manifested as transition problems in changing from the Alternative A model. There may be some relatively minor improvements in efficiency in this model, as opposed to the performance of the traditional (Alternative A) agency. Because this model is service based, it tends not to emphasize transit's long-term and land use planning needs, although the policy board is in a better position to do so if it chooses. Finally, because this model maintains the single-operator approach, it retains some of the negative features of Alternative A. Alternative C does not usually involve product diversification.

In addition to the benefits of Alternative C, Alternative D introduces competitive factors and therefore has major potential to improve efficiency and cost-effectiveness. With more than one operator, there are also less potential for policy conflicts between the policy board and the operators, less perceived overlap of responsibility, and more potential for product diversification and service effectiveness.

Disadvantages of Alternative D are that multiple operators may not be available or capable of playing a larger role. The contracting and monitoring strategy, although likely to improve efficiency, can in some ways or at some times reduce control over direct operations, reduce flexibility, or require additional management staff. Indeed, there are trade-offs in this area. Balancing service quality with cost-effectiveness goals can prove difficult. Given multiple actors, accountability may also be a problem, especially in areas of shared responsibility. At all times, there is a need to coordinate multiple operators to take advantage of opportunities and, of course, avoid conflicts and unnecessary duplication of effort. As is the case with Alternative C, because this model is service oriented, its absence of focus on land use may be cited as a disadvantage.

Alternative E is the U.K. model of a policy board operating in a *laissez-faire* role regarding operations except when social needs require a service not provided by the market. These social needs may include provision of services in areas where or at times when they cannot be self-supporting or must be provided at fares lower than that which a private operator would charge. This model may involve no public operator at all. It has free market entry and represents complete deregulation of private providers. Services that are identified as socially desirable but not profitable are bid competitively.

Advantages of Alternative F are that it maximizes efficiency and minimizes costs and subsidy requirements. Cross-subsidy effects are also minimized. Its

introduction has been seen to stimulate innovation and provide a higher level of service (e.g., minibuses at shorter headways), in at least some cases, in the United Kingdom. It offers the opportunity to penetrate new markets as well as reduce costs. It can thus also be said to be highly responsive to both existing and changing consumer demands.

Alternative E can be criticized in a number of ways. A key concern is its social equity basis. It is likely that many urban areas have routes or services that are warranted but that cannot be operated at a profit. Unprofitability may also be, in part, the result of automobile subsidies (e.g., free parking) that distort the travel market. This suggests that subsidized transit is justified. Similarly, following market solutions exclusively would lessen transit's ability to reduce traffic congestion. The assumption is that all socially justified needs will be identified by a policy board that is predisposed to avoid subsidy, but constant review would be necessary. In addition, because an unregulated market provides no assurance of maintenance of service, occasional discontinuities may result. Reduced cohesiveness and service marketability are also likely, and have been observed in the United Kingdom, because small operators with no coordinating structure have limited marketing capability and see little value in marketing programs. Marketing methods that require interoperator coordination, such as prepaid passes or tickets usable on the vehicles of more than one operator, become less possible. The U.K. model may be less practical in the United States because of the smaller number of self-supporting services, which reflects higher peak-to-base transit demand levels, wage structures, extent of automobile ownership, extent of automobile subsidy, and other factors.

In comparing the organizational alternatives, many but not all workshop participants noted a preference for Alternatives C, D, and E over Alternatives A and B. Conceptually, Alternative E has strong appeal, though it is the one most different from existing North American practice. Yet, for some cities, Alternative B may also be totally appropriate. For them, it would be a productive advance and there would be no need to go further. Alternative A may remain appropriate as well. The appropriateness of any alternative is dependent on local conditions and goals.

Additional comments on other organizational issues and alternatives include the following:

At-large appointed boards tend to be insulated from parochial and political pressures and are therefore better able to address the hard decisions that are necessary, such as service provision and resource allocation, particularly when service transcends political jurisdictions.

The ability of a local jurisdiction to "opt out" of a regional transit authority offers the potential to provide expanded and new services, reduce costs, and provide more locally responsive and controllable service. However, care must

be taken to maintain some form of cohesive regional structure, coordinating process, or informal operators' association to ensure that system integration and planning and marketing capabilities are not lost. TransitCenter, an alliance of the public and private operators serving New York, is an example of an association formed for collective marketing purposes. It also serves as a single focus for coordinating business community support for transit and other initiatives that can only be approached in a collective multioperator fashion.

The market-driven organizational strategy shows promise for increasing transit effectiveness. However, it may be difficult to convince suburban jurisdictions that they receive a fair share of service in return for their financial contribution unless it is clearly shown that this approach provides the best services and agency financial condition, and thereby minimizes funding requirements. It remains unclear what the market-driven model, with and without more prominence for land use issues and planning, will produce. The limited evidence available on the impacts of alternative organizational strategies mandates that continuing attention be directed to preparing and disseminating information on the status of these changes.

IMPLEMENTATION

Discussion was also focused on the implementation of organizational changes and why transit agencies have been slow to evolve into new or more effective organizations. It is noted that in some cases organizations are working well and meeting all of the local expectations. In others, however, management has become "calcified" or comfortable and resistant to change, accepting of constraints, and oblivious to opportunities.

Other points on the implementation of organizational change follow. There are situation-specific merits to the incremental or evolutionary approach as well as to the "one-shot" or revolutionary approach. Whenever changes are contemplated, it is desirable, and mandatory from the effectiveness point of view, to clearly articulate the goals, expectations, and roles of the various actors in the change. This does not always occur in political settings, which leads to problems. Without specific goals, it is hard to evaluate the success of a change. It is also vital to maintain an informed constituency and clear public perception of the problem and the alternate strategies that are being pursued.

In the case of changes related to system expansion from a bus-only to a new rail system, it is important to maintain the importance of the bus system lest its users be perceived as "second-class citizens." This importance must be reflected in management as well as public relations activities. Maintaining separate management personnel for bus operations and rail development is suggested, with the caution that rail not take priority.

Before new organizations are created, modifying existing ones to increase their effectiveness should be considered. Bureaucratic proliferation and the

required level of coordination may not be preferable to centralization, although the latter runs the risk of monolithic unresponsiveness. State transportation agencies and MPOs might become more effective, for example, as policy boards for local transit agencies. To date, this has generally not been the role of the MPO.

State legislatures are often in the best position to stimulate transit organizational change. Legislatures tend to be politically responsive but not fully informed technically. Dictated solutions can be problematic. The directions state legislatures provide should not be too prescriptive; specific solutions should be left to the agency.

CONCLUDING REMARKS

It was generally agreed that transit agencies tend to take an overly narrow approach to considering transportation options. Transit agencies must broaden their scope to consider all opportunities for public service over both the short and long range. All participants in local transportation need to better appreciate the role that transit could play, the options available, and the institutional or other changes that are needed to bring the desired impacts to the fore. Transit personnel have an important role in making these messages heard and understood. There are now many promising endeavors under way in many different cities and transit markets. The emergence of organizational innovations is expected to continue to accelerate rapidly.

The need to share ideas remains clear. It was suggested that regional conferences be considered so that more people could be exposed to the issues, ideas, and opportunities, and so that local situations could be more specifically addressed. Other technical assistance programs should also be advanced as ways of stimulating the pace of change and helping transit better meet local needs.

At another level, the suggestion was made that this is an opportune time to attempt to advance a national transportation policy as a framework for and means of garnering increased support for the directions this conference has identified. The heightened attention being directed to regional traffic congestion, air quality, and related issues strongly supports this view. This policy initiative would involve a redefinition or rearticulation of the federal roles in promoting needed changes as well as a respecification of the most desirable formula or formulas for local service provision. This could be a most meaningful and productive method of advancing new organizational strategies in public transportation, and for leveraging existing expenditures and achieving overall increased transit effectiveness. Such an effort could have major value in helping to guide public transit and urban transportation in the 1990s and beyond.

Part II

Resource Papers

1

Causes of Change: Internal and External Pressure

THEODORE G. WEIGLE, JR.

The word "transit" is derived from the Latin verb *transire* meaning "to go across." The business of public transit is certainly now in a period of transition—a time of going from the way the business was established a century ago to the way it must be to survive in a new technological and demographic era.

The "golden age" of public transportation, the age in which transit systems were not only self-supporting but—almost unimaginably—profitable, is now a part of cultural history. The new role of transit managers in this country is to preserve, to anticipate, and to extend and to do so with the confidence born of superior data and analysis—not the golden age confidence that bigger is not only better but self-justifying.

The golden age of public transportation was the period between the turn of the 20th century and the end of World War II. This might also be referred to as the presuburban age, or the years before the sprawl. There was, at that time, a great dichotomy between urban and exurban areas; between places where transit could work and was needed and places where it could not and did not. In the golden age, Waukegan (a city of approximately 70,000 located 35 miles north of Chicago) was Waukegan, not the northern outpost of Chicagoland. Waukegan had its transit system, Chicago had its transit system, and on the pastures between the two stood cows, not malls, office parks, and housing developments. City and country stood out in brilliant, black-and-white contrast, without today's troublesome, challenging shades of grey.

In the beginning, in the years before the sprawl, the growth of major metropolitan areas in the United States and the growth of transit services were

closely linked. In most instances fixed-guideway transit systems were integrated into the existing development pattern of established urban areas; in others, residential and commercial concentrations followed transportation's lead and developed along commuter rail, rapid transit, and streetcar lines. In either case, capital investment in large-scale transit projects was justified, and often demanded, by population and employment densities sufficient to support such services.

This, coupled with generally widespread political and private-sector support of the new services, led to the establishment of extensive transit systems in these wonderfully distinct metropolitan areas. The lack of viable transit alternatives and the social acceptance of the affordable services established before World War II created the golden age of public transportation; postwar affluence brought it to an end.

In the 40 or so years since that unexpected and surprisingly abrupt conclusion, the public transportation business has been lost in the wilderness of suburbia, a landscape that transit managers are just beginning to adequately understand and through which I think we can eventually find our way. It is my intention to examine the topography of this landscape—its demography—to discuss how it got the way it is and where it is going, and to suggest various means by which this wilderness may be opened to the civilizing influence of public transportation.

DEMOGRAPHIC OVERVIEW

Transit ridership in the United States peaked during World War II at more than 23 billion rides per year as a result of the combined effects of wartime rationing programs, high civilian employment rates, greater concentration of urban populations, and less-than-universal automobile ownership. Transit ridership was still more than 17 billion in 1950, the last year of profitable transit operation in the United States, when national revenues exceeded expenses by a scant \$1 million. The story since 1950 has been one of steady shrinkage in ridership and growth in cost. The latest figures available show 1984 national transit ridership at only 8.6 billion, with fare revenues covering only 37 percent of the industry's \$10 billion operating cost.

Numerous reasons are cited for this decline, including the growing availability of the automobile, the construction of the Interstate highway system, and the expansion of the arterial and secondary road networks. All of these did, certainly, contribute to the decline of transit, especially insofar as they were part of the general suburban exodus of the G.I. Bill generation. Perhaps foremost among the reasons for transit's decline, however, is that we transit managers missed the trend and failed to respond adequately or on time; the suburbs grew without us. Transit was one of the aspects of city life left behind

in the migration and came to be viewed with increasing disfavor as the car culture flourished and urban decay accelerated into the 1960s. Transit was labeled intrinsic to that old, urban landscape that was being intentionally transformed in the mushrooming communities beyond. Some statistics will serve to illustrate exactly how large the trend was:

According to the Census Bureau, the population of the United States grew from 90 million in 1900 to 227 million in 1980, an increase of more than 150 percent. During this same period, the percentage of the total population residing in what the Census Bureau designates "urban territories" (those with more than 10,000 residents) grew from 24 million to 128 million, an increase of 433 percent. In 1900, the population of urban territories comprised approximately 32 percent of the nation's total; by 1980, 57 percent of all Americans lived in such areas.

More remarkably still, this population explosion has been not only paralleled but exceeded by employment growth. In 1900, total civilian employment in the United States was 29 million. By 1985, employment had increased by 265 percent to more than 106 million. This growth, too, was primarily an urban phenomenon.

Although 57 percent of the population of the United States now lives in the so-called urban territories more than 75 percent live in the broader category that the Census Bureau defines as "metropolitan areas." Population growth in the second half of this century has meant primarily metropolitan growth, and metropolitan growth has meant overwhelmingly suburban growth, with 86 percent of the population increase since 1950 occurring in the suburbs. As a result, suburbs, which claimed only 23 percent of the country's population in 1950, accounted for 44 percent by 1984, whereas central city shares of the national population remained relatively constant. Trends since 1980 have maintained this pattern, with central cities and nonmetropolitan areas continuing to lose population share to the suburbs.

For the most part, major metropolitan areas (those with more than 1 million inhabitants) absorbed the majority of the urban population boom, while metropolitan areas with fewer than 1 million residents grew at approximately the same rate as the total population. In 1950, 52 million people, representing 29 percent of the total U.S. population, lived in 14 areas with populations greater than 1 million. By 1980, metropolitanization had concentrated more than 108 million people, roughly 50 percent of the national total, into 35 such areas.

The pattern of suburbanization has been generally uniform across the nation. Although population growth has varied dramatically by region, the proportion of metropolitan-area workers living in suburban areas varies only slightly from the national average of 61 percent.

In 1960, metropolitan suburban areas accounted for 14 million, or 35 percent, of all metropolitan jobs. By 1980, suburban job concentration had

more than doubled to 33 million, or 47 percent of the metropolitan total. Currently the suburbs are home to about 60 percent of metropolitan-area workers and to approximately 67 percent of metropolitan job growth.

Suburban expansion was not and, quite obviously, is not a blip; it is a revolution. And if public transportation agencies did not simply miss it—which, of course, they did not—they did fail to capitalize on it, become part of it, and harness it. Transit stayed where transit was, which was where transit was known to work. This was not entirely unreasonable, given industry wisdom and experience, but it has left the industry with a lot of catching up to do.

EQUATION: POPULATION AND TRANSIT

In its early days, public transit arose as an integral part of its urban environment. During the early 20th century, as employment became more and more concentrated in urban areas, particularly in downtown central business districts (CBDs), transit became an increasingly popular, convenient, affordable, and therefore logical means of commuting to the work place. The combination of downtown employment growth and the consequent movement of the urban population away from the central city and to outlying neighborhoods early established the central-city work trip as the predominant transit market. Before use of the automobile was widespread, this linkage worked to the mutual benefit of, among others, employee riders, employers, downtown entrepreneurs, and the private providers of transit services.

Obvious as was its appeal, however, transit did not simply make its own success. The principal agent of transit establishment was land use policies of the period that fostered the clustering of economic activity into the growing CBDs. To support various modes and levels of traditional transit services, certain development densities were required in both downtown employment and residential service areas. Different density measures can be used to determine what type of transit service is the most cost-effective and suitable for a specific market.

Unfortunately, data with which to evaluate early 20th century density levels are not readily available. In more recent years, however, such data have been recorded, and, in a 1976 study entitled *Urban Densities for Public Transportation*, the Regional Plan Association (RPA) cross-indexed downtown nonresidential floor space and residential dwellings per acre to determine the appropriate transit modes for metropolitan areas of varying sizes and densities.

Significant use of commuter rail service in the United States was found by RPA to be limited to major urban areas with at least 70 million square feet of central, downtown, nonresidential floor space. Because individual commuter rail stations generally have large service areas (private automobiles and feeder

bus services are used to reach centrally located stations), areas with relatively low residential density (as few as two dwellings per acre) can support commuter rail services.

To support rapid transit services, according to RPA, the service area should include between 50 million and 100 million square feet of nonresidential floor space and have an average residential density of at least 12 dwellings per acre. Adequate feeder bus, automobile, and pedestrian access to the system must also exist. Understandably, residential densities are greatest close to the central city and greatly exceed the required systemwide average.

Smaller metropolitan areas, with downtowns of 35 to 50 million square feet of nonresidential floor space, service areas with more than $\frac{3}{4}$ million inhabitants, and residential densities ranging from 9 to 12 dwellings per acre are considered by RPA to be sufficiently concentrated to support light rail services.

Other modes of transit can be applicable to areas with significantly smaller amounts of downtown floor space and various residential densities. The shape and population size of individual metropolitan service areas also contribute to the appropriateness of a given transit mode and service level.

Historically, transit has managed to capture an adequate share of trips to central cities because it has had sustaining population densities along its routes. Transit's market share in the downtown-oriented travel market has been higher in larger metropolitan areas because of, among other reasons, maximal densities and the impracticality of automobile usage.

In Chicago, as in most other major metropolitan areas, the downtown-oriented travel market forms the backbone of the wider metropolitan system. For the past 20 years transit's share of the Chicago-CBD-destined travel market has averaged a dominant 68 percent.

The dynamic growth of suburban population and employment in the post-war era has had a profound effect on American commuting patterns. The traditional commute between suburb and central city is no longer the dominant variety. It is now only the third most common pattern, ranking behind suburb-to-suburb and central-city-to-central-city travel. Currently, nationwide about 25 million suburb-to-suburb work trips are made, representing roughly 33 percent of all commuting trips. Between 1960 and 1980, work trips grew by 58 percent in the suburb-to-suburb market and by 25 percent in the suburb-to-central-city market.

In the Chicago metropolitan area between 1970 and 1980, the city of Chicago lost 11 percent of its population and 17 percent of its jobs. During the same period population in the suburban areas of the region increased by 500,000, or 13 percent. The suburbs currently contain 58 percent of the region's population and 54 percent of the jobs, up from 53 and 40 percent, respectively, in 1970. Table 1 gives a comparison of daily work trip travel patterns by all modes for the Chicago region in 1970 and 1980.

