INFORMATION TO USERS

This material was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.

2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.

3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in "sectioning" the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again — beginning below the first row and continuing on until complete.

4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from "photographs" if essential to the understanding of the dissertation. Silver prints of "photographs" may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.

5. PLEASE NOTE: Some pages may have indistinct print. Filmed as received.

University Microfilms International
300 North Zeeb Road
Ann Arbor, Michigan 48106 USA
St. John's Road, Tyler's Green
High Wycombe, Bucks, England HP10 8HR

Downloaded from SHAREOK. Persistent Handle URL: https://hdl.handle.net/11244/4456

7824592

GLACEL, BARBARA PATE
A POLICY ANALYSIS OF REGIONAL TRANSIT AUTHORITIES IN MASSACHUSETTS.

THE UNIVERSITY OF OKLAHOMA, PH.D., 1978

University Microfilms International 300 N. ZEEB ROAD, ANN ARBOR, MI 48106

© 1978

BARBARA PATE GLACEL

ALL RIGHTS RESERVED

THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

A POLICY ANALYSIS OF REGIONAL TRANSIT AUTHORITIES IN MASSACHUSETTS

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

DOCTOR OF PHILOSOPHY

BY

BARBARA PATE GLACEL

Norman, Oklahoma

1978

A POLICY ANALYSIS OF REGIONAL

TRANSIT AUTHORITIES IN MASSACHUSETTS

APPROVED BY

DISSERTATION COMMITTEE

ACKNOWLEDGMENTS

For the past three years during which time this study gradually grew from the germ of an idea to complete fruition, many individuals have contributed their time, thoughts, and inspiration to the final outcome. The product as presented here, however, is completely the author's own, and the author bears full responsibility for the contents.

It would be impossible to recognize everyone individually who has been of assistance, so I take this opportunity to say a general thank you to all those who aided me in my research. Specific thanks must be directed to the following.

The American Association of University Women who awarded me the Charlotte Wyatt Endowed Fellowship which enabled me to complete this work during the 1977-1978 academic year. Without their generous assistance my task would have been more burdensome and less timely.

My advisors, Professors Hebert, MacNiven, Morgan, Scheffer, Tharp, Altshuler, and Colcord, who directed this work. Particular thanks must go to David Morgan and Ted Hebert who patiently read each chapter and offered criticisms for revisions and improvement. Special thanks go to Alan Altshuler of the Massachusetts Institute of Technology and Frank Colcord of Tufts University who agreed to serve on an inter-university dissertation committee. These men generously contributed much time, talent, and expertise in the field of transportation.

Officials at the Massachusetts Executive Office of Transportation and Construction who allowed me access to their offices, their records, and assisted me in my research. Particular thanks go to Daniel Brand, Karla Karash, Murray Gintis, and Adrienne Marvin.

Administrators of the regional transit authorities who gave of their time and talents in answering many questions and providing much information. Particular thanks go to Jim O'Sullivan, Lou Perachi, and Terry Tornek.

The typist, Jill Jones, who patiently and expertly assisted in revision after revision.

On a personal note, I must give the greatest thanks to three individuals who have inspired me, supported me, and kept me going when the end seemed out of sight. My Mother, who is the epitome of a successful businesswoman and mother, has had a profound influence on my life and

ambitions. My husband has allowed me the freedom to pursue my own goals. And my daughter, who has sacrificed many precious moments with Mommy even in her brief two years of life.

Thank you all.

TABLE OF CONTENTS

		Page
LIST OF ILLUSTRATIONS		vii
LIST OF TABLES		viii
Chapter		
I.	MASS TRANSIT POLICY	1
	Problems and Policy Policy-Making Regionalism Mass Transit Policy in Massachusetts Conclusion	
II.	POLICY ANALYSIS	47
	Approaches to Policy Analysis Systems Analysis Methodology	
III.	MASSACHUSETTS GENERAL LAW 161-B	75
	Legislative History Analysis	
IV.	THE REGIONAL TRANSIT AUTHORITY	137
	RTA Formation RTA Operations Inter-Governmental Relations Analysis of RTA Operations Conclusion	
V.	THE REGIONAL TRANSIT AUTHORITIES-- A CLOSER LOOK	190
	Pioneer Valley Transit Authority Lowell Regional Transit Authority Berkshire Regional Transit Authority Conclusion	

Page

VI. A QUANTITATIVE ANALYSIS OF REGIONAL TRANSIT AUTHORITY OPERATIONS 258

Evaluating the Hypotheses
Comparative Analysis of RTA Operations
Conclusion

VII. CONCLUSION 293

Stimulus
Constituency
Inter-Governmental Relations
Decision-Making
Goals
Effects
Recommendations

BIBLIOGRAPHY 308

Articles
Books
Unpublished Works
Public Documents and Reports

Appendix 332

A. INDIVIDUALS INTERVIEWED 332

B. QUESTIONNAIRE TO ADVISORY BOARD MEMBERS 338

C. RELATED UNSUCCESSFUL TRANSPORTATION BILLS INTRODUCED 342

D. MAP OF REGIONAL TRANSIT AUTHORITIES 344

E. TEXT OF CHAPTER 161-B 346

F. LIST OF ABBREVIATIONS 371

LIST OF ILLUSTRATIONS

FIGURE		Page
1.1	The Urban Mass Transportation Investment Process	20
3.1	A Systems Application of the Passage of General Law 161-B	108
4.1	Local Area Transportation Development Program Plan	148
4.2	Functional Planning and Operational Diagram for Massachusetts Regional Transit Authorities	151
4.3	Regional Transit Authority Organizational Chart	162
4.4	A Systems Application of the Regional Transit Authority Operations	174
5.1	Pioneer Valley Transit Authority	194
5.2	Lowell Regional Transit Authority	216
5.3	Berkshire Regional Transit Authority	240

LIST OF TABLES

TABLE		Page
3.1	Association of Roll Call Vote by Region, H 267 of 1972	124
3.2	Association of Roll Call Vote by Region, H 7576 of 1973	126
3.3	Association of Roll Call Vote by Region, H 7575 of 1973	127
3.4	Association of Roll Call Vote by Region, Senate, H 7576 of 1973	128
3.5	Association of Roll Call Vote by Region, Senate, H 7575 of 1973	128
3.6	Key to Regions for 1972 and 1973 Vote Analysis of RTA legislation in the Massachusetts House of Representatives and Senate	129
4.1	The Formation of Massachusetts Regional Transit Authorities	142
6.1	Government Support for RTA-Area Public Transportation Services	265
6.2	Tax Rate Effect on Selected RTA Communities	271
6.3	Scope of Service Index for Massachusetts Regional Transit Authorities	277
6.4	Transportation Needs Index for Massachusetts Regional Transit Authorities	279
6.5	Transit Mobility Index Ranking for Massachusetts Regional Transit Authorities	280

TABLE Page

6.6 Performance Standards Index for Massachusetts Regional Transit Authorities 284

6.7 Cost-Benefit Index for Massachusetts Regional Transit Authorities 287

A POLICY ANALYSIS OF REGIONAL TRANSIT AUTHORITIES IN MASSACHUSETTS

CHAPTER I

MASS TRANSIT POLICY

In the past decade, mass transit systems in the United States have been examples of several trends of governmental policy. In the first place, the government has taken a positive interest in providing services to the population and hence has allocated substantial amounts of money to public transportation systems. Second, in view of the decline of services available, the government has become directly involved in the operation and/or ownership of such services through public authorities. And third, the government has emphasized regionalism in planning and operation, even in the absence of regional institutional structures.

Academic literature on transportation has increased since 1960 owing to the widening interest in the field and to the emergence of transportation as a topic relevant to both public administration and political science. It addresses the areas of: 1) planning, particularly multi-modal planning, traffic and passenger forecasting, modeling, and quantification techniques[1]; 2) technology, concerning state-of-the-art innovations,

---

[1]See, for example, Frank E. Horton, Jordan Louviere, and David

often referred to as space-age technology, and engineering designs and innovations[2]; 3) land use, urban development, zoning, and the decaying urban environment[3]; 4) economics and the acceptance of free fare versus the user charge philosophies[4]; and 5) highways, still a high priority in

---

P. Reynolds, "Mass Transit Utilization: Individual Response Data Inputs," Economic Geography, 49 (April, 1973), pp. 122-133; Edward S. Alcott, "Innovative Approaches to Urban Transportation Planning," Public Administration Review, 33 (May/June, 1973), pp. 215-224; Martin Wohl, "Users of Urban Transportation Services and Their Income Circumstances," Traffic Quarterly (January, 1970); Kurt Leibbrand, Transportation and Town Planning (Cambridge: M. I. T. Press, 1964); Brian V. Martin, Frederick W. Memmott III, and Alexander J. Bone, Principles and Techniques of Predicting Future Demand for Urban Area Transportation (Cambridge: M. I. T. Press, 1961); and John R. Meyer, ed., Techniques of Transport Planning, vol. I and II (Washington, D. C.: Brookings Institution, 1971).

[2]See, for example, J. Edward Anderson, "Personal Rapid Transit," Environment, 16 (April, 1974), pp. 6-11; Organization for Economic Cooperation and Development, "Improved Transportation Systems," Environment, 16 (March, 1974), pp. 28-33; and Hal Hellman, Transportation in the World of the Future (New York: M. Evans and Co., Inc., 1968).

[3]See, for example, Wilfred Owen, "Urban Transformation Through Transportation," Nation's Cities, 15 (May, 1977), pp. 15-20; Wilfred Owen, The Accessible City (Washington, D. C.: Brookings Institution, 1972); Wilfred Owen, Transportation for Cities (Washington, D. C.: Brookings Institution, 1976); K. H. Schaeffer and Elliot Sclar, Access for All--Transportation and Urban Growth (Baltimore: Penguin Books, Inc., 1975); and Tabor R. Stone, Beyond the Automobile--Reshaping the Transportation Environment (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1971).

[4]See, for example, Eli Borukhov, "Diseconomies of Scale in Urban Transportation," Southern Economic Journal, 38 (July, 1971), pp. 79-82; David W. Gillen, "Alternative Policy Variables to Influence Urban Transport Demand," Canadian Journal of Economics, 10 (November, 1977), pp. 686-695; Gerald Kraft, "Free Transit Revisited," Public Policy, 21 (Winter, 1973), pp. 79-106; Leon N. Moses and Harold F. Williamson, Jr., "Value of Time, Choice of Mode, and the Subsidy Issue in Urban Transportation," The Journal of Political Economy, 71 (June, 1963), pp. 247-264; B. Peter Pashigian, "Consequences and Causes of Public Ownership of Urban Transit Facilities," The Journal of Political Economy, 84 (December, 1976), pp. 1239-1260; James I. Scheiner and Grover Starling, "The Political Economy of Free Fare Transit," Urban Affairs Quarterly, 10 (December, 1974), pp. 170-184; William S. Vickrey, "Pricing in Urban and Suburban Transport," The American Economic Review, 53 (May, 1963), pp. 452-465; and Gerald Kraft, John R. Meyer, and Jean-Paul Valette, The Role of Transportation in Regional Economic Development (Lexington, Ma.,: D. C. Heath and Co., 1971).

the transportation arena, concerning the construction and effects of highway building.[5]

Literature relevant to policy and public administration has slowly appeared since 1964, the year that the Urban Mass Transportation Act was first enacted, and 1965, the year of the McCone Commission Report on the Watts riots, relating a lack of public transportation to minority unemployment. These documents brought the focus of urban transportation literature to the big cities and centered on the issues of public versus private ownership, the justification for government subsidies (both capital and operating), the pros and cons of the farebox philosophy, and the need for public transportation for the immobile, particularly the poor in central cities. Until the early 1970's, particularly until the approval of federal operating subsidies in 1974, the literature neglected the pertinent issues of transit for smaller cities and suburbs, bus usage for public transportation, and the appropriate goals and objectives for transportation policy-making.

Problems and Policy

A Brief History

From the time of World War II and the subsequent increase in automobile ownership, public transit patronage and service declined.

---

[5]See, for example, Pat Burnett, "Decision Process and Innovations: A Transportation Example," Economic Geography, 51 (July, 1975), pp. 278-289; Richard Hébert, Highways to Nowhere--The Politics of City Transportation (Indianapolis: Bobbs-Merrill Co., Inc., 1972); Alan Lupo, Frank C. Colcord, and Edmund P. Fowler, Rites of Way: The Politics of Transportation in Boston and the U. S. City (Boston: Little, Brown and Co., 1971); A. Q. Mowbray, Road to Ruin (New York: Lippincott, 1969); Donald Levitan, "Highway Development and Local Government: an Analysis

George Smerk points out, however, that even before this time public transit firms were in financial difficulty because of the pyramiding of separate transit companies into citywide monopolies, which served to inflate their debt capital. Regulatory bodies of local governments kept fares low even during the time of rising operating costs. Moreover, Smerk points out that the low calibre of transit management aided and abetted the demise of mass transport. Marketing efforts were not undertaken even in the face of automobile competition.[6] Government policies after World War II, particularly providing for low-interest loans for home ownership, were designed to ease the housing shortage but resulted also in increased urban sprawl, low-density living, and an increased need for private transportation via the automobile to reach services available in the cities. At the same time, private companies rapidly completed the conversion from streetcars to rubber-tire buses. This move provided flexibility in movement as well as an economic advantage by eliminating track maintenance and decreasing initial investment costs for vehicles. Passengers did not enjoy the shift to buses, however, complaining about over-crowding, smelly fumes, jerky stops and starts, and the slow speed.[7]

---

of Relationships--A Case Study of Massachusetts Route 128" (Unpublished Ph.D. dissertation, Graduate School of Public Administration, New York University, 1972), and Kenneth R. Geiser, Jr., "Political Processes of Urban Freeway Controversies" (unpublished masters thesis, Massachusetts Institute of Technology, 1970).

[6]George M. Smerk, Urban Mass Transportation--A Dozen Years of Federal Policy (Bloomington: Indiana University Press, 1974), pp. 10-16.

[7]Schaeffer and Sclar, pp. 45-47.

As mass transit patronage was languishing, the federal government enacted another policy which hastened transit's demise. In 1956, the Interstate Highway Program was enacted by Congress, leading to the building of highways connecting all metropolitan points in the country. These were financed with the federal highway trust fund providing 90 per cent federal aid to a ten per cent local match. Alan Altshuler questions whether the government deliberately sought to create these patterns of urban sprawl, transit decline, and automobile dominance which resulted from federal policies. He determines that these were not deliberate public objectives.

> Government did not act in this period pursuant to a conscious urban development policy. Rather, it responded in a wide variety of policy arenas to organized pressures, to conventional wisdom, and to widespread public aspirations. In practice, of course, the result was that government actions consistently accommodated and reinforced the majority taste for low-density living and for auto-mobility.[8]

While local mass transit suffered, the national justification for governmental neglect of the service rested in the argument that few transit trips crossed state lines. Federal disinterest was reinforced by the conviction that mass transit was a dying industry, rooted in obsolescent technologies and urban land use patterns. Altshuler notes the popular analogy that subsidization of mass transit would be akin to public spending for the revival of horse-and-buggy travel. By the 1960's, the predominant view of government was that transit had a continuing, though minor, role to play in the nation's urban transportation system. The proper role of government, then, would be to provide capital for

---

[8]Alan A. Altshuler, "Changing Patterns of Policy: The Decision Making Environment of Urban Transportation," Public Policy, 25 (Spring, 1977), p. 176.

needed transit expansion and modernization, while continuing to impose the requirement that transit operations pay for all but capital costs from the farebox.[9]

Federal financial assistance to states and their political subdivisions for urban mass transportation services was introduced by Title V of the Housing Act of 1961.[10] The Act included urban transportation within the scope of public works or facilities and allowed for loans, not exceeding $50 million in the aggregate, to be made by the Federal Housing and Home Finance Agency for the acquisition, construction, and improvement of facilities, equipment, and land to be used in mass transportation in urban areas. It further provided up to $25 million to be appropriated for demonstration projects. Smerk claims that the Housing Act of 1961 did little to aid the sagging fortunes of mass transit systems, but it did answer affirmatively the question of whether people will ride mass transit if improvements are made in the system.

The Highway Act of 1962 provided for a consideration of alternatives to highway construction, a reaction to the awakening realization of the impact that highway building had on cities. Under the terms of section 9 of the Act, approval of federal funds for highway programs in any urban area with a population of 50,000 or more would be forthcoming only upon the finding by the Secretary of Commerce that proposed highway projects were based on a ("3-C") comprehensive and continuing planning process, carried on in cooperation with the state and other

---

[9] Ibid., pp. 181-183.

[10] For an extensive, detailed history of federal involvement in urban transportation policy through the Highway Act of 1973, see Smerk, Urban Mass Transportation, Chapter 1.

local governments. This provision guaranteed that urban areas would at least give consideration to transport alternatives other than highways. While initial "3-C" planning efforts were merely perfunctory, the impact of this requirement has been felt since 1973, the year that the highway trust fund was opened for non-highway transit uses.

In 1964, Congress enacted the Urban Mass Transportation Act (UMT Act) establishing a comprehensive federal program of matching grants to state, regional, and local transportation agencies for the preservation, improvement, and expansion of urban mass transportation systems. The provisions of the law were administered first by the Federal Housing and Home Finance Agency (1964-65), then by the Federal Department of Housing and Urban Development (1965-68), and from that time by the Urban Mass Transportation Administration (UMTA) of the federal Department of Transportation. There were three major parts of the 1964 Act. Demonstration projects, authorized in 1961, were to be continued with the added provision that the federal administrator could initiate projects in local areas and that local matching funds were not necessary. The low interest loans of the 1961 legislation were also continued. The most important provisions, however, were the long-run program of aid and the short-run emergency program for capital grants to public bodies for mass transit service (section 3). The Act authorized $75 million for the first year (fiscal 1965) and $150 million for the next two years.

Problems arose as a result of the 1964 legislation. Smerk points out the conspicuous difference between the amount of money provided for the federal mass transit program and that provided for other federal transportation programs. In many cities, capital expenditures

alone were not enough. Operating deficits on large and small transit systems caused abandonment of service or burdened municipal budgets which provided subsidies. The requirement in the 1964 Act for prior plans and cost estimates before receipt of long-range grants caused another financial problem to the cities--who would pay for the planning? Also, the lack of comprehensive transit planning and coordination, coupled with fragmentation of local governments, made implementation of federal requirements a near impossibility.

In 1966, amendments were enacted to the UMT Act addressing these problems. The debate over the legislation centered not on whether the federal government had a role to play in urban transportation, but rather on how much money could be provided. The legislation authorized $150 million for fiscal years 1967, 1968, and 1969, and provided for increased sums of money for the demonstration grant program. In addition, funds were made available for the planning, engineering, and designing of urban mass transportation projects (section 9). Funds were also allowed for management training, and grants to institutions of higher learning were available to conduct comprehensive research involving the problems of urban transportation. A final provision created the New Systems program to be carried out by the Departments of Housing and Urban Development and of Commerce. The program was designed to look into the broad range of technical solutions to urban transit problems. Projects undertaken reflected a future-orientation to determine what transportation systems were either possible or needed, but the results had little value for the cities faced with immediate transit and mobility problems.

In April 1967, the new Department of Transportation (DOT) became a Cabinet-level agency, and a study began to determine whether

the mass transportation program should move to DOT or remain in the Department of Housing and Urban Development.[11] In 1968, President Johnson announced that the Urban Mass Transportation Administration would come under the jurisdiction of the Department of Transportation, and by the end of 1968, the Department of Housing and Urban Development was no longer involved in transit. Because of the uncertainty of program jurisdiction, mass transit programs had been bogged down for some time. Johnson's subsequent announcement that he would not run for reelection made 1968 a slow year for urban transportation programs and policy.

By 1970, the tide had turned for transit's fate in Congress. By this time transit was seen as related to other urban problems and to welfare needs in the cities. In addition, an increasing number of cities of all sizes recognized the necessity of entering the transit business in order to continue local service. Finally, the highway lobby jumped on the bandwagon in return for a promise from the newly-formed transit coalition of city and transit officials that when the highway trust fund came up for Congressional review in 1972, it would not be a target for transit purposes. The Williams amendment of 1970 provided security for the public transit programs by authorizing $3 billion in federal grants available until fiscal year 1982 and providing for special loans for transit projects serving the elderly and handicapped.

Despite the assurances that the transit lobby would leave the highway trust fund intact, efforts were begun in 1971 to gain support

---

[11] See Richard W. Barsness, "The Department of Transportation: Concept and Structure," Western Political Quarterly, 23 (September, 1970), pp. 500-515; David R. Miller, "New Challenges, New Institutions," Public Administration Review, 33 (May/June, 1973), pp. 236-242; and Smerk, Urban Mass Transportation, Chapter 3.

for operating subsidies for mass transit service and for the use of highway trust fund monies for transit purposes. The Highway Act of 1970 had contained a modest provision that highway monies could be used for the construction of transit support facilities, such as exclusive or preferential bus lanes, shelters, fringe area parking, and transportation corridor parking facilities. Funds for these purposes were limited, however, to the amount which would have been spent in conventionally providing highway capacity. The Highway Act of 1973 actually opened the trust fund to transit. The Act--still in effect--gives local government much more say in determining what sort of transportation system it wishes to have. On local option, highway money allocated to a particular state may be traded for use on transit capital projects. The federal share for all transit projects was raised from two-thirds to 80 per cent, and transit planning may now receive federal funding of up to 100 per cent at the direction of the Secretary of Transportation. The Act also provides for rural transit demonstration projects to increase the mobility of persons in rural areas and requires that transit projects receiving federal financial aid be effectively usable by elderly and handicapped persons.

In 1974, the transit lobby achieved its goal of transit operating subsidies, an issue which the literature had addressed for years.[12] In November 1974, the Urban Mass Transportation Act established a formula

---

[12]See, for example, United Transportation Union, A Report on the 1970 Conference on Mass Transportation (New York: Popular Library, 1970); Herman Mertins, Jr., "The 'New Federalism' and Federal Transportation Policy," Public Administration Review, 33 (May/June, 1973), pp. 243-252; and George A. Avery, "Breaking the Cycle: Regulation and Transportation Policy," Urban Affairs Quarterly, 8 (June, 1973), pp. 423-438.

for the distribution of a six-year capital grant program and also established a program to provide federal financial assistance for mass transit operating expenses (section 5). The Act authorized UMTA to distribute $11.8 billion for mass transportation projects through fiscal year 1980. The federal share for capital programs remains at 80 per cent; for operating expenses it is 50 per cent. As a result of the 1974 Act and of federal-aid highway amendments in 1974, financial assistance is now available to both private and public transit authorities for use in local transit improvements, construction, modernization of facilities, or operating expenses. Additionally, grants are authorized for technical studies related to management, operation, capital requirements, and economic feasibility of mass transit systems, as well as for research and development programs of new techniques, methods, systems, and equipment.[13]

Altshuler notes four factors relevant to the shift in emphasis on urban transportation policy. First, there have been dramatic shifts in the national domestic preoccupations from the fifties, when the great period of highway expansion began, to the seventies. In the fifties, the urban problem was defined in terms of the decline of the central business district, traffic congestion, and the cultural sterility of suburbia.[14] In the 1960's, during the Kennedy and Johnson administrations, the focus shifted to issues such as race, poverty, crime, and environmental

---

[13]U. S. Department of Transportation, Ninth Annual Report (Washington, D. C.: Government Printing Office, 1975), pp. 9, 44. See also George M. Smerk, "The States and New Mass Transit Aid," State Government, 48 (Spring, 1975), 73-78.

[14]See Wilfred Owen, The Metropolitan Transportation Problem (Washington, D. C.: Brookings Institution, 1956).

degradation. In the seventies, the issues of energy and the environment have claimed increasing attention. Related to these governmental concerns, transit proved to be a policy appealing to those concerned about all areas of the urban problem. While its constituency was small, the ideological appeal was extremely broad. A second factor involves the growing strength of the anti-highway sentiment among liberals and "good government" types, rather than simply among active environmentalists and those threatened by highway projects. The transit coalition also broadened to include those supporting minorities, downtown business interests, construction workers, and environmentalists. A third factor, according to Altshuler, is the gradual maturation of a learning process about the impact of programs entailing large-scale eminent domain, with a resulting lack of enthusiasm for highway construction which takes large amounts of private lands. Finally, the fourth factor has been the growing militancy and mobilization of aggrieved groups in American society, beginning with the civil rights activists of the fifties and sixties and spreading to public employees, law enforcement officials, and other groups in the seventies. Partly as a result of this activism, statutory provisions for citizen participation have opened the policy process to ordinary citizens at the neighborhood level, those most affected by large-scale transportation projects and expenditures.[15]

Policy-Making

Thomas Lisco cites four myths concerning urban transit which dictated public policy and filled the literature in the sixties. First,

---

[15]Altshuler, "Changing Patterns of Policy," pp. 185-192.

the "incredibly high fare myth" which stated that an appropriately high user charge to meet expenses would be so high that riders would be forced away from transit and service would necessarily diminish. Lisco claims instead that minimal increases in fares could produce a total revenue increase allowing for service improvements while not decreasing ridership. Second, the "price-patronage-service spiral myth" that increasing costs caused the decline in transit patronage and thus service. Lisco claims that automobiles and highways caused transit's demise. The third myth was that of "cheap transit" to increase ridership. Lisco states that cheap transit resulted in poor service, further decreasing ridership. Fourth, the myth that "inherent diseconomies" such as demand peaks and capital and labor intensity caused the high price of transit. Rather, Lisco feels that the demand-cost relationship was a much more important factor for meeting service costs.[16]

In a similar vein, Gary Tobin states that in the sixties, political scientists, planners, and lay observers warned of the imminent transportation crisis because of pollution and congestion. Therefore, the literature was directed to only a few themes. First, the automobile was seen as the primary cause of contemporary urban problems.[17] Second, mass transit should be strengthened by subsidy and new construction, primarily high-speed rail systems.[18] Third, transportation is an acute

---

[16]Thomas E. Lisco, "Mass Transportation: Cinderella in our Cities," The Public Interest, 18 (Winter, 1970), pp. 52-74.

[17]See, for example, Hébert; and Owen, The Metropolitan Transportation Problem and The Accessible City.

[18]See, for example, United Transportation Union.

problem for the poor, old, handicapped, and young, and it is directly related to ghetto unemployment.[19] Tobin finds fault with these three assumptions. While agreeing that the automobile "plague" does create neighborhood disruption, congestion, pollution, inconvenience, and aesthetic poverty, Tobin suggests we examine why urbanites choose the automobile. Then, without blaming the automobile, mass transit can be viewed as a component in a new transportation system using multi-modes. Finally, he questions the assumption that we must start with transportation in an effort to find jobs for the inner-city poor. While admitting that shifts in transportation will profoundly affect the lives of the poor, he adamantly asserts that other factors in their lives are more important than transportation in relation to their employment.[20] Therefore, Tobin suggests the incorporation of the concepts of planning, technology, and urban growth into a policy context.[21]

---

[19]See, for example, Oscar A. Ornati, Transportation Needs of the Poor: A Case Study of New York City (New York: Praeger, 1969); and John A. McCone, chairman, Violence in the City--An End or a Beginning, a Report by the Governor's Commission on the Los Angeles Riots (Los Angeles, 1965).

[20]This is a popular argument in the literature. For both sides of the issue, see, for example, Ornati; McCone; William J. Murin, Mass Transit Policy Planning--An Incremental Approach (Lexington, Ma.: D. C. Heath and Co., 1971); David R. Miller, ed., Urban Transportation Policy: New Perspectives (Lexington, Ma.: D. C. Heath and Co., 1972); Transportation Research Board, Research Needs for Evaluating Urban Public Transportation (Washington, D. C.: National Research Council, 1975); Ernest W. Williams, Jr., ed., The Future of American Transportation (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1971); B. Bruce-Briggs, "Mass Transportation and Minority Transportation," The Public Interest, 40 (Summer, 1975), pp. 43-74; John F. Kain and John R. Meyer, "Transportation and Poverty," The Public Interest, 18 (Winter, 1970), pp. 75-87; and Vincent L. Marando, "Metropolitanism, Transportation, and Employment for the Central City Poor," Urban Affairs Quarterly, 10 (December, 1974), pp. 158-169.

[21]Gary A. Tobin, "Issues in Urban Transportation," Urban Affairs Quarterly, 10 (September, 1974), pp. 102-110.

Comprehensive planning. The literature in the seventies reflects an attempt to incorporate these elements of urban transportation. George Wilson points out, however, the difficulties of comprehensive planning for transportation: 1) the multiple political boundaries and jurisdictions involved for areawide transportation facilities; 2) the lack of information on intracity movements for local transportation; and 3) the problem of making sensible investments in transportation when systems effects and evaluation techniques may be misleading, particularly regarding the value of travel time, aesthetic issues, and other noneconomic and nonquantifiable considerations.[22] Britton Harris and Robert Mitchell suggest that the metropolitan planning process should: 1) make transportation planning an integral part of comprehensive development planning; 2) try to achieve and maintain a consensus on policies and programs among independent government agencies, involving decision-making agencies in the planning process to achieve change rather than the status quo; 3) monitor development and adjust policies to continually adapt to change; and 4) consider social, economic, and fiscal policies in addition to physical goals and policies in order to expand municipal commitment to metropolitan problems.[23]

In many areas it has proved feasible to assign all transportation responsibilities to a regional planning body. In most cases, however, these regional bodies have no authority to implement policy, and

---

[22]George W. Wilson, "The Goals of Transportation Policy," in Williams, p. 39.

[23]Britton Harris and Robert B. Mitchell, Metropolitan Development and Transportation Planning (Berkeley: University of California, December 1966), pp. 3-6.

they are removed from the centers of political action where executive leadership, statutory authority, and funding are carried out. Alan Altshuler and Robert Curry surmise that federal requirements for regional bodies are not always effective.

> ...in situations of high controversy and/or complexity, when strong leadership is likely to be required for plan implementation, they tend to be inappropriate lead agencies. The federal motives are good, but the federal actions in seeking to mandate new institutional arrangements at the regional level add up to an infringement upon freedom of states and localities to shape their own governmental systems. Even more..., they are likely over time to generate lengthy indecision and weak implementation in urban areas across the nation.[24]

Altshuler and Curry also note five recent trends affecting urban transportation as it relates to the "shared power" system of American urban government: 1) expansion of the public role; 2) the development of consensual federalism; 3) the extension of citizen participation; 4) the quest for comprehensiveness; and 5) judicial activism and preferred values. They point out that as a result of these trends, "a great deal of mindless development has been properly stalled in its tracks, and enormous progress has been made toward guaranteeing key societal values,"[25] but the system also faces the danger of becoming paralyzed for future development in urban transportation. While these trends aid in the task of comprehensive planning, it appears that other problems may be created by including more agencies in the decision-making process.

Policy objectives. While noting the increase in the public role, Altshuler also emphasizes that public policy, particularly

---

[24]Alan A. Altshuler and Robert W. Curry, "The Changing Environment of Urban Development Policy--Shared Power or Shared Impotence," Urban Law Annual, 10 (1975), reprint, p. 21.

[25]Ibid., p. 39.

concerning urban transportation, is dictated by private marketplace values, rather than acting to shape those values. The resulting paradox is that the urban public, speaking collectively, has brought about a remarkable shift in transportation investment priorities; but speaking individually in the market place, Americans continue to resist the lures of transit and to congest the highways. Speaking collectively, again, the same public is perceived by the government officials as being thoroughly hostile to any government schemes to reduce automobile use by restructuring the market.[26] This also increases the fiscal crisis of transit since ridership has not greatly increased, since patrons are increasingly resistant to fare increases, since costs continue to rise faster than the cost of living, and since taxpayers revolt against new taxes. Altshuler concludes that "legislators are both puzzled and unhappy: puzzled that the programs they have voted never seem to be enough, unhappy at being stuck again and again with unpalatable choices between the interests of transit patrons, transit employees, and general taxpayers."[27]

Federal policy statements are faulted, however, for not specifying distinct goals and objectives for public transportation to achieve and by which the public programs can be measured. Herman Mertins, Jr., asserts that the federal government avoids making a policy statement regarding public transportation.[28] George A. Avery claims that a lack of

---

[26]Altshuler, "Changing Patterns of Policy," p. 201.

[27]Alan Altshuler, "Transit Finance in Greater Boston," (paper presented at Conference on Financing Public Transit, San Francisco, Ca., February 21, 1975), p. 22

[28]Mertins, "The 'New Federalism' and Federal Transportation Policy."

clear objectives on the part of the federal government hampers a reordering of policy priorities to deal with the new issue of transportation.[29] Finally, Herman Mertins and David Miller feel that the impacts of federal policy, lacking distinct goals and objectives, have been: 1) a subsidy to the suppliers of transportation equipment through emphasis on capital grants; as well as 2) the willingness of more cities to take over failing, private companies. However, the massive injections of capital available are necessary only in the largest cities. This has led to an over-commitment to capital-intensive projects, such as in Atlanta and Washington, D. C.; and until 1974 for the majority of medium-sized cities where the problem is mobility rather than accessibility, little aid has been available at all.[30]

An attribute of the present pattern of policy making has been long lag-times between recognition of issues and actions to cope with them. The lag-time depends upon whether or not policy institutions and precedents already exist relating to the issue. It may also depend upon accidental events such as the introduction of an issue into a political campaign, appearance on the scene of independent actors who highlight issues, and/or actions of an organized interest group or the press. Another attribute of transportation policy is problem-fixing as opposed to problem-solving. The recognition of issues results, after much time, in the creation of policy to deal with those specific problems. The time it takes to create policy depends upon whether or not previous

---

[29] Avery.

[30] Herman Mertins, Jr. and David R. Miller, "Urban Transportation Policy: Fact or Fiction?" in Miller, pp. 27-31.

policy-making events have set the stage by creating appropriate institutions. The policy that emerges produces a fix.[31] Much of the policy-making often involves much more than a governmental agency's deciding "yes" or "no" to a formal proposition. Final public policy may be the result of a whole series of interlocking decisions taken by various groups and persons with various motives and acting in private as well as public capacities.[32]

Decision-making. Lewis M. Schneider addresses the political process of policy making for urban transportation by flow-charting the steps involved (see Figure 1.1). Schneider points out how little research has been done on how decisions are made, despite reams of studies on urban mass transportation concentrating on traffic forecasting, technological innovations, and financial feasibility of proposed projects. Even in the decade since Schneider's article, conditions have changed very little from his description, and the little policy analysis that has been done has been carried out mainly at the federal level. Schneider concludes that much could be learned about the general problem of allocating our nation's resources to urban areas through study of the decision-making process surrounding investments in mass transportation.[33]

Frank Colcord studied transportation decision-making in seven large urban areas and he finds that decisions are actually made within

---

[31] W. Garrison, "Transportation Policy for Urban and Post-Urban Developments," in United Transportation Union, pp. 187-189.

[32] Warner E. Mills, Jr. and Harry R. Davis, Small City Government--Seven Cases in Decision-Making (New York: Random House, 1962), p. 57.

[33] Lewis M. Schneider, "Urban Mass Transportation: A Survey of the Decision-Making Process," in Raymond A. Bauer and Kenneth J. Gergen, ed., The Study of Policy Formation (New York: The Free Press, 1968), pp. 239-280.

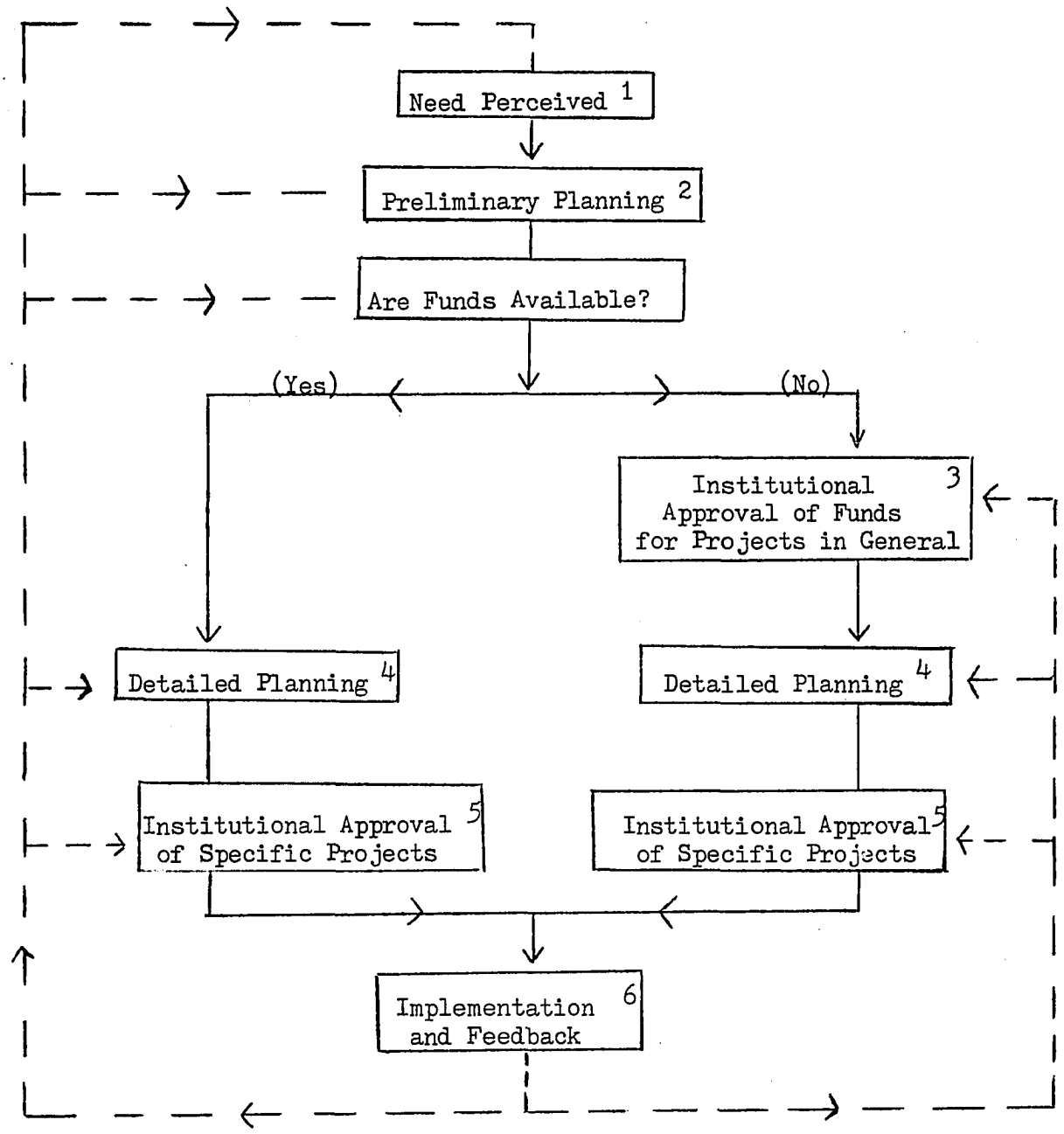


Figure 1.1: The Urban Mass Transportation Investment Process

Source: Lewis M. Schneider, "Urban Mass Transportation: A Survey of the Decision-Making Process," in Raymond A. Bauer and Kenneth J. Gergen, ed., The Study of Policy Formation (New York: The Free Press, 1968), p. 244.

eight sub-categories, concerning: 1) the structure of government where transportation decisions are made; 2) transportation planning; 3) financing, construction, and operation of transportation facilities; 4) the decision of whether transportation will be handled comprehensively or piecemeal. In addition, transportation decisions are directly affected by the sub-categories concerning: 5) the general structure of metropolitan governments; 6) metropolitan land-use planning; 7) home rule and the distribution of powers between the state and local governments; 8) financing and taxes. Colcord concludes that transportation politics are similar in all large urban areas, involving the same public and private actors in the decision-making process. He emphasizes the important role of central cities in the anti-highway movement. He finds also that because of the absence of metropolitan political structures, the primary arena for political controversies over transportation will be the state political system.[34]

Alan Lupo, Frank Colcord, and Edmund P. Fowler make an important contribution to mass transit policy analysis in their study of advocacy planning for highway construction and land use. Their two main themes are that, first, planning and construction of transportation facilities are far more than an engineer's technical problems, presenting important political decisions that affect, directly and indirectly, the lives of millions of people, both users and those who are affected by the construction. Second, although transportation decisions are unquestionably political, there is strong doubt that the political process

---

[34]Frank C. Colcord, Jr., "Decision-Making and Transportation Policy: A Comparative Analysis," Social Science Quarterly, 48 (December, 1967), pp. 383-397.

has been working well to make them. They find that transportation decision-making in metropolitan areas was characterized by: 1) absence of public or private leaders concerned with the whole urban area; 2) consideration of issues only when they reach a crisis and do not directly threaten the loss of autonomy by muncipalities; 3) a tendency of individual units to compete rather than to cooperate; and 4) a tendency of suburbs to hold the central city in suspicion, increased by differences in political parties, ethnicity, and other divisive factors. Advocating a modal mix for efficient transportation, the authors feel the goal could be achieved only in democratic communities with strong traditions of local decision-making by using the logics of the technician, planner, and politician in the proper combination for the needs of the urban area as a single system.[35]

This theme is echoed in David R. Miller's edited volume, which is praised by Tobin for addressing planning, technology, and urban growth in a policy context.[36] The authors in Miller's book emphasize three themes: 1) the role of urban transport in providing mobility for people rather than for vehicles, with emphasis on the low-income families, the elderly, the very young, and the handicapped; 2) the relationship between transport facilities and urban growth; and 3) that urban transport policy is really a set of policies developed at various levels of political jurisdiction, concerned primarily with problems of particular modes and administered by a variety of techniques, among them the proverbial carrot and stick, and sometimes, total inaction. Miller concludes that urban transportation service is local and must be supported

---

[35]Lupo, et. al. [36]Tobin, pp. 108-110.

at whatever level and by whatever means are locally appropriate. He also notes the high degree of success of locally-oriented efforts.[37] The importance of interdisciplinary and interfunctional dialogue is emphasized as well since planning is usually done by individuals with various backgrounds, each attempting to maximize the function of that particular discipline: the economist, searching for the efficient use of resources and equitable distribution of benefits; the engineer, attempting the most efficient means of moving traffic volumes; the planner, trying to maximize the welfare of many client groups; and the politician, aiming to maximize the welfare of the constituents.[38]

William J. Murin studied mass transit policy planning in Washington, D. C. He claims that governmental transportation policy has left unserved a large group in the population who have a need for mass transit--the low income, inner city resident who works or could find a job in the suburbs and is thus a reverse commuter. This is a transportation problem that occurs in a specifically American form, reflecting in particular the American experience with race and poverty. He concludes that "the policy outcome of all of this is that because change oriented values are not congruent or compatible with certain status-quo values, the less mobile sector of the population does not get served by incremental decision-making in transportation policy."[39] What this meant in Washington, D. C., was that the "goals of eliminating discrimination, providing the poor and non-auto owning public with access to jobs and other urban amenities, opening up suburban jobs to inner city

---

[37]See also Smerk, Urban Mass Transportation. [38]Miller.

[39]Murin, p. 103.

residents, and using METRO as a tool of urban redevelopment would receive less sensitive treatment than the goals of relieving traffic congestion, eliminating unnecessary automobiles on the streets, or making money."[40]

Smerk would agree with Murin. He concludes his extensive volume which relates legislative progress, institutional authority, and the pros and cons of transit with the same finding he reached in his earlier work: federal policy has been made by the process of "muddling through." It lacks coherence, comprehensiveness, and commitment. Smerk's prediction for the future is brighter though. "Reflecting on what has happened over the past decade, it seems clear that for transit improvement to work an effort must be initiated locally, where the problems are most obvious and the road to improvement most visible."[41] This seems to be the present trend.

Only James Scheiner and Grover Starling refute the incremental charge for transit policy-making. They surmise, related to the large, rapid increase in federal spending of 1700 per cent from fiscal year 1965 to fiscal year 1974, that urban transportation is one area of public policy where the incremental model does not apply.[42] Perhaps in terms of dollars, this conclusion is correct. In the area of policy, however, it appears to be incorrect. Altshuler states that "the status quo seems to be the objective."[43] Murin points out that for METRO in Washington, D. C.,

---

[40] Ibid., p. 97.

[41] Smerk, Urban Mass Transportation, p. 297.

[42] Scheiner and Starling, p. 170.

[43] Altshuler, "Changing Patterns of Policy," p. 201.

"change oriented values lost out to status quo oriented values in determining the nature and scope of the system."[44] J. Douglas Carroll asserts that past federal transportation policies suggested an incremental movement where the next move was in response to a crisis, rather than according to some orderly plan. According to him the government moves have seemed short-sighted, seeking results no greater than enough to get to the next election and usually proceeding on the assumption that things were "out of sorts" and would return to some normal state after the current crisis subsided. It does not make sense to proceed from crisis to crisis, from emergency to emergency, without plan or policy, which the national government appears to be doing without clear objectives and means of measurement.[45]

Finally, Sandra Rosenbloom validates six hypotheses compatible with incremental policy-making when studying the impact of federal urban mass transportation programs on metropolitan transportation systems: 1) federal assistance discourages coordination by funding competing existing services; 2) federal assistance permits carriers with unsatisfactory service and inefficient management to stay in operation; 3) federal assistance encourages large capital purchases of state-of-the-art equipment whether needed or not; 4) federal assistance encourages marginal technological additions rather than innovative or system-wide approaches to future service; 5) federal assistance discourages aid to non-traditional service from local funds since the federal government

---

[44] Murin, p. xii.

[45] J. Douglas Carroll, Jr., "Toward a National Policy for Urban Transportation," in United Transportation Union, p. 178.

does not fund it;[46] and 6) the major source of information about improvements in transit is not from the federal government, but from transit associations, consultants, and other operators.[47]

Policy-making for urban transportation is obviously not carried out in isolation from other policy issues nor from other public agencies or governments. A study by Peter Rossi and Robert Crain in 1966-1967 correlated nine public issues based on the opinions of formal leaders in 51 American cities ranging in population from 50,000 to 750,000. Mass transit was positively intercorrelated with crime (+.11), race relations (+.35), and air pollution (+.26). It was negatively intercorrelated with water pollution (-.04), government reorganization (-.03), unemployment (-.01), building and zoning codes (-.05), and business and industrial development (-.30).[48]

The studies reported in academic and professional literature strongly suggest that transportation policy-making is interdisciplinary,

---

[46]This is changing slowly with new federal regulations concerning para-transit. See Alan Altshuler, "The Federal Government and Para-Transit" (paper presented at Conference on Para-Transit, Williamsburg, Va., November 9-12, 1975); John Newman, "A Ride for Everyone," Environment, 16 (June, 1974), pp. 11-18; John F. Due, "Urban Mass Transit Policy: A Review Article," The Quarterly Review of Economics and Business, 16 (Spring, 1976), pp. 93-105; R. F. Kirby, "Para-Transit: Experience and Potential in the U. S. A.," Ekistics, 42 (July, 1976), pp. 19-27; Daniel Roos, "Doorstep Transit," Environment, 16 (June, 1974), pp. 19-20, 26-28; and Department of Transportation, Urban Mass Transit Administration, "Paratransit Services--Proposed Policy," Federal Register (Wednesday, October 20, 1976), pp. 4612-4613.

[47]Sandra Rosenbloom, "The Impact of Federal Urban Mass Transportation Programs on Metropolitan Transportation Systems: Los Angeles and San Diego" (unpublished Ph.D. dissertation, University of California at Los Angeles, 1975), p. 13.

[48]Peter Rossi and Robert Crain, "The NORC Permanent Community Sample," as reported in Matthew A. Crenson, The Un-Politics of Air Pollution--A Study of Non-Decisionmaking in the Cities (Baltimore: The Johns Hopkins Press, 1971), p. 173.

interfunctional, incremental, and involves several levels of government. Transportation policy has a great effect on the urban environment and on its population. There is much speculation about the degree of benefits to date of urban transportation policy. Because mass transportation policy-making within the public sector is in its infancy, there is much to be learned by future policy studies.

Regionalism

Transportation is a policy issue which knows no boundaries. Particularly in larger cities which tend to be older, more congested, and less adaptable to modern transportation, the transportation needs have expanded beyond local borders. For this reason, Colcord found the primary political arena for transportation issues to be at the state level. More recently, states have created or allowed the creation of regional bodies to handle public transportation across local boundaries. These bodies are able to serve large and small urban areas as well as suburban or rural communities.

As early as 1961, the Advisory Commission on Intergovernmental Relations (ACIR) noted two general characteristics of the urban transportation problem: 1) transportation facilities in most urban areas failed to meet community standards and consequently there was widespread feeling that public transportation was inadequate; and 2) the general public was frustrated with the inability of cities to remedy the transportation inadequacies. The ACIR suggested that one of the principal reasons for both problems was a lack of federal funds for mass transportation on a scale similar to the funding for highways.[49] At the

---

[49]Melvin R. Levin and Norman A. Abend, Bureaucrats In Collision:

same time a National Transportation Policy Report prepared for the U. S. Senate Committee on Interstate and Foreign Commerce spelled out the particular deficiencies in federal policy toward urban transportation: 1) present facilities fail to form a coherent system; 2) areawide systems require areawide plans that relate transportation to other metropolitan investments and land use; 3) governmental fragmentation in metropolitan areas leads to competing jurisdiction that attempt, often unsuccessfully, to handle urban transportation requirements; and 4) financing of public facilities and services has no rational basis resulting in a hodgepodge of financing similar to the hodgepodge of facilities.[50]

The key to solving the problem was coordination: in financing, in intermodal planning, and in jurisdiction. Without federal guidance or financial assistance, local governments often found themselves in the position of choosing between public subsidies, in most cases placing an additional burden on already strained property taxes, or choosing to provide no transit service at all. In many cities, various types of public authorities and boards were established to take over bankrupt transit companies. Public ownership eliminates state and federal income taxes, gasoline taxes, and means no further need to earn a return on transit investment, thus affording a tax relief and eliminating inflated values.[51] This action proved to be more acceptable after the provision for federal subsidies under the Urban Mass Transportation

---

Case Studies in Area Transportation Planning (Cambridge: M. I. T. Press, 1971), pp. 27, 37.

[50] Ibid., pp. 37-38.

[51] Owen, The Metropolitan Transportation Problem, pp. 103-107.

Act of 1964. The problem of jurisdiction, however, is not solved by local authorities.

Joseph DeSalvo's edited volume presents a consensus view that the nation's diverse transportation problems can be better approached through different size, nonexhaustive, sometimes overlapping or superimposed regions, tailored to different needs and purposes. The authors focus on transportation planning at some regional interstice between the national and local levels, looking primarily at multi-state regional planning. Many of the findings, however, have relevance for the sub-state regional level which has been gaining greater acceptance in American politics. Gakenheimer's contribution to the volume suggests that in delineating regional boundaries for special authorities, there is often a tradeoff between functional rationality and administrative coherence. He states that regions designed to permit analytical solutions to important problems are often not endowed with the apparatus necessary for responsiveness to constituents, opportunities for intersectoral cooperation, and the implementation of policy decision. He suggests, therefore, that states be responsible for nonlocal transportation planning, and that regions which are functionally or administratively coherent are preferable to those which compromise between the two.[52]

As noted by the United Transportation Union, special or general transportation authorities have one decided disadvantage in that they create a different level of government, less sensitive to public opinion because most members are appointed rather than elected. Other problems

---

[52]Joseph S. DeSalvo, ed., Perspectives on Regional Transportation Planning, (Lexington, Ma.: D. C. Heath and Co., 1973).

of the authorities may result from overlapping jurisdictions, taxing provisions, lack of control over all forms of transportation, and resentment from the public or other governmental bodies.[53] Often local governments fear the loss of autonomy and self-determination when participating in regional efforts, as described by Carrothers:

> The fragmented jurisdictions are apparently founded on a widespread and deep-seated belief in local self-determination. This seems to mean even that two "selves" ought not join together since this would abridge local rights. Indeed, the most characteristic attitude encountered was fear of the next larger unit of government. In every case it was felt that the interests of the larger unit were in conflict with those of the smaller. The smaller felt it was not given just treatment by the larger, and the larger felt the smaller to be ineffective and weak. In every area there was a clearly expressed antipathy to the State, but it was accompanied by the constantly recurring theme that the State should take the initiative in developing metropolitan planning activities.[54]

The Advisory Commission on Intergovernmental Relations recognizes that the local governments and the areawide planning bodies representing them commonly have a much broader concept of transportation and the relationships among the different modes than have the states. In recommending action, then, the ACIR suggests that each state establish a broad intermodal department of transportation headed by a chief administrator, appointed by and responsible to the governor, directly vested with strong and effective intermodal planning, policy making, and budgeting capabilities, and supported by adequate staff. The Commission believes that the most feasible approach to meet areawide transportation needs, however, is to use existing regional councils or regional planning commissions which receive federal and state aid for planning, but with

---

[53]United Transportation Union, p. 15.

[54]Gerald A. Carrothers, as quoted in Harris and Mitchell, p. 30.

increased decision-making powers. This approach would eliminate the creation of a new governmental body, which would further complicate fragmentation, but would still coordinate the responsibility for planning, policy, and operations. The ACIR notes two alternative schemes to coordinate transportation: 1) use of reorganized areawide local governments where feasible; or 2) use of state agencies with local ties.

The basic thrust of the ACIR recommendations is to strengthen regional policy bodies so that, unlike voluntary areawide planning bodies (such as A-95 review agencies), they can play a major decision-making and implementation role in those projects having areawide significance. An areawide transportation body, however, should be designated to work with, and under the direction of, the regional policy body in order to: 1) make use of state financial assistance for the full range of non-highway transportation services, to include flexible use of earmarked state highway funds; 2) work with an appropriate state agency to review and approve transportation revenue bonds of all agencies to avoid conditions of unbalanced transportation systems; 3) divert surplus revenue of transportation special districts within the region for the support of other transportation projects; and 4) provide financial subsidies to private transportation providers and consumers in order to meet transportation goals other than costs. The transportation authorities would have the financial and other powers necessary to put the regional policy body's transportation plan into effect and to help integrate local, statewide, and nationwide systems of transportation within the regional system. Such authorities would have the powers to: 1) designate, with the planning agency, major urban and rural regional transportation routes

and set the conditions for operations on these routes; 2) reserve, develop, and maintain exclusive or priority travel routes for mass transit and sites for areawide transport facilities; and 3) finance operations through fares and charges to the extent consistent with policy objectives, but through taxes and assessments where necessary. While the recommended regional programs would be fully intermodal, broadly coordinated with overall development policies, politically responsive and responsible, clear in the division of responsibilities, and effective in meeting areawide needs, they would leave strictly local transportation decisions in local hands.[55]

The ACIR has also noted that the abundance and fragmentation of transportation providers further complicates the problem of fragmentation of governmental bodies or agencies within a region. Often, the providers leave gaps in services and are handicapped in improving service. In most areas, transportation responsibilities are divided among county and municipal governments, special districts, and private operators, which often show little awareness of the intermodal impact of their individual operational policies and procedures. In order to coordinate provision of services, the ACIR recommends legislation (based in part on the Massachusetts legislation, Chapter 161-B) to blanket an entire state with regional transportation authorities tailored to the specific needs of each area of the state. The bill offers five alternative forms: 1) a city or county designated as the regional transportation authority; 2) a group of cities or counties entering into a cooperative

---

[55]Advisory Commission on Intergovernmental Relations, "A New Approach to Coordinated Transportation," Intergovernmental Perspective, 1 (Fall, 1975), pp. 9-11.

arrangement; 3) a separate regional authority established within an area; 4) a regional council assuming the authority role; or 5) a state agency being designated. All powers of the authority would be exercised only with the concurrence of the regional policy unit, and the extensive contracting powers would allow a wide range of mutually supportive arrangements among local, regional, and state units charged with interrelated transportation responsibilities.[56]

Tabor Stone claims that the establishment of regional transportation authorities is essential for overall coordination and planning and that the transportation authority could not function without the creation or cooperation of an associated regional planning agency. He warns that the transportation authority should be the functional tool of the planning agency and that never again should transportation activities be allowed the autonomy or independence of planning activities which have been evident in the automobile transportation environment.[57]

According to Frank Davis, a transit authority board has two major responsibilities: 1) it serves as a focal point of citizen input to the urban public transportation planning process; and 2) it is responsible for seeing that an adequate level of public transportation service is provided for the community. The board may be more interested in nostalgically preserving traditional transit than in providing the public transportation service which is desired by the public. Davis concludes, then, that transit boards should address themselves to two

---

[56]Advisory Commission on Intergovernmental Relations, State Legislative Program--Transportation (Washington, D. C.: U. S. Government Printing Office, 1975), p. 30.

[57]Stone, pp. 130-139.

major issues, though regrettably many boards do not: 1) is service being provided which actually meets the needs of the community? and 2) is the desired service being provided in the best way?[58]

Robert Smith points out the dirth of literature about special purpose public authorities (with the notable exceptions of Victor Jones[59] and John C. Bollens[60]) and traces the development of the concept of special authorities in the United States. He looks at their creation through state governments, rather than at those relatively few which were established by the national government during Franklin Roosevelt's administration. He also compares the rapid proliferation of state authorities to the development of the concept of the public corporation in the United Kingdom. The book directs its attention to the function of transportation, specifically examining the authorities in London, New York City, Boston, Southeastern Pennsylvania, Southeastern Michigan, Atlanta, Washington, D. C., and Chicago.[61]

Smith claims that the predominant number of special authorities have come from the actions of state legislatures, spawned by the lure of federal monies.[62] Roosevelt recommended that state governors use the

---

[58]Frank W. Davis, Jr., "Effective Transit Policy-Making at the Local Level," in Transportation Research Board, pp. 9-11.

[59]See Victor Jones, "Local Government Organization in Metropolitan Areas: Its Relation to Urban Development," in Coleman Woodbury, The Future of Cities and Urban Redevelopment (Chicago: University of Chicago Press, 1953).

[60]See John C. Bollens, Special District Government in the United States (Berkeley: University of California Press, 1957).

[61]Robert G. Smith, Ad Hoc Governments--Special Purpose Transportation Authorities in Britain and the United States (Beverly Hills: Sage Publications, 1974).

[62]See, also, James F. Veatch, "Federal and Local Urban

carrot of federal funds, desperately needed in the states, to encourage state legislatures to create ad hoc agencies, circumventing normal restrictions that the states imposed on borrowing by local governments. The states accepted the public authority device, as the lure of money proved irresistible, and by 1970, there existed some 9000 public authorities through the country, in addition to some 14,000 special districts.[63]

To more accurately describe the special form of government appropriate for transportation authorities in the United States, Smith has coined the term "authority-district," as differentiated from special districts and public authorities. The "authority-district" is the newest type of ad hoc government, just appearing in metropolitan centers in the United States.

> It combines certain features of the special district and the special public authority. The authority-district, designed as it is for the coordination of various modes of a function, relies, where possible, on the collection of user charges, but, in order to incorporate deficit modes with profitable ones, the powers of the authority-district extend as well to the use of special means of taxation.[64]

> From the special district, the Metropolitan Transportation Authorities have adopted the potentialities of the relatively settled features of a fixed constituency, within recognized boundaries, agreeable to the payment for a desired service, such as mass transit, even by a special tax levy on their property, in return for which it has the assurance of a board, the majority of whose members must

---

Transportation Policy," Urban Affairs Quarterly, 10 (June, 1975), pp. 398-422, who claims this spawning has perverted local decision-making and priorities. For a rebuttal of this accusation, see Daniel Elazar, " 'Fragmentation' and Local Organizational Response to Federal-City Programs," Urban Affairs Quarterly, 11 (June, 1967), pp. 30-47, who claims that local leadership can play off federal agencies and choose the appropriate organizational form to control federal programs, adjusting them to conform to local priorities.

[63] Smith, pp. 10, 108-9.

[64] Ibid., p. 44.

> reside in the district. The new authorities encompass whole units of local government as media for political identification. From the special public authority, the new authorities inherit the primary focus on revenue-bond capabilities, with the correlary confidence that the user charges will defray most of the costs, at least, in so far as possible. With such reliance, the new authorities again are free to follow their transportation functions without regard to boundary lines of the individual elected conventional governments--lines which still serve for the everyday functions of the general governments, but which have lost their meaning for the expanding modes of travel.[65]

Smith notes, however, that a lack of understanding of the significant differences between traditional special authorities and the new public transportation authorities has been caused, in many cases, by the reliance on the same terminology and the use of the label "authority."

Smith has summarized from various sources five claims most frequently made on behalf of the new special public authorities in the United States: 1) they make possible the financing of capital construction (which otherwise would be impossible under debt ceilings) by floating bonds in the name of the authority; 2) they have a greater attraction to professional persons, specialized in one particular function of importance to the community; 3) they must be business-like since they rely on bond sales and a bond rating; 4) they take the function out of politics, permitting operation in the public interest but with the motivations of private business; and 5) they make possible the formation of more logical lines of jurisdiction, adjusting better administration to area for the effecting of functional needs.[66]

The regional, multimodal public transportation authorities are pioneers in a very real sense. Their boundary determinations are unique in that they encompass whole units of local government. The additional

---

[65] Ibid., pp. 164-165. [66] Ibid., pp. 35-36.

avenue of governmental financing also lessens a dependency on bond holders for policy-making. Smith claims that the authorities have evidence of being permanent fixtures in American government, and therefore a more realistic attempt must be made to find their role in federalism. The proliferation of special authorities to deal with mass transportation constitutes one of the greatest increases in types of government in the history of the country. In 1972, some 150 special agencies for mass transit were counted. When turnpikes, mass transit districts, parking authorities, airports, port authorities, and the like, all are added together, there are some 4,000 special units in the United States involved with transportation.[67]

This proliferation has caused a new interpretation of the quasi-public, quasi-private concepts of the special public authority, with a growing consensus that its public side must gain precedence over its private inclinations. Smith warns, however, that the very flexibility of the authorities in all aspects, except for their basic intermodal, regional characteristics, makes generalization dangerous. He further points out that a general-purpose government seems better suited to perform comprehensive planning and policy-making for a major function such as transportation, and the highly professional special purpose authority is better suited to carry out the plans and policies. Therefore, a genuine feeling of anticipation exists about the importance of special-purpose governments to the operational side of government, that of providing the public service of transportation.[68]

---

[67] Ibid., pp. 159-163, 22. [68] Ibid., pp. 239-241.

This type of authority described by Smith would alleviate the problems of using regional planning bodies as the sole transportation agencies, as expressed by Altshuler and Curry. The transportation authority possesses the important power of implementation which is lacking in regional planning agencies or councils of government (COG). Yet, the transportation authority must cooperate with the regional planning agency for technical advice, and with the regional A-95 clearinghouse agency (whether a COG or otherwise, as in Massachusetts) to meet federal requirements. While this cooperation allows potential conflicts, it also places transportation within a regional, interdisciplinary, and interfunctional frame of reference.

Mass Transit Policy in Massachusetts

According to Smith, the new form of special transportation authority was born in 1964 with the formation of Boston's Massachusetts Bay Transportation Authority (MBTA), an enlargement of the Metropolitan Transit Authority which had reflected the earlier type of special public authority, dependent on user charges and revenue bonds for its solvent existence. The MBTA was also distinctive in being based on the New England tradition of the small town. In Massachusetts, metropolitan structures had been forced to adjust to that orientation over the years, as it represented the dominant political force there.[69] Martha Derthick claims that in 1967, the radical change in the administrative structure of state government in Massachusetts strengthening executive powers obliterated the last remnants of the system of local responsibility that

---

[69] Ibid., pp. 158, 168.

arrived with the Puritans.[70] This, however, did not change the strong belief in devolution and local determination, as evidenced by the provisions for local control written into Chapter 161-B of the Massachusetts General Laws, adopted in 1973 (see chapter three).

Massachusetts has long been a leader in the transportation field. In 1893, Massachusetts became the first state in the nation to form a state highway department.[71] The first subway in the western hemisphere was opened in Boston in 1897, built by the city rather than by private enterprise. Subsequently, the city took over the financially ailing transit company by the Public Control Act of 1918 as a "temporary" measure, thus becoming the first city to own and operate its own transit service.[72] Boston also boasts the nation's first electrified transit line.[73]

More recently, in 1970, Boston became the second urban area in the nation to have an explicit moratorium on new highway construction, and the first in the nation to have an Interstate Highway stopped by gubernatorial, rather than simply by local, decision. Altshuler notes that this action tended to commit the state to playing a major role in the quest for an alternative solution to the region's transportation problems. This Boston example, supported by vigorous lobbying in

---

[70]Martha Derthick, The Influence of Federal Grants--Public Assistance in Massachusetts (Cambridge: Harvard University Press, 1970), p.12.

[71]Massachusetts General Court, House, Achievements--Massachusetts Legislature, 1972.

[72]Schaeffer and Sclar, pp. 78-79.

[73]Altshuler, "Transit Finance in Greater Boston," p. 6.

Washington, D. C., also contributed to changes in national funding policies, specifically the Interstate Transfer provision of the Highway Act of 1973, authorizing urban areas to trade in their Interstate Highway aid entitlements for mass transit grants.[74] In 1974, the Massachusetts electorate voted by a substantial margin to authorize expenditures from the state highway trust fund for mass transit purposes.[75]

Policy analysts in general rank Massachusetts as a leader in policy-making. Jack Walker found that Massachusetts ranked second with a score of .629 based on his examination of 88 programs in 20 states enacted before 1965 in order to determine the diffusion of innovations among the states.[76] He felt that factors affecting the adoption of innovative policies by the states included an awareness of expert support and evidence favoring adoption of a new program, specialization and professional development of state government bureaucracy, and a sense of relative well-being within the state, as well as factors dealing with emulation of policy-enactment in other states.

The state government also ranks high on indexes of gubernatorial power, apportionment, and legislative professionalism. Joseph Schlesinger determined that the Massachusetts governor's power index score is 12, out of a range of seven to nineteen, giving the state a rank of 29[77] (note that this was prior to the executive reorganization

---

[74] Ibid., pp. 6-7.

[75] Altshuler, "Changing Patterns of Policy," p. 178.

[76] Jack L. Walker, "The Diffusion of Innovations Among the American States," American Political Science Review, 63 (September, 1969), pp. 880-899.

[77] Joseph A. Schlesinger, "The Politics of the Executive," in Herbert Jacob and Kenneth N. Vines, ed., Politics in the American States

referred to by Derthick). Massachusetts has an apportionment score of 80.4, out of a range of -4.9 to 90.3, ranking fifth.[78] In terms of legislative professionalism, Massachusetts ranks second with a score of 2.4, out of a range of -2.0 to 2.8.[79]

Looking at strictly transportation issues, David Littig ranks Massachusetts as follows: number one (with five others) for Transit Program with a score of 1.0 out of 1.0; number eight (with five others) for Transit Financing with a score of 3.0 out of 5.0; and number 14 (with two others) for Transit Administrative Institutionalization with a score of 0.2 out of 1.0 (note that this study was done just at the time of the organization of a state department of transportation, the Executive Office of Transportation and Construction, EOTC). In the Index of State Mass Transit Effort, Massachusetts ranks number eleven with a score of 1.0559.[80]

Littig determines that states with strong transit programs are more urbanized, industrialized, wealthier, and less dependent on the federal government, not necessarily for federal monies, but because these states have sufficient socioeconomic and political resources to respond as autonomous political systems to new policy demands. They do not have to wait until the federal government initiates a new

---

(Boston: Little, Brown and Co., 1965), p. 229.

[78]Glendon Schubert and Charles Press, "Measuring Malapportionment," American Political Science Review, 58 (June, 1964), p. 320.

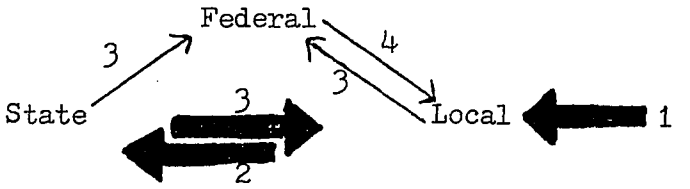
[79]John Grumm, "Structure and Policy in the Legislature" (paper presented at annual meeting, Southwest Social Science Association, Dallas, Texas, March 1967).

[80]David M. Littig, "The Politics of Mass Transportation: State and City Policy-Making in a Federal System" (unpublished Ph.D. dissertation, University of Wisconsin, 1974), pp. 233, 250.

grant-in-aid program. In addition, they seem to have the largest share of skilled resources such as expertise, leadership, and professional competence. Littig also finds that Walker's index of state innovation and the political factor "professionalism-local reliance" are strongly correlated with transit policy.[81]

> The findings support the view that states which have a tradition of policy innovation are also more likely to adopt strong transit programs when the conditions of urbanization, and affluent population, and a weak state commitment to highway policy are met. These states also demonstrate a tendency to initiate policies more independently from national norms, perhaps because of their stronger state resources....[82]

Looking specifically at Massachusetts, Littig determined that the new image of Massachusetts contributes to its innovativeness: a post-industrial metropolis, a national scientific, medical, and technological center, with knowledge in electronics, communications, space-age technology, and the home of many universities, research firms, publishers, and engineering firms. He diagrams the transportation policy-making process for Massachusetts as follows:



where: (1) Boston freeway revolt of 1969 spilled over to state policy,
(2) effecting changes.
(3) State policy produced a favorable outcome for local areas with a balanced state policy for transportation.
(3) State to federal and local to federal displeasure voiced with federal highway policy.
(4) Federal mass transit assistance provided to Boston.

Note: The importance of inter-governmental relations is shown by the size of the arrows. A lack of data makes it impossible to quantify the strength of each relationship.[83]

---

[81] Ibid., pp. 262-266. [82] Ibid., p. 271. [83] Ibid., pp. 553-554.

Massachusetts was further innovative in 1973 when the state passed legislation designed to equalize benefits and expenditures throughout the state. Taking effect on March 5, 1974, Chapter 161-B of the Massachusetts General Laws provided for the establishment of regional transit authorities (RTA) outside of the MBTA area for those communities choosing to organize them. They seem most similar in form to those described by Smith as proposed for Chicago in the Governor's Transportation Task Force for Northeastern Illinois in 1973. In Chicago, the regional transportation agency was thought to be the best type of organization to incorporate these features:

> Be a single agency in order to provide the best mechanism for regional cooperation of modes, fares, routes, and scheduling, and for achieving maximum efficiency through elimination of duplicative or uneconomic services and facilities.
>
> Have responsibility for performing those functions which are crucial for achieving regionalization and which can best be performed in a centralized manner: e. g., marketing; fare schedule and route coordination; research and planning; and determination of capital investment priorities.
>
> Provide suburban interest with sufficient local control over suburban service and the city of Chicago sufficient control over city service.
>
> Provide a means of stabilizing the present labor situation between city and suburban transit services so as not to make the suburban services completely uneconomic. Provide for contracting for services through 'purchase of service' agreements. It should not mandate the purchase of private systems since each purchase may not be in the best interest of the Regional Transportation Agency, hence the public.[84]

Considered a unique feature for the Chicago RTA, the purchase of service techniques would include both capital and operating subsidies, offered solely through the RTA to private operators and including incentive

---

[84]Governor's Transportation Task Force for Northeastern Illinois, 1973, p. 83, in Smith, p. 194.

features for the improvement of transit service.

The state legislation in Massachusetts creating the RTA's provided very few specific guidelines for the authorities, but it established detailed procedures for their formation and subsequent funding. Most important, the legislation called for local initiative in formation of the authorities and prohibited the RTA's from operating their own transit service. This restriction in the legislation came about primarily as a result of the experiences of the government-operated MBTA which is overburdened with labor controversies. The RTA-contracted service should eliminate direct government involvement with labor and remove the public body from the negotiating process. These newly-created public authorities constitute another innovation for Massachusetts in that they serve small urban and suburban areas rather than large metropolitan areas, they receive 50 per cent state funding on net cost of service, both capital and operating, and they are quasi-governmental bodies in the design of Smith's authority-district.

Conclusion

The regional transit authorities provide an excellent example of newly established agencies which demonstrate the trends of governmental policy described earlier in this chapter. First, they show the impact of federal assistance under the Urban Mass Transportation Act and of the increased state role in transit finance and planning under Chapter 161-B. Second, the RTA's are examples of the trend from private to publicly owned or subsidized transit services, indicating a new awareness by citizens and officials of the necessary government role in such

service. Third, the RTA's respond to the federal requirement for regional planning of transit modes to better serve the needs of the citizens, to run an efficient operation, and to make the best use of scarce resources, politically and economically.

Smith asserts that the greatest degree of experimentation with special units of government is taking place within the transportation function. Modifications or innovations in governmental forms "are being followed by metropolitan officials throughout the world, as all are caught up in the same need to balance automobile traffic with various modes of mass transportation."[85] Given the sparseness of the academic literature, according to both Schneider and Smith, which addresses special transportation authorities, transportation policy-making, and its application to small urban and suburban areas, the regional transit authorities in Massachusetts appear to be a good place to begin a study which can explicate the process followed by these bodies.

Regional transit authorities gain the most information not from academic literature, but from the trade associations and through UMTA. While some policy innovations come through UMTA mandates, such as the para-transit regulations and required facilities for the elderly and handicapped, specific implementation is left to the authorities. Subsequent data and guidelines are developed as a result of operations carried out by state and local governments, providing helpful information only to authorities which enter the public transportation business at a later time. In innovative states such as Massachusetts, the regional

---

[85]Smith, p. 14.

transit authorities are truly breaking ground and setting precedents for other states to follow.

Focusing this study on Massachusetts takes advantage of the openness of transportation policy planning, a feature resulting largely from the Boston protests of the last decade. Therefore, by looking at the legislature, the state Executive Office of Transportation and Construction, the regional transit authorities, and the local governments, the policy process should become evident. The 1973 legislation creating regional transit authorities led to a new politicization of transportation planning. This was a response to the failure of bureaucratic ways of the past and was in anticipation of increased citizen and local participation in the legislative forum. It has brought about new forms of state administration as well as the potential for increased conflicts between governmental bodies and the public in its pressures for change.

This study will view the policy-making process through a systems framework, analyzing the components of that system, and their relationships. In the next chapter, the policy analysis process will be examined along with an explanation of the methodology for this study. Chapter three describes the legislative history of Chapter 161-B and analyzes its passage. In chapter four the regional transit authorities are described in terms of their formation and operations. An analysis of the decision-making process is explained in general. Chapter five includes an in-depth examination of three of the authorities. Quantitative analysis is carried out in chapter six with an examination of five hypotheses comparing pre-RTA to RTA operations. Several indexes ranking current RTA operations follow. Finally, chapter seven offers several conclusions.

CHAPTER II

POLICY ANALYSIS

Transportation issues have traditionally been discussed and analyzed by extremely sophistocated engineering and planning techniques. Policy accommodated the need for a new highway, airport, or railway based on statistical estimates of usage, location, and feasibility. As multimodal transportation issues reached the political agenda, policy-makers realized the importance for policy to be responsive to individual citizens' preferences and needs. Policy analysis is a technique to determine political, social, and economic implications of transportation policy.

Policy analysis, being a fairly new area in the social sciences, is subject to various interpretations. Generally, these involve one or both of these elements: 1) a prescriptive or heuristic aid for identification of preferable policy alternatives; and 2) a behavioral study of policy-making with reference to what inputs determine what results.

Norman Beckman postulates that the "illusive concept of policy analysis" includes four distinct standards and characteristics, related to the first element above. First, policy analysis is integrative and interdisciplinary. It should enumerate both policy options and some of their indirect consequences and should employ the skills of a wide range of professional disciplines. Second, policy analysis is anticipatory.

The process looks toward decisions which are yet to be made, therefore distinguishing itself from the process of program evaluation which is only a part of policy analysis. Third, policy analysis is decision-oriented. It should direct attention toward public problems as they are anticipated or as they occur, rather than toward abstract or philosophical questions. Fourth, effective policy analysis is value-conscious and client-oriented. It identifies for the decision maker the various stakeholders of particular options and the assumptions, values, or costs and benefits attributed to various alternatives.[1]

Thomas Dye subscribes more to the second element of policy analysis in his definition:

> Today the focus of political science is shifting to public policy--to the description and explanation of the causes and consequences of government activity. This involves a description of the content of public policy; an assessment of the impact of environmental forces on the content of public policy; an analysis of the effect of various institutional arrangements and political processes on public policy; an inquiry into the consequences of various public policies for the political system; and an evaluation of the impact of public policies on society, in terms of both expected and unexpected consequences.[2]

Dye further distinguishes between policy analysis and policy advocacy. He asserts that explaining the causes and consequences of various policies is not equivalent to prescribing what policies governments ought to pursue. Therefore, in Dye's terms policy analysis involves: 1) a primary concern with explanation rather than prescription; 2) a rigorous search for the causes and consequences of public policies; and 3) an

---

[1]Norman Beckman, "Policy Analysis in Government: Alternatives to 'Muddling Through'," Public Administration Review, 37 (May/June, 1977), p. 222.

[2]Thomas Dye, Understanding Public Policy, 2nd ed. (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1975), p. 3.

effort to develop and test general propositions about the causes and consequences of public policy and to accumulate reliable research findings of general relevance.[3]

Regardless of the exact definition of policy analysis, scholars agree on the importance of studying public policy. Dye provides three reasons why political science should devote greater attention to the study of public policy. First, public policy can be studied for purely scientific reasons in order to gain an understanding of the causes and consequences of policy decisions. This knowledge improves our understanding of society. Policy can be viewed as a dependent variable in a study of what environmental forces and political system characteristics operate to shape the content of policy. Or public policy can be viewed as an independent variable in an examination of what impact public policy has on the environment and the political system. Dye claims that these questions can improve our understanding of the linkages between environmental forces, political processes, and public policy.