TABLE 1 WORK TRIP DISTRIBUTION

Origin-Destination	1970		1980	
	No.	Percentage	No.	Percentage
Chicago-Chicago	1,097,944	39.8	971,357	31.2
Chicago-suburb	228,285	8.3	209,962	6.8
Suburb-Chicago	377,549	13.7	446,024	14.3
Suburb-suburb	1,054,458	38.2	1,482,849	47.7
Total	2,758,236	100.0	3,110,192	100.0

Consistent with national trends, the suburb-to-suburb travel market registered a 40 percent gain during this 10-year period and increased its share of total work trips from 38 to 48 percent. Conversely, trips with origins and destinations within the city of Chicago have declined as a result of suburban population and employment growth. Also representative of this trend is the decrease in reverse-commute trips from the city to suburban areas. Although it registered an increase of 70,000 actual rides, the traditional suburb-to-city commute only retained its share of total work trips.

The problem for the transit industry is obvious. It did not anticipate so drastic a change in commuting patterns; it does not have services in place to adequately serve the suburban market (assuming that anyone liked the product); and it does not have the capital reserves available to initiate fixed-guideway services in the suburban market should sufficient densities be attained to warrant them.

The seeds of the present dilemma—now so thickly grown—were sown quite unwittingly in the beginning of the transit era. Originally, government involvement in the transit industry was generally regulatory: local governments awarded exclusive operating franchises to private transit companies in exchange for their commitment to maintain prescribed fare and service levels. In the short term this arrangement worked well, and the private firms generally prospered as ridership levels steadily increased.

In the minds of some observers, however, even this level of governmental involvement stifled the competition that was needed to control costs and stimulate new and more attractive services. To these critics, the government's initial involvement in the transit industry set the stage for its expanded role after World War II, a role that contributed significantly to transit's eventual decline.

In contrast with the drastic shrinkage of transit ridership since 1950, operating costs have skyrocketed. The total national operating cost in 1965 for the transit industry, not including commuter rail, was \$1.45 billion. By 1983, costs had risen to \$8.74 billion. During the same period fare revenue increased by only \$1.83 billion, and industry employment grew by 50,000 persons or 34 percent.

There are numerous reasons for these negative trends, most of them beyond our control: spiraling inflation, the suburban explosion, and growing reliance on the automobile for commuting are just a few. It is my contention, however, that we in the transit industry need to do a much more effective job of managing our business, and that the role of the federal government—the well-intentioned efforts of which may have exacerbated the very problems they were designed to alleviate—should be reexamined.

Although the infusion of federal capital-grant funds has allowed transit operators to experiment and to bring transit systems to a tremendous number of American municipalities, it has also permitted, if not encouraged, the initiation, expansion, and maintenance of major capital projects that should never have been undertaken. Certainly this is not true of all American transit systems, but in metropolitan areas where travel markets are changing, the routine federal allocation of block grants gives providers little incentive to carefully review emerging transit needs. Although they provide some monies for existing infrastructure needs, such funding policies do not sufficiently promote careful review of and response to emerging transit markets. Federal funding has been market oriented, not in the business sense of responding to perceived need but in the political sense of creating markets where they often did not arise on their own. The absence of a clear strategy based on operating criteria may have created transit businesses where they did not belong—transit businesses that continued to exist and to absorb yet more funding simply because they were there.

I most definitely am not calling for an end to federal funding of metropolitan mass transit. Transit, however, is product driven, not market driven, and this orientation requires that greater vision, imagination, and expediency be exercised in the application of federal funds.

TRANSIT'S FUTURE IN A CHANGING ENVIRONMENT

Although the suburb-to-suburb work trip has become the predominant travel market in metropolitan areas—and will, presumably, continue to increase its majority—the central-city-oriented trip will continue to be the market in which transit will perform best because existing urban density levels are expected to be maintained. Regardless of the growing preponderance of suburban populations and employment bases, central cities and the labor pools that serve them will remain more than large enough to warrant continued transit services, and the CBD-oriented trip will remain the travel market best suited to transit service.

This is not to suggest, however, that it can be assumed that a “business as usual” approach will guarantee transit’s continued success in even this market. Instead, to maintain transit’s existing share of the CBD-oriented market,

cost-effective service delivery improvements must be sought, tough decisions concerning the infrastructure needs of this market must be made, and funds must be prudently invested in such projects.

In major metropolitan areas the capital investment in transit infrastructure is immense; in some, such as Chicago and New York, it is quite astonishingly large. Much of this capital asset base serves the traditional CBD-oriented market that continues to retain a large portion of total metropolitan-area work trips. To maintain the vitality of the nation's central cities and for transit to retain its hold on the CBD-bound market, capital investment decisions need to be made in accordance with a marketing strategy that balances shifting demographic characteristics, availability of capital resources, and the potential return on investment.

Given the federal government's current policies, capital funds will be more difficult to secure in the future for either new projects or refurbishment of existing assets. The dwindling availability of federal funds necessitates that alternative funding sources be secured and that alternative financing arrangements be reached if large-scale capital ventures are to be undertaken. Maintenance of the existing and most effective systems, therefore, will call not only for careful and traditional stewardship of resources but also for the discovery of new and innovative solutions to old problems.

Retention and refinement of its oldest, core business is essential to transit's continued well-being; the real opportunity, however, lies in the uncharted territories of suburbia. Although the primacy of the automobile in the suburbs is inimical to public transportation, it is only in the suburbs that transit can grow, for it is only the suburbs that have yet to settle on an effective, acceptable means of transporting their populations. This opportunity raises important new questions about federal policy thresholds.

Although, in most cases, development in the suburbs predated the offering of comprehensive transit services, it is by no means too late for transit to become an active partner in suburban development decisions. Of utmost initial importance for local transit properties is the need to clarify and rank what they consider to be their roles in developing suburban areas. When such roles have been established and suitable goals set, various strategies can be developed to achieve specific objectives.

Population not only makes transit possible, it demands it. In many instances the central-city problems associated with high density prompted employers' flight to the suburbs in the first place. These employers are now recognizing that big-city densities and attendant congestion have simply followed them to their new locations. It is in the interest not only of the transit industry but of local officials and the private sector as well to cooperatively foster adoption of zoning ordinances that encourage or mandate the concentration of employment centers and residential developments. This has been done to excellent

effect in and around the city of Toronto. If, in time, sufficient concentrations are attained, substantial capital investments in transit—investments rivaling those traditionally associated with central city travel markets—could be warranted.

Although more of a risk financially, especially with the current scarcity of funding, implementing new transit services in yet-to-be-developed suburban areas blends transit into the future development pattern of an area, makes it part of the socioeconomic landscape, and allows it to be more competitive with the automobile. Transit investments in fixed-guideway systems could even foster concentrated development in some corridors solely because such services exist. The presence of transit facilities in developing areas would, furthermore, give agencies a larger role in determining their continued evolution. I call this the “Weigle Theory of Quantum Leap.” It requires that transit agencies take very high political risks and seek venture-capital-type funding.

In addition to, or perhaps in lieu of, large-scale investment in the suburb-to-suburb market, transit needs to work more closely with the private sector and suburban municipalities to identify and fill local market niches. In the Chicago area, for example, successful demonstration services have been initiated to foster reverse-commute transit use. Such demonstrations target specific employment centers and have been well received. More are being planned for future implementation.

In metropolitan regions throughout the country, city-versus-suburb squabbles over equity issues and jurisdictional responsibilities have become commonplace. The transit industry has not been spared these subregional frays. Political pressures from both city and suburban interests are intense, are frequently linked to legitimate concerns, and cannot be minimized. Suburban population growth has recently caused control of several regional transit agencies to shift from the cities to the new, more populous suburbs. In many instances such shifts have worsened the problems facing transit officials who must balance resources between the conflicting needs of the traditional city-oriented market, where transit is most at home, and the growing, politically empowered suburban market that is difficult and less cost-effective to serve.

The political pressure emanating from the cities is to maintain and improve the systems serving CBD areas. Such a strategy, although it promises a relatively high return on investment given transit's historical share of travel in this market, is costly because of the sheer size of this market's asset base. It also becomes increasingly difficult, given suburban control of regional boards, to gain support for capital projects serving markets that are solely city oriented.

The political pressure coming from suburban interests, on the other hand, is for transit agencies to “do something” in the suburbs. This, it must be admitted, is a legitimate concern, especially in light of suburban financial

contributions to regional systems. Suburbanites waiting in citylike traffic congestion on their roads find it difficult to believe that transit will not work in their areas because of insufficient density levels.

For reasons of equity, as well as political compulsion, transit agencies must find ways to effectively service their suburban constituencies. Individual suburban market niches suitable to transit services must be identified through extensive and intensive outreach programs, and services must be developed to meet the requirements of large employers.

To ensure that transit and traffic considerations are included in site-design decisions, transit agencies must become active players at the design stage of suburban development projects. They must be aggressive in their efforts to market themselves in suburban areas if suburban ridership increases are to be achieved and, of equal importance, suburban political interests placated.

It should, by this time, be all too clear to major metropolitan transit managers that the federal government cannot be expected to bankroll improvements to aging physical plants and rolling stock. Nor can Washington be expected to fund new initiatives in the suburban market. In the latter instance especially, the federal role would, of necessity, be minimal because new suburban initiatives will require short turnaround times from project planning to project implementation. Whereas the private sector, which often participates in such suburban efforts, is capable of moving rapidly when necessary, the federal government does not operate on a short turnaround basis. The transit industry must, then, become more innovative and market conscious when making financial decisions. It must be willing to create the kinds of public-private brokerage strategies necessary to participate in these markets.

And, in this era of decreased federal transit spending, a reevaluation of how the Urban Mass Transportation Administration (UMTA) allocates its funds should, perhaps, be undertaken: Do all areas currently receiving UMTA funds actually need that support? Do all urban areas really need and use their current levels of transit service? Should a larger portion of federal funding be granted to large metropolitan areas with large transit-dependent urban populations and growing suburban traffic congestion problems? Are transit needs greater in the old, transit-traditional cities such as New York, Chicago, and San Francisco or in developing cities with populations of 50,000 to 100,000? How would most existing transit systems fare under a 50 percent cost recovery requirement? Should the market set its own prices?

Transit agencies must solicit and inspire vigorous private-sector participation in the design and funding of transit services. Private firms are the direct beneficiaries of transit services and are currently subsidizing their employees' work trips through construction and maintenance of large parking facilities; they are becoming increasingly aware of the problems that arise from traffic congestion as well as the difficulty in linking blue-collar workers with suburban employment centers.

For these reasons the private sector must be made a contributing partner in transit development, and for these reasons transit officials will find their private-sector counterparts increasingly open to joint private-public ventures aimed at solving individual-employer and corridorwide commuting problems. Transportation management associations (TMAs); tax incentive programs; and specialized, nontraditional transit services are all public-private ventures that can, and will, work in suburbia.

Unless it is to be shut out of the future expansion of the nation's metropolitan areas, transit must become an inherent part of the suburban landscape. To accomplish this, transit managers must enlist the talents and insights of those who live there. Until such time as concentrations allow traditional transit modes to be effective in suburban regions, transit must do as the suburbanites do.

CASE STUDY: THE CHICAGO METROPOLITAN AREA

I cannot suggest that my own agency, the Regional Transportation Authority (RTA) of Northeastern Illinois, has found all of the answers to transit's present problems. Neither the board of directors, my cognitive faculties, nor our riders would permit me to do so. I can, however, freely assert that for the past several years—since the RTA was drastically restructured in 1983—special attention has been concentrated on these issues and, I believe, much progress has been made in the directions they point. It may be useful to examine the RTA, a fairly representative U.S. transit agency, its service area, and some of the efforts it has made to stay, or to get back, on top of the transportation business in its region.

The six-county area of Northeastern Illinois served by the RTA comprises approximately 3,700 square miles surrounding the city of Chicago. In 1986, this area, which is roughly as large as the state of Connecticut, had 7.3 million residents and an employment base of 2.6 million jobs. During the 1970s, the region experienced a 1.8 percent population gain and a 7.4 percent increase in employment. Forecasts for the year 2005 predict population and employment growth rates in excess of those attained during the 1970s; population and employment are expected to total 8 million and 3.7 million, respectively.

Consistent with national trends, suburban areas of the region are absorbing the bulk of this growth. During the 1970s, the city of Chicago's population and employment actually decreased by 11 percent and 17 percent, respectively. Between 1980 and 2005, the city's population is expected to remain relatively constant at just over 3 million, and its employment total is expected to regain some of the loss experienced during the 1970s. The pattern of suburban population and employment growth that gave Chicago's suburbs 58 percent of the region's population and 54 percent of its jobs is also expected to

continue because large suburban residential, commercial, and employment developments will lead to an anticipated suburban population increase of 24 percent and an employment gain of approximately 32 percent between 1980 and 2005.

The RTA was established in 1974 after approval of a referendum in its six-county region to coordinate and financially support the suburban bus operators and commuter railroads. In addition, the RTA was to provide a local funding source for both the suburban services and the Chicago Transit Authority (CTA), which was established in 1947 from a conglomeration of private bus and rail operators. During the 1970s and early 1980s, the RTA consolidated and initiated direct operational control over a number of suburban bus companies. Commuter rail operations were either funded by RTA under purchase of service agreements or directly operated by RTA after the conclusion of bankruptcy proceedings in the cases of two rail carriers.

A number of financial problems, which plagued RTA between 1979 and 1983, led the Illinois General Assembly, in 1983, to make significant changes in RTA's organizational structure, function, and funding sources. Foremost among these changes were the establishment of (a) a Commuter Rail Division and a Suburban Bus Division as operating arms of the RTA with functions parallel to that of the CTA; (b) RTA as the central financial and planning oversight agency for the three operating divisions; and (c) a mandatory, systemwide recovery ratio: all RTA services are required to recoup at least 50 percent of their operating costs through farebox revenues. Also contained in the legislation was a formula for allocating most nonfarebox revenues among the service boards, with RTA retaining control over a set percentage of operating revenues for discretionary purposes.

Coincident with RTA's transformation from operating agency to oversight body was the shifting of control of its board of directors from the city of Chicago to the surrounding suburbs.

RTA and its three service boards control an asset base worth more than \$14 billion and expend nearly \$1 billion annually in operating costs. On an asset basis, RTA is the second largest business entity in Illinois, ranking only behind Amoco. The combined operations of RTA's three service boards constitute the second largest rail transit system and the third largest bus system in North America.

In addition to using fare revenues, federal grants, and state funds that match federal monies and local tax dollars to cover its operating and capital costs, RTA levies a sales tax throughout its six-county service area.

Annual ridership on all RTA services in 1986 was 750 million. Daily ridership of RTA vehicles exceeds the populations of 19 of the 50 states and, in 1985, represented about 10 percent of all American transit ridership. The RTA and its service boards control and operate more than 5,000 passenger

vehicles and provide almost 175 million miles of service annually. The commuter rail and rapid transit systems have more than 1,500 track miles and serve 375 stations.

In an attempt to avoid a recurrence of the financial crisis of the early 1980s, when systemwide ridership decreased by 112 million or 14 percent, and as a first step toward establishing a businesslike manner of operating the Chicago region's transit system, the RTA board contracted with the consulting firm of Booz-Allen & Hamilton to formulate a strategic plan. This effort, initiated in 1984, was to provide a better understanding of the market in which RTA operates and to develop sound recommendations to guide the board in handling its responsibilities. Some of the major findings of this effort are described next.

During the next 30 years, total RTA capital needs will be \$13.5 billion. This represents an annual capital cost of \$450 million merely to keep the existing capital asset base in reasonably good operating condition. Between 1980 and 1985, the RTA's capital program averaged \$233 million per year, with the 1986 and 1987 programs averaging \$286 million—far short of the system's requirements. The federal share of the capital program has ranged from \$230 million to \$180 million between 1980 and 1987 and has declined since the 1983 high of 84 percent.

The consultants' study identified the following five major market clusters into which the RTA region's commuter population falls, and provided strategies to pursue in each cluster. These strategies are designed to balance financial risk with the greatest potential gains in ridership and fare revenue.

1. The traditional Chicago-CBD-oriented market cluster, in which transit had a 68 percent market share in 1985, is similar to clusters in other major metropolitan areas. This market cluster forms the backbone of the Chicago transit system and represents 54 percent of total transit use in the region. Depending on prevailing socioeconomic trends, this market cluster is expected to experience overall travel growth of from 6 to 23 percent. It is anticipated that transit's share of this market cluster will remain high even under a pessimistic socioeconomic scenario.

Transit has done extremely well in capturing trips originating within Chicago, but commuter rail has historically competed with the private automobile for trips destined for the CBD but originating in outer suburban areas. Recommended investment strategies in this market area are to selectively prune some elements while protecting and promoting the network that essentially consists of commuter rail and rapid transit lines and a number of CTA bus routes.

2. The traditional city-oriented market cluster consists of trips destined for points inside Chicago but outside the CBD. In 1985, transit's share of these trips was 30 percent, which accounted for approximately 30 percent of all

transit trips taken. Overall travel change in this market segment is expected to range from -15 to +9 percent, depending on employment and population trends. The consultants recommended that services in this market be maintained because of transit's relatively high share of all trips, but some reorganization and rationalization of services are deemed necessary.

3. The growth suburban market cluster consists of trips made between outer suburbs. In 1985, transit's share of these trips was only 5 percent during the morning rush hour. The consultants considered this to be the area's growth market because overall travel in this cluster is expected to increase from 59 to 88 percent in the coming years. Only 3 percent of the total trips on transit are currently provided in this market area. Because of the large travel growth anticipated in this area of the region, transit could realize a large appreciation in ridership if it were to gain only one or two market share points. Because residential and employment developments are not sufficiently concentrated in this market area, provision of transit service is, obviously, expensive; for this reason, the investment strategy recommended is to establish new intersuburban transit services based on the results of various demonstration projects.