Dye claims, secondly, that public policy can be studied for professional reasons. An understanding of the causes and consequences of public policy permits us to apply social science knowledge to the solution of practical problems. Policy studies can produce professional advice. Finally, public policy can be studied for political purposes, to insure that the nation adopts the "right" policies to achieve the "right" goals. "Policy studies can be undertaken not only for scientific and professional purposes but also to inform political discussion, advance the level of political awareness, and improve the quality of public policy."[4]

---

[3] Ibid., pp. 5-7. [4] Ibid., p. 5.

Brett Hawkins also addresses the question of why political scientists study policy. One reason, he claims, is that policies, reflecting as they do a political system's allocation of values, are obviously within political scientists' immediate purview. Policies reflect the goals of at least some people for government activity, though often not the goals of the majority. Hawkins continues that another reason for the interest in policy is that it represents an object of conflict and is thus at the heart of politics. The variable being explained, public policy, is defined by Hawkins as the actions or decisions affecting the scope of governmental activity, the institutions of government, or other community-wide institutions. Not all government decisions produce change. Decisions may deliberately reinforce the status quo or leave it unaltered. But all policies reflect variations among political actors, environments, and institutions.[5]

Charles Jones reviews state and local policy analysis in light of the post-behavioral revolution. He notes the concerns of Felix Frankfurter that the discipline be "fully alive" to the "raw materials of politics" before considering the "aptness of political ideas or the adequacy of political machinery."[6] Yet, considering the immediacy of governmental concerns, Jones reports the "battle cries" of the post-behavioral revolution according to David Easton, calling for "relevance

---

[5]Brett W. Hawkins, Politics and Urban Policies (Indianapolis: The Bobbs-Merrill Company, Inc., 1971), pp. 8-9.

[6]Felix Frankfurter, The Public and Its Government (New Haven: Yale University Press, 1930), p. 3, in Charles O. Jones, "State and Local Public Policy Analysis: A Review of Progress," Political Science and State and Local Government (Washington, D. C.: American Political Science Association, 1973), pp. 27-28.

and action."[7] Jones claims that Austin Ranney, like Dye, has provided three sets of reasons for the study of policy content which make the Frankfurter-Easton criteria more concrete:

1. For scientific reasons
   a. Improved understanding of policy processes (including Frankfurter's "raw materials").
   b. Improved understanding of policy outcomes.
2. For professional reasons
   a. Evaluating present and past policies.
   b. Advising policy-makers.
3. For political reasons ("right policies" for "right goals").[8]

Approaches to Policy Analysis

The policy sciences were "discovered" in the 1950's and 1960's by such scholars as Harold Lasswell and Yehezkel Dror who directed the attention of political scientists to this area.[9] Jacob Ukeles reports, however, that in the following ten or fifteen years of development, relatively little happened in the evolution of the policy sciences idea. Policy studies tended to follow one of the two opposing schools of thought. Based partly on their success in influencing defense planning, Rand analysts advocated the application of systems analysis to public problems in order to promote rationality in the public sector. At the same time, Charles Lindblom argues that the rational model was ill-suited to a

---

[7]David Easton, "The New Revolution in Political Science," American Political Science Review, 63 (December, 1969), p. 1053, in Jones, p. 28.

[8]Austin Ranney, "The Study of Policy Content," in Ranney, ed., Political Science and Public Policy (Chicago: Markham, 1968), pp. 13-18.

[9]Jacob B. Ukeles, "Policy Analysis: Myth or Reality?" Public Administration Review, 37 (May/June, 1977), p. 224. See also Harold D. Lasswell, A Pre-View of Policy Sciences (New York: American Elsevier Publishing Co., Inc., 1971); and Yehezkel Dror, Design for Policy Sciences (New York: American Elsevier Publiching Co., Inc., 1971).

chaotic, unstable, and unpredictable political environment. A more realistic response of policy-makers is to "muddle through," and the incremental model is more suited to democratic pluralist morms.[10]

Generally, there are three approaches to public policy analysis: pure or basic research, policy evaluation and measurement (policy science), and applied or operational (management decision-making). Much of political science research is involved with the pure or basic approach with abstract efforts to understand and predict. The methodology often utilizes aggregate data on a comparative basis with states or cities as the units of analysis. Much of this work is termed "determinants" studies. A considerable amount of the literature in this vein addresses the relative importance of economic versus political factors in determining political system outputs. Budget data and voting records, usually more easily quantifiable than other political data, are often analyzed.[11]

Policy evaluation and measurement is essentially committed to finding better ways of achieving specific policy objectives within a particular function, such as health services or education. It may involve the use of models and simulations for experimentation and also includes social indicators research. The well-known Coleman Report on

---

[10] Ukeles, p. 224. See also Peter L. Szanton, "Analysis and Urban Government: Experience of the New York City-Rand Institute," Policy Sciences, 3 (1972), pp. 153-162; and Charles E. Lindblom, "The Science of 'Muddling Through'," Public Administration Review, 19 (Spring, 1959), pp. 79-88.

[11] See, for example, Richard I. Hofferbert, "The Relation Between Public Policy and Some Structural and Environmental Variables in the American States," American Political Science Review, 60 (March, 1966), pp. 73-82; and Brian R. Fry and Richard F. Winters, "The Politics of Redistribution," American Political Science Review, 64 (June, 1970), pp. 508-522.

Equality of Educational Opportunity is a prime example of this approach to policy analysis.[12]

Finally, applied or operational analysis is designed to provide a quantitative basis for choosing policy alternatives. It applies systems analysis, cost/benefit, operations research, or programming-planning-budgeting systems by means of mathematical modes and specific techniques developed in business management, economics, and industrial engineering. This approach is management-oriented for making better policy decisions.[13] Because the field of public transportation is closely allied with management, economics, and engineering, many applied analyses are conducted in this field with emphasis on planning and multimodal considerations.[14]

These three main approaches to policy analysis have several common characteristics, as well as basic differences. Each approach uses quantification and multivariate statistical analysis. Each recognizes the need for better indicators and more precise measurement. Each is limited by various factors that are difficult if not impossible to quantify, such as values, political power-plays, trade-offs, and cultural influences. The approaches vary, however, in their prime concern for analysis. Basic analysis is secondarily, if at all, concerned with

---

[12]See, for example, James S. Coleman, Equality of Education Opportunity (Washington, D. C.: U. S. Government Printing Office, 1966); and Christopher Jencks, Inequality: A Reassessment of the Effect of Family and Schooling in America (New York: Basic Books, 1972).

[13]See, for example, Alice M. Rivlin, Systematic Thinking for Social Action (Washington, D. C.: Brookings Institution, 1971).

[14]See, for example, A. Scheffer Lang and Marvin L. Manheim, "The Role of Systems Analysis in Developing National Transportation Policy," in United Transportation Union, A Report on the 1970 Conference on Mass Transportation (New York: Popular Library, 1970), pp. 362-367.

prescription. Its prime goals are description, explanation, and prediction. These are the same objectives for pure research in the natural sciences. On the other hand, the other two approaches are interested primarily in some real-world payoff, for example by providing systematic information primarily to those who must cope with the real-world problems on a daily basis. In general, the academic researcher is more interested in a complete and broad understanding of the policy process, while the practitioner typically wants specific recommendations for specific problems to use immediately.[15]

Numerous authors have outlined particular models or methods for academic analysis. Thomas Dye states that the purpose of these models is 1) to simplify and clarify our thinking about government and politics, 2) to identify important political forces in society, 3) to communicate relevant knowledge about political life, 4) to direct inquiry into politics, and 5) to suggest explanations for political events and outcomes.[16] His seven categories are among the most extensive in the literature and warrant a brief examination.

Institutionalism as a model views policy through its authoritative determination, implementation, and enforcement by governmental institutions. Governmental institutions give public policy three distinctive characteristics: legitimacy, universality, and coercion. While the institutional model has not devoted much attention to linkages between the structure of governmental institutions and the content of

---

[15]See James S. Coleman, Policy Research in the Social Sciences (Morristown, N. J.: General Learning Press, 1972) for a cogent discussion of the differences between academic and applied policy analysis.

[16]Dye, p. 17.

public policy, it need not be merely narrow nor descriptive. It can be used to examine relationships in a comparative and systematic fashion.

Group theory is based on the proposition that interaction among groups is the central fact of politics. Therefore, the task of the political system is to manage group conflict by establishing rules of the game in the group struggle, arranging compromises and balancing interests, enacting compromises in the form of public policy, and enforcing these compromises. The resulting policy is the result of achieving and maintaining equilibrium among groups. When policy changes, it is the result of a change in the groups' predominance or priorities.

Elite theory postulates that public policy reflects the preferences and values of the elite. The masses are presumably apathetic and ill-informed. Change and innovations come about because of a redefinition by the elites of their own values. Because of the general conservatism of elites, change in public policy will be incremental rather than revolutionary. Therefore, public policies are frequently modified, but seldom replaced. Competition among policy priorities centers around a very narrow range of issues upon which the elite agree.

Rationalism defines the value of policies in terms of their efficiency and assumes that all relevant values of a society are known. To select a rational policy, policy-makers must know all the value preferences and their relative weights, know all the alternatives available, know all the consequences of each alternative, calculate the ratio of achieved to sacrificed values for each alternative, and then select the most efficient policy alternative. There are so many barriers to rational decision-making that it rarely takes place in government, yet the model

remains important analytically because it helps to identify those barriers to rationality. The model is more applicable to economics and budgeting.

Incrementalism views public policy as a continuation of past government activities with only successive limited modifications. The model recognizes the impractical nature of rational-comprehensive policy-making and describes a more conservative process of decision-making. Existing programs, policies, and expenditures are considered as a base, and attention is concentrated on new programs and policies as well as on increases, decreases, or modifications of current programs. The legitimacy of current established programs is accepted. In the absence of any agreed-upon societal goals or values, it is easier for the government of a pluralist society to continue existing programs rather than engage in overall policy planning toward specific societal goals.

Game theory is the study of rational decisions in situations in which two or more participants have choices to make and the outcome depends on the choices made by each of them. It is applied when there is no one best choice and the outcome depends on what each player does in turn. Game theory is an abstract and deductive model of policy-making. It does not describe how decisions are made but rather how they might be made in completely rational, competitive circumstances. A key concept of the theory is strategy in which each player attempts to maximize gain and minimize loss for himself, and vice versa for the opponent. Game theory is frequently proposed as an analytic tool by social scientists rather than as a practical guide to policy-making by government officials.

Finally, systems theory examines public policy as a response of a political system to forces brought to bear upon it from the environment. The concept of system implies an identifiable set of institutions and activities in society that function to transform the demands of society into authoritative decisions requiring the support of the whole society. The concept also implies that elements of the system are interrelated, that the system can respond to forces in its environment, and that it will do so in order to preserve itself. Inputs are received by means of both demands and supports. The system arranges settlements among conflicting demands and produces outputs in the form of public policies, which may modify the environment and the demands arising from it and may also have an effect upon the character of the political system.

These seven models described by Dye are similar to eight categories set out by James Anderson.[17] Anderson divides his models into those applicable to decision-making and those for policy analysis. Under decision-making, he includes the rational-comprehensive model, Lindblom's incremental model, and an additional design called mixed-scanning, postulated by Amitai Etzioni.[18] Mixed-scanning includes parts of both the rational and incremental models while seeking to avoid the most serious problems of both. Normatively, mixed-scanning provides for the stability and predictability which is necessary to a decent society, as well as the acceptance of needed major social innovations regarding

---

[17]James E. Anderson, Public Policy-Making (New York: Praeger Publishers, 1975).

[18]Amitai Etzioni, "Mixed Scanning: A 'Third' Approach to Decision-making," Public Administration Review, 27 (December, 1967), pp. 385-392.

our major social problems. Mixed-scanning involves, first, a generalized monitoring of society in which information of a relatively gross type is collected. This scanning could tend to locate potential trouble spots which might be approached in a more comprehensive manner. These two activities, the truncated review of certain social and environmental sectors and the full review of specific problems revealed by the surveys, constitute a non-conservative, innovative approach to problem solving. It also recognizes that comprehensive review of all community sectors is not possible because of costs, technological, and intellectual limitations.[19]

Anderson includes five models for policy analysis: political systems theory, group theory, elite theory, institutionalism, and he adds to Dye's categories the additional functional-process theory. The functional model is the most conventional means by which public policy has been analyzed through functional or programmatic categories. Much of the data collected by governments is organized around functional principles, but the analysis does not recognize that most public undertakings are multifunctional. It is a rare policy decision that does not have a social impact transcending a unifunctional system of classification.

In a somewhat different vein, Stephen Elkin describes four traditions of policy analysis. Output studies explain variations in policies most often in terms of expenditures and are comparative. Process studies describe how policy gets made and is less clearly defined. Administrative studies are used to develop more effective means and internal

---

[19]Larry L. Wade, The Elements of Public Policy (Columbus, Ohio: Charles E. Merrill, 1972), pp. 108-110.

structures for making decisions and include management science. Finally, political economy studies examine methods by which societies make choices for the use of scarce resources. Elkin states that the first three traditions are predominant in political science, yet each has certain weaknesses. Elkin advocates the development of the political economy tradition, which must include examination of social choices, a value criteria, and strategies of decision-making. He further argues that the political economy approach should be joined with the process approach in order to sensitize the analysis to outside influences.[20] Herbert Jacob and Michael Lipsky suggest a similar combination of output analyses and process studies in order to illuminate some of the linkages between environment, political processes, and outputs, which seem to be missing from statistical analyses of only policy outputs.[21]

One further classification of interest is explained by Edward Suchman in his discussion of evaluative research. Three categories of evaluation include 1) assessment of effort, 2) assessment of effect, and 3) assessment of process. Assessment of effort analyzes input and output in terms of performance. Assessment of effect looks at the adequacy of performance and efficiency in cost-benefit terms. Assessment of process is concerned with how and why a program works or does not work.[22] These categories seem to be most applicable to program evaluation

---

[20]Stephen Elkin, "Political Science and the Analysis of Public Policy," Public Policy, 22 (Summer, 1974), pp. 399-422.

[21]Herbert Jacob and Michael Lipsky, "Outputs, Structure, and Power: An Assessment of Changes in the Study of State and Local Politics," in Marian Irish, ed., Political Science: Advance of the Discipline (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1968).

[22]Edward A. Suchman, Evaluative Research (New York: Russell

which deals with questions of process (management and efficiency) or impact (cause and effect) of a program or projects.[23]

These examples reflect only a few of the many models for classifying policy analysis.[24] As Dye points out, a model is merely an abstraction or representation of political life and is used to simplify, clarify, and understand what is really important about politics. Therefore, no one model is the best or most accurate, but a model should be chosen which best fits the study at hand. Dye sets forth six general criteria for evaluating the usefulness of concepts and models. First, the utility of a model lies in its ability to order and simplify political life so that we can think about it more clearly and understand the relationships we find in the real world. It should be neither too complex nor too simplistic. Second, a model should identify the really significant aspects of public policy, directing attention away from irrelevant variables or circumstances and focusing upon the "real" causes and significant consequences of public policy. Third, a model should be congruent with reality and have real empirical referents. Fourth, a concept or model should also communicate something meaningful to many people. Fifth, a model should help to direct inquiry and research into public policy. It should be operational in the real world in order to

---

Sage Foundation, 1967), pp. 60-63.

[23]Norman Beckman, "Policy Analysis for the Congress," Public Administration Review, 37 (May/June, 1977), p. 238.

[24]See also Wade; Peter Woll, Public Policy (Cambridge: Winthrop Publishers, Inc., 1974); Roger W. Cobb and Charles D. Elder, Participation in American Politics: The Dynamics of Agenda-Building (Boston: Allyn and Bacon, Inc., 1972); and James C. Charlesworth, ed., Integration of the Social Sciences Through Policy Analysis (Philadelphia: American Academy of Political and Social Science, 1972).

prove or disprove the ideas suggested by the concept. Finally, a model should suggest an explanation of public policy. It should suggest hypotheses about the causes and consequences of public policy which can be tested against the real world data.[25]

This study will be analyzed by the systems model which seems to meet Dye's criteria as the best representation of political life for this case. The systems model will be used to describe and explain the causes and consequences of government activity during the passage of regional transit legislation. It will further serve as the basis for analyzing the consequences and impact of regional transit policy on society. The term "systems analysis" can be used in both basic and applied policy analysis. The former application applies here where systems analysis is an academic device to better understand political processes.

Systems Analysis

David Morgan and Samuel Kirkpatrick report that "the search for new strategies, methods, and concepts for describing and understanding the political process has increasingly drawn political scientists toward broader approaches to analysis."[26] The focus has broadened to include the characteristics and performance of entire political systems for use in comparative studies in a variety of geographical areas. "Systems analysis has found wide acceptance in political science by providing the conceptual scheme so essential for placing political phenomena

---

[25]Dye, pp. 38-39.

[26]David R. Morgan and Samuel A. Kirkpatrick, ed., Urban Political Analysis--A Systems Approach (New York: The Free Press, 1972), p. 5.

in this perspective."[27] While systems analysis can also be used for very narrow, definitive studies,[28] its application and consideration here is as a broad-gauged approach for classifying, ordering, and structuring political information.

Brett Hawkins refers to systems analysis as an operational model, one that accommodates the available data while suggesting ways and means of measuring phenomena accurately.[29] It focuses attention on all significant elements of the polity, policy outputs and outcomes as well as the influences upon and the processes of decision-making. It thus incorporates several of the approaches to policy analysis set forth by Thomas Dye. Dye has protested, in fact, that political science never lacked descriptions of what goes on within political systems, but it did lack a clear picture of the linkages between environmental conditions, political activity, and public policy.[30] Systems analysis is used to explain those linkages in examining the primary goal of the system, to persist through time and adjust to changes in society and the polity.

David Easton uses the political system as the unit of analysis, defining it as a "set of interactions, abstracted from the totality of social behavior, through which values are authoritatively allocated for a society."[31] It is this "authoritative allocation of values" which draws his attention with emphasis placed upon the interaction taking

---

[27] Ibid.

[28] See, for example, International City Management Association, Applying Systems Analysis in Urban Government (Washington, D. C.: U. S. Department of Housing and Urban Development, 1972).

[29] Hawkins, p. 11. [30] Dye, p. 277.

[31] David Easton, A Framework for Political Analysis (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1965). p. 57.

place, perhaps between individuals, institutions, or both. Easton's model portrays a dynamic process designed to secure the maintenance and dynamic equilibrium of the system itself. Political life is viewed as a system of behavior within the system of analysis. Any attempt to conceptualize and describe behavior, thus, must be quite general and broad in nature. While the system can be distinguished from its environment in Easton's analysis, it is open to environmental influences. This may create difficulties in defining the nature of systemic boundaries and their degree of flexibility or rigidity. The political system, however, cannot exist unto itself. It must interact with the physical, cultural, economic, social, and other political systems, constantly engaging in a series of transactions and exchanges across its boundary.

Any system, according to this theory, works or supports itself with inputs of demand and of support varieties. The demands are generally related to the allocation of resources, material or positional, and it is this decision-making process in which Easton is interested. Problems are inherent in the fact that inputs may come from sources demonstrating very different views of how resources should be allocated. Additionally, there is never any assurance that demands will actually be met by the system on a one-to-one ratio to outputs. Scarce resources and alternative demands must be considered in the allocation process. Hence, demand inputs create stress on the system which, in some cases, may be functional in activating the system toward progress. Factors such as substance, source, intensity, and the quantity of demands will be indicative of the ability of the system to perform and survive in its environment. Support inputs into the system come in the way of material resources, legitimacy

for the system, allegiance of actors to the system, obedience, money, and personnel. In many instances, the support and demand inputs may be in conflict themselves, putting greater strain on the system even before the allocation takes place.[32]

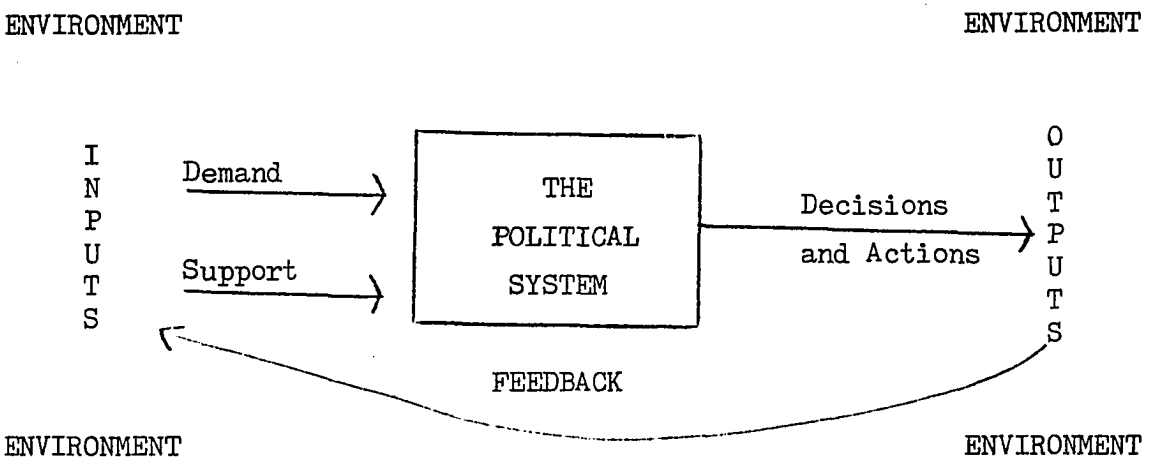
The decision-making or conversion portion of the systems paradigm can be viewed in two ways. It may represent those officials and official agencies within a society charged with the legal responsibility for making public decisions and policies, or it may focus on the process of conversion itself. This process is Easton's "authoritative allocation of values," which may deprive a person of a valued thing already possessed; it may obstruct the attainment of values which would otherwise have been obtained; or it may give some persons access to values and deny then to others.

Outputs, in the simplest sense, are decisions and acts of public officials which may take the form of laws, administrative decrees, and court decisions. Outcomes are the consequences of those decisions, often unanticipated. The feedback loop is what gives the political system its dynamic quality and includes the learning and corrective capacity of the system. The operation of the system does not stop with the production of outputs. Rather, decisions and policies affect other systems surrounding the political system which are part of the overall environment and which may in turn generate new forms of inputs for the political system to process. In addition, certain forms of outputs or

---

[32]See Easton, A Framework for Political Analysis; David Easton, A Systems Analysis of Political Life (New York: John Wiley and Sons, Inc., 1965); and David Easton, The Political System (New York: Alfred A. Knopf, 1953).

policies might return as feedback directly to the decision-makers as a new input without necessarily going through the outside environment. Easton terms these "withinputs." A simplified model of the political system is shown below.



Source: David Easton, A Framework for Political Analysis (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1965), p. 112.

Systems analysis as described by Easton is heuristic, descriptive rather than predictive, and lends itself to comparative analysis. There remains, however, the problem of further definition. Other analysts may employ their own distinctive definitions of the elements to be considered in systems analysis.[33] The analyst must carry the scheme out to usable lengths. By using the broad-gauged theory described by Easton and subsuming the techniques of decision theory and group theory, a fuller explanation of the allocation process is allowed.

---

[33]See, for example, the descriptions of Easton, Dye, Almond and Powell, Parsons, Robinson and Majak, Agger and Goldbrick and Swanson, Mitchell and Mitchell, and Lowi in Wade, pp. 4-10. See also Cobb and Elder, p. 19; L. L. Wade and R. L. Curry, Jr., A Logic of Public Policy (Belmont, Ca.: Wadsworth Publishing Co., Inc., 1970); Randall B. Ripley,

Analysts disagree as to the relative merits, problems, and utility of systems analysis as a methodology. Margaret Conway and Frank Feigert express several problems with a broad-gauged theory such as systems analysis. First, there is a lack of testable hypotheses. Second, since a theory must meet criteria of both explanation and prediction, systems analysis is really not a theory, but a model. It may generate hypotheses but not prove them. Third, there is an absence of substantive content and no presence of concrete phenomena. Fourth, systems analysis has a bias toward equilibrium, system maintenance, the status quo, and against the individual. Fifth, there is a question of values in determining what is functional or dysfunctional to the system. Analysts may fall prey to using heavily value-laden schemes which ultimately interfere with, instead of assist, the goals of explanation and prediction.[34]

While acknowledging that systems analysis is not really a theory and that it is of limited value in goal determination, Morgan and Kirkpatrick find a number of advantages in its use. First, the idea of a political system compels the researcher to separate political activity from other forms of social behavior, at least for purposes of analysis. Second, systems analysis focuses attention on the specific set of components or units making up a particular political system, thus distinguishing the system from the environment. Third, a systems approach requires that the political researcher take a comprehensive look

---

Grace A. Franklin, William M. Holmes, and William B. Moreland, Structure, Environment, and Policy Actions: Exploring a Model of Policy-Making (Beverly Hills: Sage Publications, 1973).

[34]Margaret Conway and Frank B. Feigert, Political Analysis: An Introduction (Boston: Allyn and Bacon, Inc., 1976). See Anderson; Ripley, et. al.

at all the dimensions and components of the authoritative allocation process. This approach draws attention to the relationship between system components and between the political system and its environment. Thus, the systems approach has the advantage of constantly calling the researcher's attention to the larger whole, the functioning of the entire system and its relation with its environment. Finally, the systems framework is highly compatible with rigorous empirical research, providing concepts and working models to be used in a variety of substantive areas. In sum,

> ...the systems approach, stemming from interdisciplinary attempts to establish common forms of language and analysis across a variety of substantive applications, has infused new concepts into the language of political analysis; encouraged new ways of looking at political phenomena in the context of all relevant variables; enabled comparative analysis through common knowledge of different systems; facilitated the gathering of data and the empirical examination of politics; developed microanalysis in conjunction with macroanalysis; and, most important, stimulated us to raise new queries, otherwise unasked, about basic political phenomena.[35]

Thomas Dye also advocates the systems model, claiming that the value of systems analysis to policy analysis lies in the questions that it poses:

1. What are the significant dimensions of the environment that generate demands upon the political system?
2. What are the significant characteristics of the political system that enable it to transform demands into public policy and to preserve itself over time?
3. How do environmental inputs affect the character of the political system?
4. How do characteristics of the political system affect the content of public policy?
5. How do environmental inputs affect the content of public policy?
6. How does public policy affect, through feedback, the environment and the character of the political system?[36]

---

[35]Morgan and Kirkpatrick, p. 10. [36]Dye, pp. 37-38.

These questions have been examined in the study of regional transit authorities in Massachusetts according to the methodology explained below.

Methodology

The study which follows examines the regional transit authorities in Massachusetts by following a broad-gauged policy analysis format based on systems analysis. It incorporates some quantitative analysis which can also be useful for application. The purpose of the study is not to develop a theory, but to apply a theoretical model to a particular case in order to achieve better understanding of the process of decision-making in the field of public transportation for small urban areas. Because the possible alternatives for transit modes and designs in less densely populated areas appear less interesting than for large urban areas often having rapid transit, little research has been done in the smaller areas. Yet, the literature clearly reveals a need to examine small local areas if they are to be the main arena for transit decision-making in the future. Lang and Manheim stress the requirement that analysis must be policy sensitive as well as technical.

> One way to insure this is to go through a preliminary phase in which a number of policy studies are prepared prior to the establishment of data collection and model development priorities. Such policy studies would explore such questions as: What are the alternatives? What interest groups might be affected? What aspects of the problem require analysis to predict the effects of alternative policies on these various interest groups? Even though these initial studies may be highly speculative, they can bring a substantive problem orientation into the later model and analysis technique development effort.[37]

This study examines the one alternative of regional transit authorities and their effects.

---

[37]Lang and Manheim, p. 369.

The literature on policy analysis also reflects some disillusionment and skepticism about the methodology. Philip Coulter argues that to overcome the serious deficiencies of the study of aggregate public policy there must be a circumspect return to the use of case studies. He insists, however, that case studies fulfill at least three criteria. First, they should be comparative in design, asking the same kinds of questions and using the same kinds of data in studying policy. Second, they should be constructed so as to supply the missing quantitative data which describe political linkages and emphasize transformation processes. Third, they should be devised in such a way that their results can be easily integrated with and will lend empirical, evidentiary support to the more abstract, quantitative, aggregate analysis of community political systems.[38]

With hopes of providing a rigorous analysis, this study has incorporated policy analysis with the case study approach. Analysis has been carried out using a systems design that includes an examination of the processes of decision-making. This allows an investigation into the "black-box" which converts demands and supports into binding policy decisions. The general area of concern is that of public transportation policy. The particular focus will be on the operation of the regional transit authorities established under Massachusetts General Law Chapter 161-B. The study is concerned both with the environmental forces and political system characteristics that operated to shape the content of the policy and with the impact of the policy on the environment and the political system.

---

[38]Philip B. Coulter, "Comparative Community Politics and Public Policy: Problems in Theory and Research," in Morgan and Kirkpatrick, p. 379.

The first phase of the study involves a description of the passage of Chapter 161-B. Enactment of this legislation becomes the initial dependent variable. Presented in chapter three, this account describes the political environment for a ten year period preceding passage, the legislative debate, and a consideration of influences which allowed passage. Special consideration is given to the question of what constituted the impetus to place the topic of regional transit authorities (RTA) for smaller urbanized areas in Massachusetts on the legislative agenda. Quantitative analysis by means of the chi square test is performed on the roll call votes of 1972 and 1973 to determine a possible association between vote and area of the state, divided by legislators within the Massachusetts Bay Transportation Authority (MBTA) area, the RTA areas, and non-transit districts. Information was gathered from legislative reference reports, official legislative records, newspaper accounts, extensive interviews with legislators and administrative officials (see Appendix A), and from the resulting law itself.

The second phase of the study required extensive field work with each of the eight operating RTA's in order to explicate the paths followed in terms of operations, contracts, and decision-making. Public documents from the RTA's and their respective regional planning commissions were examined as well as the detailed RTA manual, a constantly expanding "how-to" guide put out by the state Executive Office of Transportation and Construction (EOTC). Extensive interviews with RTA administrators and transit operators were conducted in each region. Monthly RTA administrators' meetings were attended for approximately nine months, and transit officials at the state EOTC were interviewed

(see Appendix A). Chapter four explains in general terms the formation, operation, and inter-governmental relations of the regional transit authorities. Analysis of the authorities as the independent variable follows.

Three of the authorities were chosen after the initial field work for an in-depth examination. Based on demographic and geographic classifications, the authorities represent a cross-section of those in operation in Massachusetts. Presented as case studies, each of the three authorities is viewed in terms of the history of public transportation in the region, formation of the authority, progress and policies, decision-making, impact, and potential. Information was gathered by extensive interviews with public officials in many transportation-related positions (see Appendix A). Questionnaires were submitted to all Advisory Board members of the three authorities (see Appendix B). Advisory Board meetings were attended in each region, and minutes of meetings were examined for a one year period or longer for each authority. These case studies are presented in chapter five along with some cautious generalizations and conclusions.

In the final phase of the study, quantitative measures for the regions were gathered for pre-RTA operations and operations after RTA formations. Those available include cost per passenger, cost per mile, cost per hour, amount of government financial support, number of passenger miles, number of passengers, total revenue, revenue to cost ratio, and wage rates. While the data have obvious shortcomings, explained in chapter six, efforts were made to standardize the figures in order to compare the costs and benefits of public transportation in the regions between pre-RTA and RTA-contracted services.

More extensive data are available for RTA operations since fiscal year 1976. Using current data where possible, several indexes have been calculated to compare the RTA's throughout the state. Indexes of Scope of Service, Transportation Needs, Transit Mobility, Performance Standards, and Cost-Benefit ratio were calculated in order to rank the authorities. Indexes were calculated according to Z-scores or modified Z-scores and percentage difference from state-determined standards of performance. While the quantitative analysis does not provide absolute measurements, it is useful for comparative purposes, and some cautious conclusions and generalizations are expressed.

The quantitative information in chapter six bears some resemblance to a program evaluation of an on-going public program.[39] It provides information on areas where changes could improve performance and evaluates the regional transit authority program in a relative sense. It does not, however, consider alternatives for policy action. Neither does it consider the alternative of discontinuing the program. The study is an academic review of the regional transit authority program, but it may provide useful recommendations nonetheless.

This study, as outlined above, is an attempt to analyze transportation policy for small urban areas. It examines the question of what has created the political stimulus to encourage public transportation in areas where it has traditionally been a low priority. It goes on to

---

[39]See E. S. Quade, Analysis for Public Decisions (New York: American Elsevier Publishing Co., Inc., 1975); and Joseph S. Wholey; John W. Scanlon; Hugh G. Duffy; James S. Fukumoto; and Leona M. Vogt, Federal Evaluation Policy--Analyzing the Effects of Public Programs (Washington, D. C.: The Urban Institute, 1975) for a description of program evaluation.

look at the constituent base of transit and its impact on the local and state citizens and on the political systems. It examines inter-governmental relations along with resultant problems, conflicts, and cooperation. It examines decision-making and the setting of political priorities. In short, it describes the goals and effects of transit policy in small urban areas while addressing the role of the various levels of government in urban transportation.

Several conclusions are presented in chapter seven organized according to the questions outlined above: stimulus, constituency, inter-governmental relations, decision-making, goals, and effects. While these conclusions are applicable to the regional transit authorities in Massachusetts specifically, there may be some basis for generalization to similarly-organized public authorities in small urban areas elsewhere. Since policy analysis is not an exact science, none of the conclusions can be expressed in absolute terms. Neither does policy analysis provide a panacea to decision-makers for creating the ideal policy. The researcher hopes, however, that this study will serve as the introduction to future studies in public transportation for small urban areas. Together, these studies can be useful as a substantive collection of academic literature relating the experiences of these newly formed authorities. States just entering the arena of public transportation can gain from the experiences of other states which have been pioneers in the field.

Finally, recommendations are suggested for improvements in the regional transit authorities based on the research presented here. While political scientists and policy analysts disagree as to whether

analysis should conclude with advocacy, this researcher does conclude by recommending the concept of regional transit authorities for small urban areas while considering suggested changes in their organization, powers, and evaluation.

CHAPTER III

MASSACHUSETTS GENERAL LAW 161-B

Legislative History

The concept of regional transportation authorities outside the Boston metropolitan area is not a new one in Massachusetts. Predating any general concern over urban transportation elsewhere, the Massachusetts General Court (the legislature) addressed the problem as early as 1920. It should also be noted that Massachusetts has consistently been a leader in the transportation and transportation policy areas beginning with the first subway in North America in 1898, which became publicly owned and operated as early as 1947.[1]

In 1920, the proposed Senate bill S 573 passed into law as Chapter 599 of 1920, being incorporated into the General Laws as Chapter 161, sections 143-160, "An act to authorize cities and towns to establish transportation areas and to operate street railways therein."[2] The argument in favor of the emergency legislation was to provide for the

---

[1]K. H. Schaeffer and Elliot Sclar, Access for All--Transportation and Urban Growth (Baltimore: Penguin Books, Inc., 1975), p. 97.

[2]Unless otherwise noted, all legislative history in this chapter is taken from Massachusetts Legislative Documents 1920, 1964-73; Bulletin of Committee Work and Business of the Legislature 1920, 1964-73; Journal of the Senate 1964-73; Journal of the House of Representatives 1964-73.

continuing operation of street railways in the Commonwealth which were in need of financial assistance and in danger of being dismantled. It allowed any city, town,or combination to unite into a "transportation area" for the operation of freight or passenger service or both on street railways existing within the area. These transportation areas would come under the authority of the Department of Public Utilities (DPU) for regulation of fares, extensions, and equipment purchases, while the state still taxed the properties. A board of trustees including the mayors, or selectmen representing them, from each member town in the area was charged with submitting an annual report of finances. The transportation area had the authority to exercise eminent domain and was restricted to a ceiling price of seven per cent of the purchase price to be paid on rental of equipment.

Amendments to the "transportation area" legislation were enacted in 1923 and 1964. Chapter 296 of 1923 added General Law Chapter 161, section 161, to enable municipalities to contribute to operating expenses in order to avoid the discontinuation or reduction in service of public transportation. In 1964, in anticipation of the pending federal Urban Mass Transportation Act, Chapter 563 of 1964 was enacted with sections 10-16 amending Chapter 599 of 1920. This legislation added provisions for bus and other services for the mass transportation of passengers to be included in transportation areas. It allowed contracts to be granted by the areas to private companies for operation of transportation service, and in the case of private companies being taken over by the transportation area, the legislation protected the employees. Boards of trustees were enabled to apply for and receive

federal and state aid. The Commonwealth would then provide for reimbursement to transportation areas for 90 per cent of the annual debt service on bonds issued for equipment or facilities for mass transportation services. Boards could also borrow money for the acquisition of new equipment. The local subsidy for transit service was figured 1/3 by mileage of transit routes within the town limits, 1/3 by population of the town, and 1/3 by the amount of assessed valuation in the town. Only one such transportation area was formed under this provision, the Greenfield-Montague Transportation Area (GMTA).[3]

At the federal level, the newly awakened concern for urban mass transportation began slowly in 1961 and led to the enactment of the 1964 Urban Mass Transportation Act. Massachusetts also continued in its efforts to improve its public transportation, particularly in the extensive system run by the Metropolitan Transit Authority (MTA) in the Boston metropolitan area. In a 1964 study financed jointly by the Housing and Home Finance Agency of the federal government and the Commonwealth of Massachusetts, the following conclusions were offered:

1. The declining trend in public transportation ridership is not inevitable. It can be reversed.

2. Frequency of service is a more important factor than lower fares in increasing passenger volume on public transportation.

3. Selected, incremental improvements in frequency can be self-sustaining.

4. It is possible to develop a model whereby the costs of alternative rail service levels can be accurately evaluated.[4]

---

[3]Since the focus of this study is on the more recently created regional transit authorities, the GMTA will not be further described.

[4]Commonwealth of Massachusetts, Massachusetts Transportation Commission, Mass Transportation in Massachusetts, 1964.

The study found also that cities outside the Boston area which had not opted to form transportation areas allowed by Chapter 161 were in danger of losing their only transit service, that provided by private carriers. In 1960, the major private bus companies had a combined operating ratio of 95 per cent, thus spending 95 cents to produce one dollar in revenue. The indication at that time was that the ratio for 1962 would be worse, forcing some companies to sell real estate in order to survive. Except for commutation trips to and from Boston, public transportation in other urban areas was provided by private bus companies, most of which had been operating on a near marginal basis for several years. In experiments carried out during the 1964 study in the Fitchburg, Worcester, Pittsfield, and Fall River areas, it appeared that:

1. Increased service from suburban areas to small cities produced costs which greatly exceeded the incremental fare box revenue.
2. Improvements in local service in small urban areas could be self-sustaining.
3. In private bus companies, the greater portion of costs vary almost directly in proportion to miles operated, with only a minor portion being fixed costs.

These results pointed up the need for subsidies from local or state governments as well as for capital grant monies.

Alarmed by the state of the private bus companies in the small cities of the Commonwealth, as well as the continuing deficits of the Boston MTA, and with the prospect of federal monies becoming available, Governor Endicott Peabody (D) introduced new legislation on April 21, 1964, speaking to each of these situations. The heart of his proposal concerned the creation of the Massachusetts Bay Transportation Authority (MBTA) incorporating the MTA with its 14 cities and towns and extending

its boundaries to encompass an additional 64 municipalities, totalling 78 cities and towns (later expanded to 79). In addition, he proposed the creation of transportation authorities in each of the state's other SMSA's in order for these areas to receive state aid. Peabody's message to a joint session of the two Houses (introduced as S 820) proposed that 90 per cent state aid be provided for construction and purchase of equipment, to be paid from the Cigarette Tax Fund. No aid would be available for operating expenses. One hundred million dollars in bonds would be authorized by the Department of Public Works (DPW), to be shared by the MBTA and the regions. Peabody specifically mentioned the transportation needs of the elderly and children and addressed the citizens of western Massachusetts concerning the benefits they would receive: the 90 per cent state aid for bus facilities and equipment, and the freeing of more highway monies for western Massachusetts by helping to solve the transportation problems in the eastern part of the state. By addressing this particular audience in his original message, Peabody hoped to overcome some of the opposition of western legislators to financing the Boston area's transportation system. However, opposition helped to kill regional transit proposals for the next nine years.

Under the Peabody legislation in 1964, each SMSA within the Commonwealth would comprise a mini-MTA having broad powers to operate locally oriented transportation systems with minor modifications in the structure for the non-Boston areas of 1) Attleboro, 2) Brockton, 3) Fall River, 4) Fitchburg and Leominster, 5) Lawrence and Haverhill, 6) Lowell, 7) New Bedford, 8) Pittsfield, 9) the tri-city area of Springfield, Chicopee, and Holyoke, and 10) Worcester. The 78-member

MBTA and the 99 cities in the regional authorities would then comprise 85 per cent of the Massachusetts population, 50.3 per cent in the MBTA area and 34.9 per cent in the other regions.[5] Each regional authority was to have a three member board of directors appointed by the Governor, an Advisory Board made up of the mayor or chairman of the selectmen from each member municipality, and a professional general manager. Activation of the authorities would originate with the Advisory Board members who would possess weighted votes to reflect their individual locality's share of deficit assessments (based 50 per cent on population and 50 per cent on the amount of local route losses in the municipality vs. system-wide route losses). The authority could operate its own service or contract with private carriers. All planning responsibility rested with the DPW.[6]

Other provisions of Peabody's bill would have allowed for voluntary formation of transportation authorities by individual localities or groups of localities in areas not included in the MBTA or ten regions named, based on approval of the voters of the concerned communities. Additionally, the transportation areas created in the 1920 legislation would have been abolished. At this time, the Urban Mass Transportation Act of 1964 had passed the U. S. Senate and was

---

[5]Massachusetts Legislative Research Council, Report Relative to Massachusetts Transit Systems and Aid Programs, April 25, 1974, p. 97.

[6]It is interesting to note that the DPW is responsible for highway planning in Massachusetts, but at that time it was the only transportation planning body. For an explication of the DPW's role see Alan Lupo, Frank Colcord and Edmund P. Fowler, Rites of Way: The Politics of Transportation in Boston and the U. S. City (Boston: Little, Brown & Co., 1971).

pending in the U. S. House of Representatives. It provided for federal monies only if a state had coordinated mass transportation plans. The Peabody bill (S 830) was designed specifically to comply with this federal legislation.

Senate bill S 830, "An act to provide and maintain mass transportation facilities and services coordinated with highway systems and urban development plans throughout the Commonwealth," went directly to the Joint Committee on Ways and Means with hearings held on May 11. On June 8, 1964, it was reported to the House as H 3646 which completely eliminated any reference to the regional MTA's or to the abolition of the transportation areas. Rather, it provided for reimbursements from time to time to those transportation areas created under section 152A of Chapter 161 (see above). There existed a fear that competition from public mass transportation systems might damage private companies and in such cases provisions for relief to such companies should be made. However, such provision was only provided for within the expanded MBTA area. The omission of the proposed regional transit authorities demonstrated the lack of any perceived need for public involvement with transit in smaller urban areas, the fear of competition between public and private operations with the higher status given to private enterprise regardless of quality or operating conditions, and the belief that transit should pay for itself from the farebox.

The issue of regional transportation needs had, however, reached the political agenda, access to which requires: 1) widespread attention or at least awareness of the issue; 2) shared concern of a sizeable portion of the public that some type of action is required;

and 3) a shared perception that the matter is the appropriate concern of some government unit and falls within its bounds of authority.[7] Failure to meet this last requirement, however, held up action on regional transit legislation. There did exist awareness of the issue of transportation needs, particularly at the federal and state levels, if not in the smaller cities and towns. The public shared a concern that some type of action was required since the private bus companies were in danger of going out of business. In 1964, however, government subsidization of urban transportation services was not seen as appropriate at any level. Boston was atypical and had been ahead of its time in public ownership and operation of the MBTA. Until the issue of appropriate bounds of authority could be resolved, regional transit authorities were put on hold. Once perception of the propriety of government involvement was expanded, however, the issue was destined to remain for consideration until it was resolved or changing circumstances required redefinition or reappraisal.

In 1966, 1967, 1968, and 1969, Representative Raymond Rourke (D, Lowell) proposed legislation similar to that in the original Peabody bill.[8] Rourke had opposed the original Peabody proposals, however, claiming that the MBTA model would create an uncontrollable monstrosity with huge deficits for the regions. Serving on the Joint

---

[7]Roger W. Cobb and Charles D. Elder, Participation in American Politics: The Dynamics of Agenda-Building (Boston: Allyn and Bacon, Inc., 1972), p. 86.

[8]In addition to the legislative references cited in footnote #2, much information in this chapter was secured through personal interviews of public officials (see Appendix A). Because of its sensitive political nature, direct reference is not always made to an individual source.

Transportation Committee and becoming its House chairman in 1969, Rourke assumed a leadership role for the non-MBTA communities. He had opposed the extension of the MBTA boundaries to 78 cities and towns and objected to the MBTA monopoly on federal funding, possible because it was the only public authority in the state eligible to receive those funds (except for the nearly insignificant Greenfield-Montague Area). Rourke felt that other areas of the state should have the opportunity to form public transportation authorities if they chose, without having a particular structure imposed on them by the state. At the same time, it seems, the Eastern Massachusetts Street Railway serving Lowell discontinued service, so Rourke's constituency was in need of transportation such as a regional MTA could provide. Until 1969, the House chairmen of the Transportation Committee had always been from Boston, the heart of the MBTA: Condon, 1964-1966, O'Leary, 1967, and Cawley, 1968. They had little desire to help other regions at the expense of the MBTA. During these years (in fact from 1965 to 1971) the Senate chairman of the Joint Transportation Committee was James R. McIntyre (D, Norfolk County) who also represented an MBTA constituency. McIntyre had been opposed to the MBTA reorganization and its increased size but had made good use of MBTA funds in rebuilding downtown Quincy, of which he was also mayor at the time. He clearly supported the MBTA monopoly on federal funds and tried to insure that other authorities would not be created to compete for federal funds. McIntyre claims he "didn't want to be bothered by Rourke" and he helped to squelch the regional transit legislation annually.

In 1966, H 3008 introduced by Rourke proposed that "provision be made for transportation facilities and services coordinated with highway systems and urban development plans throughout the Commonwealth." The bill received hearings in the Transportation Committee on February 17, March 10, and March 24. It would have provided for 90 per cent state assistance for construction and purchase of equipment and for $25 million in bonds issued by the DPW. The bill was reported out of committee as H 3942 and sent to the House Ways and Means Committee for hearings on August 3. Ways and Means then reported out House Order 4003 to the Joint Rules Committee on August 29 requesting a further study on the finances. Joint Rules reported this order to the whole House on September 1 for third reading and engrossment. Representative Koplow (R, Brookline), from an MBTA community, moved for reconsideration of the order and the motion passed. Rourke countered with an amendment to substitute H 4059, ordering a recess study on the issue of regional transit authorities, and the amendment was adopted by the whole House. Senate Ways and Means received the order and reported it to the floor with a recommendation of "ought to adopt," leading to Senate concurrence on September 3, 1966. A legislative order, however, has no standing as law and no recess study was reported, thus stalling action on the authorities for another year.

Not to be daunted, Rourke proposed the original legislation again in 1967 as H 2506. Rourke was the only non-MBTA member of the Joint Transportation Committee, but his presence could at least guarantee a hearing and release from the committee as a matter of courtesy. H 2506 was heard in committee on March 2 and March 9, 1967,

and reported out to the House Ways and Means Committee on April 26. It was delayed here, however, until December 28 when hearings were held and the committee reported out a substitute bill H 5414 recommending passage but reducing the proposed authorities from ten to two, those being in the Lowell and New Bedford areas. The House received the report on December 29 for third reading and passed it to be engrossed. Senate Ways and Means received the bill on the same day, but no further action was taken, it being the end of the legislative session.

In 1968, Rourke proposed H 3747 including provisions for the ten authorities in the state's SMSA's other than Boston. The Transportation Committee held hearings on February 15 and reported the bill out to House Ways and Means as H 3889 providing for three regional authorities in Lowell, New Bedford, and Fall River. New Bedford was represented on the Ways and Means Committee and Fall River then provided the second non-MBTA member on the Transportation Committee, Representative Paquette (D, Fall River). House Ways and Means reported that the bill ought to pass with an amendment which added a fourth authority in the Springfield-Chicopee-Holyoke area. The amendment passed the House on May 29 and when the whole bill came up for consideration on the House floor on June 5, three more amendments were adopted. Bond maturities were extended from the year 2010 to 2012, Representative Early (D, Worcester) proposed an authority in his area, and Representative Smith (D, Lawrence) proposed the Lawrence-Haverhill authority. As amended the bill passed the House. The Senate Ways and Means Committee considered the bill on June 10 and reported it out

as part of H 4441 on July 3 which authorized a Committee on Government Regulations to sit during the recess and study a number of House bills, including the regional transit legislation. This order was rejected July 3, reconsidered and rejected July 11, and again July 18. The MBTA-dominated Senate continued to succeed in preventing the regions of the Commonwealth from receiving federal funding. At the same time, however, the representatives in most of the western regions had little desire for such authorities themselves. In fact, legislators from some of the very regions which would receive the ability to create vehicles eligible for federal funding were those who helped to defeat the proposals.

In 1969, Rourke tried once again with H 4584 which proposed only two authorities in the Lowell and Lawrence areas, providing for the $25 million bonding and 90 per cent state assistance for construction and purchase of equipment. The Transportation Committee held hearings on March 11, April 1, April 17, and April 23, finally sending the substitute House Order 5339 to the Joint Rules Committee on June 5, requesting a study to be carried out by the Transportation Committee during the legislative recess. On June 24, 1969, the order was referred to the next annual session for reconsideration, thus killing the proposal once again.

During these years, the MBTA financial crisis considerably worsened. The reorganization in 1964 had bought time and spread the deficit among the 78 cities and towns in the whole urban area rather than on the original 14, based on the argument that the public transportation system served not only the direct users but all who benefitted

from a prosperous and healthy metropolitan area. The reorganization could not, however, stop the upward spiral of the deficits caused by the inflationary pressures of the late sixties. Concurrently, highway building was continuing rapidly with immense amounts of land being taken throughout the Boston metropolitan area for the proposed Innerbelt-Southwest Expressway. A coalition of groups was successful in stopping the highway construction, leading to Governor Sargent's declared moratorium on highway building within the Route 128 Boston metropolitan area in 1970. The Commonwealth then embarked on a transportation policy program that emphasized transit.[9]

In September 1971, Governor Frances Sargent (R) presented H 6218 to the Massachusetts General Court as the Regional Transit Development Act of 1971 to enable all metropolitan areas throughout the state to be eligible for receipt of both federal and state aid for transit development. Sargent called this bill the cornerstone of his commitment to balanced transportation in the Commonwealth. He proposed the creation of eight regional transit development corporations (RTDC) to provide mechanisms for public transportation planning, development, and regulation in the Commonwealth's metropolitan regions. The proposal constituted an effort to provide private carriers with the capital investment aid necessary to enhance their efficiency and economic viability, and to prevent serious deterioration of service. The regional transit development corporations would only operate

---

[9]See Lupo, et. al., Rites of Way; and Allan K. Sloan, Citizen Participation in Transportation Planning: The Boston Experience (Cambridge: Ballinger Publishing Co., 1974).

transit service as a last resort in order to preserve the privately operated transit service. The proposal also suggested a reduction in MBTA bonding from $250 million to $120 million and allowed an additional $20 million for the RTDC's. The reduction in the total amount was necessary in order not to raise the assessment on the MBTA cities and towns, as the state could only support contract assistance of $140 million without new taxes. Sargent stated that,

> At first glance, this may seem to involve a disproportionate allocation of funds to the MBTA. I believe, however, that it is a reasonable allocation at this time. The MBTA has had seven years to develop its current set of proposed projects. It will be some time before the new transit development corporations are comparably prepared to specify their needs.[10]

Sargent maintained that even over the long term, per capita capital needs should be smaller in the regions than for the MBTA. He felt that the essence of balanced transportation is flexibility and that the Commonwealth needed institutional and fiscal capability to adapt transportation investment policy to the varying needs and desires of diverse urban areas.

> Through this bold regional public transportation effort, Massachusetts will be in line for a massive infusion of federal funds across the state. The Commonwealth can again assume a leadership role--this time with the first comprehensive, balanced statewide public transportation effort in the nation.[11]

Sargent proposed eight regional transit development corporations in 1) Southeastern area (Fall River-New Bedford-Taunton-Attleboro), 2) Brockton, 3) Montachusetts area (Fitchburg-Leominster), 4) Merrimac

---

[10]Commonwealth of Massachusetts, H 6218, "Governor's Message: Regional Transit Development Act of 1971."

[11]Ibid.

Valley (Lawrence-Haverhill), 5) Lowell, 6) the Berkshires (Pittsfield), 7) Lower Pioneer Valley (Springfield-Chicopee-Holyoke), and 8) Worcester. The RTDC's would have non-compulsory activation and membership by the local communities. Local initiative was imperative not only in the start-up phase, but in the future if the corporations were to be successful, and citizens' participation was required. The proposal requested 90 per cent state assistance for capital expenses and purchase of equipment as well as a $20 million bonding authorization. It included a requirement for reduced fares for senior citizens. The corporations could provide their own service if necessary and desirable.

Hearings were held on the Governor's bill on September 22, 1971, in the Transportation Committee, which reported that the bill "ought not pass." This was the first time in the six introductions of regional transit legislation that the Transportation Committee did not approve the concept. Part of the problem stemmed from the fact that Sargent was a Republican Governor working with a Democratic legislature. In addition, Rourke, the former advocate for regional transit, saw his idea being pirated away by a member of the opposition, so he opposed specific points in the legislation. Rourke was hostile to both Sargent and his Secretary of Transportation Alan A. Altshuler. The regions still were not solidly behind the bill, and since one region was represented by the Speaker of the House, David Bartley (D, Holyoke), there was considerable clout to the opposing forces. According to Barney Frank (D, Boston) who was then aide to Mayor Kevin White and was later elected to the legislature where he served on the Transportation Committee, the regions saw the RTDC's as a

"Trojan horse," in which the regions were given a pretty little token with hidden future entanglements to disguise the fact that the MBTA was getting a lot.

When the Transportation Committee report reached the House on September 29, advocates of the authorities tried to revive the measure. Representatives Sisitsky (D, Springfield), Spence (D, Hingham), Belmonte (R, Framingham), and Rourke (D, Lowell) made various motions to postpone consideration of the ought not pass report, to substitute the original bill for the report, or to appoint a study commission concerning the RTDC's, but all attempts to save the bill failed. The committee report was sent to Senate Ways and Means which substituted for it Senate Resolve 1633 to convene a study commission. When the resolve reached the Joint Rules Committee on October 29, no further action was taken. The bill had not been popular with anyone. The MBTA did not want its bond ceiling lowered and the regions did not want a "Trojan horse" at their doors, fearing high deficits such as the MBTA suffered for offering public transportation.

This defeat was not the end for regional transit by any means. Transit had become an important part of the federal political agenda in recent years with the creation of the cabinet-level Department of Transportation (DOT) in 1967, the inclusion of the Urban Mass Transportation Administration (UMTA) as part of DOT in 1968, and the passage of the Williams amendment to the Urban Mass Transportation Act of 1964 (UMT Act) in October 1970, increasing the federal funding of capital transit projects and indicating a long-term commitment. Dissatisfaction was growing, too, with the earmarked Highway Trust Fund leading the

highway interests to modestly back transit proposals as a trade-off in order not to lose the trust fund.[12]

> Clearly, in one of the strange twists of politics, mass transportation had become a safe issue. Supporting transit helped the poor and the not-so-poor in cities large and small. Plain people and influential people around the country, carrying all shades of political opinion and in both political parties, at last came to realize the importance of aid to mass transportation in the urban twentieth-century United States.[13]

This satisfied the final criterion for agenda-access that a shared perception of the matter as an appropriate concern of government must exist. Now, it was only a matter of time and a question of political compromise before Massachusetts would enact regional transit legislation.

In 1971, the Joint Transportation Committee also had a new Senate chairman, Senator George V. Kenneally, Jr. (D, Boston). Although he represented an MBTA area, he and Rourke agreed in 1971 not to interfere with each other on the Joint Transportation Committee. Rourke chaired the meetings for all non-MBTA matters while Kenneally absented himself, and vice-versa for MBTA concerns. Kenneally favored the concept of regional transit authorities and recognized the need for public transportation in the old core cities of the Commonwealth where many elderly, poor,and school children have no other means of transportation. In fact, Kenneally preferred the concept of a Massachusetts Transportation Authority for the whole state which would pay for all transportation needs in much the same way that the state subsidizes education.

---

[12]See George M. Smerk, Urban Mass Transportation--A Dozen Years of Federal Policy (Bloomington: Indiana University Press, 1974).

[13]Ibid., p. 80.

Also during the 1971 legislative session, numerous other proposals were introduced regarding the increasing transportation crisis (see Appendix C). Rourke introduced his own bill for the creation of regional authorities as did James L. Grimaldi (D, Springfield), Alan D. Sisitsky (D, Springfield) and James J. Bowler (D, Springfield), Dave N. Vigneault (D, Springfield-Holyoke), and Gerald P. Lombard (D, Fitchburg). Each of these bills was incorporated into study resolves which were either defeated or never carried out.

Numerous other bills were introduced in 1971 concerning transportation financing, including several which would have required the whole Commonwealth to pay for the MBTA, would have allowed the Commonwealth to pay subsidies to any licensed provider of transportation service, or would have provided for free or reduced fares for the elderly and handicapped. While no action was taken on any of these, it is obvious that a new awareness of the transportation crisis existed. One proposal in 1971 was successful. Edward W. Connelly (R, Agawam) introduced H 5632 allowing Agawam to enter into contracts to provide public transportation in the town. The proposal was reported to the House on June 9 and amended to put a dollar and year limitation on the funding, then passed in the House on July 14. The Senate subsequently passed it on July 21, and the Governor signed it into law on August 5, 1971, after the proposal had encountered no controversy throughout its political path. The legislation did not provide a vehicle for receipt of federal funds, so it did not threaten any other area with a loss, nor commit the city or state to mandatory funding.

Even without legislation in 1971, Worcester's public transportation crisis had become so critical that arrangements were made for

the city to apply for an UMTA grant for new equipment and then to allow the private bus company to operate the equipment in order to insure continued service. The city received $796,076 for the purchase of 29 buses and five mini-buses. At that time, Massachusetts ranked fourth in the nation in receipt of federal transportation funds, with a total of $287,999,487 of which $287,203,411 were grants to the MBTA.[14] Clearly the regions were not receiving a fair share of the federal monies, and this fact served as further impetus to activate the transportation interests outside the Boston area.

Because of this interest, it looked as if 1972 might be the year for the regions to be successful in the Massachusetts legislature. The Senate chairman of the Joint Transportation Committee that year was Edward Burke (D, Framingham) who represented a fringe district, part of which was MBTA and part outside MBTA boundaries. He was supportive of regional transit legislation. In addition, Speaker of the House David Bartley had been convinced to support the concept. This was a political move on his part. It was obvious that regional transit had a constituent base by this time. As leader of the "loyal opposition" to the Republican Governor, Bartley felt it was his responsibility to support and sponsor similar legislation. He had a young, agressive research staff which took charge of writing the bill so that it could satisfy all concerned and be passed by the legislature. Meanwhile, Governor Sargent had charged Secretary Altshuler with improving the deficiencies of his 1971 bill for resubmission in 1972.

---

[14]Massachusetts Legislative Research Council, Transit Systems and Aid, p. 14.

The Governor's message concerning the regional transit development corporations was submitted by Lt. Governor Donald R. Dwight as H 5086. It provided for nine corporations, adding Cape Cod to the eight proposed previously, in order to make balanced transportation planning and development truly statewide. There were two major changes in the Governor's proposal. In this 1972 version, the corporations were not empowered to become actual operators of mass transit. This restriction in the bill was designed to preserve and improve the quality of transit service in the smaller metropolitan areas by channeling government aid, both state and federal, to private enterprise. Moreover, from discussions with local officials and transit operators, the Governor and his staff had concluded that capital funds were not enough to insure continued private operation of needed public transportation services. Thus, the legislation provided for $15 million bonding for capital improvement and $300 thousand for operating grants of up to 50 per cent state assistance. This operating money would be given only to operations which were considered to be necessary in the public interest and which were losing money. Again, the Governor's bill called for local or regional autonomy because the needs of the areas varied, so the directors of each corporation would be required to live in the area served. At least one director would have to regularly use public transit, and the corporation's annual program would be submitted each year to public hearing. State approval would only be needed where state funds would be involved, and the major policy, budgetary, or general planning decisions would require the approval of the Advisory Board, composed of the chief elected official of each city or town. The Governor's bill

was heard in the Transportation Committee on March 9, but was reported out as H 4219, the Bartley bill.

H 4219 was submitted by Speaker Bartley and other members of the House including Rourke, "relative to providing and maintaining transportation facilities and services coordinated with highway systems and urban development plans in certain areas through out the Commonwealth." This bill was the first to use the actual title of "regional transit authority" (RTA). It named eight areas, excluding Cape Cod, and allowed them to operate their own service or to contract out. The usual provisions of $20 million in bonds and 90 per cent state capital assistance were included, but no operating assistance was allowed. Elements of the Peabody legislation of 1964 and of the Governor's bill of 1971 were thus merged with two major differences. Rather than providing for gubernatorial appointment of the boards of directors of each authority, the Bartley bill specified that such appointments were to be made by the authority Advisory Board. Secondly, the bill proposed creation of a State Transportation Advisory Board within the state department of transportation (Executive Office of Transportation and Construction, EOTC) charged with reviewing the capital outlay plans of the authorities and making recommendations thereon to the Governor. The bill was heard in the Transportation Committee on February 22, in House Ways and Means on May 10, and reported to the House with an "ought to pass" recommendation on May 31, based also on three similar bills proposed (H 3853, H 4022, H 4032), and on H 5086, the Governor's bill. On June 5, the bill was discussed

on the House floor. Representative Gaudette (D, New Bedford) moved to amend the bill by eliminating an authority in the Southeastern area, which would include New Bedford-Fall River-Taunton-Attleboro, and the amendment passed by a vote of 122-94. Representative Pina (D, New Bedford) moved to reconsider and the motion passed 111-107. On a revote of the original amendment, it passed again by a narrow margin of 109-108. On June 6, the bill was ordered to a third reading.

The following date, Representative Pina moved to amend the bill by adding a Southeastern authority including only New Bedford and Fall River, which amendment passed. Representative Volterra (D, Attleboro) moved to add an authority in the Taunton-Attleboro region and this passed. Representative Duffin (D, Lenox) moved to provide for a petition for withdrawal from the regional transit authority upon voter referendum and that amendment also passed. H 4219 as amended then passed the House to be engrossed by a vote of 134-77 with 23 no-votes (see p. 124 for analysis).

The Senate Ways and Means Committee heard H 4219 on June 12 and reported on July 5 that it ought to pass as S 1517, including the following amendments. The provisions for state authority over the RTA's were eliminated. An authority for Cape Cod was added to total ten RTA's. The authorities could provide their own service, provisions were made for withdrawal from the authorities, and the state offered $20 million in bonding and 90 per cent assistance on capital expenses only. At the bill's second reading on the floor on July 6, Senator Kelly (D, Oxford) moved that the authorities be allowed to provide service only under contract, which motion passed. The Ways

and Means report of S 1517 was then accepted and ordered to a third reading. On the same day, however, the Senate suspended its calendar and the annual legislative session was adjourned on July 9 to prepare for the November elections. No further action was taken on regional transportation.

As indicated, several other bills were also introduced during the 1972 session relative to regional transit (see Appendix C). These included proposals by Rourke, Murphy (D, Peabody), Vigneault (D, Springfield), Grimaldi (D, Springfield), Businger (D, Brookline), Atkins (D, Acton), Smith (D, Lynn), Sisitsky (D, Springfield), Mofenson (D, Newton), Liederman (D, Malden), and Ahern (D, Norwood). These were either included in the Bartley bill or defeated by one means or another.

Representative Lombard (D, Fitchburg) introduced the successful H 2219, "an act authorizing any city or town to enter into contracts to provide public transportation in said city in order to avoid reduction or discontinuation of service and in order to receive federal grants." Like the provision for Agawam in 1971, this did not obligate the state to any responsibility. The bill was heard in committee on February 22, reported to the House on May 17, and passed to be engrossed on May 22 with no discussion. In the Senate it was amended by Senator Burke to limit its use to cities and towns not covered by General Laws 161-A (MBTA communities) and engrossed on June 5. The House did not concur on the amendments, which the Senate insisted upon, so a conference committee was convened on June 20. The subsequent report changed the amended wording to read

"Notwithstanding Chapter 161-A (the MBTA statute), any city..." and the bill was passed by both houses, being signed by the Governor on July 8.

The early adjournment in 1972 was unfortunate for the regions, but even more so for the MBTA, which was in a crisis-state. Deficits continued to grow higher and financial relief was imperative. Because of the tradition of animosity in the legislature between the MBTA and non-MBTA areas, the proposals for 1973 had to offer the metropolitan area and the regions enough benefits to make it worth while for each to support the other. A legislative study reported that for the MBTA, "the danger point has been reached, if not surpassed, in relation to the dependence of the MBTA and other regional services on the local real estate tax in the Boston area."[15] In addition, statistical information on 54 of the 72 bus lines in Massachusetts, based upon their responses to Legislative Research Bureau questionnaires or upon data obtained from the records of the Department of Public Utilities, revealed that 18 carriers incurred deficits in 1972-73 of $957,105, and that most of the remaining companies earned very modest profits with some of them barely breaking even. In many instances the company's scheduled passenger service was contingent in some degree upon the firm's ability to obtain school busing contracts. The energy crisis was expected to force many more companies to seek subsidies or to discontinue service. An aggregate of at least $619,500 was reported paid to bus lines in subsidies in 1972-73 by various local governments, excluding the MBTA.[16]

---

[15] Ibid., p. 20.

[16] Ibid., pp. 20-21.

The legislation that was passed in 1973 is a perfect instance of incremental planning. Only because the transportation situation had reached crisis proportions could the legislature agree to provide corrective measures, and only through problem-fixing rather than problem-solving. It was generally understood in the Transportation Committee and throughout the General Court that the legislation would provide a legal funding mechanism for the regions and a compromise for the MBTA, while specific policy could be outlined later.

Because of the imminence of the crisis, however, the regions could not wait for enabling legislation for the regional transit authorities to be written. Representative Early (D, Worcester) introduced H 7307 on behalf of the mayor and city manager of Worcester allowing the city and the Commonwealth to contract for service by the Worcester Bus Company, Incorporated, for the central Massachusetts area. Worcester had paid a previous subsidy of $230,000 to the bus company, but continuation of service was still questionable. The bill was heard in committee on August 21 and reported out to Ways and Means as H 7364, a general provision for any non-MBTA community to receive 50 per cent state aid to operate public transportation. Ways and Means reported the bill out on September 18 as H 7505 with a report of "ought to pass" while restricting the type of eligible routes and placing an end date for state assistance at one year.

At the same time, Representatives Gaudette (D, New Bedford) and MacLean (D, Fairhaven) introduced H 7399 to allow New Bedford and the Commonwealth to contract with the Union Street Railway Company for maintenance of transportation service in the Greater New Bedford area.

The Union Street Railway had already received $200,000 from the cities of New Bedford and Fall River. The bill was reported out of committee without a hearing but with an "ought not pass" recommendation on September 17. House Ways and Means then included the bill in H 7505, the bill enabling certain cities and towns and the Commonwealth to contract for the maintenance of local service by private bus companies, earlier substituted for H 7364.

On the floor of the House, H 7551 was substituted for H 7505. This was an amendment by Governor Sargent enabling certain cities and towns to contract for the maintenance of local service by private bus companies, originally offered to amend H 7576 (see below). The bill was engrossed by the House on September 24 and sent to the Senate where it was amended to eliminate the 50 per cent state aid. Although the House concurred with the amendment, the Governor returned with a further amendment, H 7628, putting a ceiling of one million dollars on the available state funds, allowing each eligible non-MBTA community to contract up to $600,000 with a state share of 50 per cent, and providing for a wider latitude in use of the funds. The amendment was adopted by the House on October 18, by the Senate on October 24, and signed by the Governor on November 8 to become Chapter 1017 of 1973. Since this was emergency legislation, it took effect immediately.

A similar bill on behalf of Springfield, however, took a completely different route in the legislature, despite its introduction at approximately the same time as the two aforementioned proposals. Springfield, having paid a subsidy in 1972-73 of $130,000, had legislation introduced by Representative McKenna (D, Springfield) in H 7375,

authorizing the city of Springfield and the Commonwealth to contract for maintenance of service by the Springfield Street Railway Company for western Massachusetts. As in the other two proposals, this allowed for a specific dollar amount for the city to pay plus 50 per cent state reimbursement. Without a committee hearing, the bill was discharged to House Ways and Means and then reported out on September 19 as H 7525. This would provide local-aid transportation bond authorization to assist highway, transit, and airport development in cities and towns throughout the Commonwealth, allotting specific sums for each city and with totals of $15 million for any purpose from which the city could borrow funds within its debt limit, $25 million for highways and related projects, and $2 million for airports. The bill was based on 11 Senate and House proposals, most of which pertained to the MBTA but also including the provision for Springfield's transit money as part of the bonding provisions.

The House substituted H 7576 on October 1, which was, in fact, the companion MBTA bill to the regional transit legislation. The two bills had been kept together throughout each step of the legislative procedure in order to guarantee passage (or defeat) of both, as agreed in the compromise worked out by MBTA and non-MBTA forces in the committees and with the Governor. H 7576 was also designed to reorganize the MBTA to lead to more efficient operations and to provide for state assumption of 50 per cent of the operating costs (specified by a one-year dollar amount), thereby relieving the 79 cities and towns. After House passage on October 2, Senate consideration, amendments, and a conference committee report, the bill was signed into law on December 5 as Chapter 1140

of 1973 (see p. 126 for analysis).

There were numerous other transportation bills introduced in 1973, many relative to free transportation for the elderly, blind, and for students, and several regarding state aid for the regions (see Appendix C). These included proposals by Senator Mario Umana (D, Boston) and Representatives Rotenberg (D, Brookline), Grimaldi (D, Springfield), Smith (D, Lynn), Sisitsky (D, Springfield), and Olver (D, Amherst). They ultimately were included in either the Sargent or Bartley-Rourke bills.

Governor Sargent's bill, H 6109, was introduced March 8, 1973, after receipt of an Executive Recess Commission report in January. The Governor's bill incorporated the MBTA-related legislation and the regional transit authority provisions into one bill which later incorporated six Senate and 25 House proposals concerning the MBTA, the Umana petition in S 1379, and the Rotenberg proposal in H 391. The Governor's message stated that the purpose of the bill was to improve local transit and highway services throughout the Commonwealth and to provide every city and town with substantial property tax relief by authorizing state funding of local services. Sargent's bill had been created under Alan Altshuler at the Executive Office of Transportation and Construction (EOTC), and it was an attempt to combine the best features of the Bartley and Sargent bills of 1972 as well as suggestions from local officials and citizens. Since it was anticipated that in the regions transit would consist of buses operating on public highways and accounting for a smaller share of the total travel in the localities, a different structure from that in the MBTA was set forth. The bill

would eliminate a board of directors and remove the General Court from any involvement in the authority budgets. The chief executive of the authority would be appointed by the local Advisory Board which would also appoint an executive committee to work with the chief executive. The state would assume 50 per cent of the net cost of service without any ceiling amount and local assessments would be figured according to the location where the cost was incurred so that local communities would be assessed only for those services received. Nine regional transit corporations were named, combining the 19 communities in the Southeastern area into one corporation. As in the previous years' bills, provision was made for the creation of new authorities not named in the original legislation. The Governor's bill was heard by the Transportation Committee on April 18 and reported to House Ways and Means on May 21. Ways and Means then reported it out to the floor on September 19 as H 7524 which included only the proposals related to MBTA reorganization and funding. After it was amended on the floor, Ways and Means recommended "ought not to pass" and the bill was referred to House Rules on October 3 where no further action was taken.

The eventually successful bill was introduced by Speaker Bartley and Raymond Rourke. H 5910 was subtitled as "an act to provide and maintain transportation facilities and services coordinated with highway systems and urban development plans in certain areas and throughout the Commonwealth." The sponsors explained:

> The regional transportation bill is necessary if the state is to realize a transportation policy which is balanced for the entire Commonwealth. The cities and towns of Massachusetts outside the area of the MBTA are in dire need of financial aid; however, presently there exists no legal mechanism (through)

> which they can receive state assistance. Through the establishment of ten regional transit authorities the legislation creates the mechanism for this aid, and at the same time encourages the coordinated operation of all transportation within each region, with a view to a state-wide policy.[17]

Bartley and Rourke repeated the provisions of their 1972 bill with three significant changes. The number of authorities was increased from eight to ten, dividing the Southeastern Regional Transit Authority into two, and adding Cape Cod. The bill omitted provisions allowing authorities to operate their own services, confining them to contracting with private carriers and other parties, and dropped the proposal to create a State Transportation Advisory Board. It did call for a three-member board of directors, which the Governor had eliminated in his proposal, and allowed for the usual $20 million in bonds, 90 per cent state assistance on bonds for capital investment, and up to 50 per cent state assistance for any operating deficits. Local assessments were to be calculated based on $\frac{1}{2}$ by population of a community in proportion to total population of all communities, and $\frac{1}{2}$ on losses from routes within a community in proportion to losses from routes in all communities. The bill called for citizens' participation in planning, limited the jurisdiction of Department of Public Utilities regulation, and included a "no strike" clause with the board of directors having collective bargaining authority. Included in later consideration of the Bartley-Rourke bill were also S 1370 of Sisitsky and Olver, H 1645 and H 5777 by Grimaldi, and H 5783 by Smith.

---

[17] Massachusetts Legislative Documents--House, vol. 12, 1973, H 5910, p. 1.

The bill was heard in the Transportation Committee on March 28 and reported to Ways and Means on April 25. Ways and Means then reported it out as H 7523, companion to H 7525 (see above), eliminating the board of directors. On the floor of the House on September 25, H 7523 was amended. Representative Brownell (D, Quincy) moved to eliminate the power of eminent domain which amendment passed 123-99. On Rourke's move to reconsider, Brownell's amendment again passed by 120-103. Representative Chmura (D, Ludlow) moved to reduce the state share of operating costs to 25 per cent, which passed without a roll call. Representative Spence (D, Hingham) moved to require receipt of the 80 per cent federal assistance available for capital projects before the 90 per cent state assistance would be allowed, but the amendment was rejected. The bill was then ordered to a third reading.

On October 1 on the floor, H 7575 was proposed as a substitute for H 7523. The new bill equated RTA operations to those of a street railway company and reworked other sections to conform to the current General Laws, particularly Chapter 161. It amended Chapter 161, section 152A (concerning transportation areas), by omitting the 90 per cent state assistance on bond indebtedness for capital equipment and facilities, and providing instead for 50 per cent state payment on net cost of service. On October 2, Representative Early (D, Worcester) moved to amend the proposed H 7575 to allow for 50 per cent state assistance, which amendment passed by a vote of 127-98. Rourke then moved to allow private companies previously operating in an area to continue service without a contract, and hence without subsidy, if operating in accordance with the authority and Department of Public Utilities regulations. The

amendment passed without a roll call. Representative Duffin (D, Lenox) moved to include a guarantee that any non-member community would not be assessed nor be subject to any obligation of the authority. This amendment was also passed. Subsequently, H 7575 was accepted as a substitute for H 7523 and passed to be engrossed by a roll call vote of 141 to 81 (see p. 127 for analysis).

On receipt by the Senate Ways and Means Committee, the bill was heard and then reported out on November 5 with a recommendation of "ought to pass" with amendments. The changes clarified words in accordance with the Urban Mass Transportation Act, provided for the sale of vehicles to conform to previous General Laws, and set out exact amounts to be allowed in bonds for each of the ten regional transit authorities with provisions for use of excess bond allocations after three and five years. On November 6, the amendments were passed and the bill was ordered to a third reading. The following day, the bill was passed to be engrossed by a vote of 31 to 4, with 4 pairs (see p. 128 for analysis).

The House Ways and Means Committee failed to concur in the amendments which the Senate insisted upon, leading to the convening of a conference committee. The conference committee reported on November 19 that the bill ought to pass with minor changes and clarifications of wording in the Senate amendments. Subsequently H 7575 became Chapter 1141 of 1973 when it passed the House on November 19, the Senate on November 20, and was signed by the Governor on December 5. It was added to the General Laws as Chapter 161-B (see Appendix E).

Analysis

Analysis of this legislation assumes a consensus that public transportation is a public good, therefore not requiring a debate on the pros and cons of public transportation nor assessing its importance in relation to other social goods. In systemic terms, chapter 161-B of the General Laws was the output of the political process described above, enacted by the political system which included the legislature, the Governor, and the state department of transportation (see Figure 3.1).

Environment

Regional transit legislation had been debated for the previous nine years and was therefore a recognized subject within the political environment, being shaped by and also influencing other transportation issues in the public view. During these years, Massachusetts had led the nation in reversing its traditional transportation policy, declaring a moratorium on highway building after several years of public demonstrations had succeeded in bringing the subject to the public agenda.[18] Also during these years the state's department of transportation had been organized as the Executive Office of Transportation and Construction, established in 1971. Within the state, the metropolitan Boston area and the rest of the state often were at loggerheads on issues, particularly those concerning transportation. Acts of appeasement to the western counties tended to be in the form of highway appropriations in return for state subsidies to the MBTA and

---

[18]See Lupo, et al., Rites of Way.