4. The stable suburban market cluster comprises trips bound for Chicago's older, inner suburbs. Transit's current share of these trips is approximately 7 percent (again, morning work trips) and represents 12 percent of all trips provided by transit. Given the amount of fixed-route and feeder bus service, as well as commuter rail and rapid transit services, available in this area of the region, it is disappointing that transit has not performed better here than it has. Overall transit growth in this market is expected to range from -2 to +16 percent, and the recommended strategy for transit is to consolidate and better coordinate some services and selectively expand others.

5. The final market cluster identified is the Chicago CBD circulator market, which contains all trips with origins and destinations within the CBD. Transit currently carries 50 percent of total trips in this market and is expected to maintain this share under all socioeconomic scenarios. Because large-scale development is taking place in Chicago's CBD and the area is increasing in both size and employment base, travel within this market cluster is expected to increase by from 83 to 146 percent during the next 30 years. Because 54 percent of all transit trips in the RTA region are currently destined for the CBD, the provision of a modern and convenient CBD distribution system is of paramount concern to the region's transit industry.

Since accepting the Booz-Allen report in January 1987, the RTA has been engaged in two major efforts that were recommended by the consultants. The first is a series of engineering, financial, and planning studies designed to determine the actual future capital needs of the RTA before an appropriate level of financial support is sought from the state and other sources. The second effort is a series of suburban initiatives that includes the use of public and private funds and relies heavily on local expertise and input.

For its capital program the RTA has adopted a policy of bringing capital assets to a "good" condition by the year 2000. The assets that meet this criterion in the year 2000, however, may or may not be the same as those extant in 1987 because RTA has also adopted a policy that allocates resources on the basis of the needs and ridership trends of the five markets.

It has been estimated in two independent studies that RTA's capital needs during the next 10 years will average \$600 million—nearly double the level of spending under the current capital program. RTA is seeking to attain this funding level in two fashions. The first is by soliciting traditional sources—UMTA, the Illinois State Legislature, and other government grant sources. The second, more attractive, and considerably more challenging route is that of innovation: using operating surpluses in the capital program, developing public-private partnerships and other nontraditional financing methods, maximizing financial return on all assets including joint property development, and instituting multiyear funding contracts with UMTA as well as state and local funding sources.

Before venturing into the suburban terra incognita in which growth is expected to continue, RTA recognized the need to establish an informed suburban strategy. To that end RTA hosted, within a period of 6 months, three multiday Transportation Options conferences in the three suburban counties hardest pressed by growing traffic problems. Each conference sought to address the unique, transit-related problems of the county in question by drawing on the collective experience of local and national leaders representing a variety of public and private interests.

RTA's goal in hosting these conferences was to focus attention on the region's growing traffic congestion and land use problems; to solicit local input; to determine what transit services were desired by local governments and private businesses; and, generally, to drive home the idea, somewhat alien to most suburban residents, that the RTA was a partner in answering the region's changing transportation questions—that its intention is to be part of the solution not part of the problem.

A series of suburban-oriented new initiatives based on the conferences and other past efforts has been proposed and implemented. Through a suburban vanpool program to be initiated in 1988 RTA will help to defray the cost of leasing a van during the first 6 months after a vanpool is established. RTA is also considering purchase of a parcel of land along one of the fastest growing suburban employment corridors in the region to be used for joint development including a new rail station-transit center.

The agency has also provided a sizable challenge grant to Transport, a newly formed association of public and private organizations in suburban Cook County where traffic congestion problems have threatened future development. Under this arrangement, RTA funds are to be matched by local

public and private contributions; Transport, in turn, will be responsible for identifying local market niches where transit services can be successfully implemented, providing technical assistance for traffic abatement measures, and developing a model land use zoning ordinance that encourages transit use. A number of other services, which are specifically tailored to serve suburban markets, have been implemented in recent months. These include reverse-commute trips from Chicago and suburban bus routes designed to link employees of major area employers with their places of work.

CONCLUSIONS AND CHALLENGES

The word "transit," with all of its connotations of movement and transformation, is related to the word "transient"—something we must ensure that public transportation does not become.

Whether or not it manages to adapt to its new environment, transit will continue to exist through the 21st century. Of this there is little doubt. The constituency presently served by traditional transit services is more than ample to support those systems and, for the most part, has few viable transportation options.

If, however, transit is not to be parochialized—if its boundaries and possibilities are to be extended beyond those envisioned by the 19th-century builders—it must find, or create, its place in the suburban future.

It is in the suburbs that the daily travel market has had its greatest growth for the past 40 years and where the majority of economic and population growth will continue for at least the next 40 years. It is in the suburbs that present transportation modes are proving inadequate, and new answers will have to be found to maintain socioeconomic vitality. It is also, unfortunately, in the suburbs that the transit industry has proven least effective, been shown to least advantage, and lost a great deal of time and ground.

The single, inescapable fact with which transit managers will have to deal in the suburbs is that the private automobile is the travel mode of choice. This will be true throughout the foreseeable future. As long as the suburbs retain anything like their present complexion and flavor, transit will not replace the automobile. What the transit industry must seek to do is complement and direct existing transportation modes. It must be not only market driven but also market creating. To do this, the nation's transit authorities must behave not only as professional field tacticians, which we must do better and more creatively than ever, but as master strategists.

On a tactical level the mass transportation systems that best suit the needs of new and rapidly expanding suburban areas must be developed. It is not inconceivable that they will grow into more traditional transit services, but for the present and for a long period of concentration, tailor-made, responsive

answers to specific transportation needs must be the goal. These tangible, "ground-level" responses will integrate transit into the suburban landscape, demonstrate to suburban users that transit managers are aware of—and can respond to—their needs, and establish the crucial foundation for further development.

Simultaneously with these efforts in the trenches, however, transit agencies must also be thinking and operating on the broader, more visionary, and more important level of regional strategy. The concept of the regionwide transportation authority is a good one; it is a farsighted approach, realistic about and sensitive to changing social and political realities. Making such organizations out of long-established, urban-based transit agencies, however, has been difficult and has met with varying degrees of success and resistance. A regional transportation authority cannot afford to behave as a monopolist, as a bureaucratic monolith, or as a defender of status quo interests. It must establish itself as a full partner with local and regional governments and, perhaps most important, with private corporate and development interests in mapping the broad and conscious evolution of metropolitan areas.

Through the Transportation Options workshops it has hosted in suburban counties, RTA has begun this effort, as have other agencies around the country. The response has been swift and positive. Suburban editorialists have begun to notice and to discuss the new, regional focus of what they long thought of as a system that was regional in name only. The attention and goodwill it has attracted by these efforts has helped place RTA back in the middle of planning and development efforts in its region, allowing it not only to participate in but to shape future decision making.

Optimists, of course, can always be accused of naivete. I do not believe, and do not mean to suggest, that all of these things can be achieved simply because we want them to be, or that they can be achieved easily. There are many vital questions that we cannot definitively answer: Why, for instance, have we in this country shied away from land use planning policies favorable to transit, and will we, as I believe we must, embrace them? Will the public respond as we hope to our outreach and educational efforts? Can consensus be reached between transit and the other partners in regional planning? Transit can only work in the suburbs if there is widespread local involvement in all stages of the planning process and financial cooperation between public and private elements; are we willing to explore these new ways of conducting our business? How can we in the transit industry become more, and more quickly, responsive to private-sector offers of financial cooperation?

There is a need to rethink the role of the federal government in local transit matters. Can the apportionment procedures used to distribute Section 3 and 9 funds be improved to ensure that older metropolitan areas with large, transit-dependent populations receive an equitable share of existing funds? Given the

age of rail facilities in many metropolitan areas, should not more federal monies be spent on rail modernization? To facilitate local discretion in the use of federal funds and to allow local transit properties to take advantage of local private-sector initiatives, should not federal regulations governing UMTA grants be relaxed?

How and when can we learn to compete effectively with a global automobile marketing strategy that has made a car as intrinsic to the American family as the roof over its head? Despite universally lamented congestion, high fuel prices, and occasional shortages, the automobile continues to hold its huge market share. When transit had a once-in-a-century opportunity to seize market share, during the fuel crisis of 1973, even Detroit—not renowned, in recent years, for its responsiveness, dexterity, or ability to innovate—beat transit to the punch by turning out smaller, more fuel-efficient automobiles in a surprisingly short time.

And, perhaps most important, the transit industry must make cost containment a primary objective in providing services to both its traditional and emerging markets. Controlling operating costs at or below the prevailing rate of inflation prevents the damaging cycle of fare increase followed by ridership loss. Are we in the transit industry willing to take tough, often politically unpopular, positions in labor negotiations to keep a lid on cost growth? Are we willing, in these negotiations, to push for more private-sector involvement and greater competition in the delivery of services?

Are we, finally, ready to "go across" into the landscape of the future? To do so we need not forsake our past, but we must recognize it as past, take what is useful from it, and proceed. The transit industry stands, as 1988 approaches, at a crossroads. One road wanders through randomly developed office complexes and housing developments and is congested with automobile traffic; the other leads through well-planned, healthily concentrated, multiuse communities, and is traveled by a free-flowing combination of automobiles, vanpool vehicles, well-occupied fixed-route buses, and employer-designed delivery systems.

The first road is the way of the status quo. The second road, the one we must travel, is the way of positive growth through "proactive" strategic planning. We in transit must be strategic in our thinking. We cannot, simply because we are government agencies, be bound by the old philosophy of "everything for everybody." At any given time, there will be losers in the public transportation business. This is inevitable. It is not inevitable that they remain losers, but their status will change only as individual developments and recognition of the appropriateness of transit grow. We cannot afford to base a fleet in Lake Erie simply because there is water there. Equity is important, but necessity must come first.

We are in transit to a new role in our service areas. I am confident that, if we decide to get it there, public transportation will arrive on time, in comfort, and at a reasonable fare.

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2

Strategies for Coping: The Range of Options

PATRICIA VANMATRE McLAUGHLIN AND
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In this paper the organizational options that are emerging for the provision of transit service in large metropolitan areas will be defined. Where possible, reference will be made to existing examples of each option; a detailed appraisal of experiences is presented in the case studies that follow. However, it should be obvious at the outset that there is no single organizational arrangement that will be appropriate for all metropolitan areas. Therefore, a realistic aim for this workshop is to categorize the alternative arrangements and to define the circumstances under which each is likely to be effective.

In the first section of this paper, the pressures on transit operators, which may result in reorganization, are summarized. Two fundamental approaches to reorganization are then introduced: self-directed change and externally directed change. Organizational options within each category are described in the next two sections of the paper.

Organizational change in the transit industry is occurring in response to a variety of pressures that have built up in many large urban areas. These pressures are many and are often strongly interrelated, but three separate types can be identified: financial issues, demographic changes, and increased public scrutiny.

Financial concerns are probably the most prevalent cause of organizational change. For example, budget crises caused by revenue shortfalls or fiscal management problems can lead to either radical internal reorganization (Pittsburgh and Boston) or creation of a new oversight agency to monitor transit authority management. Another type of financial pressure is the desire to build

a major capital project such as a rail system. A new agency may be created to pursue the required funding initiative; later the overall organizational structure of transit in the area may be changed (San Diego). Finally, the increasing role of state government in funding transit services may foreshadow a stronger state role in transit planning and management, as exemplified in both New Jersey and Connecticut.

As municipal budgets are strained by competing demands and the transit property becomes more of a drain on the financial resources of a municipality, the municipality may choose to divest itself of the transit agency. This has happened recently in at least two areas where an oversight agency has been created and the transit property's assets transferred to that agency. The transfer of San Diego Transit by the city of San Diego to the Metropolitan Transit Development Board (MTDB) and the recent transfer of Dallas Transit (again by the city) to Dallas Area Rapid Transit (DART) are cases in point. In addition, the city of Des Moines, Iowa, has investigated, but not pursued, sale of the Des Moines transit authority.

Changing demographics highlighted by the shifting balance between the suburbs and the central city have also created pressures on transit organizations. One common manifestation is the suburban perception that the suburban tax base is supporting transit service primarily in (or at least to) the central business district (CBD). Changes in the funding/service equation were instrumental in the creation of "superagencies" [the Regional Transit Board (RTB) in Minneapolis-St. Paul, the Regional Transportation Authority (RTA) in Chicago, and the Los Angeles County Transportation Commission] to deal more equitably with the suburbs. In other cases these pressures led to suburban withdrawals from the transit system and proposals for suburban rail services to enhance suburban development.

Financial, management, and operational problems with the existing system can be the subject of intense public scrutiny and result in in-depth media coverage. This level of scrutiny may be intensified if there is a local perception that the existing transit authority is not sufficiently responsive to the concerns of the public. Unresponsiveness may be perceived in service design, cost control, or funding arrangements. The resulting media attention can bring political forces into play. Sometimes this leads to legislation aimed at correcting the problems of the transit agency. Such legislation can be intended to cause internal change (Boston's management rights legislation) or creation of a new oversight and planning agency (as was the case in Minneapolis-St. Paul).

HISTORY OF ORGANIZATIONAL CHANGE

Just as there is a range of pressures on a transit organization, there are significant differences among existing transit organizational structures and

their organizational response to these pressures. Nor is organizational change new to the transit industry: three recent generations of restructuring can be identified.

First-generation restructuring occurred during the late 1960s and early 1970s when private operators went out of business or were assumed by regional transit agencies created to provide regionwide transit service [the Southern California Rapid Transit District (SCRTD), the Chicago Transit Authority (CTA), and New Jersey Transit].

Second-generation restructuring involved the creation of regional funding and oversight agencies. This happened in the mid-1970s and stemmed mostly from declining ridership, increasing costs, and the need to exercise budgetary control over increasingly independent operating agencies. Some eventually became operators of service (RTA) or acquired operating agencies (MTDB, DART).

The third generation of reorganization, currently under way, focuses not only on fiscal control and service coordination but also on the ability to choose the appropriate service provider, increase taxing and creative funding authority, and build major capital systems.

TYPES OF CHANGE

Although there are many organizational options, there is a fundamental difference between organizational changes that are self-imposed and changes that are mandated by outside entities.

Some agencies have taken the initiative in redesigning themselves or redirecting their mission; such initiatives are typified by adoption of (whether called this or not) a strategic planning emphasis. This type of change is generally triggered by a need to show strong action in response to external perceptions (on the part of the media, politicians, riders, the general public) or as a result of a new management team assessing the state of the organization. Both the Metropolitan Transit Authority (MTA) in New York and the RTA in Chicago provide good examples of self-directed change of this type. Self-directed change may also be implemented to take advantage of new opportunities or when an agency makes a significant transition in focus; for example, the shift from rail construction to system operation in Washington, D.C.

Typically such self-directed change results in little, if any, change to the institutional setting in which the agency operates. Instead it refocuses the agency's activity within these constraints to reduce the pressures the organization faces. In some cases this type of internally generated change may be a last-ditch effort to avert external intervention. The critical issue is the effectiveness of self-directed change given the organizational constraints within which it must be implemented.

Externally directed change has generally occurred in response to fiscal, ridership, or control issues. Usually directed by the state legislature, this type of change has its genesis at the local level, from which local concerns, usually expressed as reform legislation, are carried to the state level, where the original intent may be radically changed.

Any, or all, of the pressures cited earlier may lead to externally directed change; however, the suburbs versus central city issue is often central. This issue can stem either from resource allocation problems or from ridership-based service allocation policies that may be perceived as underserving the suburbs. In addition, the regional transit authority, usually based in the central city, is sometimes perceived as having little knowledge of, or sensitivity to, how to provide service for the outlying areas within the authority's jurisdiction. Thus, although these outlying areas may not be unserved, resource allocation priorities leave them underserved. Detroit is an example of an area where, as a result of these pressures, reorganization has been actively debated but has not yet materialized.

Self-Directed Change: Redesigning the Transit Agency of the 1990s

Although there is a good deal of interest in considering alternative organizational arrangements for transit, there are still far more examples of conventional, large, public-sector transit agencies that have an effective monopoly on transit operations and planning within their service areas than there are of other types of agencies. Nonetheless, many, if not all, of these "conventional" transit agencies have been affected to some extent by the pressures facing the transit industry. Most self-directed changes have a flavor of strategic management and planning, but several distinct strategies have been adopted by different agencies to increase efficiency, improve effectiveness, and refocus attention on areas of traditional strength. Each of these strategies is discussed.

Increasing Efficiency

Many transit organizations have received strong criticism because of their perceived chronic inability to control costs and increase productivity. The critical question here is to what extent costs can be controlled and productivity increased given the inherent limitations of the existing public monopoly organizational structure for service provision.

Perhaps the most interesting attempt to increase efficiency was the management rights legislation passed by the commonwealth of Massachusetts in 1981, which returned to Massachusetts Bay Transportation Authority (MBTA) management many "rights" that they had been unable to exercise because of

negotiated labor contracts. These included such far-reaching rights as hiring, without restriction, part-time employees; assigning overtime; eliminating the cost of living allowance in the operator's contract; and contracting for goods and services. This landmark legislation was enacted in the wake of a series of negative newspaper articles on the high cost and low efficiency of MBTA service at a time when the system was shut down because of inadequate funding. Since its passage, the legislation has successfully withstood extensive court challenge and has been used by MBTA management to achieve substantial cost savings—recently estimated at a cumulative total of \$118 million over 5 years.

Clearly in this case the change was only possible through legislative action, and thus it cannot strictly be defined as self-directed; but the important point is that significant impacts were possible in this case without any fundamental changes in organizational structure. Attempts have been made to emulate this management rights legislation, but no comparable legislation has been successfully implemented elsewhere, which raises serious questions about this approach as a general strategy for increasing efficiency.

A perhaps more generally applicable approach to increasing efficiency is the one adopted by Port Authority Transit (PAT) in Pittsburgh in response to similar concerns about inefficiency and inadequate financing to maintain the system. A multifaceted approach was taken to counter negative public perceptions of PAT including:

- Incorporating limited management rights into state law;
- Improving financial stability and requiring a balanced budget;
- Increasing predictability of government funding;
- Undertaking organizational efficiencies;
- Adopting performance standards;
- Improving public image through marketing, employee morale initiatives, and employee development;
- Upgrading capital and equipment;
- Committing to a strategic planning process with annual updates; and
- Decentralizing control of garages so that each has greater autonomy.

The increase in financial pressure on all transit organizations dictates that any strategic plan have significant components dealing with increasing efficiency and controlling costs. However, there remains the critical question of how effective these initiatives will be without more fundamental changes.

Improving Effectiveness

Although all agencies face pressures to control costs and increase efficiency, many agencies also face pressures to provide better service to the diverse

markets within their service areas. Two distinct approaches can be envisaged, both within the constraints of existing organizational structure: the first is to refocus attention on providing a wider range of services better tuned to market needs; the second is to select those markets that cannot be efficiently served by the agency and withdraw from them, leaving them to alternative providers. These two strategies are well exemplified in the Seattle and Washington, D.C., regions, respectively.

Seattle Metro is a prototypical market-driven agency that has restructured its organization to be more responsive to the population it serves. For example, it has taken over the ridesharing brokerage role in the Seattle region, and it is actively engaged in outreach in order to better understand the needs of its population and design services accordingly. Some involvement in land use and development issues is also a part of the "full-service" agency concept exemplified by Seattle Metro.

On the other hand, the Washington Metropolitan Area Transit Authority (WMATA) has been shifting its focus to rail operations and complementary bus operations as the transition from rail construction to system operation has progressed. Suburban jurisdictions have been the initiators of the reduced WMATA role in bus operations, but WMATA has taken a cooperative approach to the emergence of suburban bus operators. By selectively withdrawing from these high-cost, low-productivity suburban services, WMATA can keep costs down and the potential for suburbs-central city friction, evident in other metropolitan areas such as Detroit, can be reduced if not eliminated.

Both the Seattle and Washington experiences are covered in considerably more detail in the accompanying case studies.

Refocusing Attention on Areas of Traditional Strength

If the WMATA strategy can be viewed as concentrating resources on markets that large transit authorities have traditionally been able to serve well, some other large transit organizations have followed a similar plan. This type of strategy is just the opposite of Seattle Metro's approach of extending the domain of the organization to provide a wider range of services. When an agency refocuses attention on areas of traditional strength, there is an explicit or implicit assumption that other organizations that are better suited to serve the remaining markets will fill the gap. Such refocusing will generally stress traditional transit markets and internal management improvements including the types of action described earlier in this section as improving efficiency.

One example of this is Portland Tri-Met whose development paralleled Seattle's until the early 1980s—both were viewed as "premier" transit agencies providing reliable, efficient, and responsive service. Tri-Met embarked on

a set of quite radical changes including building the Banfield light rail line, restructuring the grid bus network into a timed-transfer system, and instituting a "self-service" fare system. Collectively, the inevitable problems accompanying such significant changes led to a negative shift in the attitude of the press toward this transit authority. Now Tri-Met has retrenched somewhat, focusing on operating the new light rail line effectively and improving both the efficiency and effectiveness of its other services.

Here again the fundamental question is how successful these actions can be in alleviating the pressures facing agencies.

Externally Directed Change

There are an increasing number of metropolitan areas that have adopted a different strategy for changing the transit organization—redesigning the agency for the transit operator.

A primary objective of most of these changes is to separate the responsibility for policy making from that for operations management. Such separation is a logical precursor to thinking more broadly about the appropriate role of transit and the best vehicle for achieving specific policy objectives. Interestingly, separation of policy from operations is more commonplace in Canada than in the United States. Throughout Canada, policy boards set policy standards (for example, fare recovery ratio), and the transit agency management boards implement them (for example, fare level and structure).

In the United States the MTA in New York and the Metropolitan Transportation Commission (MTC) in the San Francisco Bay Area are among the relatively few good examples of separate policy boards that coordinate multiple transit providers. In the case of the MTA, transit service is provided principally by the New York City Transit Authority and other subsidiary agencies; in the case of the MTC, transit service is provided by a set of independent agencies. Nonetheless, both of these metropolitan agencies perform the overall policy setting and coordinating roles. Within this class of externally directed change three different models can be identified: cooperative change, second- and third-generation reorganization, and the takeover model. Each of these is described with the use of examples.

Cooperative Model

Under this model there is separation of the policy-making functions from the operating agency, but the reorganization plan has the active participation of the operating agency as well as the municipality—hence the name of the model. To give a better idea of how this model works, two metropolitan areas that have adopted it, San Diego and Phoenix, are briefly discussed.

In San Diego the MTDB was created by the California State Legislature in 1975 to plan, construct, and operate mass transit guideway systems and to perform near-term planning and programming. MTDB became the overall coordinating agency for the area, establishing policy, contracting with transit operators, planning, designing and constructing the light rail line, and taking responsibility for short-range planning and financing for bus and rail.

MTDB owns the assets of San Diego Transit Corporation (the major bus operator) and San Diego Trolley, Inc. San Diego Transit used to be an independent operating agency owned by the city of San Diego, but its assets were transferred to MTDB in a cooperative action by MTDB and the city. The "corporate subsidiary" structure has led to creation of a central decision-making network on major policies and decreases some of the conflicts inherent in the "separate agency" approach.

Separation of development functions from day-to-day transit operations is seen by MTDB as more efficient, because significant management attention and energies are required for each. There are both advantages and disadvantages associated with this separation of policy from operations. Among the advantages are that it

- Allows significant attention to be given to mid- and long-range planning,
- Allows transit management to focus on the operations management task,
- Allows lobbying for operating and capital funds on an areawide basis, and
- Sharpens operating and policy decisions by promoting constructive competition among multiple operating agencies.

On the other hand, the following disadvantages can be cited:

- May create delays due to multiple governing boards (this has also been mentioned in the case of RTB),
- Risks duplication of work,
- Requires cooperation of top management in all agencies, and
- May appear to result in inequities for a specific operator even if a decision is in the best interests of the region.

The Phoenix Regional Public Transit Authority (RPTA) was formed as a result of a 1985 referendum to create local funding (subject to referendum approval), plan routes, and contract for service, but not to deal with fare-setting or labor issues. RPTA is a voluntary association of elected officials (mayors or county supervisors) of local governments. Consultants are working for RPTA on a regional transit system plan that features a rail transit system that could be developed largely with regional funds. Although RPTA currently

contracts with the city of Phoenix transit department to manage bus service and prepare technical plans, the joint intent is eventually to phase out the city of Phoenix transit department and permanently transfer its functions to the RPTA.

In both San Diego and Phoenix, new organizations were created because of a need for a multijurisdictional effort to raise revenues and make decisions on major capital or operational improvements, or both. Given the existence of the new organizations, acquisition of the operating agencies and their responsibilities for bus operations can follow.

Dallas provides a third example of this pattern. DART was initially set up to provide for, not operate, the transit system. Thus its first efforts were to contract out express services, and its first contract for service was let in August 1984. Recently, DART acquired the city-owned Dallas Transit System (DTS); under a no-cash agreement, DART assumed all DTS assets, grants, and contracts. The expressed reasons for the cooperative transfer of DTS to DART were to gain control over administrative and service costs, to ease implementation of service efficiencies, and to improve the quality of service provided by DTS.

Second- and Third-Generation Reorganization

The second model for externally directed change deals with the continuing evolution of regionwide policy-making and fund-allocating agencies in response to the pressures discussed earlier. Two different examples of this type of evolution exist in the Los Angeles and Chicago metropolitan regions.

The Los Angeles County Transportation Commission (LACTC) provides an example of second-generation reorganization. The LACTC was established by the California State Legislature in 1976 as an overall funding and coordinating agency for public transit and highways in Los Angeles County and was given broad, although somewhat nonspecific, powers. Some of these powers conflict with powers given in earlier state law to the regional transit operator, the Southern California Rapid Transit District (SCRTD). The major focus of LACTC since its establishment has been creation of a stable local funding base for transit (through passage of a 1/2-cent sales tax), coordination of municipal and regional transit services, and design and construction of a light rail system.

In the past year, adverse publicity on management and budget problems at the SCRTD and perceived conflict and lack of coordination between SCRTD's Metro Rail construction activities and LACTC's light rail program prompted reorganization legislation at the state level aimed at consolidating the functions of the two agencies. Although ultimately vetoed by the governor for a variety of reasons, largely unrelated to transit, the bill gained support at the

outset because of local dissatisfaction (further fueled by negative press reports) with SCRTD's efficiency, safety, and responsiveness to the public and suburban jurisdictions. The proposed reorganization floundered, in part, because of lack of consensus on issues such as suburban city representation and political differences on labor-related aspects of the legislation.

As described in the preceding paper by Theodore Weigle, the Regional Transit Authority (RTA) was originally established to set policy, coordinate suburban operations, and allocate funds within the six-county greater Chicago region. The RTA used its authority to acquire and operate transit service in the suburbs with mixed success. Because of financial problems, in 1983 the legislature reasserted the policy role of RTA and also strengthened its oversight responsibility by creating three subsidiaries, including the Chicago Transit Authority, for transit operations in the region.

Takeover Model

In the final model for externally directed change, a new oversight and policy-setting agency is established over the existing transit operator. As opposed to the cooperative models presented earlier, this takeover scenario typically emerges from conflict and dissatisfaction with the existing transit agency. The classic example of this is found in the Minneapolis–St. Paul metropolitan area where the Regional Transit Development Board (RTB) was created in 1984 by the Minnesota State Legislature. The RTB was created for the following reasons:

- The central cities had a decreasing percentage of the area's population, yet the sentiment was that the central area retained a disproportionate share of transit service;
- Funding crises of the transit operator, Metropolitan Transit Commission (MTC), led to the perception that MTC would have difficulty planning for, or funding, non-MTC services and making decisions about transit service for areas not well served by MTC; and
- Some suburban jurisdictions were expressing interest in "opting out" of the regional funding and service provision framework and taking transit planning and provision issues under more direct control.

RTB was set up to allocate funds, plan service, and contract for the operation of service with public and private providers. The intent was for MTC to retain operation of most central area services, although RTB also had the option of contracting these out.

To date, five cities have opted out and several others are considering doing so. Some perceive that MTC has retained true control of transit in the area in

part because of the lengthy planning process undertaken by RTB. Those who expected quick, decisive action to improve transit have been disappointed. The Minneapolis experience is reviewed in more depth in the case study by Joel Alter.

Minneapolis has been through the takeover process, and Detroit has been actively engaged in considering externally directed reorganization. The central concerns that militate for change in Detroit are imbalance in funding and decision-making powers between the suburbs and the central city and transit authority management's perceived inability to deal with both funding and management issues. Although no action has been taken to date by the Michigan State Legislature, the Detroit situation typifies local and legislative efforts at organization that are becoming more prevalent in areas where there is a perceived need to change the existing transit monopoly.

CONCLUSION

In this paper the strategies currently being followed in different urban areas to respond to the pressures on transit agencies have been briefly described. The strategies range from self-directed changes, including those that are focused on improving efficiency, improving effectiveness, and reasserting traditional markets, to externally directed changes, including cooperative action, second- and third-generation reorganization, and the takeover model.

Discussion of experience with these strategies, presented in the case studies and workshop reports, is a first step in the evaluation of the effectiveness of each strategy. Although the best strategy is bound to be a function of local conditions and specific pressures, it is important to clarify the strengths and weaknesses of each option for informed local decision making.

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Transit Planning in the Twin Cities Metropolitan Area

JOEL ALTER

In 1984, a Minnesota legislative study commission on metropolitan transit¹ concluded that “the three functions of effective transit service—planning, arranging, and delivering—are misallocated among the various agencies and levels of government.” The commission believed that the region’s public bus operators, the Metropolitan Transit Commission (MTC), could not objectively plan new transit services to meet local needs. In addition, the commission was concerned about rising costs, declining ridership, and the lack of local involvement in transit planning.

The 1984 legislature established a transit planning structure, based on the commission’s recommendations, that is unique among large U.S. metropolitan areas. The legislature limited the MTC to transit operations and short-term planning and allowed the region’s metropolitan planning organization, the Metropolitan Council, to continue long-range transit planning and policy setting. In addition, the legislature established a third agency, the Regional Transit Board (RTB), to conduct mid-range planning, implement the policies and plans of the Metropolitan Council, and arrange for transit services.

This paper is a discussion of whether this organizational arrangement has worked as intended. Overall, although the 1984 changes improved service planning and increased attention to unmet service needs and the transit system’s cost-effectiveness, the RTB still needs to prove itself as an effective problem solver.

¹The Minnesota Office of the Legislative Auditor conducts program evaluations of state-funded agencies and activities. The office issued a report in January 1988 on metropolitan transit planning that evaluated legislative changes in the planning structure made in 1984.

INTRODUCTION

Some national observers have suggested that the Minneapolis–St. Paul region's transit planning structure is a model for other metropolitan areas. A relatively unique set of circumstances was probably responsible for the legislature's 1984 actions. The legislature's willingness to experiment with the transit planning structure resulted partly from the region's history of regional government, a regional transit crisis, and a transit financing system heavily dependent on local property taxes.

The Twin Cities have a history of active regional government. In 1967, the Minnesota Legislature created the Metropolitan Council as a regional policy-making body that would, among other things, provide direction to regional operating agencies, such as the MTC. Thus the legislature saw a need to split policy making from operations more than 20 years ago. The Metropolitan Council was also noteworthy in that it was formally accountable to the legislature, not local units of government. Although the legislature clearly expected the council to be responsive to local governments, it rejected the "council of governments" structure that many other metropolitan areas adopted. Indeed, the legislature later gave the council authority to reject or delay local plans and projects, in contrast with the merely advisory role of many councils of governments.

Despite the legislature's early support for strong regional governance, the creation of the RTB was partly a response to a breakdown in the regional transit system. In 1982, the MTC predicted an operating shortfall of \$40 million. The MTC was too busy operating a bus company to do enough planning, and it was unable to provide cost-effective service in some suburban areas. The working relationship between the MTC and the Metropolitan Council was not particularly good, and there was considerable legislative dissatisfaction with the MTC's chair. Meanwhile, the Metropolitan Council was being criticized for not focusing on the big issues of the region, so there was legislative reluctance to increase the council's involvement in detailed transit planning. Two studies—one by the Metropolitan Council and one by the Legislative Transit Commission—concluded that structural changes in the metropolitan transit planning system were needed.

The transit planning structure has also been shaped by the unique transit financing system in the Twin Cities. No large metropolitan transit system relies as heavily on property taxes as does the Minneapolis–St. Paul regional system about half of whose revenue is generated by property taxes. Some municipal officials have expressed concern that the transit service their cities get is worth less than their financial contribution to the overall system. In response, the 1982 legislature allowed certain cities to "opt out" of the MTC system, that is, use their local transit taxes to fund their own services. So far,

five cities have opted out. Starting in 1983, the legislature also authorized "tax feathering," which bases local transit tax contributions on service received. When the legislature created the RTB in 1984, it hoped that regional transit service planning could more closely involve local officials and be more responsive to local needs.

In sum, the creation of the RTB resulted from (a) a transit funding crisis, (b) two studies that recommended the structural separation of service planning from operations, (c) a history of regional government coupled with a reluctance to involve the Metropolitan Council in system details, (d) legislative dissatisfaction with the MTC chair, and (e) a financing system that demanded greater responsiveness to local needs.

RTB AGENDA, 1984-1987

The RTB faced major challenges when it first met in July 1984. Important policy issues and administrative responsibilities needed attention, but the agency had no staff. The 15-member board (which was reduced to 9 members a year later) had authority to hire 19 staff, and the initial hiring of professional staff was not completed until October 1985. The RTB's task was complicated because there were no models or similar agencies from which to learn. Also, the creation of a new agency meant that new institutional relationships had to be forged. Thus the creation of a new agency presented challenges separate from the difficult policy challenges the board faced. Some of the region's key transit issues during the past 4 years are reviewed in this section.

Light Rail Transit

The RTB's first major policy issue was light rail transit (LRT). The Metropolitan Council completed a study of light rail alternatives in late 1984, and the RTB and the council made recommendations to the 1985 legislature on the viability of LRT in various corridors. Concerned about the cost-effectiveness of LRT and about the extensive time RTB had devoted to it, the 1985 legislature prohibited additional RTB study or development of light rail alternatives until a full assessment of the region's transit needs was completed and an implementation plan developed. The legislature also restricted the RTB's future LRT planning to a single corridor connecting the downtowns of St. Paul and Minneapolis. The board initiated this planning in late 1987.

In 1987, the state's most populous county (Hennepin County, in which Minneapolis is located) sought legislative approval to proceed on its own with light rail planning. Because of this county's willingness to act quickly and with county property tax dollars, the legislature gave primary authority for light rail planning to rail authorities established by counties (there are seven

counties in the metropolitan area). The legislature lacked confidence in the RTB and did not even mention it in the 1987 LRT legislation, and the Metropolitan Council's role in LRT was relatively small.