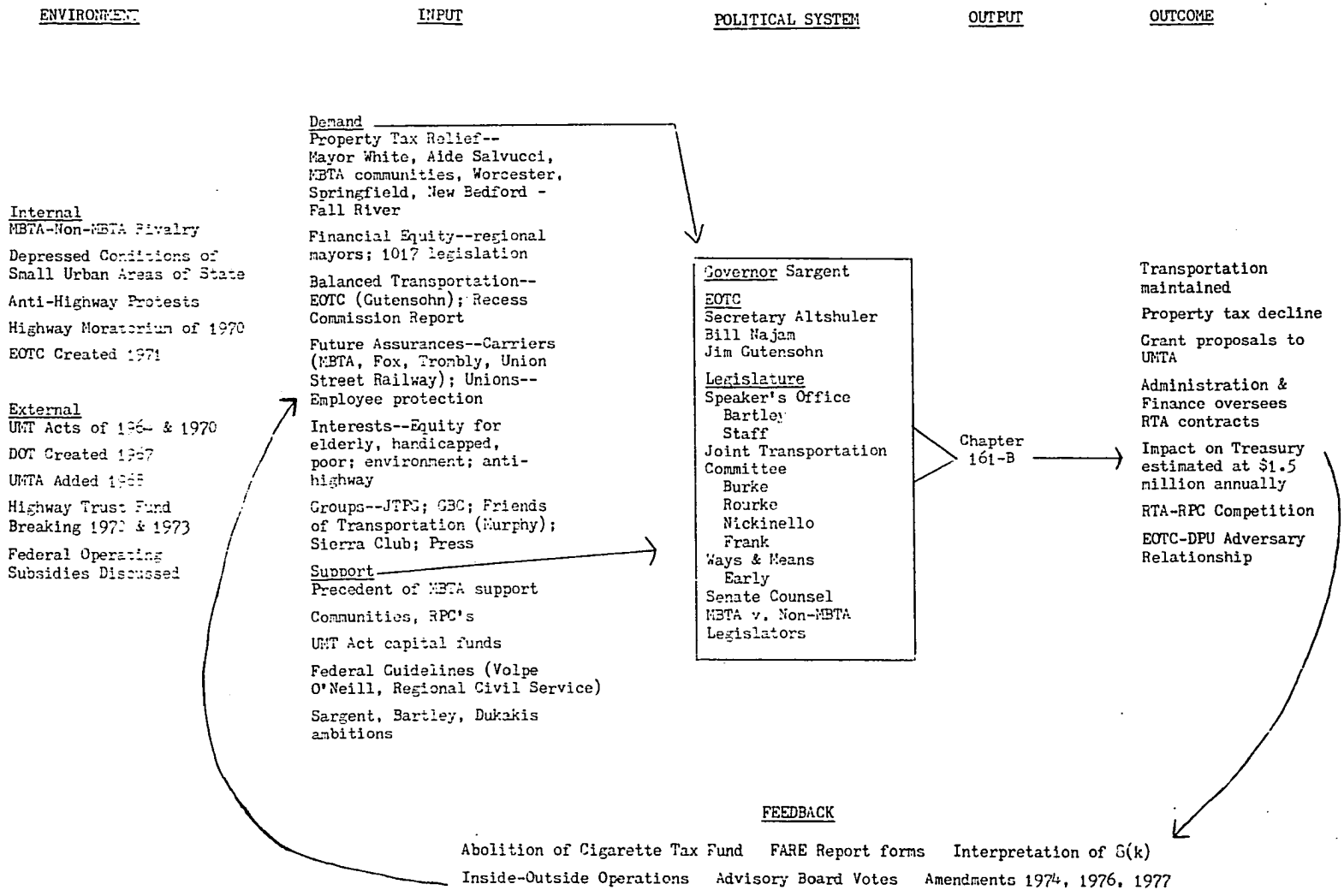


Figure 3.1: A Systems Application of the Passage of General Law 161-B

state participation in other metropolitan activities and costs including education and welfare.

On the national scene, the environment evidenced an increased concern over providing mass transportation as reflected by the Urban Mass Transportation Act of 1964, amended in 1970, by the creation of the Department of Transportation in 1967 and including the Urban Mass Transportation Administration in 1968, and the gradual breaking of the highway trust fund in 1970 and 1973. The Nixon administration was showing an increasing willingness to fund urban transportation, and federal operating subsidies were on the horizon.

The non-Boston SMSA's in Massachusetts were suffering a transportation crisis and risked the loss of all public transportation service unless state funding was provided. By and large, the northern and southern SMSA's are depressed areas having lost their former industrial base and experiencing high unemployment and loss of businesses. Their remaining tax base would not withstand local assumption of all transportation costs. In Boston, the city budget was suffering from the ever-increasing deficit of the MBTA, and the surrounding 78 cities and towns needed property tax relief as well. Thus, most areas of the state needed a comprehensive statewide transportation assistance program.

Inputs

Demand for Public Goods. Interest groups and the press were active in providing demand inputs to the political system by requesting public goods in the form of subsidies to regional transportation. The Greater Boston Committee on the Transportation Crisis (GBC) was made up of neighborhood, environmental, and other interest groups in the

Boston region. While its main concern was for the MBTA provisions of the legislation, it actively lobbied for the RTA provisions in order to secure support from the western legislators. Headed by Sue Clippenger, the GBC lobbied in the legislature and urged other groups around the state to lobby their own representatives. The GBC made extensive use of other organized citizens and environmental groups in pleading the cause and in securing mailing lists to advertise the transportation bill. Clippenger herself travelled to the western regions meeting with people she had known through other environmental and transportation issues to convince them that the RTA's would not be mini-MBTA's and that local autonomy was guaranteed in the formation and consequent operation of the authorities. She found the most interest in Amherst where the University of Massachusetts shuttle bus was in bad shape and had resorted to cutting service and therefore was losing ridership, and in Pittsfield where environmental groups were fighting the proposed Route 7 highway bypass. The GBC worked closely with the mayor's office where lobbying was done by Mayor White's transportation aide Frederick Salvucci (later to become the state Secretary of Transportation). Hundreds of newsletters were sent out through the mayor's office and the GBC, and articles were written for the newsletters of organizations such as the Citizens for Participation in Politics, the Audubon Society, Common Cause, League of Women Voters, and the Sierra Club. Finally, the GBC monitored all roll call votes on the transportation bills in order to encourage constituents to lobby their own representatives who voted against the package.

Mary L. Murphy, Councilwoman at Large in Pittsfield, was responsible for forming a loosely-organized coalition called "Friends

of Transportation and the Environment." To each of 65 individuals and groups, she wrote and requested support in the form of letters to the legislature, articles in their newsletters, and active campaigning against public officials who did not support the transportation proposals. Murphy was motivated by her objection to the Route 7 bypass around Pittsfield and was interested in rail transportation in the western region, which has not materialized.

The Joint Transportation Planning Group (JTPG) of the Southeastern Regional Planning and Economic Development District (SRPEDD) lobbied on behalf of southeastern Massachusetts. The JTPG stressed the urgency of providing regional transportation authority legislation to meet the tremendous need of establishing a public transportation system capable of maintaining adequate service for the general population, particularly the elderly, low-income, and handicapped residents of their area. In particular, the JTPG requested the formation of four authorities in the SRPEDD area, an organizational structure of an Advisory Board and a board of directors, Department of Public Utilities control over safety regulations only, $20 million bonding, 50 per cent state share of net cost of service, no mandatory initial membership requirement, provision for collective bargaining, and a cooperative planning process among the RTA, regional planning commissions (RPC's), the Executive Office of Transportation and Construction (EOTC), and the Department of Public Works (DPW), as specified in a formal agreement.

Late in the session, after the compromise bill had been agreed upon by Ways and Means, the press took interest in the transportation package. Newspapers in Fall River, Lynn, Boston, Springfield, Lowell,

and Worcester supported passage of the legislation, while the Fitchburg paper opposed it. Doug Fletcher of the Fitchburg Sentinel quoted area legislators as saying the bill was "a rape of the taxpayers," "frosting on the cake, window dressing" for the regions, and that in the legislature "it's trick or treat time and we're (Fitchburg) getting the trick." Representative George J. Bourque (D. Fitchburg) suggested that the MBTA executives should learn how to operate a bus company successfully using the example of the Fitchburg-Leominster Street Railway Company. Bourque hoped that the Senate would either kill or drastically change the bills or that the Governor would veto them.

While citizens are less well organized and less vocal, a definite input came from the demand for public transportation for the immobile. The regions were areas with distinctive transportation problems, less interesting than those of the massive MBTA but nonetheless important to the area residents. In these less densely populated areas, rail was not the answer. In the depressed communities of the western part of the state, there were large numbers of elderly and poor who had no other means of transportation. In the smaller metropolitan areas, the city budgets and property tax rates could not provide for public transportation. The only answer was a demand for state-subsidized bus service in the regions.

Demand for Equitable Distribution of Funds. It was the cities that took up this cry for equity in funding. The non-MBTA communities across the state had long been contributing to the finances of the MBTA through the 90 per cent capital assistance formula, which was a substantial amount for the extensive network. Although this assistance had been offered to the regions, their capital needs were so small compared to the MBTA that the trade-off was far from equitable in dollar terms.

As the Fitchburg newspaper said, "the people of Fitchburg, Leominster, Athol, and Greenfield may be giving a portion of their weekly paychecks so Mattapan residents can ride to Copley Square for a quarter." If the MBTA was to get a subsidy, the regions wanted equity. Voicing the loudest demands for funds were the mayors, city managers, and local representatives from Worcester, Springfield, Lowell, New Bedford, and Fall River. Much of this demand input was organized and encouraged through the lobbying of Jim Gutensohn of EOTC. For months, Gutensohn travelled around the state meeting with mayors and city managers to sell the whole transportation package of aid to the MBTA and the regions. He found skepticism in Springfield where the mayor was afraid of getting entangled in an MBTA-type quagmire and preferred direct financial aid for the regions rather than transportation authorities. In Holyoke, the mayor didn't want the RTA's, stating that half the transportation costs were more than what the city presently paid--nothing. The mayors of Fall River and New Bedford favored the legislation but were not very effective in lobbying their own legislators. The mayors of Pittsfield, Lawrence, Fitchburg, Attleboro, and Taunton were also helpful. To Gutensohn, though, the key demand input came from Worcester where the bus company was about to close because of huge deficits. Gutensohn spent considerable time in city council meetings and with the city manager. Representing his city in the legislature was Joseph Early who promised the citizens of Worcester a reduction in property tax if the bill were enacted. Fulfilling this promise later helped elect Early to Congress.

Demand for Economic Stability. The bus companies and their employees were the sources of input demanding economic stability and

future assurances. William Fox, president of both the Worcester and the Springfield bus companies, was the most influential operator lobbying for passage of transit funding for the regions. His companies had already received subsidies from the cities served, but the amounts available from local property tax were not enough to retain a high level of service. His threat to eliminate service in Worcester was the main cause of the passage of the emergency legislation of Chapter 1017. The companies no longer saw regional transit legislation as a threat to their operations or as competition because of the new provision that the authorities had to contract out for service and the accompanying prohibition on providing their own operation. Also influential were the Trombley Motor Coach Company operating in northeastern Massachusetts and the Union Street Railway in Fall River.

The bus company union employees demanded protection of their status by insisting on the inclusion of section 8(k) of the legislation. This guaranteed (1) the rights, benefits, and other employee protective conditions and remedies of the Urban Mass Transportation Act of 1964, (2) the right to collectively bargain and arbitrate on such subjects as continuing employment or reemployment of those employees who are, or may be displaced or otherwise affected by the state assistance, (3) paid training and retraining programs, (4) preservation of all employment and retirement rights and interests, and (5) other protections which are necessary or appropriate to minimize the injury to such persons.

The most significant demand for economic stability from the transportation package came, of course, from the MBTA and its member

cities and towns. This input proved to be the most critical, aiding the RTA's but nearly killing the package. While the non-MBTA areas were grudgingly agreeing to accept the burden of the MBTA deficit and the MBTA area agreed to share its federal monies with other areas in the state, objections arose over the reorganization of the MBTA executive structure. It was partially this issue that held up passage of the two transportation bills until the end of the session.

Support of Community Resources. Some communities themselves were actively pursuing a solution to their transportation problems. Local subsidies had already been paid in several cities and one UMTA grant had been arranged. Community personnel available for promoting a transportation solution included the elected officials and legislative bodies, the regional planning commissions which met the UMTA requirement for metropolitan planning organizations (MPO), the local bus companies who wanted to remain in business, and interest groups which supported the legislative proposals, as described above. The prospect of lowered local property taxes brought the community support of citizens.

Communities had become so resourceful in looking for a solution that some planning had gone ahead without state assistance legislation. When the Urban Mass Transportation Act of 1964 was amended in 1970, planning money became available (under section 9). Mayor Harrington of Taunton discovered this change and encouraged the cities of New Bedford, Fall River, and Taunton to apply for federal monies. In a meeting with federal Secretary of Transportation Volpe (formerly Governor of Massachusetts), a grant application was

encouraged and was thereafter funded allowing the Southeastern region to develop a Transportation Development Program (TDP). The first TDP was found to be unsatisfactory to UMTA in 1971, but a second grant application was approved. Chaired by Ben Baker, the Advisory Board of the three cities and South Plymouth submitted a new TDP which was later approved, leading to the first RTA capital grant from UMTA going to the Southeastern Regional Transit Authority (SRTA), administered by Baker. Had the RTA legislation not passed, New Bedford and Fall River were ready to push for specific legislation for a Southeastern RTA to allow them to receive federal monies.

Gutensohn, active in the communities for the EOTC, saw other forces at work to support transit. There was new recognition of two community resources--people and the environment. Communities were awakened to the needs of the immobile, particularly the low income and the elderly, who needed to get out of their homes in order to support the communities and local businesses, and in some cases in order to find and travel to and from work. Additionally, the Environmental Protection Agency (EPA) had become active, and pollution was a concern even in the smaller cities. Although the biggest concern was to provide transportation to the immobile, some in the communities certainly saw the issue as a means to eliminate traffic congestion, pollution, and more highway building.

Supportive Attitudes towards Assuming a Local Burden. With the exception of the Fitchburg and Holyoke areas, many regions became more supportive of the regional transit concept, although they were never mutually organized in their support. They saw that creation of

an RTA would not impose a monstrosity such as the MBTA on their communities but would provide a local option to improve transportation services on their own with state financial assistance. The precedent of state involvement with the MBTA actually enhanced supportive attitudes since the RTA's were designed to eliminate the problems of the MBTA structure and relieve local financial burdens in areas where subsidies were already being paid. Federal capital funds were available to public bodies engaged in offering transit service, so the RTA's became a conduit for public funds while not suffering the problems of operating their own service. The areas preferred the opportunity to regulate public transportation within their own boundaries, assuming the Department of Public Utilities' former role as regulator. The DPU was seen to be more business-oriented and less service-oriented, which often resulted in a conflict with local needs. Thus, most of the regions saw the legislation not as an additional burden, but as relief from a previous burden.

Another supportive attitude and voice came from a different direction and for an entirely different purpose. Former Representative Michael Dukakis, already running for the governorship which he would win in November 1974, issued a press release in September 1973 praising Speaker Bartley's balanced transportation package and urging "the support of all of us who are concerned about providing this state with a modern and effective statewide transportation network." He used the issue to critically observe that "the present administration gives no indication of any sense of urgency about the improvement of any existing transit lines or the completion of a transportation system

worthy of the name."

Political System

The Governor's initiative was a substantial factor in the political process although he personally did not get involved in the controversy. Rather, Governor Sargent relied on Secretary of Transportation Alan Altshuler and his staff to promote the bill. Sargent himself, in fact, was not interested in the regional transit authorities themselves but saw them as a political maneuver to get the MBTA deficit paid by the state. Likewise he was "burned" at Rourke for "jabbing" the administration's transportation policy, which Sargent saw as one of his strong contributions to Massachusetts and a factor in influencing U. S. transportation policy, particularly the breaking of the U. S. highway trust fund.

Within EOTC, the regional transit legislation had been studied and improved during the three sessions in which it was introduced. Assistant Secretary William Najam was responsible for the drafting of the legislation and felt that the first two administration proposals provided the regions with no benefits in forming an RTA because there was no guarantee of state operating assistance. This omission would put the area in the position of possibly having a spiraling deficit in the payment of operating costs since the state would only contribute to capital expenses, which would probably be small in the regions. Therefore, the 1973 proposal had to offer state assistance for net cost of service, the operating costs plus bond indebtedness. For the MBTA, a one-year dollar amount authorization was stated which amounted to approximately 50 percent of the deficit while the old 90 per

cent state capital assistance formula was formally retained until the following 1974 session. For the regions, 50 per cent assistance was stated with no ceiling.

Najam stated that it was nearly impossible to amend the provisions for transportation areas in General Law Chapter 161, sections 143-161, to comply with the characteristics decided upon for regional transit authorities. Greenfield-Montague was the only such area and it became eligible for the 50 per cent state funding after passage of 161-B. It still retained its legal tie to the Department of Public Utilities rather than EOTC, while gaining the option of becoming a regional transportation authority under section 3 of 161-B if it so desired. The issues which proved to be the most controversial included the board of directors, which was omitted, and the amount of state assistance, finally set at 50 per cent on net cost of service. In creating the specific authorities named in section 2, Najam consulted with legislators from the regions and tried to group contiguous cities and towns to give the authority a favorable chance for creation. Primarily, SMSA lines were the basis of groupings.

Secretary Altshuler testified before the legislature's Joint Committee on Transportation on March 28, 1973, regarding the Bartley-Rourke bill, H 5910, and the Sisitsky bill, S 1370. He stated that the administration considered both bills to be quite good but preferred the Bartley-Rourke version of the two. He hoped, however, that when the legislature put together a final version of regional transit legislation it would include the best features of the Governor's bill as well, which had not yet been heard. Altshuler called the committee's

attention to several points: 1) the importance of dealing with regional transit as part of a statewide set of local transportation needs, including the MBTA, regional transit, and local highway aid programs; 2) that the organization of the authorities should include an Advisory Board of elected officials from the member cities and towns, an executive committee to deal with day-to-day operations, and a single administrator in order to simplify the line of responsibility and avoid the creation of a special purpose government; 3) that the assessment formula for the 50 per cent local share be based on net cost incurred in each community rather than on population in each community; 4) that employees of the private carriers should not be given certain employment guarantees which would amount to civil service tenure, thus vitiating the central reason for letting private carriers perform the service rather than going into public operation; and 5) that cities and towns named in section 2 should be allowed to form authorities under the provisions of section 3 if that is more feasible. Altshuler, like Sargent, was less interested in the regional transit authorities, but did want a statewide base for transit. As an equity move, he saw the RTA's as necessary to convince the rest of the state to save Boston.

Within the legislature, impetus for passage came from the Speaker's office. Bartley saw his role as leader of the "loyal opposition to the Governor" because of their different party affiliations. Since Sargent staked his career on transportation, Bartley saw this as an issue which could be used to his political advantage should he decide to run for governor the following year against Sargent. Neither

Bartley nor his home district of Holyoke was excited about the RTA legislation, but Bartley's staff developed the legislation for his introduction in 1972. According to Altshuler, the original Bartley legislation was so similar to Sargent's that the House printer initially refused to print it as a new proposal. Subsequently, of course, it was printed and by 1973 there were major differences in the proposals. Responsible in the Speaker's office for the transportation legislation were transportation aide Nancy England and Research Director John Eller. They maintained close contacts with the regions and the private operators, leading to the inclusion of section 8(k) guaranteeing certain labor conditions for employees. Correspondence was also carried on with the Regional Civil Service Commission, the U. S. Secretary of Transportation John Volpe, and the local Congressman "Tip" O'Neill in order to assure that the wording of the legislation complied with federal statutes.

In the Joint Transportation Committee, Rourke, "the Godfather of Transportation," his assistant House chairman Lou Nickinello (D, Natick), and Senate chairman Edward Burke favored passage of the legislation, but did not concur in provisions for the MBTA and certain details on RTA structure. Rourke insisted on an RTA board of directors and on local assessments based on population plus local service, and Rourke had always opposed state money for the MBTA. Barney Frank of the "Liberal Democratic Caucus" was promoter for the MBTA provisions and worked closely with EOTC and the Bartley staff on behalf of the Joint Transportation Committee. Therefore, the compromise package had to be worked out by Bartley's staff, Joseph Early from

the Ways and Means Committee, and the Governor's staff, particularly Altshuler and Bill Najam. When this was accomplished, Rourke proved his political loyalty by leading the floor discussion and fighting for passage of the whole transportation package.

On the Senate side, Senator Burke's office was the focal point for working out compromise provisions to insure passage of the legislation. The problems that arose at this stage in negotiations were between the MBTA and the Senate Counsel office, from which the EOTC representatives were excluded. The delays here served to hold up the companion RTA legislation since the bills journeyed through the legislature together by prior agreement of the Governor and the legislative leadership. Passage was secured and the legislation signed into law on December 5, 1973, to take effect 90 days hence.

Success of the legislation in 1973 is generally attributed to several factors. The MBTA crisis had reached a point of no return, and Mayor White threatened to close down the whole system by withdrawing Boston's financial contribution to the MBTA deficit. Likewise, Worcester Bus Company's Bill Fox threatened to stop public transportation in that city, leading to the emergency Chapter 1017 legislation. Speaker Bartley threw his weight and substantial influence behind the package, supporting both the MBTA and regional transit and bringing several western votes with him. The Joint Transportation Committee co-chairmen actively supported the concept. Joseph Early managed the bills on their way through the Ways and Means Committee, working out a compromise acceptable to the Speaker and the Governor. Finally, the Governor's representative Alan Altshuler was highly respected, if not

always liked, and he is given credit for stimulating the components of the political system to cooperate in grinding out the legislation.

The most interesting analysis of the passage is evident in the roll call votes of 1972 and 1973 examining who actually caused the regional transit legislation to be passed. In 1972, the roll call in the House of Representatives passed by a vote of 134-77 with 23 no-votes (there is no indication of abstention or absenteeism). Dividing the legislators by region (MBTA, RTA, or neither) it appears that the legislation passed by a comfortable margin in the MBTA and RTA areas which are the majority of the state, and lost by only one vote in the non-transit communities. Within the RTA areas, the legislation lost in the Fall River-New Bedford region and the Lawrence-Haverhill region. Although the local officials of the Fall River-New Bedford region were very supportive, it was noted by Gutensohn that they were unable to work well through their legislators. The Lawrence-Haverhill area had a private bus company offering transportation at that time. On the whole, however, region was not associated with a positive or negative vote (see Table 3.1).

In 1973, there is a most interesting change to the votes in the regions. The RTA legislation was paired with the MBTA legislation in this session and although there was no formal requirement to vote the same way on each bill, the leadership's agreement with the Governor made the legislators morally bound to do so, or risk future political sanctions. Because of this restriction, it appears that the MBTA legislators are responsible for enacting the RTA legislation! They were willing to do this in 1973 only because of the serious crisis

TABLE 3.1

ASSOCIATION OF ROLL CALL VOTE BY REGION, H 267 OF 1972

Massachusetts House of Representatives

YES	134	57%
NO	77	33
NO VOTE (NV)	23	10

MBTA			RTA[a]				Neither		
Yes	No	NV	#	Yes	No	NV	Yes	No	NV
			1	4 29%	9 64%	1 7%			
			2	2 67		1 33			
			3	4 50	3 38	1 12			
			4	3 60	2 40				
			5	3 38	4 50	1 12			
			6	8 100					
			7	2 67	1 33				
			8	15 75	3 15	2 10			
			9	9 60	5 33	1 7			
			10	3 100					
			11	1 50	1 50				
66 58%	34 30%	14 12%		54 61%	28 31%	7 8%	14 45%	15 48%	2 7%

X^2 = 0.0011 with one degree of freedom. No association between region and vote

[a]See Key to Regions for number-area equivalency (p. 129).

affecting the MBTA and the pairing of the two legislative proposals. In a regional analysis, H 7575 passed in the House of Representatives only in the MBTA areas but by a substantial enough margin that it was carried despite defeat by the non-transit and the RTA areas. Animosity to state assumption of the MBTA deficit by non-MBTA areas was so strong that it persuaded the regions' legislators to vote against their own interests in order to vote against the MBTA legislation, H 7576. Among the RTA areas, only the legislators from Fall River-New Bedford and Taunton-Attleboro passed the legislation, the former being a complete reversal of the prior year's vote. Representative Grimaldi, himself a sponsor and proponent of regional transit, even cast a negative vote. Despite the moral obligation, approximately 22 legislators also changed their votes on the two issues. In 1973, region was strongly associated with the legislator's vote (see Tables 3.2 and 3.3).

In the Senate, the 1973 vote on H 7575 showed passage by 33-6 with the MBTA and RTA areas passing the legislation, although the MBTA passed the RTA legislation by a much more substantial margin. Among the regions, the legislation was voted down by Senators from the Fitchburg-Leominster, Brockton, and Worcester areas, all of whom voted the same way on the campanion bill. Approximately ten Senators changed their votes on H 7576 which passed by only a vote of 25-14, being supported 100 per cent by MBTA Senators and soundly defeated by Senators from the regions. Only on H 7576 did region and vote show an association (see Tables 3.4 and 3.5).

TABLE 3.2

ASSOCIATION OF ROLL CALL VOTE BY REGION, H 7576 OF 1973

Massachusetts House of Representatives

YES	138	58%
NO	85	36
NO VOTE (NV)	15	6

MBTA			RTA[a]				Neither		
Yes	No	NV	#	Yes	No	NV	Yes	No	NV
			1	10 71%	4 29%				
			2	3 75	1 25				
			3	1 12	7 88				
			4	2 40	3 60				
			5	4 50	4 50				
			6	4 50	4 50				
			7		3 100				
			8	3 15	16 80	1 5			
			9	4 31	9 69				
			10		3 100				
			11		2 100				
100 86%	4 3%	12 10%		31 35%	56 64%	1 1%	7 21%	25 73%	2 6%

$X^2 = 80.8$ with one degree of freedom, significant at $p < .001$ that an association exists between region and vote

[a]See Key to Regions for number-area equivalency (p. 129).

TABLE 3.3

ASSOCIATION OF ROLL CALL VOTE BY REGION, H 7575 OF 1973

Massachusetts House of Representatives		
YES	141	59%
NO	81	34
NO VOTE (NV)	16	7

MBTA			RTA[a]				Neither		
Yes	No	NV	#	Yes	No	NV	Yes	No	NV
			1	10 71%	4 29%				
			2	3 75	1 25				
			3	2 25	6 75				
			4	1 20	4 80				
			5	4 50	4 50				
			6	4 50	4 50				
			7		3 100				
			8	3 15	15 75	2 10			
			9	6 46	6 46	1 8			
			10	1 33	2 67				
			11		2 100				
100 86%	5 4%	11 10%		34 39%	51 58%	3 3%	7 21%	25 73%	2 6%

X^2 = 68.69 with one degree of freedom, significant at $p < .001$ that an association exists between region and vote

[a]See Key to Regions for number-area equivalency (p. 129).

TABLE 3.4

ASSOCIATION OF ROLL CALL VOTE BY REGION, SENATE, H 7576 OF 1973

	Massachusetts Senate	
YES	25	64%
NO	14	36

MBTA		Non-MBTA	
YES	NO	YES	NO
20	0	5	14
100%		26%	74%

X^2 with Yates Correction - 20.34 with one degree of freedom, significant at $p<.001$ that an association exists between region and vote

TABLE 3.5

ASSOCIATION OF ROLL CALL VOTE BY REGION, SENATE, H 7575 OF 1973

	Massachusetts Senate	
YES	33	85%
NO	6	15

MBTA		Non-MBTA	
YES	NO	YES	NO
19	1	14	5
95%	5%	74%	16%

X^2 with Yates Correction = 1.35 with one degree of freedom, significant at $p>.10$, not confirming an association between region and vote

TABLE 3.6

KEY TO REGIONS

(For 1972 and 1973 vote analysis of RTA legislation in the Massachusetts House of Representatives and Senate)

#1	Southeastern (Fall River-New Bedford)
#2	Taunton-Attleboro
#3	Brockton
#4	Montachusetts (Fitchburg-Leominster)
#5	Merrimac Valley (Lawrence-Haverhill)
#6	Lowell
#7	Berkshire (Pittsfield)
#8	Pioneer Valley (Springfield-Holyoke)
#9	Worcester
#10	Cape Cod
#11	Greenfield-Montague Transportation Area

Output

Resulting from this activity was Chapter 1141 of 1973 (see Appendix E), added to the General Laws as Chapter 161-B. The output was seen as a victory to all concerned. Governor Sargent accepted the politics that killed his bill in the legislature and claimed credit for introducing the concept and successfully amending the Speaker's package. Bartley succeeded in offering an alternative to the Governor's transportation package which was the basis for the final law. Rourke achieved the goal he had sought for eight years, giving Lowell a regional transit authority, despite losing his battle against state funding of the MBTA. The regions were given a conduit to receive federal funds and offered state funding as well. The MBTA deficit was spread over the entire state. No operations were discontinued.

With so much satisfaction, it is interesting to note that policy was not actually made by the legislation. With regard to the MBTA, it was given only a yearly appropriation and in 1974 the state suffered another fiscal crisis attributed in large part to the MBTA. For the regions, the Chapter 161-B was not a transportation policy, but a funding mechanism only. Thus, the political system is only presently working on creating a transportation policy for the regional transit authorities. The output was, in effect, an outstanding example of incrementalism, of crisis-fixing rather than problem-solving. Senator Burke summed it up by saying that the legislature doesn't move easily, that the bill's progress was hindered by inertia. He added that the politicians don't feel a need to conduct business until they

have to. Since the public transit in fact did not stop, the legislation was effected in time.

Outcome

In terms of transportation, the outcome of the legislative process which produced Chapter 161-B is that the non-MBTA regions have not only maintained their public transportation systems, but in many cases have improved the service. This improvement has particular effect on the immobile of the regions--the elderly, handicapped, poor, and young. The legislation has not brought about a decrease in automobile usage of any significance, nor has it led to rapid transit alternatives (while these are unfeasible in smaller metropolitan areas, they were desired by some advocates of the legislation). Administratively, the legislation led to new relationships. The authorities themselves are not designed to be regional governing bodies, but to be administrative organs responding to local government wishes. In some instances, their presence has fostered a sense of regionalism and cooperation among local governments.

Financially, the outcome was a reduction in property tax for many cities which had been supporting public transportation previously. The state's financial obligation was estimated in 1973 to amount to $1.5 million annually to be paid automatically by the Executive Office of Administration and Finance from the state Cigarette Tax Fund, without annual appropriations. This seems to be an open-ended commitment to regional transportation, only to be controlled by the availability of money in the state Cigarette Tax Fund and the good judgment of the

Governor and his Secretary for Administration and Finance (in accepting which provisions of the authorities' applications for contract assistance will be honored by the state). By the following year, the impact on the local and state treasuries would be adjusted downward because of the passage of the Urban Mass Transportation Act of 1974. Section 5 of that act allowed for federal operating subsidies of 50 per cent to public transportation operations in urbanized areas, making state and local burdens 25 per cent. However, by 1977, state subsidies totalled $2,535,521.

Feedback

Almost immediately the feedback generated a need for interpretation of the new legislation. Of particular concern was the section 8(k) provision covering labor protective issues which had been inserted by the Bartley staff. The wording of 8(k) was contradictory in its reference to the Urban Mass Transportation Act of 1964 as amended and to the subsequent provisions of Chapter 161-B pursuant to said act. In effect, the provision of collective bargaining and arbitration coupled with the specific labor protections named in 8(k) provided employees of private bus companies with more protections than did the UMT Act. The EOTC interpretation of 8(k) disregarded the contradictory wording and assumed that if the labor protective arrangements of 13(c) of the UMT Act were met, then 8(k) of Chapter 161-B would also be satisfied. It is interesting to note that the provisions of 13(c) have also proved to be controversial.

The payment of government subsidies to private operators required the usual reams of paperwork. UMTA and Interstate Commerce

Commission (ICC) forms proved to be too complicated and cumbersome for small-scale operations such as those contracted by RTA's. In coordination with UMTA's Project FARE (Financial and Accounting Reporting Elements), EOTC and the RTA's worked together to develop simplified forms in an effort to convince UMTA to adopt a less cumbersome technique. UMTA has done so, by consolidating nineteen functional reporting areas into three, allowing small authorities to consolidate contract costs to several different companies, and eliminating the need for some forms from small operations. The latest efforts, carried out by Nancy Shapiro and Murray Gintis of EOTC, are directed toward the computerization of reporting procedures for FARE and ICC and are to be adaptable for other accounting and general ledger purposes of the authorities as well.

The legislature has paid very little attention to the RTA's since their creation. Legislators view the RTA's as "small, provincial operations" according to Senator Burke which impact only slightly on the state treasury and which can decide best for themselves how to run their transportation systems. However, amendments have been passed to the original Chapter 1141 of 1973. In August 1974, Emergency Act Chapter 792, section 12, amended Chapter 161-B, section 10, to require that the notes which the State Treasurer is authorized to issue shall be issued for terms not exceeding two years from the date of the original issue. This amendment was merely a clarification of wording, since the original legislation also referred to a two year period.

A more substantial issue arose in 1976 concerning a conflict of

interest. The administrator of the Pioneer Valley Transit Authority (PVTA) had successfully run for city council in the RTA-member city of Springfield. The popularly called "Tornek amendment" (named for the administrator) was added by Chapter 312 of 1976 in August of that year. It added to section 4 and section 6 (d) of Chapter 161-B provisions that administrators could not hold elective office. Any administrator presently holding office was directed by the legislation to request a leave of absence from the RTA or to resign elective office, with the specified exception of the present administrator of Pioneer Valley who was authorized to complete his current term on the city council.

In 1977, amendments were adopted which in most instances merely clarified wording or tightened existing provisions of the statute. One important wording change is that the section 3 "regional transportation authorities" would have their names changed to "regional transit authorities" as the section 2 specified areas are called. This change is necessary because the original legislation erroneously used the two titles interchangeably, thereby allowing: only regional transit authorities to partake of the $20 million in bonds for the first five years of the legislation; only members of regional transportation authorities to withdraw from membership; only regional transportation authorities' deficits to be based on losses by miles of service within each locale.

Substantive changes in the legislation were effected in 1977 as well. Communities desiring to join an RTA through section 3 provisions may petition to join if they are no more than one town removed

from the authority as opposed to the original requirement that they be contiguous. The amendments simplified the process of terminating membership as well as equating a negative vote for RTA formation as a vote not to join. Previously the positive action of a separate vote not to join and subsequent notification to the Secretary of EOTC were required. Finally, budget preparation dates were aligned with the fiscal rather than calendar year.

Other feedback has resulted from the merger of the Cigarette Tax Fund into the Mass Transit Fund in 1976 and then into the General Fund in 1977. While specific appropriations from the state to the RTA's are not subject to legislative approval, appropriations from the General Fund must be made. The future of state funding to RTA's is therefore more directly related to the fiscal health of the state.

Finally, in the Brockton area, an "inside-outside" problem has come about. The MBTA, in an effort to reduce its losses, eliminated many feeder bus lines from fringe areas to mass transit lines into the city. This left commuters stranded or auto-depedent. The Brockton Area Transportation Authority (BAT) petitioned to operate a feeder line from Brockton to the MBTA station in Ashmont, which constitutes inter-city and inter-regional service. Chapter 161-B was not set up to subsidize inter-city service, an option that would leave the door open for such commercial lines as Greyhound and Trailways to request subsidies. Moreover, Ashmont is within the MBTA district so BAT has no jurisdiction. On an appeal to Secretary of Transportation Salvucci, Administrator Michael Padnos received approval to run his inter-city line with EOTC subsidies but under Department of Public Utilities authority. EOTC

hopes that this is only a temporary situation since the Brockton-Ashmont line goes out of the BAT region, runs partly parallel to the MBTA, and competes with private Plymouth-Brockton lines from Cape Cod to Boston by commuter rail.

Feedback, of course, is continuous. The RTA's are creatures of the state and as such must be constantly aware of the activities of the Governor, the EOTC, and the legislature in their regard. While present payments are relatively small, development of RTA programs in the future may cause the legislature to take a closer look at its own creation.

CHAPTER IV

THE REGIONAL TRANSIT AUTHORITY

RTA Formation

Chapter 161-B of the Massachusetts General Laws became effective on March 5, 1974, after the typical 90-day waiting period from its signature by the Governor. Not unlike the federal UMT Act, Chapter 161-B was very broad and sometimes ill-defined, so the mandate was given to the Executive Office of Transportation and Construction (EOTC) to analyze, interpret, and implement the policy. During the waiting period, regional commissions worked with Speaker Bartley's office and the EOTC to clarify the most timely issues, especially about the formation of authorities.

The controlling sections of the legislation concerning formation, sections 2, 5, and 14, named the cities and towns to be considered in membership and voting. The Advisory Board would consist of the mayors, city managers, or chairmen of the boards of selectmen of the municipalities named (or their specific designees) who would have weighted votes according to the 1970 census. (After the first year of operation, these votes would be weighted according to the preceding municipal assessment for RTA operations). In anticipation of RTA formation, the head of government of the largest named municipality would call a meeting of the Advisory Board. At least 20 per cent of the weighted votes must be

in favor of calling the meeting, to which all section 2 municipalities must be invited. A majority of the weighted votes must favor establishment of the RTA and following this vote for formation, a simple majority of all named municipalities must vote independently in favor of establishment, either through city council or town meeting consideration. Following this majority vote, the Advisory Board must notify the Governor of the favorable action taken and at this time, the RTA is considered to be formed with all municipalities named in section 2 as members. If, however, a municipality does not wish to become a member, it must formally vote against membership (not against establishment of the RTA) and independently notify the Secretary of EOTC in writing and before the RTA is deemed to be established that it will not be a member. (This procedure has subsequently been simplified so that a negative vote on formation is equal to a vote against membership.)

Already during the waiting period, the areas mentioned in the legislation were involved in discussion of the pros and cons of formation of the regional transit authorities. The first RTA was formally organized on March 26, 1974, in the Southeastern region (SRTA) including all nine municipalities named in section 2. The Southeastern region had actually already begun efforts toward the drafting of a Transportation Development Program (TDP) some four years earlier. The lengthy process of approval of the TDP, required by the federal government before the receipt of any federal capital monies, was then completed by the spring of 1974, and the SRTA became the first RTA to form, to begin operations, to submit a capital grant, and to date, the only RTA to own all of its capital equipment.

In the following months of 1974, section 2 authorities were formed in the Lowell, Berkshire, Pioneer Valley, Worcester, and Merrimac Valley regions. Of these, only the Berkshire Authority was able to include all seven members named in section 2 of the legislation. The other regions formed with a majority, but not totality of members named, although in Lowell, Pioneer Valley, and Worcester additional named members were included later by acts of the municipalities involved, as allowed under section 3. In the Lowell area, two towns which voted against the RTA were included in membership because they did not take the positive action of notifying the Secretary that they would not join, as prescribed in section 14 of the legislation. Also, in each of these three regions, contiguous communities not named in the original legislation have successfully petitioned to join the authorities. This is a simple procedure allowed by section 3, providing that contiguous (later changed to nearby) communities may after a simple majority vote at town meeting or city council request approval of the Secretary of EOTC to join the appropriate RTA.