Transit Service Improvements

The RTB conducted a year-long, \$500,000 transit service needs assessment to analyze potential transit markets in the Twin Cities metropolitan area. The study summarized existing demographic data and also provided findings from some survey research. The RTB found that *central-city services were generally good, but suburban services were often inadequate*. The study presented a lengthy list of potential transit strategies but did not suggest priorities. The study has proven to be a useful and necessary first step toward improved service, but it suffered from a lack of cost information. The study gave little indication of how much the services identified might cost and how they might be funded.

As required by law, the board also developed an implementation plan to indicate how it would implement the Metropolitan Council's transit policies. This document offered a potential opportunity for the RTB to set a clear agenda and priorities. However, because the needs assessment took longer than expected to complete, the implementation plan was rushed. The board has not used the plan as the key decision-making tool that it should be. Although the plan indicates some priorities for new service, it does not indicate them in much detail nor does it outline key decisions that the board will need to make before implementing service.

As of the end of 1987, the board had implemented no significant new services within the metropolitan transit taxing district, although there were plans to "test market" several new services in 1988. Curiously, although the creation of the RTB resulted partly from the need for better suburban service planning, the board did not discuss suburban service much between 1984 and 1987, and the implementation of new service was not a priority. Funding does not appear to have been an obstacle to some experimentation with new service during this time. The lack of new service raised increasing legislative concerns about the board's mission and effectiveness, and board members appeared to make service implementation a greater priority late in 1987.

Metro Mobility Restructuring

Metro Mobility is the Twin Cities region's primary transit program for disabled people. It provides 80,000 to 100,000 rides a month, about double the number of rides given before a major RTB program restructuring in October 1986. The RTB changed Metro Mobility to a "user choice" system in which

users arranged their own rides with providers instead of calling a central dispatching center. The increased ridership appears to be explained by (a) an increase in demand among existing riders, (b) a shift of social service agency clients from agency transportation services to Metro Mobility, and (c) expansion of Metro Mobility into more suburban areas.

The RTB's early discussions of possible Metro Mobility program changes were open and fair, and there was ample opportunity for public input. The board made some difficult and bold decisions after these initial discussions, and it deserves much credit for addressing problems with the previous Metro Mobility system. However, the board did not adequately involve users and providers in detailed implementation planning for the new system, and some issues (including some safety and training issues) were unresolved at the time the restructuring occurred.

In addition, the RTB did not adequately distinguish its own role from that of the Metro Mobility Administrative Center, established to oversee the program's day-to-day operations. As a result, there was confusion about which agency should monitor provider performance and which had authority to impose sanctions.

Competitive Bidding for Transit Service

In 1986, the RTB expressed interest in competitively bidding for certain transit routes, and it received a \$350,000 federal grant to explore competitive transit. Through 1987, the RTB had let two MTC routes (they were not bid as part of the federal study). The RTB let these routes before (a) establishing guidelines for the bidding process and (b) establishing a means of effectively resolving provider disputes. Subsequently, the legislature mandated that the RTB establish bidding procedures, and the federal government criticized the region's lack of a dispute resolution process.

During 1987, the RTB and MTC had a strained relationship, resulting partly from the board's interest in competitive transit. The MTC wanted a clearer indication of the routes that were eligible for bidding, because the RTB's federal grant application proposed an ambitious program of bidding. As of early 1988, the RTB had not developed a clear policy defining the routes eligible for bidding. RTB staff developed guidelines for competitive transit in late 1987, but the broader issue of which services to bid remained unsettled.

CHALLENGES FOR THE THREE-TIERED PLANNING STRUCTURE

The three-tiered transit planning structure of the Twin Cities appears to be unique. Most cities have a one-tiered system, in which the operator does all of

the planning, or a two-tiered system, with an operator and a separate planning agency. Some people distinguish the three Twin Cities transit agencies by the scope of their planning: the Metropolitan Council does long-range planning, the RTB does mid-range planning, and the MTC does short-range planning. However, the distinctions among these types of planning are not particularly clear, so it is probably easier to distinguish the three agencies by their chief functions: the Metropolitan Council sets the region's overall transit policies, the RTB arranges for transit service and implements council policy, and the MTC operates the main bus system.

Although the three tiers are a complicated structure, the Twin Cities system is even more complicated than it looks at first. Aside from the three agencies noted, the RTB contracts with two administrative agencies for Metro Mobility and ridesharing services. Also, the RTB has established advisory committees for Metro Mobility, ridesharing, transit providers, and competitive transit. And, as noted earlier, the legislature gave primary responsibility for light rail planning to county rail authorities.

Because of this complex structure, it is not surprising that interagency coordination, accountability, and communications have presented major challenges in the Twin Cities.

Coordination

Some of the RTB's most thorny problems during the past 4 years were coordination problems. For example, the RTB implemented a restructured transit program for disabled people before adequately clarifying responsibilities for provider oversight. The new program had 19 private transit providers, and there were some highly publicized accidents shortly after the restructuring occurred. The authority of the RTB and its Metro Mobility Administrative Center to respond was not clearly established, and provider contracts made no specific mention of sanctioning authority.

In addition, the RTB encountered coordination problems in transit station site planning along a newly constructed Interstate. Although the detailed design should have been the responsibility of the state department of transportation, the board wanted to incorporate an existing restaurant into one of the stations and directed staff to explore ways of doing this. There was also confusion about whether responsibility for holding public hearings on station sites lay with the RTB or the department of transportation.

There continue to be some "gray areas" of responsibility that the planning agencies need to resolve. For example, it is unclear what the respective roles of the Metropolitan Council and the RTB should be in encouraging the formation of transportation management organizations, and it is unclear whether the RTB should play a more active role in promoting ridesharing or

leave this activity to the rideshare administrative agency. It will be important for the agencies to reach formal understandings on their duties in the future.

However, it is doubtful that formal agreements can eliminate all of the gray areas. Some coordination dilemmas appear to be inherent in the planning structure. For example,

- Is it possible for the RTB to be a contract manager without getting involved in operations? The RTB holds about 40 contracts with transit providers in the region, and it is placing increasing emphasis on oversight and evaluation. The RTB has taken two approaches to contract management. In the case of services for the disabled, the RTB has an administrative center for day-to-day program monitoring. In the case of other services, the RTB deals with providers directly.

- Can an agency responsible for program design and implementation stay out of operations? When the RTB redesigned the Metro Mobility program, it made decisions about many program details. The line between planning and operations may also be blurred as the board considers how to implement light rail transit in the corridor connecting downtown Minneapolis and St. Paul.

- Who has policy-making authority for regional transit and for which issues? The legislature, the Metropolitan Council, and the RTB all play a role in setting policy for the regional transit system. However, the limits of authority of each have never been particularly clear. Some people have criticized the legislature for its willingness to set policy on operational issues (such as fares), and others think that the RTB has set policies that should be the responsibility of the council or legislature.

Accountability

The regional agencies are "independent special districts" and each is a separate political subdivision of the state. There has been concern during the past few years about the RTB's autonomy; some people think that it should be more closely scrutinized.

The RTB is formally accountable to the Metropolitan Council, but the council has not exercised aggressive oversight, nor has it provided particularly clear guidance. The council is responsible for setting the region's long-range transit policies, and it approves the RTB's implementation plan for these policies. However, until 1988, the transit policies of the council were very general and lacked performance measures. A revision of the policies is scheduled for mid-1988, and the draft policies developed so far provide the RTB with more specific guidance than does the existing plan.

One of the primary dilemmas faced by the council during its history has been how to strike a balance between policy leadership and management of its

regional agencies. At times, the council has spent so much energy overseeing the regional agencies that it has lost sight of the need for strong, creative regional policy leadership. Thus it is important that the council's more assertive oversight of the RTB not come at the expense of attention to the "big picture."

Communication

Since the 1984 legislature's creation of a three-tiered transit planning system, there have been more agencies, more advisory groups, and more important transit decisions than was previously the case. This has heightened the need for good public and interagency communication. The existence of an effective decision-making process may be as important to the success of such a system as the policies adopted.

When the RTB restructured the Metro Mobility program, users and providers thought that they were not adequately involved in implementation planning. For example, user safety and driver training issues were the subject of little public discussion until shortly before the restructuring occurred, and providers had little input to the contracts that were established with RTB. The RTB used a better decision-making process when it developed guidelines for competitive bidding procedures in 1987. The legislature mandated the establishment of a competitive transit advisory team made up of representatives from the MTC, its union, private providers, and others. Although the team did not agree on all issues, they had ample opportunity to air their views, and RTB staff accurately presented the views of the team to the board before the board acted on the guidelines.

CONCLUSIONS ON RTB PERFORMANCE AND THE TWIN CITIES TRANSIT STRUCTURE

The creation of the RTB was a bold legislative experiment, and many national observers point to the Minneapolis-St. Paul transit structure as a model for other cities. The 1984 changes occurred because of the legislature's belief that the existing structure was fundamentally flawed and because of its frustration with the performance of existing planning agencies. For the legislature to continue the present structure, it must be convinced that the RTB (*a*) has a fundamental reason for being and (*b*) is capable of performing its tasks.

Regarding the RTB's reason for being, there remains a clear need for an agency with a regional perspective to arrange for and evaluate transit service, although these tasks do not necessarily have to be carried out by a separate agency. The region's public transit agency, the MTC, cannot objectively perform these tasks because it has a stake in the outcome. In contrast, the

Metropolitan Council could perform these functions and conduct mid-range transit planning. It appears to be appropriate for the council to play a more active role in transit, which is quickly becoming one of the region's most pressing issues. On the other hand, many recent assessments of the council criticized its tendency to become immersed in program details. It is also unclear whether the council could devote enough time to transit, given its many other responsibilities. In sum, it is not structurally necessary to have a separate transit agency, but there may be practical reasons for assigning transit brokering and mid-range planning to an agency other than the Metropolitan Council.

However, for the legislature to maintain the current transit planning structure, the RTB's performance in achieving regional and legislative goals must improve. The RTB's short track record contains many mistakes and missed opportunities. This may not be unexpected for a new agency that is breaking new ground in transit planning, but the RTB needs to make several improvements.

First, the RTB must be more attentive to the process by which policies are implemented. The board needs a stronger implementation plan, one that it can use on a regular basis to guide its actions. The board spent too much time in its first 4 years responding to "brush fires" partly because key issues caught it by surprise and because its planning process did not include enough opportunities for outside participation.

Second, the RTB needs to be more of a forum for ideas. The board often gives chances to speak to advisory groups, local governments, and the general public, but it needs to encourage more public discussion and react less defensively to public criticism. The RTB's record of involving local governments in decision making is mixed and shows considerable room for improvement.

Third, the board needs to innovate. The board acted boldly when it restructured the Metro Mobility program, but the board was not aggressive in discussing and implementing suburban service improvements during its early history.

Fourth, interagency accountability must improve, and all RTB actions should be consistent with Metropolitan Council policy. During the past few years, the council has not been particularly assertive in its oversight of RTB actions. If the council's increased oversight and policy leadership do not adequately improve accountability, the legislature should consider making the RTB an agency of the council. Under this arrangement, the board would be staffed by the Metropolitan Council; all final policy-making authority would rest with the council, although the board could propose or implement policy.

Fifth, because many of its efforts have not been timely, the RTB should improve its internal oversight. The board must be better prepared to make

difficult decisions, and it should establish ad hoc committees to work with staff on major issues. Also, the board needs to monitor staff activities more closely, because staff activities have sometimes varied considerably from work plans.

Sixth, the RTB needs to formalize its relationship with other agencies on key responsibilities. During the past 4 years, the RTB sometimes assumed that the responsibilities of its advisory committees, the MTC, and the Metro Mobility Administrative Center were understood, when indeed they were not.

Overall, the RTB's record to date is mixed. It has improved the region's transit service planning, and it has given greater attention to the cost-effectiveness of the transit system. However, the RTB has not yet proven itself to be an effective problem solver, so it is unclear whether the legislature's 1984 experiment has been a success.

It would be premature to make major structural changes at this time. Such changes would be disruptive and would threaten progress currently being made by the RTB. Also, the RTB intends to implement some new suburban services and competitive transit demonstrations in 1988, and it should have the opportunity to do so. But the board needs to execute policies and implement programs more skillfully than it did during its first few years. The current structure can probably work, but it has been hindered by problems in agency coordination, accountability, communication, and decision making.

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Case Study of the Washington Metropolitan Area Transit Authority

RONALD F. KIRBY

The Washington Metropolitan Area Transit Authority (WMATA) was formed in 1967 through a congressionally approved interstate compact. The compact called for policy guidance for WMATA to be provided by elected officials and their appointees from Maryland, Virginia, and the District of Columbia. WMATA's initial mission was to plan, finance, and construct a rapid rail transit system for the Washington metropolitan area. Subsequently, WMATA was given responsibility for operating the rail system and for acquiring and operating the four local privately operated bus systems. Since 1973, WMATA has operated integrated "Metrorail" and "Metrobus" systems.

From the inception of this integrated rail and bus system, local officials have followed a policy of making rail and bus services complement, not compete with, each other. The objective has been to avoid subsidizing both bus and rail services along the same route and to have buses provide feeder service to rail lines wherever possible. Consequently, every time a new rail segment opens, many nearby bus routes are modified to serve the new stations.

At present, WMATA owns and operates virtually the entire regional transit system. Apart from a few privately operated commuter bus services, there are no other truly regional transit services in the Washington metropolitan area. Some local jurisdictions have established their own local bus services, but those services are generally designed to complement and supplement the WMATA bus and rail services. The evolution of these services and their present and future impacts on WMATA will be discussed in a later section.

WMATA policy is established by a board of directors made up of two directors and two alternates from each of three jurisdictions—the District of

Columbia, Maryland, and Virginia. The Virginia members are appointed to the WMATA board by the Northern Virginia Transportation Commission. The District of Columbia members are named by the mayor and city council, and the Maryland members are appointed by the Washington Suburban Transit Commission. Most of the board members are elected officials in their own jurisdictions, but a few are private citizens appointed by the jurisdictions.

CURRENT SIZE AND STATUS OF WMATA

In its approved fiscal year 1988 budget, WMATA shows gross operating costs of \$506 million, of which \$34 million are capitalized construction management, grant administration, and start-up costs. The remaining \$472 million in noncapitalized operating costs are covered by \$249 million in passenger and other revenues and \$223 million in public operating assistance. The latter \$223 million is made up of \$18 million in federal operating assistance and \$205 million in state and local funds. (Federal operating assistance thus constitutes only 4 percent of total noncapitalized operating costs.) The FY 1988 budget includes \$352 million in capital expenditures, of which \$313 million are devoted to Metrorail construction. The remaining \$39 million are devoted to capital improvements for Metrobus and rail reliability. The federal government is providing 80 percent (or \$250 million) of the Metrorail construction funding and also just under 80 percent of the Metrobus and rail reliability capital funding through the Section 9 formula program. Total construction funding for the Metrorail system is shown at \$7.355 billion from the start of construction in December 1969 through the end of FY 1989. It is projected that an additional \$2.026 billion will be required for fiscal years 1989 through 1997 to complete the 103-mile system.

The FY 1988 budget calls for a bus fleet of 1,590 buses, with a scheduled maximum of 1,383 (87 percent of the total). A total of 49 million scheduled bus miles will be operated, and 138.5 million passengers will be carried. Operating cost is expected to be \$4.95 per bus mile and \$1.79 per passenger. The average passenger fare will be \$0.59, or 33 percent of the operating cost per passenger. (The average passenger fare of \$0.59 is below the base fare of \$0.80 because of rail-to-bus transfer arrangements.) The remaining 67 percent is to be made up of other revenues (4 percent) and operating assistance (63 percent).

In FY 1988, WMATA will have a total rail car fleet of 548, with a scheduled maximum of 456. The agency will operate 35 million rail car miles of service over 70 one-way route miles, serving 64 stations. A total of 135 million passengers will be carried at an average operating cost of \$1.65 per passenger and an average passenger fare of \$1.06. Passenger revenue is expected to be 64 percent of operating cost, with other revenue contributing a further 7

percent and operating assistance making up the remaining 29 percent. WMATA has budgeted in FY 1988 for a total of 8,427 staff-years of which 4,406 will be devoted to bus operations, 3,367 to rail operations, and the remaining 654 to the bus and rail capital programs.

THE CHANGING TRANSIT ENVIRONMENT IN THE WASHINGTON METROPOLITAN REGION

When it assumed ownership and operation of the four former private bus companies in the Washington area in 1973, WMATA operated virtually all of the public transit service in the region. Since that time, however, local governments in Montgomery County, Maryland; and Alexandria, Fairfax County, and Fairfax City, Virginia, have initiated their own bus services and, in most cases, reduced somewhat the amount of WMATA bus service in their jurisdictions. The following descriptions of these local bus systems are drawn from WMATA's Regional/Local Bus Study completed in November 1986.

Montgomery County initiated its Ride-On bus system in April 1975 and has expanded it steadily ever since. Ride-On provides bus service within the county. Service is equally distributed between radial and nonradial routes and includes feeder services to all Metrorail stations in the county. Ride-On operates 165 thirty-passenger buses and 20 twenty-one passenger contract buses 7 days a week, from 5:00 a.m. to midnight on weekdays and from 7:00 a.m. to 11:00 p.m. on weekends. During FY 1987, Ride-On transported 10.3 million passengers with a work force of 361 staff-years and a \$16.7 million budget comprising \$15.5 million for Ride-On and \$1.2 million for contract routes. There was a \$4.7 million contribution from passenger and other revenues, and the remaining \$12 million was provided from state and county funds.

The city of Alexandria initiated its own neighborhood DASH bus service in March 1984. DASH operates 17 thirty-passenger buses and 2 thirty-five-passenger buses over four routes that serve the city and provide feeder service to Metrorail stations in the city and at the Pentagon. All four routes operate from 6:00 a.m. to 11:00 p.m. on weekdays, and from 7:00 a.m. to 11:30 p.m. on Saturdays; two routes operate from 8:00 a.m. to 7:00 p.m. on Sundays. The system carried 1.1 million passengers in FY 1987 with 44 employees, an operating cost of \$1.3 million, revenues of \$700,000, and a deficit of \$600,000 made up by the city of Alexandria.

Fairfax County introduced neighborhood feeder bus service, called the Fairfax Connector, to the Huntington Metrorail station in September 1985. The Fairfax Connector has a fleet of 37 thirty-passenger buses that operate 7 days a week on ten peak routes and seven off-peak routes. Service is operated from 5:45 a.m. to 11:30 p.m. on weekdays, from 6:30 a.m. to 11:00 p.m. on

Saturdays, and from 10:00 a.m. to 6:00 p.m. on Sundays. Between September 1985 and September 1986 the system carried 1 million passengers. During FY 1987, the Fairfax Connector had 65 employees, an operating budget of \$2.4 million, and an annualized capital expenditure of approximately \$500,000. Farebox revenues brought in \$560,000, and the county provided the remaining budget.

The county expects to expand this system to serve other Metrorail stations and additional travel within the county. It has approval for 17 new buses, though this is contingent on finding a second maintenance garage. Consequently, it may be 3 years before this expansion is fully operational.

Fairfax City operates its own small commuter bus system called CUE. The system operates 7 days a week between 5:45 a.m. and 11:30 p.m. CUE has nine 31-passenger buses and operates seven of them on seven routes in the rush hour and four of them on four routes in the off-peak period. The system carried 472,000 passengers in FY 1987 and had eight full-time employees and a number of part-time staff. The total operating cost was \$512,000. Revenues were \$180,000, and the City of Fairfax covered the deficit.

Other jurisdictions such as Falls Church and Prince George's County are also contemplating the introduction of their own bus services. The rationale for the development of these systems by local governments appears to involve three distinct elements:

- The long lead time involved in making modifications to WMATA Metrobus service;
- The ability to tailor local services to meet local objectives without having to consult other jurisdictions; and
- The savings achieved by the local government, principally through lower, nonunion wage rates, as a result of reducing the amount of Metrobus service operating in its jurisdiction.

Two points need to be made about the last of these elements. First, the local jurisdictions are developing (or planning to develop) both services that are different from the current Metrobus service and services that replace some existing Metrobus service. So the motivation is not only cost but also the introduction of new kinds of services.

Second, the jurisdictions are able to save only the variable costs of Metrobus services they cut back. These variable costs are currently allocated to the jurisdictions on the basis of platform miles and hours of service. Metrobus revenue is also allocated to the jurisdictions on the basis of ridership, and the net of allocated variable cost minus allocated revenue is the potential savings available from service cutbacks. (Fixed costs of Metrobus service are allocated to the jurisdictions on the basis of 1,975 peak-period buses serving the jurisdictions, an allocation that is not affected by service cutbacks in an individual jurisdiction.)

Most of the long-term population growth in the region is forecast to occur in (and beyond) the suburban jurisdictions that are currently developing their own bus systems. Consequently, growth in locally provided bus services has important implications for the future of WMATA's bus operations. Although the suburban systems are still relatively small, they could eventually reach a size that would force WMATA to reduce its bus operations significantly, perhaps by closing a major garage facility.

Another issue for WMATA is the rapid growth in rail ridership from jurisdictions outside the current WMATA compact area, including Anne Arundel, Charles, Frederick, and Howard counties in Maryland and Loudoun, Prince William, and Stafford counties in Virginia. Weekday Metrorail ridership from these counties (whose residents make no direct contributions to WMATA capital and operating costs other than farebox revenue) grew by 44 percent from 1986 to 1987, from 10,740 to 15,450, compared with a 9.3 percent increase in ridership within the WMATA compact area from 381,000 to 420,000. Combined with the approximately 22,000 daily travelers from elsewhere in the country, these trips from neighboring counties helped raise the percentage of Metrorail ridership from outside the WMATA compact area from 7.8 percent in 1986 to 8.2 percent in 1987.

WMATA'S RESPONSE TO THE CHANGING ENVIRONMENT

The changes discussed in the previous section have received a great deal of consideration and analysis at WMATA, as evidenced, for example, by the staff Regional/Local Bus Study completed in November 1986. Although no explicit policy or "strategic plan" has been adopted by the WMATA board to respond to these changes, a number of implicit policy positions appear to have emerged in WMATA's actions to date. These positions are discussed in turn.

1. WMATA is giving high priority to the completion of the 103-mile rail system.

Although a 103-mile rail system has been adopted in the Long-Range Plan for the Washington Metropolitan Region, WMATA is currently operating only 70 miles of that system and has funding authorization for only an additional 19 miles. The remaining 14 miles are as yet unfunded and will require new federal legislation if the current 80 percent federal contribution is to continue until completion of the system.

WMATA has no dedicated sources of state and local funding. Rail construction funding contributions from the local jurisdictions are determined by a rather complicated formula based on their share of the full 103-mile system. Failure to complete the full system would leave some imbalances between the financial contributions and the amount of completed rail system within the

various jurisdictions. Rail operating deficits are allocated according to three benefit factors, with one-third assigned to each: ridership by jurisdictional residence, stations per jurisdiction, and urban area population/population density per jurisdiction. Both the bus and the rail allocation formulas are currently being reexamined.

Extensions to the 103-mile rail system are possible in the future, and some are already under consideration. However, completion of the currently adopted 103 miles remains a major challenge that is understandably being given top priority by the WMATA board and staff.

2. WMATA is devoting considerable effort to the expansion of parking capacity at its suburban rail stations. Parking lots at many of the suburban stations are currently filling up before the end of the morning peak hour. This limits the number of potential passengers on the rail system. In line with its primary emphasis on the success of the Metrorail system, WMATA has taken a number of steps to improve access to stations. A key component of this plan is to expand the amount of parking available.

WMATA is effectively in the parking business: it operates 20,000 spaces at present, has funding to bring this total to 30,000, and is working to have 20,000 additional spaces provided. WMATA charges for use of these parking spaces, and revenues go to the rail system. (Bay Area Rapid Transit in San Francisco operates more parking spaces than WMATA, but without charge.) WMATA has been urging local governments to help increase parking capacity at Metrorail stations in their jurisdictions.

3. WMATA considers its bus services complementary to the rail system and prefers not to provide bus services along rail routes.

Unlike San Francisco, where bus and rail services are operated by independent agencies, WMATA is able to closely coordinate its bus and rail services because it has direct control over both. Successful operation and ultimate completion of the rail system are top priorities for WMATA, so the Metrobus system is designed first and foremost to be supportive of that goal. This policy has been endorsed by the region's local governments, including those that operate their own bus systems.

4. WMATA cannot prevent local jurisdictions from cutting back on Metrobus services and establishing their own local bus systems. The allocation formulas for assigning the costs and revenues of Metrobus services to the participating jurisdictions give those jurisdictions the option of cutting back certain Metrobus services and avoiding the associated variable costs. (They cannot, however, avoid the fixed costs, nor can they take direct advantage of any savings in capital costs resulting from cutbacks in Metrobus.) To a large degree, therefore, WMATA is placed in the position of being a contract bus operator, as indicated in the following statement by the general manager (letter to Carol W. DeLong, Chairman, Transportation Planning Board, from

Carmen E. Turner, General Manager, Washington Metropolitan Transit Authority, June 17, 1987):

It should be noted that it is the local jurisdictions throughout the region which determine the type and amount of (bus) service to be operated within their boundaries and which carrier, whether WMATA, local jurisdiction bus service, or contract carrier, shall provide the service. In essence, local jurisdictions contract with WMATA to provide a certain amount of bus service.

Consequently, there is little WMATA can do to halt or even retard the tendency of local jurisdictions to provide their own services. (The Regional/Local Bus Study did recommend, however, actions to address two of the three major concerns that lead to local services. Efforts were proposed to streamline the process for approving service changes, and greater efforts were recommended to control costs. The study also recommended a stronger coordinating role for WMATA in regional bus services.) In practice, WMATA has accepted local decisions to introduce local bus systems without major objection and has worked to integrate the new services into the regional bus and rail system.

5. In the long run, WMATA's role in bus service provision could decline substantially as newly expanding suburban communities (both within and outside the compact area) expand their own systems. The WMATA board and staff are undoubtedly aware of this possibility. However, instead of trying to forestall the further expansion of local bus services, WMATA appears to be focusing its resources on the regional Metrorail system and on maintaining and improving its complementary Metrobus system. WMATA is also trying to coordinate the steadily expanding intrajurisdictional bus services provided by local governments.

Overall, WMATA's response to the changing transit environment appears to be consistent with and supportive of regional transportation policies and priorities. Total transit ridership is increasing steadily, and opportunities are gradually being provided for greater diversification of transit services and operating arrangements throughout the region.

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5

Evaluation of the Market-Driven Approach Taken by the Municipality of Metropolitan Seattle

CY ULBERG

In 1985, the Municipality of Metropolitan Seattle (Metro) began a major change in the way it planned and delivered transportation services. Some believe that the "new Metro" employs innovative techniques adapted from the private sector that will radically alter the ability of the organization to improve transportation in the Seattle area. Others think that the market-driven approach is nothing more than rhetoric describing what Metro has always done. The truth is probably somewhere in between. Three issues emerge in the assessment of how close Metro is (or will be) to one of these polar descriptions:

1. Restructuring the organization introduces problems that inhibit the effective accomplishment of organizational goals;
2. More extensive use of market research and other analytical tools requires acceptance and understanding by staff, management, and policy makers; and
3. Integration of fixed-route bus service with other ridesharing modes requires changes in attitudes of staff, methods to measure success, and a commitment by management and policy makers to promote other modes.

Experience with the changes at Metro, from their inception to the present time, is chronicled and evaluated in this paper. The material presented here is based on the author's knowledge of the agency as a full-time employee through the fall of 1983, his continuing contacts with the agency as a contractor, interviews with 20 Metro staff members at all levels in the

organization (in addition to conversations with bus drivers while riding the bus), and discussions with several people outside the agency. The opinions presented here are based on those of people inside and outside the agency, but the author assumes full responsibility for the interpretation of those opinions.

PROBLEM

Change in an organization generally occurs as the result of a perception that some problem exists. The initial reason for Metro's considering a different approach to providing public transportation services was a leveling of (or a slight decline in) transit ridership. Like many transit agencies in the 1970s, Metro enjoyed fast growth in transit ridership. The reasons were many: Two oil crises, resulting in short supplies of gasoline and rapidly rising fuel costs, made transit an attractive option. The Seattle economy's rebound from a slump (caused, in part, by a sharp reduction in Boeing employment) meant many new jobs for the area, increased congestion, and increased demand for travel. Restrictions on downtown parking and construction of new freeways helped make the bus attractive to downtown commuters. Metro's innovations with part-time drivers, large-capacity articulated buses, and a large system of park-and-ride lots increased use of the system. It was difficult for Metro to provide service fast enough to keep up with the demand.

In 1980, the rapid ridership increase ended abruptly. Gasoline prices stabilized, area employment declined in conjunction with a nationwide recession, and bus fares had to be raised to keep up with increasing operating costs. As can be seen in Figure 1, transit ridership responded in predictable ways to these changes. It was thought, however, that when gasoline prices resumed their rise and the recession ended, ridership would pick up again. Plans were under way to build a transit tunnel through the Seattle central business district (CBD). The tunnel, 1.2 mile long, was designed to accommodate a large proportion of the buses going through the CBD and to deal, at least partly, with the expected increase in ridership.

The increase in ridership did not materialize. Metro staff and officials began to realize that the transit market had changed. Employment growth was no longer concentrated in the Seattle CBD. Lower interest rates resulted in a boom in new car purchases. People wanted to use their cars, and the new trips that were being generated were not easily served by transit.

Metro and public officials recognized early that traditional fixed-route bus service could not, by itself, resolve the growing congestion problem. Other forms of ridesharing, such as vanpools and carpools, would have to contribute. The Seattle-King County Commuter Pool has been administered by the city of Seattle since the mid-1970s. The program was funded through the Federal Aid Urban System allocation to the city of Seattle, King County, and

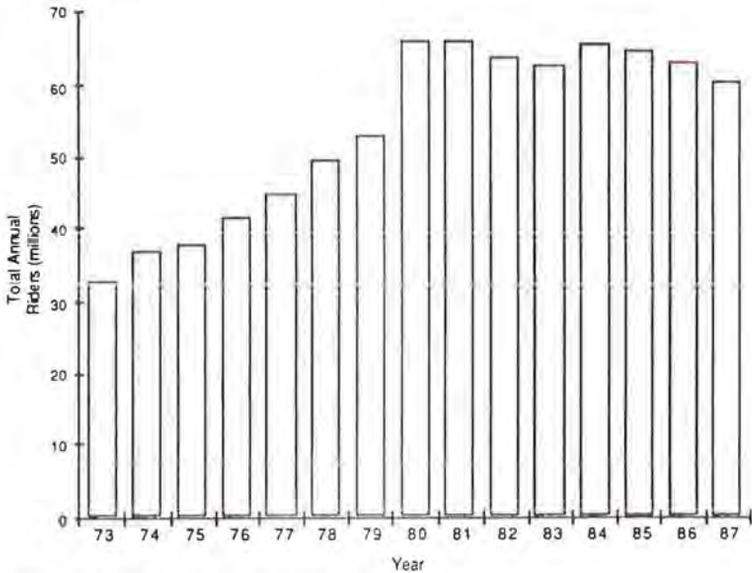


FIGURE 1 Metro transit ridership.

suburban jurisdictions. The advantages of merging transit and ridesharing activities to serve all public transportation needs from a single source were widely recognized. Metro could provide a more stable funding base for Commuter Pool activities, and integrated transportation planning would be enhanced. The Commuter Pool combined with Metro in April 1984.

Because Metro recognized that the market was changing and that transportation services had to include modes other than fixed-route bus service, the organization was in a good position to respond to the new conditions. However, after several years of this new form of operation, things had not improved. Ridership was flat, congestion in the area was growing rapidly, and the organization was having difficulty in truly integrating transit and ridesharing. There was a lack of good information to guide planning on the market. The lack of coordination among activities was especially noticeable in marketing and planning. Because Metro, by this time, was in the preliminary stages of constructing the bus tunnel, a major capital investment, it was especially important to understand what was happening and to respond to it.

NEW APPROACH

The new approach has two basic elements. The first element was a shift in emphasis to a market-driven one. Instead of concentrating solely on the efficient delivery of a relatively fixed set of services, Metro would invest

energy and finances in understanding the market and offering an appropriate selection of products from a wide range of services. The second element was reorganization of part of Metro to better integrate transit and ridesharing activities and to facilitate the use of market information in the planning and delivery of services. It was thought that a reorganization was required to accomplish the shift to a market-driven emphasis, and, at least in Metro's case, it is difficult to separate the two elements of the new approach.

The change was initiated after months of consideration by a management team devoted to the effort. Two organizational philosophies were considered. One was a structured-competition approach that involved supplying different kinds of transportation services that might overlap and seeing which one survived. The other was the market-driven approach that relied on research and evaluation to determine what people wanted and to provide services that met those desires. The latter won out.

To pursue the market-driven approach, organizational changes were required. Metro had previously been organized along modal lines. Transit and ridesharing were separate. Ridesharing was often viewed as competing with transit. To integrate services, the organization was restructured along functional lines. Figure 2 shows the organizational structure before and after the change. Two directorates headed by superintendents were established. This added a layer of organization that had not existed before. One directorate was called the Operations Directorate and included base operations, vehicle maintenance, facilities maintenance, bus scheduling, and safety and training. Those activities had previously been headed by a superintendent, and that part of the organization was not changed.

The other directorate combined what had been the planning, marketing, commuter pool, and customer service divisions into one group. This group, known as the Public Transportation Development Directorate, was divided into four divisions: capital planning and development, research and market strategy, sales and customer services, and service planning and market development.

Responsibilities were assigned to each of the divisions to balance the load as much as possible and to combine functions that could enhance each other. For instance, market development was included in service planning so that new markets could be developed in ways that were compatible with the kinds of service that could be provided. Long-range planning was included in the capital planning group to provide continuity in the capital program. Sales and promotions were part of customer service so that all kinds of interactions with the customer were in the same division. Research and market strategy was a new group combining all of the existing research and evaluation efforts in one division designed to enhance the ability to develop useful market information.