Late in 1974, questions arose pertaining to the section 3 authorization to form authorities. The Brockton area could not achieve a majority vote of the member towns named in section 2 of the legislation, yet the city of Brockton badly needed the RTA in order to keep its transit service running. The city itself had been subsidizing the service since 1973 following a nine-month strike during which no transit service was provided. EOTC determined that nothing in the legislation prohibited a single city from forming an RTA and therefore the Secretary permitted the Brockton Authority (BAT) to form, while adding encouragement for it

to become regional. Subsequently, the town of Avon has joined BAT, but eight other towns named in the legislation have declined. The permission to form, however, did not immediately solve Brockton's problems. Section 17 of the enabling legislation authorizes an RTA to issue bonds for specified purposes, essentially the local share of capital costs, with the total bonding for all authorities limited to a ceiling of $20 million. A total of $16 million is reserved to the ten section 2 authorities, leaving $4 million available statewide for allocation to section 3 authorities or as deemed necessary by the Secretary. For a section 2 authority to use its reserved bond amount, it must form within three years (by December 5, 1976) and then has two more years to commit its bond authorization before that amount goes back into a discretionary pool to be allocated by the Secretary. Consequently, BAT, as a section 3 authority, had to petition the Secretary to allot to it a portion of the unreserved bonding authorization, which he subsequently did to the same amount which the Brockton authority would have been allowed under section 2.

Additionally, the Cape Ann region wanted to form a section 3 RTA. Cape Ann had been neither named nor considered during the lengthy legislative debates. It is not an SMSA nor even part of an urbanized area, which made the question of eligibility for federal funding uncertain. Like Brockton, the town of Gloucester could not obtain the support of its neighbors to become truly regional, so it petitioned to become a one-member section 3 authority in order to take over the dying bus service then operated by the Community Action Agency. The Secretary accepted the petition with the understanding that the Cape Ann Authority

(CATA) would be affiliated with the Boston area for planning and funding. Only in 1977 did the federal government accept the CATA's eligibility for federal funding which comes out of the portion allocated for the Boston metropolitan area (for which the MBTA was the only recipient). CATA provides service on contract to its neighbor Rockport but has not been successful in obtaining Rockport's membership in the authority.

To date, these eight RTA's are the only ones truly operating within the state (see Table 4.1). Three other areas were named in Chapter 161-B: Attleboro-Taunton, Montachusetts, and Cape Cod. In late 1976, both the Attleboro-Taunton (GATRTA) and the Cape Cod (CCRTA) authorities were formed, principally for the purpose of not losing their reserved bond ceiling which would revert to the Secretary's discretionary fund if the RTA were not formed by December 5, 1976. Neither is now providing service. Cape Cod currently has a Federal Highway Administration Section 147 Rural Demonstration Project for demand-responsive transportation. The CCRTA, under the direction of the chairman of the Board of Selectmen of Barnstable (the largest municipality on Cape Cod), is observing the project with the intention of taking it over after the two-year federal grant ends. Under the auspices of the regional planning commission and County Commissioners, the Cape Cod area also is submitting an UMTA capital grant for equipment.

The Greater Attleboro-Taunton RTA formed with only six of its ten named municipalities joining and with only one desiring service. At the present, an agreement has been made between GATRTA and Rhode Island, which share an urbanized area, to transfer some of the Massachusetts portion of UMTA section 5 funds to Rhode Island in return for Rhode

TABLE 4.1

THE FORMATION OF MASSACHUSETTS REGIONAL TRANSIT AUTHORITIES

RTA	Legislative Basis for Formation	Date Formed	Member Municipalities (as of 1977)	Members Named in Chapter 161-B	Began Service
Brockton Area Transit Authority (BAT)	Section 3	September 1974	2	10	December 1974
Berkshire Regional Transit Authority (BRTA)	Section 2	May 1974	7	7	December 1974
Cape Ann Transit Authority (CATA)	Section 3	September 1974	1	0	September 1974
Cape Cod Regional Transit Authority (CCRTA)	Section 2	December 1976	15	15	None
Greater Attleboro-Taunton Regional Transit Authority (GATRTA)	Section 2	December 1976	6	10	None
Lowell Regional Transit Authority (LRTA)	Section 2	May 1974	8	7	July 1974
Merrimac Valley Regional Transit Authority (MVRTA)	Section 2	November 1974	5	7	October 1975
Montachusetts Regional Transit Authority (MRTA)	Not Formed		0	5	None
Pioneer Valley Transit Authority (PVTA)	Section 2	August 1974	17	15	January 1976
Southeastern Regional Transit Authority (SRTA)	Section 2	April 1974	9	9	July 1974
Worcester Regional Transit Authority (WRTA)	Section 2	September 1974	13	10	November 1974

Island's paying for commuter rail service through Taunton-Attleboro. No local service has yet been contracted for, however. The administrator serves only part-time as he is employed as the planning assistant to the mayor of Attleboro.

The Montachusetts RTA (MRTA) has still not formed. The area regional planning commission (RPC) just completed the Transportation Development Program (TDP) in 1977 with an UMTA planning grant, but it urged the formation of the MRTA prior to December 1976 in order to reserve its portion of the bonding authorization. The local Transportation Advisory Board of the RPC, however, advised the RPC not to lobby for RTA formation prior to approval of the TDP. Planners in both of the cities named in the legislation, Fitchburg and Leominster, understand that an RTA is necessary to continue and/or improve transit service, but there is a tense political situation of competition and fear between the cities and within the region concerning any loss of autonomy and increase in taxes.

One area actively considering an RTA is Franklin County which includes the Greenfield-Montague Transportation Area (GMTA). The county could form an RTA under section 3 if the two cities agreed to join. Presently, the cities see no need for an RTA since they are serviced by GMTA and receive the same state and federal funding as the RTA's. GMTA itself could not become an RTA because it operates its own service; however, a Franklin County RTA could contract with GMTA as the operator to provide service for the whole county, if it could be formed.

Advantages of Formation

Even in areas where RTA's have not been formed, the regional planning commissions have no doubt as to the advantages of RTA formation.

However, the provision for self-determination which aided in attaining passage of the legislation has in some cases hampered RTA formation. Communities which choose to become members of an RTA must make a conscious decision to support the provision of public transportation, recognizing the fact that public transportation is a service which is provided to the community and that it cannot be supported solely by fare-box revenues. The creation of an RTA is also an attempt by communities to band together to solve a regional problem at a regional level. These two factors, not universally recognized and accepted anywhere, may be even more difficult to accept in New England, known for the Puritan work ethic of self-support and the importance of local autonomy and town meeting government.

The Transportation Development Program (TDP) for the Pioneer Valley Regional Transit Authority pointed out nine advantages which would accrue to both the individual community and the region through the establishment of an RTA.

1. The establishment of an RTA makes available substantial amounts of federal and state aid to improve the local transit system. Private transit operators are not eligible for federal aid. The federal government will provide 80 per cent and the state an additional ten per cent of the cost of capital improvements, i.e. new buses, bus shelters, garage facilities, etc., to a public transit agency. Only ten per cent of the cost of major equipment purchases, therefore, would have to be paid for by the RTA.

2. The creation of a(n) RTA also makes available funds to underwrite the operating costs of a transit system. The federal government will normally pay for 50 per cent of the operating deficits of RTA communities located within the urbanized area. The state will pay between 25 and 50 per cent of the operating costs associated with specific routes or services operated within a community which incurs a deficit. The level of state operating assistance is dependent upon the type of service offered and whether the community in question is eligible for federal aid. This is done through the contract assistance provisions of the Enabling Legislation.

3. A Regional Transit Authority will provide a single management agency to plan, monitor, and control bus services being offered by

private bus carriers operating under contract to the RTA. It will minimize such problems as route duplications, inefficient utilization of buses and other equipment, uncoordinated schedules and transfers, and the lack of service to major residential, industrial, and community centers in the Region.

4. The coordinated management of the various bus operators will provide for greater service and comfort for the passenger in the following ways:

a. Coordinated routes and schedules.
b. A standard fare on all carriers.
c. A more economical and direct transfer system.
d. Bus shelters, bus stop signs, system maps, and telephone information numbers.
e. New buses.

5. The establishment of a(n) RTA will also provide a central management agency to market the mass transit services under its control. Like any other product or service, mass transit must be "sold" to the public. An extensive marketing program will help to increase transit ridership.

6. If the RTA can increase mass transit ridership, it will have beneficial side effects such as (1) improving air quality throughout the Region and particularly within the urban centers (2) reducing energy consumption (3) reducing parking demands and peak-hour congestion and (4) providing greater locational flexibility in regional development patterns.

7. The establishment of the RTA can provide a mechanism to deal with the special transportation problems of certain groups, i.e. the young, the old, the handicapped, and the economically disadvantaged.

8. The creation of a(n) RTA will create an environment where the study of and the experimentation with innovative equipment and service concepts can take place. This will counteract the present "profits only" vision of the private operators.

9. All responsibilities previously handled by the MDPU in regard to the regulation of local transit operators will be decentralized and given to the RTA's. Safety procedures will be an exception. This decentralization of regulating authority will expedite proposals for changes in routes, fares, and schedules.[1]

These advantages seem obvious. Even the Montachusetts TDP pointed out that without the input of capital and operating assistance

---

[1]Lower Pioneer Valley Regional Planning Commission, The Transit Development Program for the Lower Pioneer Valley (Draft Report) (1977-1981), pp. 105-107.

through an RTA, "provision of privately operated bus routes will continue to be consolidated with a resulting decrease in level of service for the Region's population."[2] Reducing the level of service then sets the cycle in motion until a bottom line will eventually be reached where service is no longer warranted. Without an RTA, mobility is severely limited by lack of coordination between routes, long headways and the non-response of private companies to changing land use development. In addition, social service agencies are severely burdened in providing transportation for their clientele. Most agencies in non-RTA areas manage to meet a minimum of transportation needs, but at a high cost, draining their limited resources of time, personnel, and money.

Initial RTA Activities

By late 1974, the eight authorities formed had begun service or were in the process of contracting to continue an on-going service with the local private operator. This was no easy task. Prior to contracting for the provision of service, each RTA was charged with hiring an administrator, setting up an office, adopting by-laws, and electing officers of the Advisory Board. Then, the contract for service had to be negotiated, including choice of operator, means of providing a "reasonable return" to the company, union demands, standards of service, methods of reporting, fares, schedules, routes, and route changes. Prior to receiving federal and state funds for the provision of these services, contracts had also to be drawn with the regional planning commissions to draft Transportation Development Programs, with the state's Executive

---

[2]Montachusett Regional Planning Commission, Executive Summary--Montachusett Region Transit Development Program (1977), section 3.1.

Office of Administration and Finance (through EOTC), and with UMTA after the completion of the TDP's, a process which usually took several years (see Figure 4.1). Needless to say, service could not be halted while the bureaucrats were completing the endless paperwork.

Alternate Sources of Funding

During this transition period, other means of payment had to be found. The emergency legislation under Chapter 1017 of 1973 provided 50 per cent state payment, under the auspices of the Massachusetts Department of Public Utilities, for specific transit services for any city outside the MBTA area up until November 8, 1974. Although at this date not all RTA contracts were completed, many were made retroactive to this time when they were finally approved.

Coincidentally, planning was being carried out for the state's Project LINKS (LINK-ing elderly and handicapped persons to their sources of care and livelihood). The Massachusetts Department of Elder Affairs had received a grant of $592,000 under Title III of the Older Americans Act at the end of fiscal year 1973. It was not until February of 1974 that the LINKS staff had been set up through a contract with T.H.E.M., Incorporated (Transporting the Handicapped and Elderly in Massachusetts, Incorporated). The purpose of the project was to develop special transportation for elderly and handicapped persons by stimulating the existing public transportation agencies to address these special needs. Thus, regional transit authorities were given absolute priority in the awarding of funds in areas where RTA's existed. The most important guidelines for choice of subgrantees were that they develop plans demonstrating the ability to continue operations after LINKS funding was withdrawn,

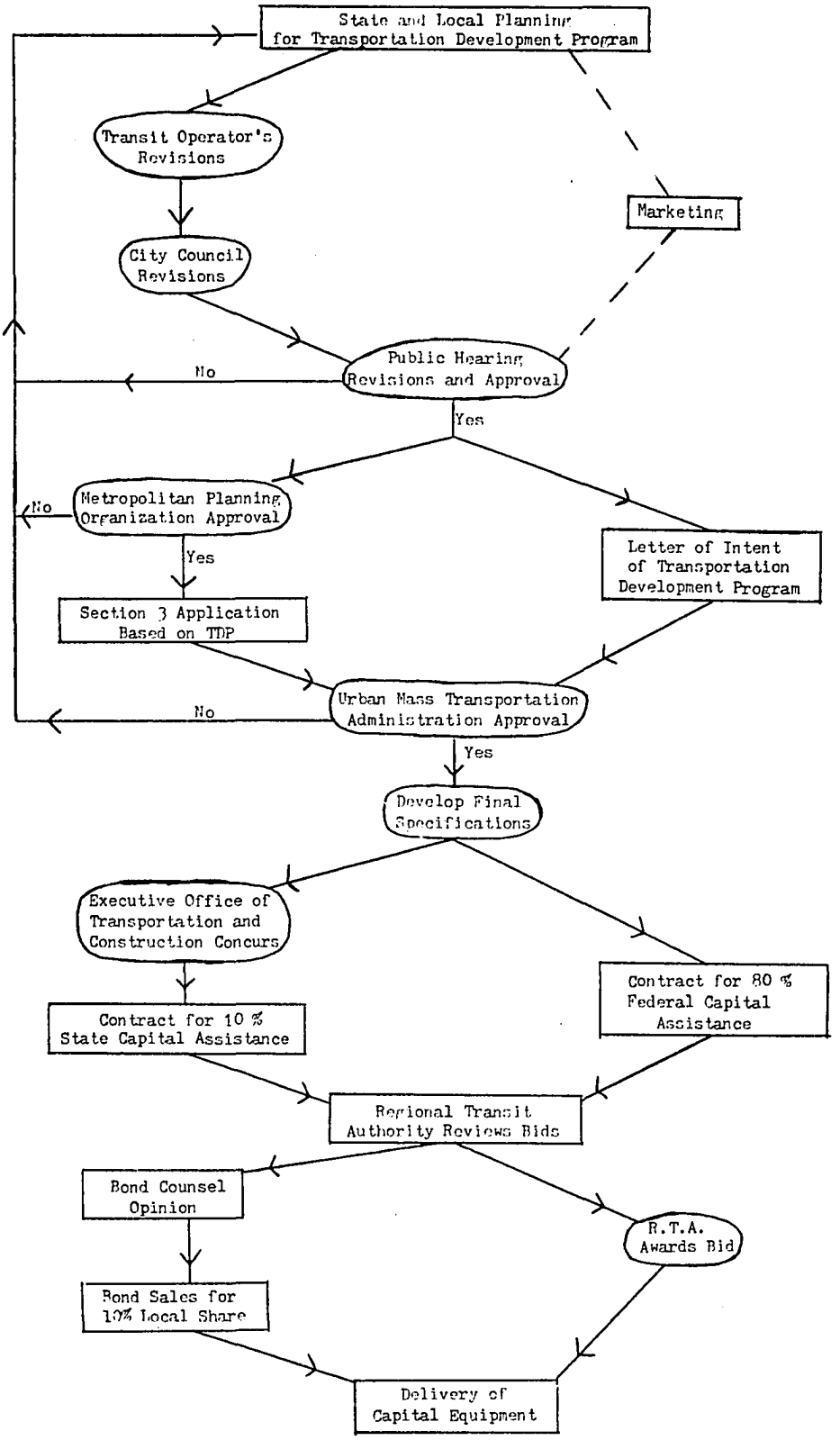


Figure 4.1: Local Area Transportation Development Program Plan (Time span from three to five years)

that they be able to contribute a local matching share of about 35 per cent, and that they require operating funds rather than capital. The LINKS staff hoped to work with UMTA in utilizing capital equipment grants and with the local planning process in a commitment to the unmet needs of elderly and handicapped persons. (It was in fact this liaison with UMTA that required the inclusion of handicapped persons for any special transportation projects although the LINKS funding was specifically slated for use only on behalf of the elderly.)

Despite a nine-month extension until March 1975 for the use of the Title III money, RTA's in many cases were still not far enough along in their planning and contracting to carry out LINKS programs in each area. Thus, out of eleven projects awarded by LINKS, only five were conducted by RTA's, the Worcester, Berkshire, Pioneer Valley, Southeastern, and Cape Ann authorities. Four other grantees provided service within RTA areas with the funding going to the city of Haverhill, the city of Worcester, and private non-profit agencies in the regions of the Lowell and Cape Cod RTA's. Most service was provided by means of paratransit, for shopping, nutrition services, medical care, and to special events for senior citizens. The Haverhill project was actually a fixed route service which provided the only transit in the city until the Merrimac Valley RTA could approve a contract. In each of these cases, the RTA has continued the LINKS transportation after Title III funding ended with the only reduction in service made by the Lowell RTA in Westford and Pepperell. The remaining two grantees, serving Franklin County and South Central Massachusetts, had mandatory provisions in their contracts with T.H.E.M. to consider the feasibility of forming an RTA. In

both areas, the regional planning commissions are investigating that possibility.

The LINKS program was successful in stimulating some concern among transportation agencies in Massachusetts for the needs of the elderly. The LINKS staff was frustrated, however, by the same bureaucratic problems which the RTA's were meeting at the time. The planning process required by UMTA, complicated by the time needed to acquire new equipment, would have required a time period of about five years for complete coordination of efforts by UMTA and the U.S. Administration on Aging. However, Project LINKS was a unique effort to utilize Older American Act monies to seed new programs in other branches of the government. It proved to be a logical and innovative approach to the coordination of resources and goals between different government agencies and it worked fairly well within a temporary time-frame.[3]

RTA Operations

The regional transit authorites were designed to be simple bureaucratic structures (see Figure 4.2). Most RTA's consist of an administrator, sometimes an assistant administrator, and a secretary. The administrator is hired and serves at the pleasure of the Advisory Board which acts as a board of directors. Special services required by the RTA are contracted out to professionals rather than by hiring a large in-house staff. For the most part, the administrator is the decision-maker on day-to-day operations, and the Advisory Board has the say-so

---

[3]Diogo Teixeria, The LINKS Project--A State-Wide Elderly Transportation Program (Boston: Transporting the Handicapped and Elderly in Massachusetts, Inc., 1975).

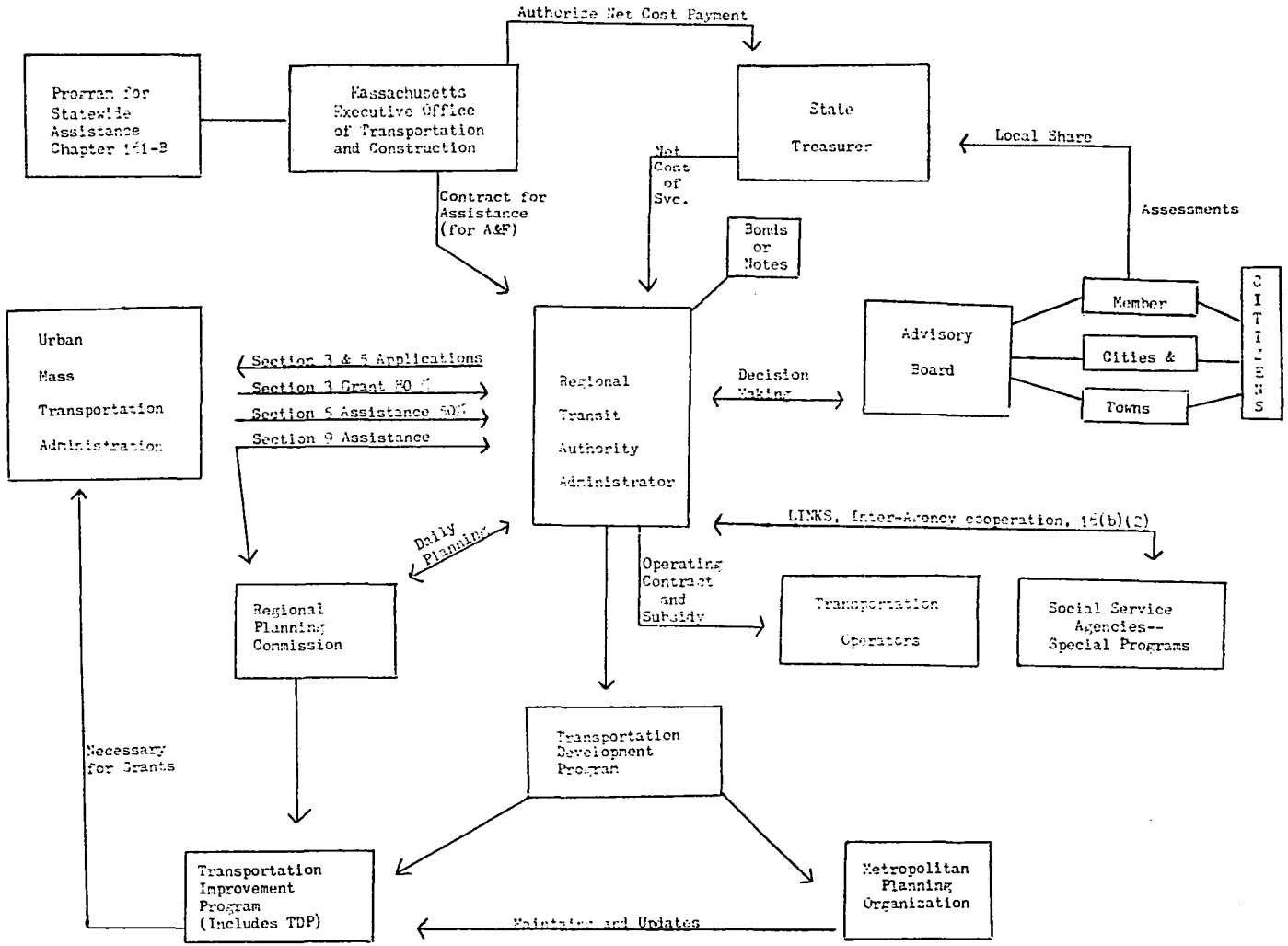


Figure 4.2: Functional Planning and Operational Diagram for Massachusetts Regional Transit Authorities

on the budget matters. Since public transportation is a new field in public administration, transit experts really do not yet exist. Then, who are these RTA administrators? Of the eight full-time RTA administrators, half (Southeastern, Worcester, Merrimac Valley, Pioneer Valley) were the local planners for the largest member-city prior to RTA formation and thus had some input into the RTA formation process through their respective mayors or through the Transportation Development Program preparation. In at least two cases, nation-wide recruitment turned up no one whom the Advisory Boards considered to be more highly qualified than their local planners.

The two administrators in the section 3 authorities were hired directly by the mayor of the single-member city, one being already employed as the mayor's assistant (Cape Ann) and one being a lawyer who was formerly employed as an assistant secretary at EOTC (Brockton). The remaining two authorities (Berkshire and Lowell) conducted national recruitments after dissatisfaction with locally hired administrators.

The job description for the administrator's position emphasizes that directing and administering the mass transit program for a region is complex and highly responsible management work. In addition to the qualities desired of most public administrators, the RTA administrator must have the "ability to use initiative, tact, and judgment in carrying out special assignments requiring the organization of material and development of work methods in areas where no standardized procedures exist."[4] The necessity to establish these procedures has caused delay

---

[4]Pioneer Valley Transit Authority, "Job Description for RTA Administrator," p. 2.

in many regions in the development of transit improvements. For the most part, the administrator is the sole decision-maker and the Advisory Board approves his decisions. The bond counsel and officials in one RTA area have felt some uneasiness about the powers given to one person by Chapter 161-B, but to date the monolithic structure has allowed for quicker action to get RTA operations underway.

Operating Contract

RTA's are prohibited by law from operating their own transit service, so the most important contract must be executed with the transportation operator. This contract specifies the level of mass transportation service to be supplied within the areas. It delineates routes and route mileage by municipality, bus schedules, the number of daily trips, and fares. Payment for the cost of service is made to the bus company on a monthly basis after receipt of a statement indicating the difference between operating costs and revenues for each route, by municipality, and subtracting any charter or school bus figures. The contract also includes standards for vehicle maintenance and cleanliness as well as mandating certain administrative and management practices. It further allows the RTA complete access to all financial data and statistical information. Chapter 161-B allows a reasonable rate of return to be paid to the bus company, in addition to its costs. Each RTA can determine its own rate subject to state approval. In different regions this is paid through (1) a return based on invested capital when the bus company owns its capital equipment; (2) a straight management fee when the RTA owns all or part of the capital equipment; or (3) a management plus incentive fee with bonuses allowed for efficiency and increase in revenue.

With the increase in UMTA capital grants, the trend would seem to be toward basing the rate of return on the latter two alternatives.

It is necessary to certify that the public's financial interests are being safeguarded by the transit company. Absolute numerical measures can be applied against transit company operations that will allow the RTA to verify that reasonable charges are being made, including: number of passengers per bus mile, cost per passenger, cost per bus hour, cost per bus mile, revenue per bus mile, and percentage costs covered by revenue. All of these figures are required to be reported to the RTA's and EOTC for analysis and oversight.

The ceiling set by the state and region on the amount paid to the transit company obviously affects what the company can offer its employees in wages and fringe benefits. Although the RTA does not directly deal with the union in these matters, the RTA serves as an invisible presence and influence at the bargaining table between union and management. In all cases, employee benefits and wages have improved with RTA contracts, but some unions have not realized that the influx of federal and state monies does not make the sky the limit. In Worcester, for example, a labor dispute at the bus company idled bus service to the region for two months in the summer of 1975. The WRTA refused to contract with the Worcester Bus Company because of the "continued, excessive monetary demands of the union... (which) exceeded the $200,000 'ceiling' set by the Authority."[5]

An agreement that is made directly with the union is referred to as the 13(c) agreement according to its statutory reference in the

---

[5]Worcester Regional Transit Authority, Annual Report of

UMT Act. It is a labor protective clause which is greatly misunderstood, viewed with fear by some and as a panacea by others. The 13(c) agreement, which must be signed between the company, the union (usually a local branch of the Amalgamated Transit Union), and the RTA before the receipt of any federal grants, guarantees to labor that the receipt of federal funds will recognize the authority's responsibility for:

> (1) the preservation of rights, privileges, and benefits (including continuation of pension rights and benefits) under existing collective bargaining agreements or otherwise; (2) the continuation of collective bargaining rights; (3) the protection of individual employees against a worsening of their positions with respect to their employment; (4) assurances of employment to employees of acquired mass transportation systems and priority of reemployment of employees terminated or laid off; and (5) paid training or retraining programs.[6]

Labor views 13(c) as the guarantee that no employees can ever be fired or laid off. Management and the RTA view 13(c) as a vague promise, subject to much interpretation which could be more or less stringent than labor's view. This uncertainty creates fear in government and among local citizens about what the required RTA commitment really means. The RTA administrators and EOTC have petitioned UMTA and the federal Department of Labor which oversees 13(c) agreements to better define the limitations and guarantees of 13(c). Governor Dukakis of Massachusetts wrote:

> Even more severe than any actual cost experience is the hesitancy of many communities to become involved in public transportation because of their fears of open-ended liabilities which the provisions of 13(c) as currently implemented seem to involve....The potential liability to the taxpayer of signing federally required 13(c) agreement(s) must be better defined. Accepting federal money for

---

Operations (1976), p. 4.

[6] Urban Mass Transportation Act of 1964 as amended, sec 13(c), 78 Stat. 302, 49 U.S.C. sec 1609 (c) (1964).

> continuing and improving local transit services, including routine transit vehicle and other equipment replacement must not be accompanied by fantastically complicated agreements whose potential costs to the taxpayer cannot even be explained by the lawyers drafting the agreements much less understood by the public officials who must sign them.[7]

Service Contracts

A second contract which must be executed by the RTA's is with their regional planning commissions (RPC). This contract is for planning services, in accordance with a federally-certified process, and technical assistance upon request. The RTA receives long-term and short-term transit program recommendations, federal grant assistance, and planning opinions regarding proposed route and fare changes. The RPC generally has three responsibilities to the RTA: (1) monitor the service, that is, make passenger counts and peak load point counts, on-time studies, equipment condition studies, revenue analyses, etc.; (2) analyze ridership and demand data to recommend changes in the implementation of the program in cooperation with the RTA staff; and (3) work with regional towns to encourage them to become part of the RTA.[8] The RPC is eligible for section 9 planning funds directly from UMTA. These monies have at times served as the funding for preparation of Transportation Development Programs, even prior to RTA formation. The RPC also does transit planning in conjunction with the "3-C" (Continuing, Comprehensive, Cooperative) planning process as mandated by the Federal Highway Act of 1962, for

---

[7]Letter from Michael S. Dukakis, Governor of Massachusetts, to William T. Coleman, U.S. Secretary of Transportation, Boston, June 11, 1976.

[8]Old Colony Planning Council, Brockton Area Transportation Development Program (June 1975), p. 119.

which it receives funds from the Massachusetts Department of Public Works.

Financial Contracts

Another contract must be drawn between the RTA and the Commonwealth, through EOTC and the Executive Office of Administration and Finance (A&F). As specified by Chapter 161-B, the contract instructs that the state will pay up to 50 per cent of the net cost of RTA services and operations. This net cost figure reflects a deduction for the receipt of a federal operating assistance grant. The remaining portion is paid by the participating member municipalities through the annual assessment procedures (called the "cherry sheet") made through A&F. Through this contract, the state can set standards for types of services eligible for funding and can monitor service indices of the RTA operations.

Finally, a most important contract is made with the federal Urban Mass Transportation Administration to provide the RTA with 50 per cent of operating costs and 80 per cent of capital costs. Prior to such a contract being approved, the Transportation Development Program (TDP) must be approved, a 13(c) approved, and approval granted by the Metropolitan Planning Organization (MPO) for the area. The Governor designated a four-member MPO consisting of the RTA, the regional planning commission, the Massachusetts Department of Public Works, and EOTC. To date, TDP and grant application approvals have been automatic through the MPO because of the inclusion of these bodies during the planning stages. The initial contracting procedures with UMTA are very lengthy, sometimes taking several years. Once an initial grant is made under

either section 3 (capital) or section 5 (operating), annual contracts can be drawn up without much difficulty.

RTA Finances

The foremost instrument for achieving control of funds is the budget which must be adopted annually by the Advisory Board and is based on the recommendations of the administrator. Funds come from three levels: the federal, state, and local governments. The federal government will pay 50 per cent of operating expenses under section 5 of the UMT Act. According to section 5, urbanized areas of over 200,000 population are allowed a specific share of funds, as allocated in the Federal Register. Urbanized areas of under 200,000 population are eligible for funds received by the governor and allocated at his discretion. Governor Dukakis specified the designated recipients of federal funds to be Worcester, Pioneer Valley, Attleboro-Taunton, and Merrimac Valley RTA's in areas of over 200,000, and Brockton, Southeastern, Lowell, and Berkshire RTA's in areas of under 200,000.

For capital expenses, the federal government will pay 80 per cent. The RTA is able to raise its local share by selling public bonds, for which a bond counsel opinion must be secured. The bond counsel is responsible for guaranteeing the legality of the body offering bonds on the market and rating its ability to repay the debt. Since the bond counsel can be held liable for negligence if the RTA defaults on payment, it is cautious about following RTA finances continuously and setting a ceiling on the amount it will approve for borrowing. RTA bond counsel, Palmer-Dodge in Boston, noted that the federal funds available are only based on figures printed in the Federal Register and can therefore dry

up. However, the bonds still must be paid off according to the state's offer of credit in Chapter 161-B stating that the State Treasurer must provide the net cost of service, including interest on notes for RTA operations, or must pay off the bonds and notes if the RTA can not. The state can then turn around and assess the member municipalities of the RTA to collect its money, but the obligations of the bond counsel to the bond holders have been met. Because of its stake in RTA success, the bond counsel reviews all contracts and audits of the RTA before offering an opinion. This allows for some objective and non-political advice to RTA's and informally to EOTC on behalf of the RTA's. In fact, bond counsel and local banks handling bonds have been able to advise on the improvement of some business practices of the infant RTA's.

The state, under Chapter 161-B, is the next source of funds. It will pay 50 per cent of the net cost of service for capital or operating expenses after the deduction of federal grant receipts, resulting in about 25 per cent of operating costs and 10 per cent of capital. Payment is made at the end of each operating year, so RTA's often suffer a cash flow problem. The solution is either to borrow from the state or from the private market during the year. Borrowing from the state is a simple, nearly immediate procedure whereby the RTA administrator certifies to the state that costs exceed revenue and a cash advance is needed. The only limit set by the state is that the advance cannot exceed that portion of the yearly budget for which time has elapsed. The State Treasurer certifies with EOTC that the figures reported by the RTA are accurate, then within a week a warrant is approved by the Governor's Council for issue of the check to the RTA. Interest payable

to the state for this cash advance may not, however, be included under net cost of service. More favorable financially to the RTA is the practice of going to a local bank to borrow or to sell revenue anticipation notes, for which the interest due is included in net cost of service and is thus eligible for cost-sharing by the state and federal levels of government.

At the end of the fiscal year, the RTA sends figures on its costs and revenues to the Treasurer prior to November 1, and the Treasurer pays the RTA 100 per cent of its net cost of service, minus any advances paid out during the year. Based on these figures, calculated by route and municipality, the Treasurer then assesses the cities and towns for their shares which constitute approximately 25 per cent for operating expenses and 10 per cent for capital costs. This assessment is included on the "cherry sheet" which covers all municipal payments to the state for services and must be paid by November 20 of each year. Because the local share is "hidden" on the cherry sheet, often the impact of local payment for public transportation is unknown by citizens and even local officials, who need not appropriate a specific amount payable to the RTA.

Control of Funds

Since the RTA is responsible for the collection and dissemination of all the data on which financing is based, it must secure private auditing services to substantiate its reports. In addition, it is subject to state and federal audits because of the receipt of state and federal funds. All of the RTA's have been audited by the state at least once, many twice or more since they are required (but not always completed) on

an annual basis. In essence the state audit merely checks the private auditor's figures and substantiates whether or not they appear to be valid, whether the RTA is operating according to the intent of the legislation and properly using state funds. Often the state audits are so late that their recommendations are unusable or have already been implemented because of prior recommendation by the private auditor. Although the administrators do not mind being audited, they resent having to pay for a state audit that provides unusable results. To date, none of the RTA's has had a federal audit, though many are anxious to have one. Since the funding of transit operations is new, there are questions as to what procedures are considered to be correct by UMTA, and an audit would set the precedent by approving RTA operations or recommending change before standard operating procedures become too difficult to change.

Inter-Governmental Relations

With funding coming from all three levels of government, it is obvious that inter-governmental relations are of utmost importance[9] (see Figure 4.3).

Local Level

At the local level, relationships include citizens, member municipalities, sometimes neighboring municipalities, and often private, non-profit service agencies. All state authorities are required to hold open meetings and post notice of their scheduling with the Secretaries of State

---

[9]As in the previous chapter, much of the information in this section was secured through personal interviews with public officials (see Appendix A). Because of the politically sensitive nature of this information, specific references are not always made.

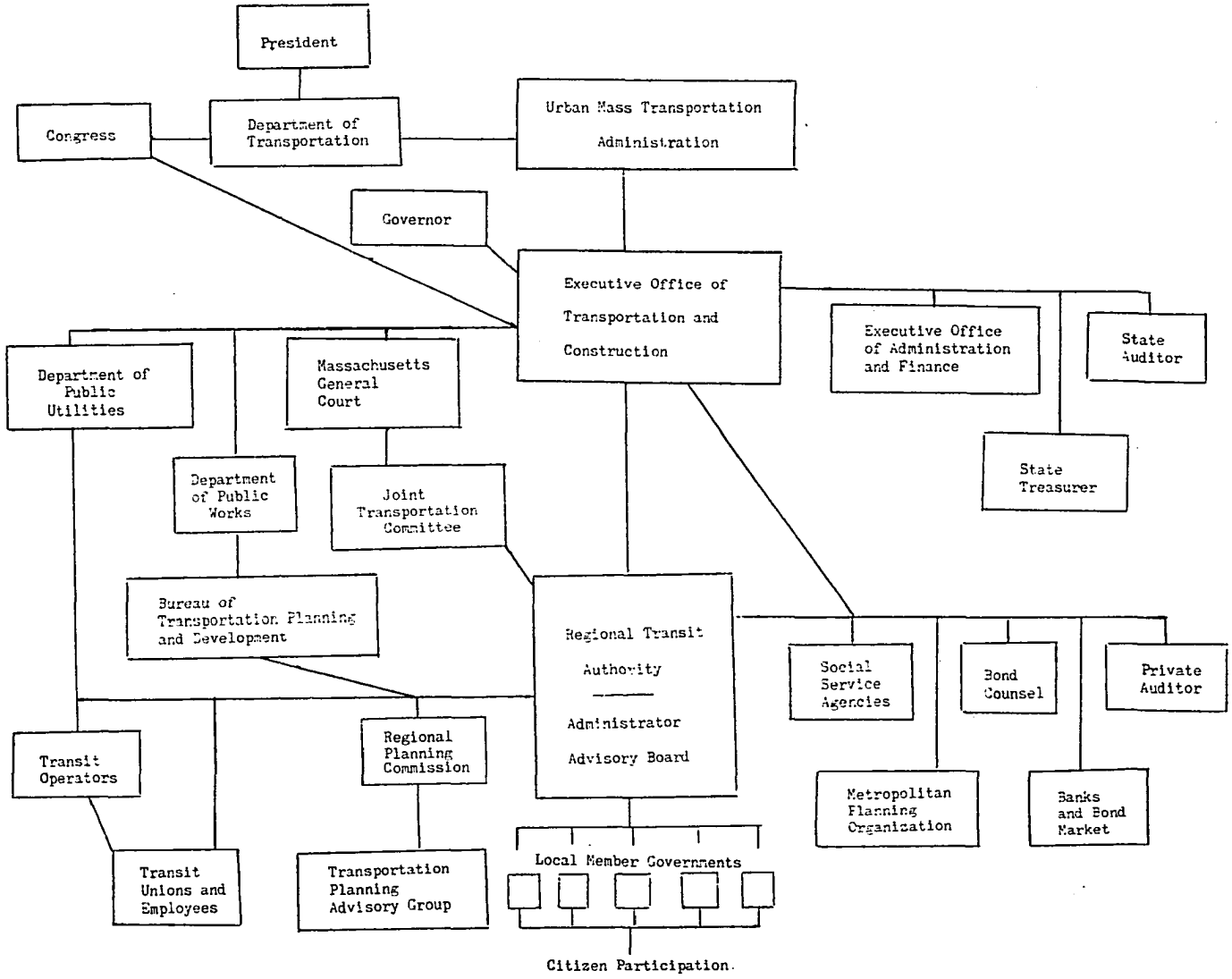


Figure 4.3: Regional Transit Authority Organizational Chart

and of Administration and Finance. As a matter of course, as well, these notices are posted in local city halls, published in the local press, and announced over local radio. Except for executive sessions, monthly meetings must be open to the press and the public. Minimal citizen input results from these meetings, but public hearings are held in member or potential member municipalities over specific route, schedule, and fare changes, to consider membership, and to approve the Transportation Development Program. Annual town meetings of member municipalities also often generate comment, and most RTA's have some form of suggestion or complaint procedure. Operating through the regional planning commission is also a Transportation Policy Advisory Group (TPAG) made up of representatives of citizens and community groups, local officials, and interest groups to consider specific areas of transportation and to make studies and recommendations.