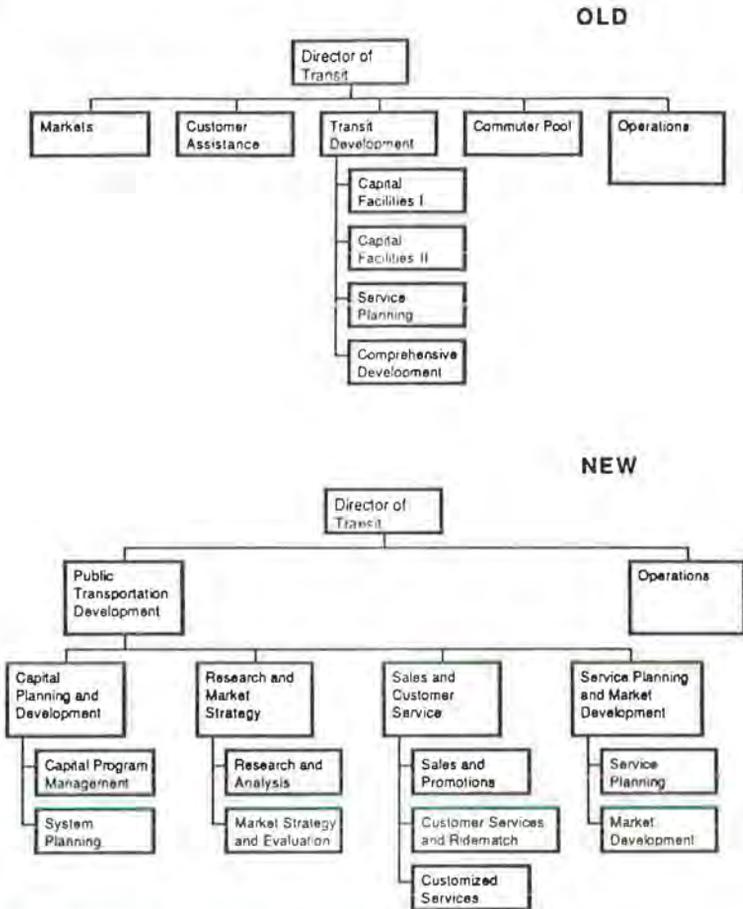


FIGURE 2 Organizational structures.

During reorganization, and for months afterwards, emphasis on the market-driven approach was continually reinforced. Numerous seminars, lectures, meetings, and publications were part of management and staff orientation. Considerable energy was devoted to developing a common understanding of Metro's philosophy.

SUCSESSES

Since the reorganization, Metro has neither had major success in increasing transit ridership nor shown a radical impact on vehicle occupancy in the region. However, some things have gone quite well and provide hope that the big "wins" may come later.

The research group has provided quality information about the market that has never been available before. It has demonstrated its ability to evaluate programs that can be used to guide Metro's strategic planning. The potential for useful support of Metro's marketing and planning efforts is there. However, centralization and expansion of research activities have raised issues that are discussed later in this paper.

Even though funding is limited and there has not been sufficient time to convert market information to a range of new products, there have been some new products attributable directly to the new approach. Research showed that one of the major barriers to people's participation in vanpools and carpools was the fear that they would be unable to leave work during an emergency. Metro is experimenting with a program to provide guaranteed taxi trips to transit patrons and vanpool participants in the event of an emergency. This program should alleviate some of the fear and attract more riders to these modes.

Metro has divided its service into districts. District teams have been formed across divisions and directorates to deal with problems unique to the districts. Teams include representatives from all divisions and have proven to be useful in identifying problems and opportunities.

The Eastside Action Plan (EAP) is the first example of a combined transit and ridesharing service change. The EAP deals with a part of Metro's service area around Bellevue, an important activity center to the east of Seattle. Because of the dispersion of residences and employment sites on the east side, it was imperative to involve ridesharing activities and the planning of fixed-route transit services in solutions to the problems. The EAP involved the whole range of transportation alternatives.

The market development group has earned recognition as an important part of Metro's activities. As discussed in a later section of this paper, its "proactive" entrepreneurial stance on land use and development regulation is not entirely consistent with a purely market-driven approach. However, it has established the legitimacy of this kind of activity in Metro and is widely supported.

Even though big wins are not obvious for the market-driven approach, things might have been worse without the new approach. The transit tunnel project has been disruptive of traffic and shopping activity in the downtown area. There has been negative public reaction to the project. However, because of Metro's attention to the problems the tunnel has engendered, the negative reaction has not been as strong as it probably would have been otherwise.

The lack of obvious improvement in transit ridership and ridesharing can be explained partly by inhibitions due to the current economic environment. Gasoline prices have been low, new employment has located in difficult-to-serve places (for both transit and ridesharing), and Metro's resources to

provide new services have been limited. It is possible that ridership would have declined without current efforts and that congestion would be even more of a problem than it is without the continuing efforts of Metro.

PROBLEMS IN IMPLEMENTATION

No matter how well planned and managed, any organizational change will have problems. Some of the major problems Metro has faced are covered in this section. Some are peculiar to Metro's circumstances and others would occur anywhere. Because of the attention given to the process of organizational change by Metro's management, it is likely that many potential problems were avoided. This inventory of problems may not include some that would be faced elsewhere.

Restructuring and reorientation take time. Nobody thought that the changes at Metro would occur overnight. Several months were spent preparing for the changes before any change at all was made in the structure. The structural change occurred all at once, and new management and supervisory positions were filled on an interim basis until permanent occupants could be chosen. However, the time it takes to accomplish change was probably not fully appreciated.

In Metro's case, it has taken at least a year for people to get used to the new structure. It takes some time for managers to define the boundaries of their new jurisdictions. Many staff people have new supervisors and managers. Personal and working networks were changed by the radical rearrangement of personnel. After a year and a half, most people have adjusted to their new organizational locations. However, staff people often refer to the previous structure when they describe the current organization. Some, doubtless, would prefer to go back to the "good old days" and their previous work groups.

Even though most people have adjusted to the structural reorganization, many do not believe that the philosophical shift to a market-driven approach has been completely accomplished. Although it is no longer novel, difficult, or threatening to think in terms of the integration of ridesharing and transit, fixed-route transit is still the most prominent service that Metro provides and tends to take precedence. Information provided by the research and market strategy division is just beginning to be useful to some parts of the agency. Most people interviewed for this paper believed that it will take from 3 to 5 years before a real shift in the way Metro operates will have occurred. That is also the time at which they believe the benefits of the market-driven approach will begin to be noticeable.

The reorganization created a new level in the organizational structure. The new level meant one more link in the bureaucracy and one more level of approvals and information transfer. Metro has also taken on a larger number

of activities. People at all levels reported some frustrations with the additional reporting requirements. Although there can be good reasons for keeping everyone informed and obtaining necessary approvals, the process can be perceived as a barrier to getting things done. The additional checks and balances required in a more complex organization are one of the issues Metro has to deal with. However, because Metro has been growing (and aging) continually for the last several years, it is unclear how much the perception of proliferating bureaucracy has to do with the recent organizational change and how much it has to do simply with an ongoing trend toward a more mature organizational structure.

There has been some cynicism about the change among Metro staff. Some cynicism exists in any organization, especially a large public bureaucracy. However, some of the cynicism at Metro can be attributed to the way in which the market-driven approach was implemented. Many staff members believe that they always were sensitive to the market and that the current new philosophy is simply rhetoric describing what they always did. However, even though some cynicism is expressed, there have been shifts in the way people perceive their jobs. For some people, the new approach has completely revitalized their feelings about work. The cynicism is not so much about the basic ideas in the market-driven approach as it is about claims that it can radically change the situation and solve all of the transportation problems of the region.

The research and market strategy division is universally recognized as producing new and valuable information. However, most people believe that the division has not reached its potential. Several factors contribute to this perception. First, many of the new people in the division (hired for their expertise in research and analysis) are also new to transportation, and it will take some time for them to understand the issues and develop relevant contacts within and outside Metro. Second, because of the centralization of the research function in one division, there are natural barriers to communication that must be overcome. Even though the improvement in the quality of research is widely recognized, the research group cannot always be as responsive as other divisions wish. Third, for reasons not easily controlled, the research group is separated physically from many of the people it needs to deal with in service planning, market development, capital planning, and long-range planning. The physical separation has added to communication difficulties. Fourth, it takes time to see the results of research. It takes a while to get a research program started. Then there is a delay before research results can be turned into action. It takes even more time for the actions to achieve measurable results. Because there have been few obvious successes that can be attributed to the use of research and evaluation data, it is natural that people have some skepticism about their usefulness. Metro has gone a long way toward resolving these issues, but they will remain issues to be dealt with.

Some people believe that Metro has gone overboard in its emphasis on attracting new customers. They believe that there has been a tendency to emphasize understanding the market instead of paying attention to the product. Metro has a reputation for providing a good product, fixed-route transit service. Some people are concerned that the new approach diverts energy and resources from continuing to serve transit users well. A balance between the two emphases is necessary.

Some people from agencies outside Metro report confusion about Metro's new organization and new approach. Although Metro has attempted to communicate what it is doing to people outside the agency, it may take some time for new relationships to form and for new patterns of interaction to develop. Some of the confusion may be because more people at Metro are involved with outside agencies and interactions may appear to be less coordinated than when the outside people dealt with fewer Metro staff.

Some of the problems in implementation are due to limited funding. The downtown transit tunnel project has drained funds and energy that might otherwise have gone into Metro's market-driven approach. The reorganization helped to create more efficiency and eliminate redundancy in marketing and planning efforts, but Metro is trying to do a lot more than it used to. The net result is a financial squeeze that can be felt by everybody. Some positions have been eliminated. The research budget is never large enough to fulfill requests. The ability to supply new services and products is hampered by funding restrictions. Ridesharing activities often take second place when crises in transit service occur. One of Metro's challenges is to foster wins in an environment that is financially restrictive.

ACTIVITIES OUTSIDE THE MARKET-DRIVEN APPROACH

The application of the market-driven approach in private industry is clear. A company finds the product mix that is most attractive to the market, lets people know it has the products, and provides them as efficiently as possible within constraints required to make a profit. The application of this approach to the public sector is not quite so clear. Metro's experiences reflect a combination of applying aspects of the market-driven approach and dealing with the realities of being a public agency.

One of the reasons that public transportation agencies exist is to provide mobility to people who would not have it otherwise. One of the objectives set for Metro is to provide service to the transit dependent. No matter what else Metro does, a certain amount of "policy" service will always be required. The provision of this service may conflict with the mix of services that would be provided by a purely market-driven organization.

It is difficult for Metro to compete with the single-occupant automobile. No public transportation mode can provide what people really want, which is

door-to-door service whenever they want it. However, the cost of this kind of service for everybody is prohibitive. The voting public supports organizations like Metro that provide service that, as individuals, they perceive to be second best. For financial, environmental, and political reasons, the Puget Sound area has adopted a policy against building new freeways. King County voters have strongly supported the continuation of Metro's provision of transit services by increasing the sales tax as recently as 1981. Residents of the region have been supportive of the construction of park-and-ride lots and high-occupancy-vehicle (HOV) lanes to facilitate transit and ridesharing.

In short, Metro has support to create an environment that encourages transit and ridesharing. Metro recognizes this objective and has adopted an entrepreneurial approach to influence land use decisions and supporting policies and decisions that will create a market. This is not a purely market-driven approach. However, it is appropriate for a public agency to pursue policies and engage in activities that have public support and are for the public good, even though individual members of the public may actually desire services that differ from those that result from these policies.

MODIFICATIONS TO INITIAL CONCEPTION

To date, no major modifications to the initial organizational structure have occurred. In addition, the original conception of the market-driven approach has not changed radically. However, some relatively small changes in the organizational structure are under consideration, and a look at these jurisdictional controversies aids understanding of how the approach is being implemented at Metro.

The organizational location of long-range planning has always been in question. The main reason for including it with capital planning is to provide continuity in the capital program. It could also be in the research and market strategy division, because of the importance of market research to forecasting future demand, and because of ties to strategic planning. Another option is for it to be a separate group reporting directly to the transit director and thus more closely tied to the political process. For now, however, it will probably remain where it is in order to keep a grounding in the reality of capital planning.

Commuter service representatives are currently located in the sales and customer services division. Their function is to promote transit and specialized services, such as vanpools, custom bus, and others, to employers. Some consideration has been given to combining this function with the market development group's. The market development group's objective is to create public transportation markets by influencing land use regulations, parking restrictions, development requirements, and district planning and coordination. It is currently combined with service planning. Some people believe that

the functions of the two groups are similar, but there are also enough differences to justify the argument that they should remain separate.

Even though there are advantages to the centralization of research activities in the research and market strategy division, some people argue that at least a portion of the research activities would benefit by being conducted in other divisions. For instance, research intended to discover new transit routes might best be conducted by route planners familiar with certain areas of the region. Although people generally recognize the benefits of having a division devoted solely to research, it is likely that, when appropriate, some research efforts will naturally be dispersed to other divisions.

One of the original projects of the research and market strategy division was to produce an annual document called the Market Strategy Report (MSR). The MSR was intended to use the results of market research and evaluations of programs to map out a strategy for the organization for the next year and as far as 5 years into the future. The first effort did not fulfill the original intent. The result was better described as a document defining management objectives for the next year, and it was not as broad in scope as it was originally conceived to be. The subsequent development of the MSR has been an iterative process, as Metro further defines the function of the document and ties it to the long-range planning effort and the budget process.

One of the objectives of the new approach at Metro was to make ridesharing an integral part of Metro's product mix. Although ridesharing has been integrated to some extent, some people's expectations have not been fulfilled. Ridesharing has not achieved the prominence they expected. One of the main reasons for this is that it is difficult to evaluate ridesharing activities because of the lack of good data on vehicle occupancy over a period of time. As a result, it is difficult to know how to distribute organizational resources. A second reason is that successes in ridesharing are much less newsworthy than successes in fixed-route service. Until Metro finds some way to elevate the benefits of ridesharing alternatives in people's minds, the opening of a transit tunnel will get a lot more attention than the beginning of a new program of transportation coordinators at employment sites. Internally, as well as externally, it will be difficult for people who support ridesharing alternatives to get attention.

FUTURE

People at Metro remain optimistic about the future. They believe that conditions will change to favor both transit and ridesharing. There are mixed feelings about what the downtown bus tunnel will do for transit ridership, but it certainly will not inhibit it. If demand for transportation continues to rise in the region as forecasted, the demand for transit and ridesharing services will

increase. HOV lanes on the freeways in the Puget Sound region will be completed in the early 1990s, providing an extra incentive for commuters to use transit or other Metro services.

Will Metro become an effective agency employing multimodal methods to help solve regional transportation problems? Or will it end up concentrating on fixed-route bus service the success of which is dependent on economic and demographic forces outside its control? The potential exists for Metro to become the first kind of agency.

The problems introduced by restructuring the organization are fading. People are getting used to new positions, and jurisdictional controversies are being resolved. Five years from now, people will be comfortable with the structure; it will be the *modus operandi*. The new structure itself will no longer get in the way of accomplishing organizational goals.

Metro's research arm is respected. As the research staff gains more experience, and if communication issues can be dealt with effectively, Metro will be in a good position to detect and respond to changing markets. However, this will require continued upper management support, adequate budget, and a sensitivity on the part of the research staff to operational considerations.

Metro's emphasis on developing ridesharing markets, through legislation and direct employer contact, is one of the most promising aspects of its current approach. However, before ridesharing can be a prominent part of Metro's product mix, two things must happen: (a) a method of measuring vehicle occupancy must be put in place and (b) Metro must demonstrate its ability to affect vehicle occupancy. Otherwise, Metro will probably continue its primary emphasis on fixed-route service and deal with a market that is limited by the flexibility of that mode.

DISCUSSION QUESTIONS

Metro's experience raises the following questions:

1. Given the difficulties of measuring effectiveness in promoting ridesharing and the financial support required for fixed-route transit, how can ridesharing compete effectively for organizational resources?
2. Does the addition of ridesharing modes to the product mix diminish the attention paid to providing quality fixed-route transit service?
3. Should fixed-route transit and ridesharing modes be integrated, or would both be better off if they were separate?
4. Given the political nature of strategic planning in a public transportation agency, can results of market research really have an influence?
5. How can a centralized research group respond effectively to operational needs?

6. Can an entrepreneurial stance on legislation and other measures affecting land use and vehicle occupancy be compatible with a market-driven approach to providing public transportation services?

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6

Case Study of Transit in Small and Medium-Sized Cities

HAROLD C. JENKINS

The changing federal involvement in supporting public transit will challenge every transit agency to develop creative solutions to a myriad of problems. Small and medium-sized systems face many of the same difficulties faced by larger systems but often experience proportionately greater funding shortages. There are several reasons for these proportionately greater shortages.

One major reason is federal regulations and mandates that significantly increase transit deficits. A few examples: Buy America requirements, uniform standards for bus design, Section 13(c) labor protection requirements, Davis-Bacon prevailing wage requirements, charter bus restrictions, Section 504 requirements preventing discrimination against the handicapped. The list could go on and on. All of these regulations impose costs and conditions on recipients of federal transit assistance. To the extent that state and local funds are provided to match federal funds, all of the federal requirements clearly must apply to the state and local funds as well. In other words, federal requirements apply to the entire transit system receiving federal assistance, regardless of the amount of funding received. The implementation and administration of these regulations by the smaller systems place a proportionately greater fiscal burden on the smaller systems. However, as the federal funding share of transit budgets continues to shrink, there is little evidence that the federal regulatory machinery is reducing its output.

A second reason for the proportionately greater funding shortfalls of smaller systems is the type of federal assistance received by smaller systems compared with that received by larger properties. Seventy-six percent of the nation's transit usage is concentrated in our 10 largest urban areas. Thereafter

the portion of urban travel that is on public transit declines considerably with declining urban area population. Rural transit, important for those with limited mobility, carries only a small portion of rural travel. Consequently, federal political and fiscal policies have understandably been directed toward fulfilling the needs of the larger urban areas.

Although federal capital and operating funding has decreased over the years under the Reagan administration, the most significant reductions have been in the federal funds available for operating assistance. Operating assistance funding has dropped from \$1.1 billion in 1980 to \$845 million in 1987. Federal capital assistance, the assistance most needed by the larger systems, has not been reduced a great deal, largely because of the one-cent gasoline tax earmarked for transit. This tax generates well in excess of \$1 billion per year for transit and has taken some of the pressure off the general revenues that had formerly been the source of all federal transit assistance. Traditionally, the larger transit systems received, on average, only 14 percent of their operating revenues from the federal coffers. On the other hand, the smaller systems require a much greater federal contribution to their operating ledgers, some approaching 50 percent. Therefore, with the proportionately greater decrease in federal operating revenue, the smaller systems have suffered a proportionately greater hardship.