Relationships with the member municipalities are carried out through the RTA Advisory Boards, made up of the heads of local governments or their specific designees. This ties the RTA operations very closely to the local political process, makes it responsive to citizens' wishes, and the weighted vote formula provides for a more equitable attempt to meet one-man, one-vote standards while also considering the amount of local financial support. For the most part, the RTA and the member municipalities are the same, so the relationship is a happy one. Potential members are contacted through their heads of government either directly by the RTA administrator or by the regional planning commission, or vice versa if the municipality is actively seeking membership. Neighboring municipalities may contract for service to be provided by the RTA,

but opt not to join. Their relationship then is strictly business and the head of government does not participate in RTA policy-making. Neither is that municipality eligible for state or federal funds toward its net cost of service.

Also within the local or regional service area are non-profit social service agencies with special transportation needs. The RTA is designed solely as a transportation authority and thus is able to serve as a "transit broker" to coordinate all transit services, including special services to elderly and handicapped. This is certainly a new area in public transportation, and the UMTA is encouraging the development of regional "transit brokers" by the revised requirements that transit planning include paratransit operations. Public coordination of transportation services can eliminate the duplication of equipment and labor as well as the waste of public funds through the RTA contracting with various transportation operators for service. Several specific programs have attempted to achieve this coordination.

The LINKS program mentioned earlier was the first attempt at inter-agency coordination and spurred on interest and continuation of programs between RTA's and Councils on Aging (COA). In the Pioneer Valley area, there are 12 individual contracts with each municipality's COA to provide special transportation on a demand-responsive, door-to-door basis. EOTC has just completed an extensive study of the 12 programs to determine standards of performance for future funding. All RTA's offer or are planning to offer some special transportation service, but they would like to find ways of servicing all social service needs and channeling social service funds into the transit operation.

Brockton offers an extensive paratransit service coordinating special transportation services for elderly, handicapped, young, and low income persons by using small wheelchair-lift buses, small vans, and taxis on contract. The services offered are on a subscription basis, dial-a-ride, or feeder service to the street routes. All social service agencies are eligible to contract for the service including Head Start, Old Colony Elderly Service nutrition program, Child Development Center, Association of the Blind, welfare clients, hospital patients, and any individual citizens who are elderly or handicapped. BAT's MOM (Manager of Mobility) coordinates and dispatches for all trips and lends a familiar feeling to the special service. Agency clients' fares are billed directly to the agency, and individual citizens pay their reduced fare directly to the driver. Agencies benefit by receiving a subsidized service and paying only for trips made without maintaining their own equipment and drivers for transportation needs.

The Commonwealth of Massachusetts has followed up on local and regional inter-agency transportation coordination by receiving an UMTA State Management Assistance Grant entitled "Coordination of Elderly and Handicapped Transportation Services." The Interagency Advisory Committee for the project includes representatives of approximately ten state social service agencies with an interest in elderly and handicapped transportation. The proposal is to develop a statewide plan for coordination of elderly and handicapped services which would emphasize the role of the RTA's in such coordination. The plan should suggest alternative structures for coordination, cost-sharing schemes for such, and should make recommendations to state and federal agencies with regard

to budgeting for transportation and reporting requirements. Eventually two RTA areas will be selected as model areas for which specific coordination plans will be developed.

Finally, the UMTA encourages inter-agency transportation efforts through the 16(b)(2) program which provides vehicles to private non-profit agencies. EOTC's Interagency Advisory Committee is made up of representatives of the state social service agencies who provide in some manner for elderly and handicapped services. This group also serves as the screening board for application for vehicles. The 16(b)(2) program does not really touch the problem of defining the role of RTA's in providing specialized service, though some RTA's coordinate operation of the 16(b)(2) vehicles.

State Level

Intergovernmental relations at the state level are more extensive than at the local level. RTA's deal with other regional state authorities, including each other and their respective regional planning commissions, with state agencies, including the Department of Public Works (DPW), Department of Public Utilities (DPU), EOTC, Executive Office of Administration and Finance (A&F), and the State Treasurer, with the legislature, and with their own Metropolitan Planning Organizations (MPO). Relationships among the RTA's are cordial and beneficial. The administrators hold periodic meetings among themselves without state or planning officials present in order to discuss common problems, present a unified front in making demands, and present innovative ideas to improve transit operations.

Relationships between RTA's and regional planning commissions (RPC) vary by region dependent mostly on personalities involved.

Generally the relationship is complicated, in part due to the fact that the constituencies of the two authorities are different. The RTA's are made up of heads of government or their specific designees who possess weighted votes according to population and/or assessment. The RPC Advisory Boards are made up of municipal planners or their designees who possess equal votes, giving the RPC a suburban orientation. The RTA is short-range operations oriented, while the RPC is long-range planning oriented without real power to implement. Often the geographical boundaries of the two agencies are not identical. In regions where conflicts exist between the two agencies, it appears to be the result of a power struggle between the RTA administrator and either the RPC administrator or chief transportation planner. The legislation does not require coordination between the two bodies but suggests their mutual cooperation. Traditionally, the RPC's have been the regional highway planners, but as a result of the 3-C planning process, transit planning has been considered. Only in very recent years have any of the RPC's upgraded their transportation planning staffs by including specific transit planners. The RPC's are eligible for UMTA section 9 funds and the RTA's do not have their own planning staffs. Therefore, despite their differences, a common objective exists between the two bodies to improve transportation within the region and to coordinate with other public services.

Because the RPC's are funded also by grants from the Department of Public Works (DPW) for highway 3C planning, an indirect relationship between the RTA and DPW exists. At the DPW, specifically in their Bureau of Transportation Planning and Development (BTP&D), officials interviewed expressed the belief that a strong influence is exerted by

the DPW on the RTA's. At the RTA level, administrators deny this charge. The closest relationship has involved bus stop signs which are erected by the RTA's, but must be approved by the DPW since they are placed on highways. After some disagreement over what signs were acceptable, standardized designs have been approved. The DPW is also a member of the Metropolitan Planning Organization, thus its approval must be attained before grant applications can be sent to UMTA.

With the passage of Chapter 161-B, the Department of Public Utilities (DPU) lost its regulatory power over transit operations within the RTA areas. The RTA now has exclusive regulatory jurisdiction over the provision of mass transportation services which are operated wholly within the area constituting the authority. The DPU, however, retains jurisdiction over charter services, special services, restricted common carrier services, and school services. In addition, the DPU retains jurisdiction over the safety of equipment and operations by private carriers in the RTA areas. Since all RTA operations are carried out by private carriers under contract, the DPU is responsible for safety inspections. The DPU is also the arbiter in cases of conflicts between RTA's which are contiguous and in cases involving service from an RTA to points outside the RTA jurisdiction. Relationships concerning safety inspections at the RTA level are cordial, but a definite animosity exists between the DPU and EOTC. DPU seems oriented toward the supply side of transportation, while EOTC is more concerned with demand and serving the public interest. The lack of communication between these agencies is evidenced by the fact that only in July 1977 did the DPU agree to notify EOTC and appropriate RTA's of private carrier certification

requests and of scheduled hearings which might pertain to RTA areas, but come under DPU jurisdiction. The DPU officials interviewed displayed a startling lack of knowledge of RTA operations but begrudge any loss of authority over transportation matters.

The Executive Office of Transportation and Construction (EOTC) is the primary state agency working with RTA's and serves as the "front man," political protector, and overseer of RTA operations. RTA's are required to submit detailed annual reports and summary quarterly reports to EOTC, contracts with Administration and Finance are made through EOTC, and RTA figures for payment by the Treasury are certified through EOTC. In December 1974, the first state workshop for RTA administrators was held by the University of Massachusetts and the Department of Public Works (DPW). Since that time, EOTC has held monthly meetings or workshops of RTA administrators to disseminate helpful information, discuss pertinent state and federal legislation, and discuss common goals and programs such as consolidated fuel purchase and insurance plans. The relationship between EOTC and the RTA's is of the love-hate variety. While RTA's are operations-oriented and technically involved, EOTC is politically oriented. On behalf of the RTA's, EOTC keeps tabs on new UMTA regulations, pending legislation in Washington, D. C., and Boston, and interagency relations at the state level. It also views its oversight role as one which commands it to "draw the strings as tight" as it can in order to keep a handle on RTA budgets and maintain efficient operations.[10] The RTA's often resent this as an encroachment over their

---

[10]Daniel Brand, Assistant Secretary of Transportation, private interview at Executive Office of Transportation and Construction, Boston, Massachusetts, December, 1976.

autonomy. Several administrators commented that EOTC was trying to take over RTA operations and thus they viewed EOTC as a threat. For others areas, EOTC serves as the most helpful source of advice and as the agency that smooths the way for RTA's to earn their due, whether at UMTA, at the State Treasurer's, in the legislature, or in regional areas when conflicts arise with local businesses. A common complaint among all administrators was that EOTC required too much paperwork and too many figures, which were later used to develop statistics with little meaning. EOTC is trying to develop standards of performance and operation, whereas the RTA's claim that the numbers mean nothing without considering political, geographic, and demographic characteristics of their regions. One must remember that EOTC is nearly as new a state agency as the RTA's are regional authorities, and that for both as well as for UMTA, transportation is a new political football.

The RTA's do have relationships with the state's Executive Office of Administration and Finance (A&F), the State Treasury, and the legislature, but often these are carried out through EOTC. Although the contract for state assistance is formally negotiated between each RTA and A&F, all the work is done at EOTC and the A&F signature is a rubber-stamp approval. The Treasury issues payment to RTA's, again with EOTC action and certification. EOTC works very closely with the Joint Transportation Committee of the legislature on amendments pertaining to Chapter 161-B or otherwise affecting the RTA's as public authorities. Only when it is desirable for an individual RTA does the administrator choose to testify to the committee or directly write to the legislators. The potential for increased contact between RTA's and the legislature

may be exploited in the future. Presently, the larger RTA's have better relationships and influence with their local legislators than do the smaller ones.

Finally, at the state level, each RTA must deal with its own Metropolitan Planning Organization (MPO) which carries out the clearinghouse function on all federal grant applications concerning transportation. The Governor designated a committee of signatories (COS) as the MPO which consists of the Secretary of EOTC, the Commissioner of the Department of Public Works, the chairman of the appropriate regional planning commission (RPC), and the chairman of the appropriate RTA Advisory Board. While the Governor could have designated the federal A-95 clearinghouse agency (which is the RPC) as the MPO, he chose to make a committee of signatories representative of both the highway and transit sides of the transportation arena. Some objection was heard to this designation for the MPO alleging a state usurpation of local and regional prerogatives. Agreement was finally reached to accept the COS and the procedure has worked smoothly to date with a minimum of one meeting of the signatories annually and the sign-off procedure being nearly automatic. The potential for disagreement exists, but the state has determined that unanimity is not necessary for MPO approval since any conflict would then result merely in stalemate. Thus, there is motivation to move forward by consensus and since each of the signatories has some involvement in the planning process for its own area of expertise, with the RPC being involved in both areas, controversies are usually resolved before the issue would come before the MPO.

Federal Level

At the federal level, the RTA's deal directly with UMTA, both in Washington, D. C., and at the regional office in Cambridge, Massachusetts. UMTA was created primarily to be a dispenser of funds to states, regions, and municipalities through public bodies. It has three major programs, to finance capital equipment (section 3), operational expenses (section 5), and technical planning (section 9). Final approval of all grants takes place in Washington, D. C., but during the last five years some efforts to decentralize the responsibility have taken place. The Cambridge regional office handles all section 9 grant applications, forwarding them to Washington only for a signature. It also handles the Grant Management function which oversees contracts, and the 16(b)(2) program of vehicles which are provided to private non-profit organizations for elderly and handicapped clients. UMTA officials claim that any public body which is serious about offering public transportation can be funded. Refusals from UMTA come only for inadequate work programs in which case UMTA field personnel will go to the local area and offer advice and technical assistance until an adequate program can be planned.

UMTA's goals are merely to improve the transit system and to carry people; specific objectives are left up to the local governments. The major complaint about UMTA by the RTA's concerns the long delay in getting grant applications approved. Officials at the Cambridge regional office support this complaint, saying that UMTA officials in Washington give the field representatives the same "runaround" that the grantees get. The field representatives must be on top of things to give answers to the grantees, whereas the central office is removed from the operational

scene and suffers from bureaucratic inertia. RTA administrators complain, also, that UMTA does not disseminate enough information about technical advances and policy alternatives. Further decentralization could improve both situations.

Analysis of RTA Operations

In systemic terms, the RTA's are the political system, each consisting of an administrator and Advisory Board, and their output is public transportation (see Figure 4.4). The major goal of those concerned at all levels of government is to provide transportation to those who are captives: the young, the elderly, the handicapped, and the economically disadvantaged. Secretary Salvucci stated that the only reason for public transit in the RTA areas is people, and those who are immobile are the most significant people for whom transportation should be provided. This sentiment was echoed time and again by RTA administrators and UMTA officials. Daniel Brand of EOTC notes that:

> Regional Transit Authorities have been formed to correct a mismatch between the reach of a jurisdiction and the scope of a problem. Your RTA's are regional governments in every normal sense of the word when it comes to transportation. You have the power to tax, bond, and regulate. While you may think these powers are imperfect, they are as clear-cut as such powers normally are for one layer of government in a local/state/federal system of government. The fact that you, as RTA's are a unique layer of government brings a heavy responsibility on you to promote efficient transportation in the public interest.[11]

Environment

The environment that existed at the time of the passage of Chapter 161-B had changed little regarding the concern for mass transportation

---

[11]Daniel Brand, Assistant Secretary of Transportation, "RTA Responsibility to Provide Efficient Public Transportation in the Public

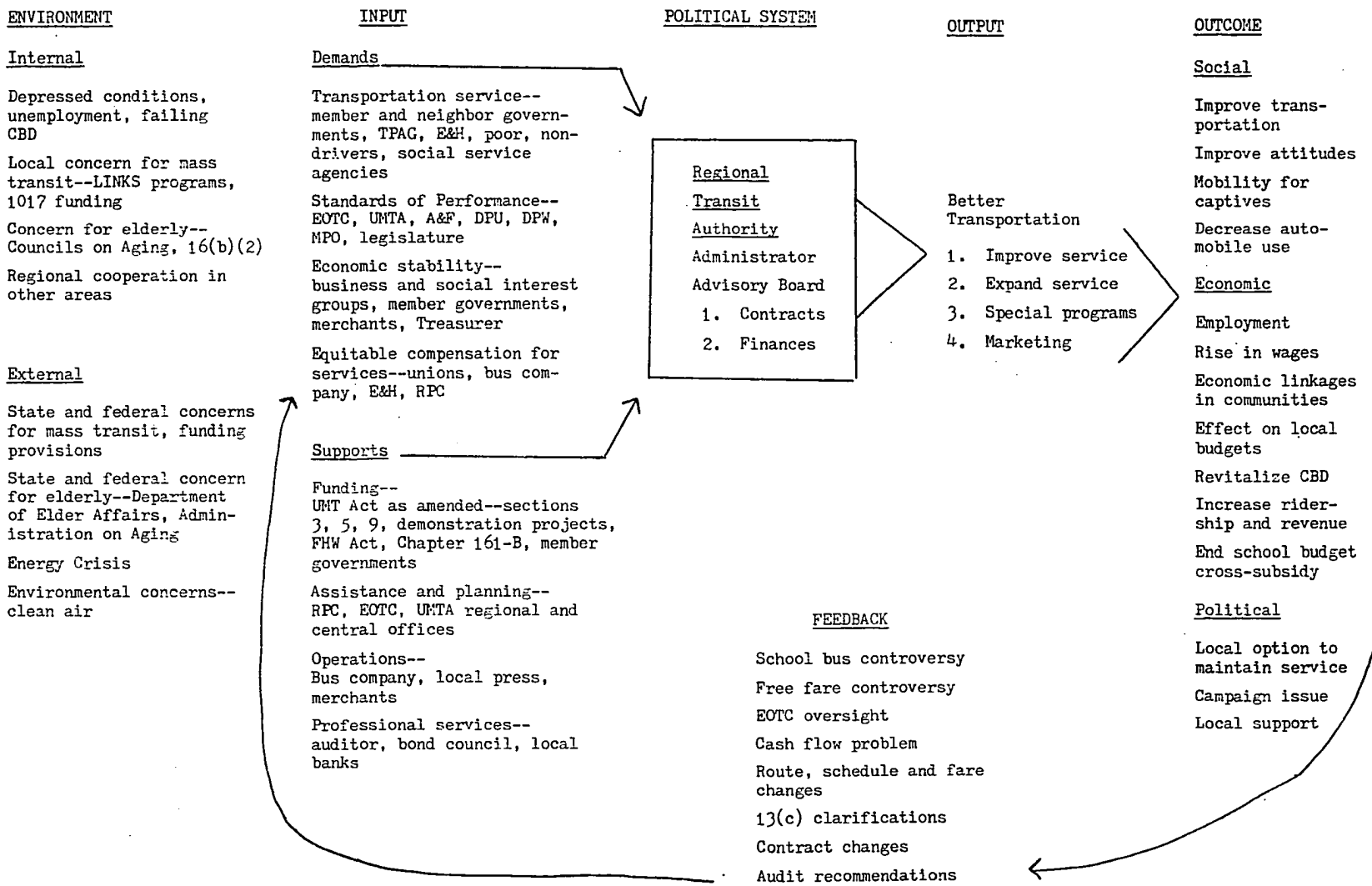


Figure 4.4: A Systems Application of the Regional Transit Authority Operations

in preference to highways. At the local, state, and federal levels, more appropriations were being made for mass transit, especially with the passage of section 5 of the Urban Mass Transportation Act providing operating subsidies and finally deciding the long-standing public vs. private controversy of who should pay for public transportation. The state had also provided emergency subsidies under Chapter 1017.

Another concern felt at all three levels of government was for the elderly. The advent of "Gray Power" was seen and new agencies were organized: the federal Administration on Aging, the state Department of Elder Affairs, and local Councils on Aging. A major need of the elderly is for transportation. Recognition of this fact brought about the LINKS program to coordinate transportation for the elderly in Massachusetts. The handicapped also gained recognition and their cause was championed by Congressman Mario Biaggi (D, N.Y.), himself handicapped. The Federal Aid Highway Act of 1973 included section 16(b)(2) providing transportation vehicles to private nonprofit corporations for the specific purpose of meeting the needs of the elderly and handicapped.

The energy crisis was also very much a part of the environment from late 1973 onward. The RTA's, created prior to the crisis, were not designed to solve energy problems and have had only a minor impact in this area, evident from the relatively small increases in ridership. However, the shortage of gasoline and the increase in prices have affected RTA operations. The associated environmental concern for clean aid has also been a minor concern.

Interest," remarks at the RTA Administrators Meeting, EOTC, Boston, September 19, 1977.

The depressed conditions in many RTA areas was another environmental influence. Central cities experienced failing central business districts and the loss of industries that had historically maintained the economy of the municipalities, all of which brought high unemployment and welfare costs. At the same time, a sense of regionalism was slowly spawning in areas other than transportation, particularly in regard to public utilities such as water purification and sewage treatment. Some communities began to see regional cooperation as a desirable solution to a number of common problems.

Input

Demand for public goods. Adequate transportation service is demanded of the RTA's by several groups that interpret "adequate" according to their own needs. The member municipalities of the RTA's demand service to their citizens, particularly the immobile, and to the business and residential areas of high density, at a minimal price. The immobile (elderly, handicapped, young, and poor) demand special service to meet their needs for shopping, medical, and social trips, although their demands are sometimes not loudly expressed. Citizens advisory groups, such as the Transportation Policy Advisory Group, demand high transportation levels of service coordinated within the region with other modes of transportation and acceptable for federal funding. The social service agencies demand aid in providing transportation to their clientele, particularly for nutrition and medical services. Some neighboring governments demand transportation services on contract while others demand membership in the RTA. In at least one region, a demand by the Environmental

Protection Agency for cleaner air resulted in more extensive transportation in the central business district with fringe parking facilities made available.

Related to the demand for transportation as a public service is the demand for efficient delivery of that service. EOTC established standards of performance and guidelines, which must be met before funding is allowed, while also disallowing some types of service for 50 per cent state funding. The meeting of particular standards are also demanded by other agencies: UMTA requires affirmative action employment and acceptable 13(c) agreements; the Department of Public Works requires the use of standardized bus stop signs and the use of approved highways for bus routes; the Department of Public Utilities maintains safety standards; the state legislature and auditor require the RTA's to function according to the intent of the legislation; and the Metropolitan Planning Organization demands that 3-C planning take place for the benefit of the region.

Demand for equitable distribution of funds. The majority of RTA funds go to the operation of the bus service, so it is the bus company and its employees who demand an equitable distribution. The company wants to be awarded full expenses plus the reasonable return allowed by the legislation, and the negotiation of this return is the most important demand. The unions, negotiating with the bus company, make a substantial demand on the RTA for increased wages and fringe benefits, as well as for promises of future equity through the 13(c) agreement.

The regional planning commission demands an equitable distribution of section 9 planning funds, as well as portions of section 3 or

section 5 funding which may be diverted to planning and survey studies. Additionally, the elderly, handicapped, and sometimes students demand a reduced or free fare due to their economic status.

Demand for economic stability. It is primarily the member governments who demand that the RTA be fiscally responsible, operate efficiently, and keep costs to a minimum, thereby not endangering the stability of municipal budgets. Although the local share is only 25 per cent, it represents an amount for most towns which has not been paid at all before, and thus is an additional burden. For the cities that were previously subsidizing service, there may be little or no increase, but pressure remains to keep costs as low as possible. While the state and federal budgets may withstand greater costs, they also demand efficiency for funding.

Business and social interest groups demand economic stability for their municipalities, particularly for their industries and central business districts, thus encouraging routes and schedules to meet employment, business, and shopping needs within the region. At times, conflicting demands between downtown merchants and shopping centers create political problems for the RTA's as well.

Support of public resources. Officials in RTA member communities apparently recognize the need and importance for public transportation in their municipalities and thus support the RTA in its operations for the citizens, with few exceptions. Their voluntary membership and representation on the Advisory Boards is proof of their desire for public transportation by the RTA.

Financial support to the RTA's comes from all three levels of government--from municipal assessment on the "cherry sheet," from the State Treasurer through provisions of Chapter 161-B, and from federal funds through the UMT Act's sections 3, 5, and 9. Federal monies are also available through demonstration projects and under the Federal Highway Act.

Technical support is provided to the RTA's by their regional planning commissions in developing transportation plans, doing periodic ridership surveys and analyses, and advising on route and schedule changes. EOTC provides support by dealing with other state and federal agencies for the RTA's, speaking on their behalf before the legislature, and providing technical assistance and guidelines. UMTA, both at the central and regional offices, provides assistance in the preparation of transportation planning documents and grant applications.

Support of private resources. The most important support comes from the private bus company which provides the RTA with the transportation services. In most regions, the contract is held by the company which previously provided service, although three regions have subsequently changed contractors to improve service and/or decrease costs. Locally, the press and merchants provide support to the RTA's by providing community notices on service improvements and sponsoring free bus rides to the central business district on special shopping days.

Private professional services support the RTA operations providing the expertise of the auditor and bond counsel and the lending capacity of local banks. In its dealings with each of these institutions, the RTA also gains valuable advice on future business dealings.

Political System

The Regional Transit Authority serves as a quasi-governmental body in the systemic analysis with decision-making authority and a representative government of its members. The administrator is the powerful figure making daily decisions, submitting grant applications, preparing the budget, and supervising all contracts. The Advisory Board hires and fires the administrator, approves the budget, and acts as a board of directors for the operations of the RTA. These involve the execution and management of contracts and the source and control of RTA funds.

Output

Simply stated, the output of the RTA's is public transportation. In interviews, the administrators voice similar objectives to provide better transportation than was provided prior to RTA formation through: (1) improving the present level of street service; (2) expanding the service to other areas where a latent demand exists; (3) initiating special programs such as serving elderly and handicapped needs, coordinating with private operators not under contract, serving social service agencies, and offering reduced fare plans; and (4) marketing the product when the product is good enough to be marketed. Eight RTA's have achieved some output to date and have attained at least their first objective while working toward successive goals.

Outcome

The long time lag between planning and actual operation makes the evaluation of the program outcome difficult at this early stage of the game. Generally, RTA's have affected three areas: economic,

social, and political. In April 1977, Secretary Salvucci wrote that:

> ...the RTA legislation...has been highly successful in providing a tightly administered program of public assistance for mass transportation in the smaller urban areas around the Commonwealth outside of the MBTA....The low RTA costs reflect the efficiency with which the authorities are run and the care which we are taking in starting up this new program to ensure that the purposes of the enabling legislation to ensure the minimum burden on the Commonwealth and the cities and towns within the authorities are met.[12]

The most important social impact of the RTA's is that public transportation has, at the very least, been maintained and in most cases has been improved from pre-RTA service. With this improvement in service, the image of public transportation has also improved. No longer must the bus be considered the mode of transportation for society's outcasts who have no other means of mobility. Catchy slogans, attractive logos, clean and often new buses attract riders of all classes, a fact reflected in sometimes startling increases in ridership. It is true, however, that the immobile have benefitted the most. In all RTA areas, the elderly are the most prominent beneficiaries of the renewed transportation system, particularly where special elderly and handicapped services are offered. To a lesser extent, the handicapped, poor, and young have benefitted, and one RTA area noted the decrease in hitchhiking among those too young to drive or without their own cars. A minor social impact has been a decreasing need for two-car families and a move to decrease parking congestion in central cities. The latter may be a cause of increased ridership, rather than the effect of renewed transportation, as cities pass ordinances limiting parking facilities in the

---

[12]Letter from Frederick P. Salvucci, Secretary of Executive Office of Transportation and Construction, to the Honorable Dennis J. Duffin, Boston, April 7, 1977.

downtown areas, but the two certainly go hand-in-hand.

Economically in qualitative terms, RTA formation and expansion of service have resulted in some increases in employment and have unquestionably raised wages and fringe benefits for employees of the local bus companies. Both management and labor seem to agree that these increases were largely the result of necessary catch-up that reflected the depressed conditions of the 1950's. A present concern among public officials, however, is that unless wages are carefully managed, available federal funds will not be adequate. Because employment, wages, and service have risen, backward and forward linkages have been created in the regional economy with the purchases of goods and services locally by the RTA, the bus company, and their employees.

In some RTA areas, the central business districts have seen either a waning of their degeneration or, in some cases, a revitalization. The buses bring thousands of riders through the downtown daily and expose them to the shopping, professional, and cultural opportunities available to them. In cases where merchants and chambers of commerce have supported the RTA and offered special promotions, increases in ridership and business patronage have resulted. Several RTA areas plan terminals to be built in the central business districts to serve as a junction for all public transportation modes and further revitalize the areas.

The effect on local budgets varies. In central cities where subsidies were in effect prior to the RTA formation, the cost to the city is often no more and sometimes even less than it was previously. The suburbs which were paying nothing for service prior to RTA formation

have felt an increase in demands on the local budgets. Judging from the lack of political controversy, however, the reaction is for the most part positive since one dollar of service is bought for a local share of only 25 cents, and the municipality itself has full decision-making prerogatives on what, if any, service it will request for the community. Those central cities which were not previously paying a subsidy for transit have felt a drastic increase in demands on their budgets since most regional routes begin and end in the central city and assessment is determined by route location. However, cities previously contracting with the MBTA, such as Lowell and Avon, have greatly reduced their costs while offering service of the same or higher quality. This has created a problem with UMTA over maintenance of effort, to be discussed later. Finally, some neighboring communities served by the same bus company contracted to the RTA have felt "blackmailed" into joining the RTA for fear of losing service, meaning that they must pay for a service which has always been free to their municipalities.

Politically, the RTA's have generated surprisingly little impact. The legislature views them as fairly harmless authorities as long as their costs are kept at a low enough level, and amendments to the legislation have to date been minor. In most regions, the only political hue and cry comes when costs become too high, at which time the local Advisory Board member can justify the costs or move to reduce the service levels. This has not been frequent. For the most part, city council members or town selectmen accept the opinion of their respective Advisory Board member that the RTA is functioning well and the cost is within reason. The fact that the local share is assessed by means of

the annual "cherry sheet" along with all other state services means that often political leaders and citizens are unaware of the cost of transportation service to their communities.

Only in the Pioneer Valley and Brockton regions have the RTA's become controversial. In PVTA, the administrator was elected to the office of city councilman for the largest member city. His exposure as RTA administrator certainly helped him become known but also resulted in the "Tornek amendment" which prohibited RTA administrators from holding elective office within their regions. It is felt within the region that this was a political move to keep a fast-rising, talented young man from becoming too powerful and it resulted in his decision not to run for mayor. Also in PVTA, two member communities protested their rising local share costs, one by town meeting discussion and one by referendum. In both cases, the RTA was soundly endorsed and supported by the citizens and membership with service was continued.

In BAT, the mayor of Brockton has made the RTA his campaign issue and has been soundly re-elected after advertising the effect that the RTA has had on his city by revitalizing the central business district, increasing services for elderly and handicapped, improving social service agency cooperation and coordination, and increasing employment. In the most recent city election, two city council candidates were defeated after opposing the RTA. The situation is unique across the state, perhaps because BAT was originally a one-member section 3 authority. Since the mayor was the one-man Advisory Board, he could claim complete credit for the accomplishments of BAT. Since the city had been previously subsidizing service, impact on the local budget has not greatly increased,

and the administrator has been given a green light for system improvements, almost regardless of cost. While this has given the state some concern, the people in Brockton are pleased with their service.

Feedback

Feedback occurs daily, whether from riders and citizens as suggestions or complaints, from the bus company and its union in contract negotiations, or from EOTC and UMTA over policy and funding. Adjustments to operations and procedures are made continuously to reflect changing demands on the RTA's and needs of the constituent groups.

Other than having the task before them of keeping the buses running while learning the business of being an RTA, the authorities in general have had only a few major feedback problems. Foremost was the cash flow situation. As new state agencies, the reliability of the RTA's had to be established and initially borrowing was not easy, although the RTA's had financial commitments to meet daily. An arrangement was made to borrow against the annual subsidy from the state through the State Treasurer's office. Local banks were originally reluctant to bid on revenue anticipation notes because of lack of investor confidence in the ability of the state to meet its financial obligations. According to the State Treasurer's office, however, a limit on state funding of RTA's is a political question. Under Chapter 161-B, funding is automatic and not subject to annual appropriations of the General Court, even though the Cigarette Tax and Mass Transit Funds have been merged with the General Fund. The legislation states that the treasurer "shall" pay for 50 per cent of any net cost of service, and thus the only check on the

amount paid seems to be the municipalities' willingness to pay their shares. Efforts have been made to secure the state and federal subsidies "up front" rather than at the end of the fiscal year. From the state's point of view this would be impossible as it would mean a one-time double assessment on the municipalities and the General Fund could not support its share. The Berkshire RTA, however, has managed to get its UMTA section 5 funds up front based on its proposed budget by completing its grant application early.

A problem between EOTC and the RTA's came about over the issue of free fare service. Within Pioneer Valley, the University of Massachusetts service under contract to PVTA is both free and open to the general public. Since this service had existed for some years prior to the RTA contract, it was felt that it should be continued without fare. Originally it was subsidized by very high parking rates on the campus and by an appropriation from the University budget, later followed by an UMTA demonstration project grant. In addition, several RTA's offer free fare service for the elderly and handicapped. Rather than prohibit such service or find that the state was in the position of paying exorbitant subsidies, EOTC adopted a policy of not totally supporting free fare transportation. Instead, it will provide 50 per cent of the net cost of service which would occur assuming a 25 cent fare for elderly and handicapped and a 50 cent regular fare had been charged. This problem comes about because of a difference in philosophy concerning whether transportation is strictly a public service and therefore a right or it is a privilege available to those who can pay for it. Secretary of EOTC Salvucci maintains that EOTC does not want to set a precedent of supporting

free fare for fear that unfriendly legislators will attack the whole RTA program for escalating costs and kill further subsidies. Therefore, EOTC would prefer to err on the conservative side if at all.

According to UMTA regulations, publicly subsidized authorities are prohibited from carrying school children on an exclusive basis or from competing with private school bus operations, with some specific exceptions allowed. In Massachusetts, however, substantial numbers of school children are legally carried on public transportation by the MBTA, Pioneer Valley, Southeastern, and Worcester RTA's. Analysis by EOTC showed that in Worcester alone, a savings of between $370,000 and $630,000 accrued to the city by transporting 4800 school children on WRTA regular routes rather than contracting with a yellow bus carrier.[13] Problems over transporting school children have arisen in the Worcester and Southeastern areas. Pressure by private operators in Worcester resulted in a competitive bidding process by the WRTA and yellow bus operators. Had the WRTA lost the right to carry the school children, not only would it have lost substantial subsidies at a time when its section 5 authorization was being quickly used up, but it would most likely have been forced to extend headways from 20 to 30 minutes, thus affecting its service capabilities.

In SRTA, the authority operates a "tripper" service, allowed under the law and defined as regularly scheduled mass transportation service that accomodates school children and personnel through fare

---

[13]Daniel Brand, Assistant Secretary of Transportation, "Financial Consequences of Carrying School Children on Regular Route Services Provided by RTA's," memo to RTA administrators, Boston, April 29, 1977.

collection and/or subsidy techniques. When federally assisted buses are used in this manner, they must continue to be designated as regular mass transportation. At the opening of the Greater New Bedford Regional Vocational Technical High School, SRTA altered a regular route in order to service the school. Four bus companies who had bid to provide bus service then entered a civil suit against the school committee and the RTA. No injunction was issued and the matter is still pending. EOTC analysis showed that the local share savings was $66,179 with the SRTA provided service.[14] EOTC's concern in this case is that no precedent be set that could hinder the financial positions of RTA's who do transport school children, thus affecting their ratings on the bond market and causing potential cash flow problems.

The RTA's are still in the infant stage, designing standard operating procedures, setting precedents, completing transportation planning documents and applying for federal aid. The common response among RTA administrators was that "next year" would be the year for improvement, the year that the authorities would be able to finish catching up and start progressing. The biggest frustration for the administrators is the lack of immediate feedback, especially from funding sources and providers of capital equipment. It would be an interesting task to continue to follow up on the feedback and trace the paths of progress.

Conclusion

Although the RTA's were all designed by the same state legislation, each has developed its own unique organizational style and procedures.

---

[14]"Affidavit of Daniel Brand in opposition to Plaintiff's Request

This is due, in part, to the vagueness of the legislation and the consequent result that each RTA exercises autonomy in the creation of by-laws, the method of operation, the provisions for contracts, and the extent to which it controls and regulates public transportation within its jurisdiction. Much of the choice in these matters is determined by personalities involved, particularly those of the administrator and Advisory Board members. Thus, generalizations among the RTA's are difficult to make and may be misleading as well.

In terms of policy-making, each RTA has been independent of the other, while reflecting the desires of its own member governments. The extent of policy-making has been limited in all RTA's due to the importance of daily operational decision-making and the demands of state and federal paperwork to secure subsidies. As pointed out by Smith, the unique organizational form of the regional transit authority as a special purpose government lends itself more to operating contributions than to planning and policy-making activities.[15] This applies in the present situation where each RTA has developed individually and according to demographic and geographic requirements for operating public transportation. For this reason, policy will be viewed on a case-by-case basis in those RTA's which were studied in-depth.

---

for a Preliminary Injunction," Plymouth County Bus Transportation, Inc., et. al. vs. Greater New Bedford Regional Vocational Technical High School, et. al., Bristol Superior Court, Massachusetts (1977), Attachment B.

[15]Robert G. Smith, Ad Hoc Governments--Special Purpose Transportation Authorities in Britain and the United States (Beverly Hills: Sage Publications, 1974), p. 241.

CHAPTER V

THE REGIONAL TRANSIT AUTHORITIES--A CLOSER LOOK

The eight RTA's which are presently in operation tend to be as varied as they are similar. To study these public authorities in depth, however, it is necessary to look at only a few of them as case studies and as possible examples of the other authorities. The three largest RTA's (Pioneer Valley, Southeastern, Worcester) are probably the most alike in extent of service, population, density, and land area. According to studies by the EOTC transit staff, the WRTA produces the best statistical indices in the state and offers a flexible transit program for the general public, elderly, and handicapped. However, WRTA has suffered from a union controversy, has little in the way of a marketing program, and many decisions are left to the bus company rather than being made by the RTA administrator and Advisory Board. SRTA, having the longest history of operation, has had the most impact on the communities, and the administrator is seen as a financial wizard offering good, traditional transit service. PVTA is the most complex of the large RTA's, being in a large, multinucleated area which necessitates numerous transit strategies and separate operational contracts with each area served. It offers extensive service to the elderly and handicapped populations. The administrator is a planner and politician and is seen as one of the top young public administrators in the state.

The remaining five RTA's have less in common. Brockton Area Transit is a section 3 authority with good ridership but very high expenses. It operates a pulse system where all routes meet in the "heart" of Brockton and begin their runs at the same time each circuit, thus allowing easy transfers. This system is highly visible, marketing techniques are flashy, and innovative programs serve special groups in the population. The administrator is seen as sometimes abrasive, but also productive. Merrimac Valley RTA operates service in only one small community despite the fact that its urbanized area is over 200,000 in population. Member communities are at war and Advisory Board members tie the hands of the administrator, denying him any discretion in route and schedule changes or budget items. Cape Ann Transit Authority operates in a non-urbanized area and is just getting its operations off the ground by changing operators and securing federal funds. Berkshire RTA provides service in the far western part of the state, a more rural and mountainous area with low population density outside the central city of Pittsfield. The administrator is a transit professional who took control only in the last year. Finally, Lowell RTA has the distinct disadvantage of providing transit service in an area formerly served by the MBTA under contract. The authority still operates under a cloud of suspicion generated by the high costs and often poor quality service of the MBTA. Only about half the region's population has elected to receive service because of the distrust and fear of escalating costs. The administrator is a transit professional recruited nationally.

The U. S. Department of Transportation has divided public transportation authorities into two groups. Urbanized areas of over 200,000

population receive funds as specified in the Federal Register paid directly from UMTA to the regions. These RTA's are Pioneer Valley, Worcester, Southeastern, Merrimac Valley, and the non-operational Greater Attleboro-Taunton RTA. Urbanized areas of under 200,000 population receive funds as specified by the governor of the state according to their needs and within a specified ceiling. These RTA's are Brockton, Lowell, and Berkshire. Authorities in non-urbanized areas, such as Cape Ann and the non-operational Cape Cod RTA, are not mentioned in this DOT classification.