As a result of reductions in federal operating assistance, the smaller systems have been forced to request additional assistance from state and local governing bodies. This need has created new problems, but it has also generated some enlightening solutions to these complex problems. These solutions are the prime focus of this presentation.

STATE GOVERNMENT SUPPORT OF TRANSIT

Much of the recent federal shortfall has been made up by the states, which have sharply increased their funding levels during the past few years. From fiscal year 1983 to fiscal year 1986, federal transit funding dropped 22 percent from \$4.5 billion to \$3.5 billion while state funding climbed 30 percent from \$2.7 billion to \$3.5 billion. As states have become more aware of their increased role in funding transit, they have begun to take a more active interest in how transit subsidy funds are spent. This growing interest has also been fueled by the states' role in administering federal transit assistance for non-urbanized areas. This program was established in 1978 and has been commanding increasing attention as more and more smaller areas have begun to receive and use funds. Two recent initiatives in Pennsylvania offer potential hope to transit systems in other states that are increasingly relying on state transit assistance.

The first Pennsylvania initiative relates to general revenue funding of public transit. In 1980, the Pennsylvania legislature passed a transit funding law that provided for a state contribution of between $66\frac{2}{3}$ percent and 75 percent of each system's operating deficit. Because this formula was driven by the size of the transit system's deficit, there was no incentive to control costs or to raise revenues. After more than 18 months of intensive effort, Pennsylvania's transit systems were successful in convincing the governor and the state legislature to enact a major change in the state's mass transit laws. The change, enacted this past July, eliminates the deficit-driven formula and gives transit properties an outright grant based on the size of the system as well as performance measures. The new law also provides an additional \$30 million increase in state transit funding from \$180 million to \$210 million.

The 18-month effort by the Pennsylvania Association of Municipal Transportation Authorities (PAMTA) to achieve this legislative goal was based on one significant issue: the major economic impact of Pennsylvania transit on the economic well-being of the commonwealth. This theme was repeated again and again. State transit systems, both large and small, must collectively present a unified case to their mayors and legislators about the economic impact of transit in their states. Transit agencies can no longer simply issue fancy press releases on the value of transit. They must take specific, verifiable steps to prove to local officials that transit is a vital part of community development.

Another Pennsylvania initiative that has potential benefits for mass transit involves an issue that many state governments have an interest in addressing: local tax reform. Last month, Pennsylvania Governor Robert Casey convened a special legislative session to find solutions to a major problem facing Pennsylvania taxpayers. The problem is the high and inequitable amount of property, occupation, and various nuisance taxes paid to local governments.

Of prime concern is the property tax. Unlike taxes based on income or corporate profit, the property tax must be paid by homeowners regardless of their economic situation or whether they are living on small, fixed incomes such as Social Security or pensions. Because the loss of federal revenue sharing funds has increased the need for more local funding for programs such as mass transit, local governments are hard pressed to raise property taxes. Property taxes in the state currently account for about 70 percent of the local tax burden. This problem is so intense that the governor budgeted \$140 million for the tax reform effort. He also appointed a special statewide commission to provide tax reform options for the legislature before the start of the special session.

Although the final form of the tax reform legislation will not be known for several months, some clear outlines are emerging. It appears that, in return for reducing or eliminating local property taxes, county governments will be

permitted to enact sales taxes of as much as 1 percent to make up for lost revenue. The tax would be collected by the state but returned to the county. The first 0.25 percent of the sales tax revenues would be shared with municipal governments. Municipalities, in turn, would be permitted to levy a personal income tax of 0.75 percent. The most exciting benefit for transit is a proposal to reduce by 50 percent the amount paid by county and municipal governments to support mass transit. The state would compensate the transit systems for the 50 percent loss in local funding. Thus, because the local transit obligation would be reduced by half, the potential exists for making a case to county and local governments to increase their transit allocation. Because 50 percent of all increases would be covered by state government, local governments have an incentive to improve their local transit systems without seriously jeopardizing other important local programs.

Because many states have been stung by the reduction in federal support programs, especially revenue sharing, a variety of measures for increasing the revenue base is currently under consideration by these states. Consequently, it is important that state transit associations develop coherent strategies to make sure that the best interests of transit are served during the development of these initiatives.

LOCAL GOVERNMENT SUPPORT OF TRANSIT

Increased local government participation in transit funding raises another important issue that must be addressed by each transit agency: public perception.

Federal participation in transit funding is based on standard theories of how a viable mass transit system contributes to the socioeconomic improvement of a community. The theories are all-encompassing. All transit systems, large and small, regardless of geographic location or political persuasion, generally receive their proportionate share of funding based on this universally perceived need. However, it is a different story at the local level.

The local community in which mass transit operates is the proving ground for the previously mentioned theory. How well a transit system operates, or is perceived to operate, can make a substantial difference in the level of support received from local government. Consequently, as transit relies more and more on local tax revenues for its existence, it is imperative that transit agencies provide a level of service that is deemed worthy of these increased local revenues. How the public perceives transit is now a critical issue. This perception transcends passengers and touches local businesses, public and private organizations, and the local governmental units that actually provide transit funding.

This matter of perception is especially important for the smaller transit systems. In the larger urban areas, transit is generally viewed as a critical component of metropolitan existence. Some of the recent transit strikes in our larger cities made clear the immense problems that occur when transit is absent from the streets. But in smaller communities the benefits of public transit are not always as clear. Thus it is incumbent on the operators of the smaller systems to present a comprehensive case to their community leaders on the benefits of local mass transit. They probably already have a fairly good impression of the impact made on the transportation indigent—the elderly, the handicapped, the poor. What is needed is focus on the economic impact made by all riders as well as transit operation. What is the financial impact made when people ride transit to area businesses? What are the subsequent economic multiplier effects, including more jobs and an expanded tax base? What impact is made by the goods and services purchased by the transit system? In Cambria County, we continually stress the value of the \$20 million-plus dollars that have been spent within the county during the past 10 years. A recent American Public Transit Association study states that for every transit dollar invested in a community, three additional dollars in business revenues are generated. The community must have this type of information.

Here is a perfect example of the perception principle. Earlier this year, the transit management of Little Rock, Arkansas, changed its operating body from a metropolitan planning organization to an authority in order to provide a legal forum within which to seek a dedicated state sales tax for transit. The need was estimated at 0.25 percent. However, the state legislature failed to pass the required legislation. The reason? Failure of the transit system to convince the public and members of the legislature that transit was a vital component of the community. Because the Arkansas legislature meets only once every 2 years, the measure will not be considered again until January 1989.

The people in Little Rock have learned from their mistakes. They have budgeted \$170,000 a year for the next 2 years to hire a marketing consultant to assist in the structuring of a positive public image campaign. They realize that transit's value in the community is not always self-evident. They have to blow their own horn, so to speak.

Back in Pennsylvania, the Lehigh and Northampton Transit Authority (LANTA) pursued a similar course. In the early 1980s when the Reagan administration took office, the LANTA Board of Directors and management made two important decisions. First, in anticipation of the fiscal philosophy of the new administration, they decided to revise their transit service area so that it could eventually sustain cuts without substantially affecting the level of service. Second, they decided to make a consistent effort over a period of 18 months to contact every community leader and organization within their service area in order to explain the value of transit. The community's realization of transit's value was perceived as a vital step in the event LANTA

needed to approach local governments for increased subsidies as a result of losing federal revenue. The authority reasoned that local governments that perceived transit in a positive light would be more inclined to support transit when the time came to distribute scarce fiscal resources. Like cream, transit would rise to the top of the local money barrel. LANTA presented its case to more than 50 service clubs and organizations. Hundreds of community leaders were contacted. The result? Today, mass transit in Lehigh and Northampton counties is perceived as absolutely vital to the economic and social welfare of the area.

Keep in mind that LANTA's actions were taken in anticipation of future fiscal difficulties. LANTA did not wait until the day of financial reckoning to embark on a crusade. By making its case before the actual need for additional revenue arose, LANTA was in an opportune position to receive additional funding when the need actually arose. The lesson to be learned from the LANTA experience is the value of consistently making the community aware of the presence of transit, in good times and bad. Then, when transit has to seek additional monies, the groundwork has been done. A solid foundation has to be built. When this foundation has been established, a variety of approaches can be pursued to increase the local funding base.

One avenue is the sales tax. I mentioned previously how the tax reform measures under consideration in Pennsylvania will probably result in local sales taxes. Although these sales taxes will not be dedicated directly to transit, they will alleviate other financial pressures and so, it is hoped, permit local governments to increase their transit contributions.

In the state of Florida, statutory authority already exists that allows local governments to enact dedicated sales taxes. For example, the Hillsborough Area Regional Transit (HART) authority, which serves the Tampa area, is currently preparing a feasibility study that will address the issue of sales taxes and other revenue to support the construction of a commuter rail system. At present, HART receives about \$7 million a year through a half-mill levy on real estate that is dedicated to transit. However, construction of the rail system is estimated to cost \$800 million, an amount that far exceeds that which can be supported by real estate taxes.

It is interesting to note that HART pursued a course quite similar to the one undertaken by LANTA in Pennsylvania. When HART was formed in 1980, it created a Transit Development Program (TDP) that emphasized the merits of assuring that local government played a vital role in providing transit funding. As was the case with LANTA, they could see the handwriting on the federal fiscal wall. Their 5-year TDP reflected this realism. Consequently, they immediately prepared the groundwork for creating support for a referendum for the half-mill real estate tax previously mentioned. After passage of the tax, HART immediately began to study future alternatives for transit funding to pay for

the inevitable expansion of transit service dictated by the rapidly growing population base. In only 5 years, HART grew from a 175-bus system to a 300-bus system. The next major step is the rail system that will serve three corridors. HART management is realistic enough to understand that they cannot expect to receive federal rail start money for the project. Therefore they are following a policy of demonstrating an ability to raise money locally in order to show their federal partners that there is a strong local commitment to the project, that the local government and the public are willing to "put their money where their mouth is." HART believes that after this commitment is demonstrated it will be in a much better position to lobby Washington for rail dollars.

OTHER FUNDING SOURCES

Another funding avenue under consideration by large and small transit systems alike is the developer impact fee. For example, the HART system in Tampa currently raises more than one-half million dollars a year in such fees. As the rail system goes on line, these fees will increase substantially.

Sarasota County Area Transit (SCAT), also located in Florida, is presently developing a TDP that will focus on developer impact fees. Although the first draft of the TDP is still 4 months from completion, SCAT has floated some trial balloons on the issue of impact fees. Apparently developers support the idea of making capital contributions for facility improvements such as transit terminals and bus stops but balk at the suggestion that they contribute to annual operating expenses. SCAT believes that in order to obtain developer support for operating impact fees, it will have to assure that passenger levels in the service area will be maintained at specific levels. This assurance will provide developers with a predictable customer base for attracting retailers to and keeping them in the development.

Another method of raising local funding is closely related to the developer impact fee. This method is joint public-private development. For example, the HART Board of Directors in Tampa has adopted a policy of evaluating all transit property to determine the potential for joint development projects. Tampa has a downtown transit-way with transit terminals located at both ends. The southern terminal, located in a major development area, has air space above it that has been leased to a developer. In another Tampa example, a local developer has entered into an agreement with HART to build a people mover between Tampa and Harbor Island, an off-shore residential development. Because HART owns the transit rights-of-way in this area, such an agreement was required. The developer will build and maintain the system, but, after a period of 15 years, HART can purchase the system for \$1.00.

HART has provided another creative example of joint development. To establish an effective park-and ride express service, it obtained state funding

to purchase parking lots. Most of the park-and-ride lots had to be created in residential areas, so HART entered into agreements with local churches to build the lots on church property. In return, the churches agreed to maintain them and to use them on Sundays for church parking when the lots are not used by transit commuters.

In addition to the various approaches just described for increasing the level of local support of transit, another alternative, which potentially offers appreciable cost savings to transit systems, must be seriously examined. Federal dollars have become scarcer, and local budgets have come under a growing strain because of rising demands for services, local tax limitations, and public resistance to new spending initiatives. Efficiency has now become an acknowledged goal of transit management. Public opinion has come to recognize that there are practical limits to how much money state and local governments can devote to local transportation. This realization, in turn, has led to a growing acceptance of a different type of public-private joint development more popularly called privatization. Realization of the necessity of seriously examining this alternative has been reached with varying degrees of reluctance and enthusiasm, but the remarkable thing is that few people dispute the need for closer public-private cooperation.

Business leaders have come to understand that they must, in their own self-interest, assume a more active role in dealing with local transit problems in order to overcome obstacles to orderly economic growth. Corporate interests realize that they cannot ignore the health of the community in which they operate and that a viable transit system is essential to that vitality. Private developers, no longer able to rely fully on public funding and aware that transit accessibility is essential to the viability of their real estate ventures, are increasingly prepared to share the cost of necessary transit improvements. Therefore, it is only reasonable that private transportation operators would sense new opportunities in this changing climate to develop cooperative service ventures in the community.

Remember that the focal point of this discussion is the need for greater local government involvement in supporting community transit services. Local government has strong motivation to seek expanded private-sector involvement. By allowing the business community a greater voice in local transportation decision making, local public officials increase the likelihood of private-sector support. They thus gain an influential ally in their efforts to keep public opinion behind new capital improvements to the transit system. And, by contracting for service with private providers, transit systems can often improve the efficiency of service delivery and thus lower the cost of public transportation.

In short, there is a growing recognition on the part of both the private and the public sectors of a strong interdependence and mutuality of interest in

public-private cooperation. The form of this new partnership varies from place to place. In most communities, the public sector is likely to retain the principal role. In other places, the private sector may become an important partner. However, regardless of how the responsibility is eventually allocated, one thing already appears to be certain: because of a stronger private-sector role, communities will be enjoying a wider diversity of services and of service providers, a greater variety of financing arrangements and funding sources, and a more competitive, market-oriented approach to transportation.

Finally, I want to briefly mention an idea that will not have a large impact on reducing operating deficits but does have the potential of enhancing the positive public image principle previously discussed. It is an idea to which several transit systems, including that of Cambria County, are giving serious attention. In Cambria County we call it the Transit Heritage Fund.

The Transit Heritage Fund is a mechanism for inducing as many individuals, organizations, and corporations as possible to provide financial support that will be used to maintain and enhance the heritage of public transit in the community. For example, in Cambria County, which has a rich transit heritage dating back to 1893, plans are under way to create a permanent transit room in the Johnstown Flood Museum. We also periodically sponsor special excursions on an antique bus. Our Inclined Plane, a facility dear to the hearts of many local residents, is registered as a national historic site. Plans have been outlined for using the Transit Heritage Fund to help maintain the historical integrity of the Incline. Plans have also been developed in conjunction with the local university to produce a videotape on the history of local transit. This endeavor includes recording old film clips, pictures, and personal interviews with the old-timers who operated the trolleys and buses of a bygone era.

These and various other activities require financial support that previously came from operating revenues. But, by taking advantage of the considerable local interest in preserving our transit heritage, we can fund these ventures with donations made to the independent Transit Heritage Fund established by the transit authority. These various preservation activities will also engender a considerable amount of local media coverage and support, thus providing another boost to our positive public image.

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The Transportation Research Board is a unit of the National Research Council, which serves the National Academy of Sciences and the National Academy of Engineering. The Board's purpose is to stimulate research concerning the nature and performance of transportation systems, to disseminate the information produced by the research, and to encourage the application of appropriate research findings. The Board's program is carried out by more than 270 committees, task forces, and panels composed of more than 3,300 administrators, engineers, social scientists, attorneys, educators, and others concerned with transportation; they serve without compensation. The program is supported by state transportation and highway departments, the modal administrations of the U.S. Department of Transportation, the Association of American Railroads, the National Highway Traffic Safety Administration, and other organizations and individuals interested in the development of transportation.

The National Academy of Sciences is a private, nonprofit, self-perpetuating society of distinguished scholars engaged in scientific and engineering research, dedicated to the furtherance of science and technology and to their use for the general welfare. Upon the authority of the charter granted to it by the Congress in 1863, the Academy has a mandate that requires it to advise the federal government on scientific and technical matters. Dr. Frank Press is president of the National Academy of Sciences.

The National Academy of Engineering was established in 1964, under the charter of the National Academy of Sciences, as a parallel organization of outstanding engineers. It is autonomous in its administration and in the selection of its members, sharing with the National Academy of Sciences the responsibility for advising the federal government. The National Academy of Engineering also sponsors engineering programs aimed at meeting national needs, encourages education and research, and recognizes the superior achievements of engineers. Dr. Robert M. White is president of the National Academy of Engineering.

The Institute of Medicine was established in 1970 by the National Academy of Sciences to secure the services of eminent members of appropriate professions in the examination of policy matters pertaining to the health of the public. The Institute acts under the responsibility given to the National Academy of Sciences by its congressional charter to be an adviser to the federal government and, upon its own initiative, to identify issues of medical care, research, and education. Dr. Samuel O. Thier is president of the Institute of Medicine.

The National Research Council was organized by the National Academy of Sciences in 1916 to associate the broad community of science and technology with the Academy's purposes of furthering knowledge and advising the federal government. Functioning in accordance with general policies determined by the Academy, the Council has become the principal operating agency of both the National Academy of Sciences and the National Academy of Engineering in providing services to the government, the public, and the scientific and engineering communities. The Council is administered jointly by both the Academies and the Institute of Medicine. Dr. Frank Press and Dr. Robert M. White are chairman and vice chairman, respectively, of the National Research Council.