Another classification system has been determined by the Massachusetts EOTC, which divides the RTA's by ridership of over or under one million per annum. Group A with over one million riders includes Southeastern, Pioneer Valley, Brockton, Worcester, and Lowell. Group B with under one million riders includes Berkshire, Merrimac Valley, and Cape Ann.

In choosing the specific RTA's on which to develop case studies, all of these classifications had to be considered: large or small operations; over or under 200,000 population; and over or under one million riders per annum. The final criterion for selection proved to be the most realistic: the willingness of the administrator to openly discuss RTA operations, progress, successes, and failures with an independent researcher. Considering these factors, the areas chosen for in-depth study are Pioneer Valley Transit Authority, Lowell Regional Transit Authority, and Berkshire Regional Transit Authority. They constitute one large and two small operations, one over 200,000 and two under 200,000 population, two over one million and one under one million ridership per annum, as well as three capable administrators who willingly offered their time, offices, and records to the researcher.

Pioneer Valley Transit Authority

Chapter 161-B named five cities and ten towns to become potential members of the Lower Pioneer Valley Regional Transit Authority (the name has been shortened to Pioneer Valley Transit Authority, PVTA, by act of the state legislature): the cities of Chicopee, Holyoke, Northampton, Springfield, Westfield, and the towns of Agawam, East Longmeadow, Easthampton, Hadley, Longmeadow, Ludlow, South Hadley, West Springfield, Wilbraham, and Amherst (see Figure 5.1). The Lower Pioneer Valley is a multinucleated region in which Springfield and Holyoke, and to a lesser extent Westfield, Northampton, Chicopee, and Amherst, have clearly defined central business districts. Growth has radiated outward from these centers, each of which serves as the focus of a market area supplying business and governmental services to its part of the region. Each supports efforts to maintain and enhance its own vitality. The multiple nucleation has tended to reduce the intensity of the region's major centers. Because central functions are dispersed among several centers, motor vehicle acces is less constrained by street capacity than elsewhere. Thus, the historical development pattern, the concentric growth around a series of Connecticut River communities, has limited both the reliance upon and the immediate potentials for public transportation.[1]

According to the 1970 census, the total population of the Springfield-Chicopee-Holyoke urbanized area (part of which crosses over to northern Connecticut) is 513,886. According to PVTA's own figures,

---

[1]Lower Pioneer Valley Regional Transit Authority, Application of the Lower Pioneer Valley Regional Transit Authority for an Operating Assistance Project under the Urban Mass Transportation Act of 1964 (Springfield, Massachusetts, 1976), p. 3.

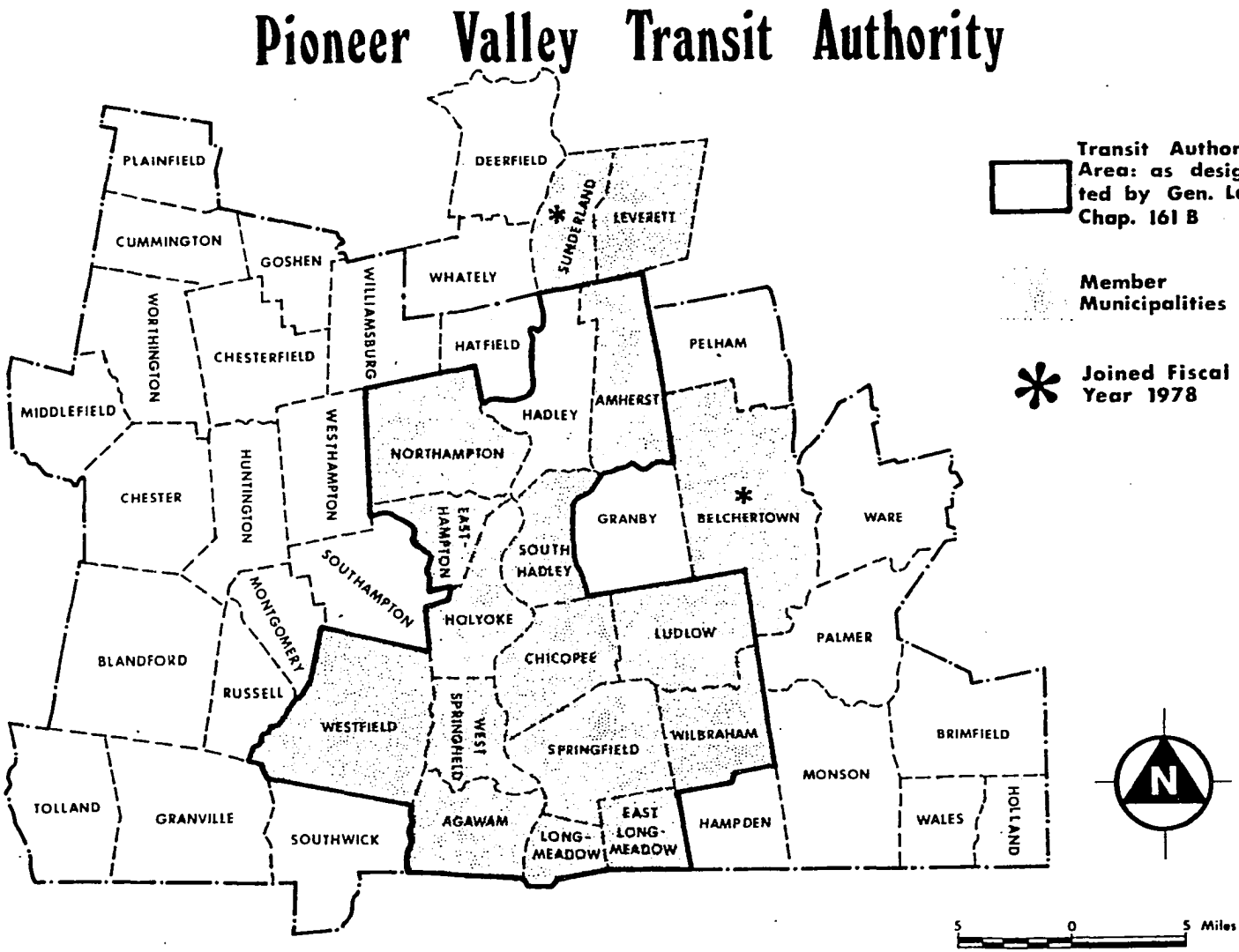


Figure 5.1: Pioneer Valley Transit Authority

Source: Pioneer Valley Transit Authority, "Annual Report of Operations, 1977" (Springfield, Massachusetts, 1978).

it serves a population of approximately 507,000. Census figures indicate that (1) there are 1.2 automobiles per household; (2) five per cent of workers make their work trip by public transportation; (3) 18.1 per cent of households own no automobile; and (4) population density equals 2,131 persons per square mile.

Public transportation in the Lower Pioneer Valley Region dates to before the turn of the century. The initial electric street railway in the region was Springfield's Forest Park line, operating in 1890. A few horsecar lines preceded the electric railway, but topography limited their extent. Between 1910 and 1923, Springfield served as the focus for a well-developed interurban rail transportation system. During the peak years of the trolley era, about 800 trolley cars operated over 516 miles of track in Western Massachusetts. Through the connections of individual municipal electric rail lines, it was possible to travel from Pittsfield in the far western part of the state, through Lower Pioneer Valley and Worcester, all the way to Boston by trolley car. Between 1907 and 1923, many of the municipal trolley lines were acquired and consolidated by the New Haven Railroad, but the Holyoke system, still operating today in the PVTA area, always has been locally owned and managed.

The motor bus first operated in Holyoke in 1921, and by 1940 it had completely replaced the interurban trolley in Lower Pioneer Valley. The bus shared the road with other motor vehicles, thus proving to be more efficient economically than the interurban electric car in the low-density suburbs which emerged in the twentieth century as a result of increased metropolitan mobility. As a matter of interest, the region had an early relationship with the automobile. Springfield is the home of

the first automobile, a steam-boiler propelled car invented in 1868 by Leander W. Langley. Between 1892 and 1915, the Duryea car, built by Charles E. Duryea, was produced in Springfield, the Knox car was built in 1900, and the Indian motorcycle was produced in the city between 1949 and 1950.[2]

Over the past several decades, the growth pattern in the Lower Pioneer Valley has reduced regional public transportation usage. Growth has been outward from the river valley, favoring suburban communities, while the central cities of the region have stabilized in population and in many cases have lost their priority in commercial establishments and development. New areas of development such as shopping centers and industrial parks are largely automobile-oriented. Shifting population patterns have continued the decentralization of homes, shopping, and work places, while rising family incomes and increased car ownership have reduced the dependence upon and utilization of the region's regular-route bus services.

The region's transit problems are compounded by the differing service needs of the various parts of the Lower Pioneer Valley, especially related to the sharp contrasts in population densities between the historic urban cores and the outlying rural communities. These problems were intensified by the marginal financial operations of the local carriers, the high age of the bus fleet, spiralling wages and fares, and the decline in public transportation patronage. On a typical 1971-1972 weekday, the region's bus routes carried about 21,000 adult regular-route riders and

---

[2]Lower Pioneer Valley Regional Planning Commission, Transportation Improvement Plan (Springfield, Massachusetts, 1976), p. 4.

another 19,000 regular-route school children riding on reduced rate tickets. Approximately 85 per cent of these riders could not have used a car for their trips, thus being considered as captive riders. Even so, patronage had declined from over 45 million passengers in 1950 to 10.2 million in 1971.[3] The companies offering transit service in the Lower Pioneer Valley were thus dependent on school and charter service subsidies in order to keep their transit lines in operation. The school contracts were viewed as cross-subsidies from the communities to the regular-route carriers. Without the school contracts, Springfield Street Railway, Holyoke Street Railway, Longuiel Transportation Company, and Western Massachusetts Bus Lines would have been forced to either cut service substantially or to discontinue their regular-route services entirely. However, in the absence of appropriate legislation, local control of this de facto subsidized service was difficult to implement.

Planning for local control of transit service had begun prior to the passage of Chapter 161-B. Following a financial crisis with the Springfield Street Railway, the Mayor of Springfield created a Transit Study Commission of ten members, including planners, local transit officials, and lay citizens of the city. They investigated the state of the Springfield Street Railway and presented suggestions to the city aimed at continuing service by whatever means necessary, possibly by way of a public authority. This local study was the forerunner of the region's first Transportation Development Plan which was begun in 1971 by the Lower Pioneer Valley Regional Planning Commission in conjunction with professional consultants at Wilbur Smith and Associates in New

---

[3] Ibid., p. 5.

Haven, Connecticut. The report was not published until 1974, nor approved until 1975, after the formation of the Pioneer Valley Transit Authority. In fact, the report suggested the formation of two RTA's in the study area, one to serve the northern end of the region, and one in the southern end. By this time, of course, the suggestion was moot. Although much of the work was outdated because of the long time period involved, suggestions for route changes, fare structures, and purchase of capital equipment could be utilized with an updating of financial data.

On August 20, 1974, the Pioneer Valley Transit Authority was formed with ten members: the cities of Northampton, Springfield, and Westfield, and the towns of Agawam, Amherst, East Longmeadow, Longmeadow, South Hadley, West Springfield, and Wilbraham. By 1975, fifteen communities were members including all those named in the legislation except Hadley, and also including the unnamed town of Leverett. The remainder of 1974 and all of 1975 were spent in the formalities of forming the authority, advertising for an administrator, writing by-laws, continuing with planning studies, and investigating the pros and cons of subsidy contracts with the local carriers.

PVTA's experience in hiring an administrator is indicative of the complexity of its whole operation. Mayor Sullivan of Springfield was named acting administrator from August until October 1974, stepping down at that time because the state forbade the administrator to be a member of the Advisory Board. Terry Tornek, chief planner for the city of Springfield, was then named acting administrator since he was not an applicant for the position. In the first national search for an administrator, the PVTA received 30 applications, none of which represented

applicants who were satisfactory in their knowledge of UMTA regulations nor ability to supervise a potential $11 million in federal grants authorized through 1980. In a second search, 35 applications were received and the top three candidates all refused the job after it was offered to each of them, possibly fearing the complexity of supervising a public authority in such a large and diverse area. Finally in April 1975, the position was offered to acting administrator Terry Tornek at a salary of $22,500. Tornek was then 29 years old and educated as an urban planner at Princeton and Columbia Universities. The local press characterized the new administrator by saying that the "worst that can be said about Tornek is that he has the arrogance of people who know they are going someplace."[4]

Progress and Policies

Very little visible progress was made during 1975 while the Advisory Board determined priorities and goals. The only contract enacted that year was for a reduced fare of 15 cents for elderly and handicapped passengers riding on the Springfield Street Railway. In terms of policy enactments, the PVTA took several steps. The Advisory Board adopted rules governing changes in routes, fares, and schedules which might be proposed by any public carriers operating in the PVTA area, whether under contract to PVTA or not. This authority had previously resided with the Massachusetts Department of Public Utilities in Boston, but under Chapter 161-B all regulatory power for regular-route transit was transferred to the appropriate RTA. In accordance with this newly adopted procedure, the Advisory Board approved a petition from the Springfield Street Railway

---

[4] Springfield Daily News, June 19, 1975.

for an exact fare system. The Board also initiated contract procedures for an experimental service in Ludlow and for doorstep elderly and handicapped services, already being provided in many member communities by the municipalities or local Councils on Aging. Finally, a $2.5 million budget was approved for the following year.

Having been critized in the press for merely subsidizing a very poor status quo, Tornek placed a high priority on informing the people about the activities and value of the PVTA. For all new service proposals, public hearings were required after two weeks legal notification to the citizens about the proposed change. If approved, the new service would be on an experimental basis for a period of 13 weeks and then would be reevaluated by community representatives, the administrator, and the Advisory Board prior to a final contract being enacted. In January 1976, the first contract for regular-route transit service was being considered with the Springfield Street Railway, the region's largest transit operator. A 14-page document was issued by the PVTA explaining the need for the subsidy contract, why public transit suffers losses, the potential benefits and the consequences for the member communities, and providing data about the company's operations. The most startling revelation to citizens was the fact that the local share for continued transit service in Springfield would total $400,795, while the Springfield School Department contract with Springfield Street Railway for contract school bus service could then be adjusted downward by more than $1.5 million, representing a savings in the city budget of over one million dollars. Besides this beneficial financial impact, the local residents could benefit by contributing to the planning for transit service changes and improvements through the PVTA.

Statement of Policies. The Advisory Board of the PVTA adopted a formal Statement of Policies in January 1976 to guide them in their decision-making and to inform citizens and transit operators on how proposals for service would be judged:

1. The basic goal of the PVTA is to maximize personal mobility throughout the region via public transportation.

2. In order to achieve this goal, the following objectives will be pursued, recognizing that some of them are potentially competitive.

   A. Service

      (1) Develop a comprehensive and coordinated public transportation system through the region.

      (2) Maintain existing transportation services where appropriate.

      (3) Provide new transportation service where appropriate and when it is desired by the community.

      (4) Emphasize service to "transit dependent" groups--old, handicapped, poor, young.

      (5) Modify existing routes and minimize duplication to increase efficiency.

      (6) Eliminate underutilized transportation service as a last resort unless there are special circumstances.

      (7) Examine the use of varied and innovative modes of mass transit.

   B. Financial

      (1) Generate additional ridership.

      (2) Minimize losses.

      (3) Maintain the lowest possible fares.

      (4) Minimize use of local tax-levy funds.

      (5) Assure that each community pays its fair share.

3. In selecting operators to provide service deemed appropriate when measured against the objectives listed above, the following general approach will be followed:

A. In evaluating the competing proposals to offer services, the Authority will consider cost and proven ability to provide high quality service as the primary criteria for making its selection. Other criteria including company garage location and special equipment may also be considered.

B. If there is a company operating on a route designated for expanded service, the Authority will give initial consideration to contracting with that company for new service.

C. If new service is contemplated on a route currently unserved, initial consideration will be given to companies operating in the service area.

D. Franchises granted by the Authority will be for no more than one (1) year, renewable by a vote of the Authority's Advisory Board.[5]

This procedure has led to the completion of contracts with five regular-route transit operators and twelve doorstep service agreements for elderly and handicapped citizens. Each contract is unique, providing for an 8.75 per cent return on invested capital, specifying a ceiling amount for wages and fringe benefits, and standards for services and amenities provided. The fact that PVTA must initiate so many separate agreements has been the major factor delaying service improvements. Contracts with Holyoke Street Railway, Longueil, and Peter Pan Bus Lines were only effected in 1977.

Free fare policy. The most controversial contract was negotiated with the University of Massachusetts Transit Service in 1976, leading to a policy enactment by EOTC regarding free fare public transportation. The University of Massachusetts had been providing bus service to the University community since 1969 when the Student Senate purchased vehicles. The service was open to anyone living on the transit routes

---

[5]Pioneer Valley Transit Authority, "Statement of Policies" (January 21, 1976).

whether affiliated with the University or not. Service was expanded in 1973 under a one-year UMTA demonstration project grant, the purpose of which was to test the free fare concept and to determine if high level bus service could reduce parking problems, traffic congestion, air pollution, and hitchhiking in the area. The experiment was successful. The service operated in the towns of Amherst, Belchertown, South Deerfield, and Sunderland, and was subsidized by funds from the University Senate, parking system, and University administration. Because of anticipated financial problems for fiscal year 1977, the University requested participation in PVTA through the member town of Amherst. The town was supportive of the petition because of the service provided to residents, the reduction of traffic congestion, air pollution, parking problems, and hitchhiking.

PVTA determined that participation by the University of Massachusetts system was possible since certificates were already issued for use of the routes, but PVTA required that the system's charter operations must be restructured in order to separate charter from regular-route costs. The controversial issue was over the free fare concept against which EOTC has taken a strong position. EOTC policy states that transportation services are expensive, and if worthwhile, the users should be prepared to pay for them. Moreover, the introduction of free fare on a wide scale would generate unacceptably high costs for the state. However, free fare was strongly backed by the users of the service and by the townspeople of Amherst. Experience in other communities had shown that the introduction of a ten cent fare would result in 30 per cent loss of ridership. The institution of a fare collection system would cost from five to eleven

cents for each fare collected. The cost per ride of the University system was only 13 cents owing to the utilization of part-time student drivers, and the absence of any profit or taxes paid.[6]

The state did not mandate a fare but enacted a policy regarding any free fare system for the general public. The state agreed to participate in the service, paying what would amount to its 25 per cent share assuming that a fare had been charged. The present agreement with the University of Massachusetts system requires payment by the University of 35 per cent, to include the 25 per cent local share and 10 per cent to equal the potential income from fares, payment by the state of 15 per cent, and includes the 50 per cent federal share, paid on those routes which are within the PVTA area. Continually rising costs for the system in 1977 might have led to the reduction or withdrawal of some service in non-PVTA communities. It was this threat which motivated Belchertown, home of many University of Massachusetts students and employees, to join the PVTA. Since joining, the town has also seen the improvement and addition of other regular-route service.

UMTA policy problems. In addition to the time required to write the multiple contracts, another delay has been the result of federal red tape. Although applications for both section 3 and section 5 funds were filed in 1976, months passed without any action being taken. When Tornek travelled to Washington, D. C., in late 1976 and threatened to "sleep-in" at UMTA until funds were released, the PVTA became the first RTA in the state to receive its section 5 allotment for operating expenses. The

---

[6]Pioneer Valley Transit Authority, Minutes of Meeting #26 (Chicopee, Massachusetts, May 12, 1976).

section 3 allotment for new equipment was approved earlier, but PVTA found itself caught in the middle of a lawsuit between several bus manufacturers and UMTA over the UMTA approval of an advanced-design bus built by General Motors. The other manufacturers charged that UMTA had effectively locked them out of competition for new bus production by the singular approval given to General Motors. The dispute was finally settled in 1977, but PVTA was only one of many transit authorities nationwide which then had to wait in line for production and delivery of new equipment, anticipated to be at least a year later. In turn, this delay caused another delay in the advent of a major marketing campaign. PVTA and the Lower Pioneer Valley Regional Planning Commission had contracted with Wilbur Smith and Associates for a marketing study which was completed in 1977. It was the opinion of the Advisory Board, however, that until the product became more marketable, meaning the appearances of the buses which are the most visible product of PVTA, a marketing campaign would be money wasted.

Elderly-handicapped policy. A highly visible success, again involving policy negotiations over free fare with EOTC, has been in the area of elderly and handicapped doorstep service. In many communities within the PVTA area, limited transportation was already available to the elderly population through the local Council on Aging, either funded through its own budget or through the city. Under contract to the PVTA, service was expanded, new equipment was received, and local costs were greatly reduced. The state, through EOTC and the Inter-agency Advisory Committee, annually evaluates each individual proposal for special transportation services through RTA's. In a five-page questionnaire, the RTA

or Council on Aging must justify its service and must score 200 or better on an evaluation sheet with 300 possible points in order for the state to agree to fund the service. This does not affect the 50 per cent federal funding. All 12 of the PVTA contracts have received state funding.

The state's criteria and questionnaire focus on several issues, however, which had not previously been addressed by agencies providing transportation for the elderly. The state requires that doorstep service must serve non-elderly handicapped which are not normally served by Councils on Aging. If the agency prefers not to serve this group, state and possibly federal funding are both imperilled. All new vehicles purchased through PVTA must be lift-equipped which expands the capacity to serve the handicapped. The inclusion of this consumer group raises other issues: competition with local profit-making transportation services for the handicapped, the need for trained drivers familiar with the emotional, physical, and emergency needs of the handicapped, and the potential for more demand than the service can meet. In PVTA, all agencies under contract have agreed, though many reluctantly, to offer service to the elderly and to all handicapped persons.

Both the state and federal governments are interested in the use of taxi companies for paratransit services. The agencies requesting funding for doorstep service must indicate why taxi companies are not well-suited to provide the service at a lower cost. The state also emphasizes alternate funding sources and requires that the agencies investigate the availability of such sources as welfare, medicaid, or specific allocations through the U. S. Department of Health, Education and Welfare or the U. S. Administration on Aging to combine with PVTA

funds. Finally, the state requires that the agencies include consumers in their planning and outreach methods for the transportation service.

The strictness of the state criteria for funding led to the formulation by PVTA of a definition of handicapped. This two-page definition begins with the statement:

> "Handicapped person" means any individual who, by reason if illness, injury, age, congenital malfunction, or other permanent or temporary incapacity or disability, including those who are nonambulatory wheelchair-bound and those with semiambulatory capabilities, is unable without special facilities or special planning or design to utilize mass transportation facilities and services as effectively as persons who are not so affected.[7]

The definition goes on to outline functional incapacity, administrative criteria for eligibility, certificating procedures, medical criteria, and finally a negative statement of five incapacities not considered under the definition for handicapped. The PVTA reserves the right to have its own physician examine any applicant for reduced fare services at PVTA's own expense. The state also required the calculation of a "phantom fare." Adhering to its policy against free fare service, the state pays its share after an adjustment which would assume that a 25 cent elderly or handicapped fare had been paid.

To date, the elderly and handicapped services are those which have profitted the most from the creation of PVTA. While most of the services predated the authority's existence, several new services were begun as a result of PVTA funding and several existing services were expanded. In Northampton, for example, the Council on Aging is paying approximately the same amount (adjusting for inflation) for fiscal year

---

[7]Pioneer Valley Transit Authority, "Proposed PVTA Definition of Handicapped" (April 1976).

1978 as it did in fiscal year 1974 before the PVTA contract. For this cost, the Council has received two new vans to replace the one used in 1974, has expanded hours, and hired more drivers. Each local contract is executed only after a public hearing is held in the community to elicit citizens' suggestions. In some communities the elderly and handicapped service is virtually the only mass transportation available, and it performs a vital role in overcoming the lack of mobility and isolation suffered by senior citizens and the handicapped.

Decision-Making

Official decision-making is carried out by the Advisory Board to the PVTA which is made up of the head of each member government or his/her specific designees. Formally, agenda items are voted upon by means of a weighted vote determined by the formula: Vote of the Community 'y' = $1 + (1\frac{1}{2} \times 16 \times \frac{\text{Assessment of Community 'y'}}{\text{Total Assessments}})$. The exact weight of the vote changes with each annual assessment or at the time that a new city or town attains membership. A city which pays no assessment at all has at least one vote. According to Chapter 161-B, a member which does not receive any transit service is not liable for any assessment. In the PVTA area, the only member presently not receiving service is Leverett, but the town voluntarily pays a minimal assessment to cover PVTA overhead expenses and hopes to see service expanded to Leverett when new equipment is received. Although the city of Springfield has by far the greatest assessment, it does not have a majority vote on the Advisory Board itself. One fear that northern towns felt at the time of PVTA formation was that Springfield would control the authority; this has not been the

case. The Advisory Board member from Springfield is a designee who maintains a low profile on the Board and has not served as the Board chairman.

The chairman of the Advisory Board is elected annually by the Board members. The custom has prevailed that the chairman should be an elected representative of his/her local government rather than a designee. The Advisory Board meets monthly in locations which rotate around the region. It is an active Board which considers all operational and policy issues to come before the PVTA. Since the region is so diverse in its topographical and demographical make-up and needs, often the Board members rely on the advice of the administrator or the representatives from the municipalities to be affected most when making particular decisions. While parliamentary procedure is observed in meetings, discussion is informal and voting is often by consensus. Even in cases where dissenting votes are cast, rarely is there a need to resort to computation of the weighted vote to determine the results. Regional concerns are given the most consideration over local desires when the commitment of federal and state funds is involved. A provincial attitude prevails that a project should be worthwhile if federal monies are to be received--the decision becomes one of whether to spend federal money, not how. For instance, the proposal for an experimental shuttle service from fringe parking to downtown Holyoke during the repair of downtown streets received opposition and heated debate from other members of the Advisory Board because of the projected high costs for a short-range service of questionable value, despite Holyoke's desire and obligation to support the entire local share assessment. In final voting, the service was

allowed, but it died before becoming operational when the Holyoke Chamber of Commerce declined to pay for the fringe parking facilities.

Of the three RTA's studied in-depth, the PVTA had the most involved and informed Advisory Board members. Questionnaires (see Appendix B) submitted by the researcher to the 15 members in April 1977 elicited 14 responses, a return rate of 93 per cent. Because of the great diversity among the member towns, it is difficult to rate responses concerning municipal problems, priorities, and goals. In only one case, however, was transportation rated as a very serious problem and a most important priority. In general, it was only "fairly serious" as a problem and a mid-range concern, after (1) industrial and economic development, (2) housing, building, and zoning, and (3) education and schools. Local priorities were ranked as (1) seeing to it that the city has a government which is efficient, honest and economical; (2) seeing to it that this city becomes a very attractive place to live with good residential areas and pleasant community facilities; and (3) seeing to it that this community has a good climate for business which would encourage economic growth as well as seeing to it that the city is a place where citizens play an active role in government. As a priority, transportation ranked sixth out of seven.

Concerning input into their decision-making process, Advisory Board members indicated that they were most frequently approached by (1) city officials, (2) merchants, and (3) individual, interested residents about the PVTA's activities and problems of public transportation in general. In making policy decisions on the Advisory Board, the opinions and needs of (1) the elderly, (2) the RTA administrator, and

(3) local businessmen were given the greatest consideration. In approximately half of the PVTA member communities, some opposition or controversy has been felt toward the PVTA, in most cases concerning costs. In the two towns where opposition has been loudest, South Hadley and Ludlow, the PVTA has been soundly supported by public hearing or referendum.

Approximately half of the members also indicated that their local goals are not yet being met by the PVTA. Specific goals vary, but general agreement was felt that the PVTA should (1) expand service, as well as (2) maintain public transportation. As discussed previously, the time lag for delivery of new equipment in order to expand service is the cause of much dissatisfaction.

Impact

While the questionnaires reveal that eight respondents could see no impact as a result of PVTA's three years of existence, individual interviews brought out more positive views. Other questionnaires show agreement that the elderly had felt the greatest impact and that the state and federal subsidies were another boon. All respondents agreed that tremendous beneficial impact will be felt when the new equipment is on the roads, allowing for expanded service, visible progress, improved image, and a much more pleasant ride for the standard fare.

Administrator Terry Tornek has been frustrated and troubled by the fact that the multinucleated region requires numerous contracts with the local operators, each of which includes separate union negotiations and completion of the 13(c) agreements. In his tenure as administrator, he has developed good rapport with the operators, local unions,

his Advisory Board, and through them the local governments (which he feels are generally disinterested as long as costs are reasonable). He relies on the regional planning commission for almost daily advice on technical matters and interpretations of federal regulations. He is pleased that the RPC is rapidly building its in-house capabilities for transit planning. He finds relationships with EOTC generally cordial, though he would appreciate more technical advice. However, Tornek classifies UMTA as an administrative nightmare which fails in its one and only purpose of funneling money to the transit authorities.

Tornek sees a social impact primarily for the elderly and handicapped of the region who are no longer captive in their homes. Economically, suburban costs have risen in the payment for transit services which formerly were free, although costs for Springfield have been greatly reduced because of the elimination of the school bus cross-subsidy. Politically, Tornek himself has been the target of statewide legislation prohibiting an administrator from holding a local, elective office. Many in the region feel this came about because Tornek was a progressive outsider making waves in the fairly conservative, provincial Springfield. As for the PVTA, the political impact has been felt only in South Hadley and Ludlow, where PVTA advocates were able to squelch secessionist sentiment.

Former Advisory Board chairman Tom Grucci (West Springfield) feels that the greatest, though often unrecognized, impact of PVTA is that it kept the bus companies in business at a time of financial crisis. Also important is the availability of low-cost or free service to the elderly. Grucci would, however, like to see more regional coordination

of routes. Current chairman John Lovejoy (Wilbraham) feels, however, that in the more conservative western part of Massachusetts where PVTA operates, any regionalism is feared as a step toward regional education. The very fact that PVTA has succeeded as a cooperative regional authority is therefore important. Robert Oakes, designee from Springfield, points out that local service has not only been maintained, but improved. A system of commuter passes was implemented, system maps were printed, reduced fare for the elderly was implemented, and passenger amenities such as bus stop signs and bus shelters have been installed. Another benefit of PVTA came about as a result of a finding in 1973 by the Environmental Protection Agency that Springfield's air quality was below the standards mandated by the Clean Air Act. Fringe parking was provided by the city outside the central business district, and PVTA later began the "10-Centre" service which runs every ten minutes from the fringe parking through the center of town for a fare of ten cents. The parking is free and guarded, and the shuttle bus makes the business district highly accessible and less congested.

Jeff Spear, designee from Northampton, is concerned with more long-term goals and is frustrated by the short-term plans and programs given first priority. He feels that elderly service has been highly successful, but that the regular-route service operators must improve their internal management to reduce deficits. Jim Hunter, designee from South Hadley, agrees that the problems affecting the RTA's are a result of non-businesslike procedures. He regrets that, for his community, the PVTA has cost a lot without showing much in the way of beneficial results. South Hadley is unique in having an all-volunteer Council on Aging transit

service for the elderly with very low costs. Regular-route service by the Holyoke Street Railway has been unreliable, but the newly-negotiated contract with PVTA could bring improvements.

Among transit operators, the management of Springfield Street Railway has felt the most impact. William Fox points out that, since the formation of PVTA and the contract for service, the company has had the stability necessary to make internal improvements. The PVTA's regulatory powers allow for immediate, well-planned changes and greater flexibility than previously allowed by the Department of Public Utilities. Through PVTA, service has been expanded, elderly fares reduced, and publicity efforts for transit increased. Bob Godding of the University of Massachusetts system acknowledges that PVTA enabled the system to continue operation, while the expectation of new equipment allowed the staff to plan for extended service. He notes, however, that PVTA contracts demanded more rigid bookkeeping and the reporting of detailed figures.

Officials at Longueil, Peter Pan, and Holyoke Street Railway are more reserved in their comments, as their contracts had been newly negotiated, but praise PVTA for its regulatory functions. To some extent, the attitude prevails that "if you can't beat them, join them." All note an increase in record-keeping and a loss of autonomy in negotiating with their employees, whether union-affiliated or locally organized. Louis Pellisier of Holyoke Street Railway comments that the union was trying "to kill the goose before it becomes pregnant, much less lays the golden egg." On the other hand, the company offers the opinion that PVTA is not the Godfather, giving away public funds as if the sky were the limit.

Union officials from the Springfield Street Railway, however, are more willing to compromise and feel that the PVTA had little to do with their negotiations with the company. In fact, however, Tornek had given the company a ceiling amount which could be offered, but the union negotiated only with company representatives. The local union members believe that the PVTA has helped the patrons but that the union members would not see benefits from PVTA formation until after the new equipment arrives.

Potential

The universally held belief throughout the region is that the success of PVTA will only be felt when the new equipment arrives. At that time, with contracts negotiated, tested, and improved, with planning studies up-to-date, and expansions ready to be implemented, then the citizens will see what PVTA can do. The outlook from those vitally involved is optimistic, if impatient, that "next year" will be the year for PVTA to prove itself, to determine if policies are adequate and workable, and to determine whether subsidies are well spent.

Lowell Regional Transit Authority

Included in the Lowell Regional Transit Authority (LRTA) by Chapter 161-B were the city of Lowell and the towns of Dracut, Westford, Billerica, Tewksbury, Tyngsborough, and Chelmsford (see Figure 5.2). The city of Lowell has a long history as an industrial center and is referred to as the "Concord Bridge of the industrial revolution." From the early nineteenth century and for the next hundred years, the city was alive with immigrant men and women supporting the "Textile Capital of

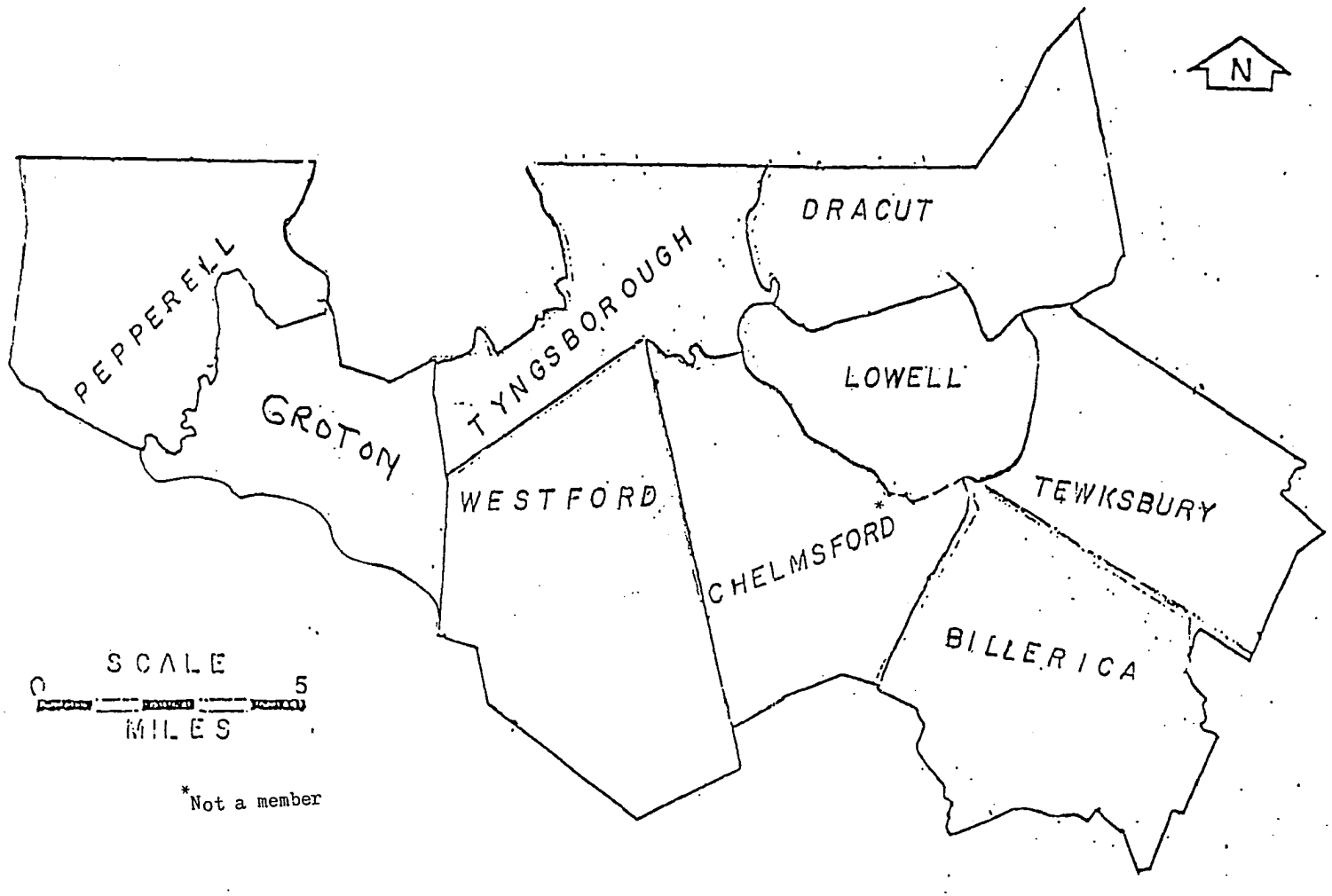


Figure 5.2: Lowell Regional Transit Authority

Source: Northern Middlesex Area Commission, "Journey to Work Zones" (Lowell, Massachusetts, 1977).

the World." Lowell supported its manufacturing by an intricate system of locks and canals which provided water power and transportation. Following the Great Depression of the 1930's, however, much of the industry moved elsewhere, leaving behind the empty factories, houses, and failing businesses. The newer towns surrounding Lowell serve as bedroom communities for the ever-expanding city of Boston. Residents are generally white, high income, white-collar professionals who live outside the city of Boston to escape the expense and congestion of the big city. Thus, the region has been in Boston's shadow for most of its existence and has had little precedent for local decision-making and planning on public issues.

Total population for the Lowell urbanized area is approximately 182,000, with a population density of 2,943 persons per square mile. Lowell alone, the only member of LRTA receiving regular-route service, accounts for half of the population, 94,280. Census figures from 1970 indicate that regionwide there are 1.1 automobiles per household, that 2.7 per cent of workers make their trip by bus and 1.0 per cent by commuter rail, and that 19.4 per cent of households own no automobile.

Public transportation in Lowell dates to the beginning of the century. During the first half of the century, the Bay State Railway and its successor, the Eastern Massachusetts Street Railway, operated an extensive regional and interregional trolley service. Lowell, Billerica, Chelmsford, Dracut, Tewksbury, and Tyngsborough were linked to Ayer to the west (in the middle of the state), Nashua, New Hampshire, to the north, Lawrence to the east, and Boston to the south. Evolution of such a large network was prompted by residential, industrial, and commercial

growth. The extension of trolley service to areas of development in turn contributed to additional growth because of the convenience of transit.[8]

During this time, the automobile was considered to be a luxury, and even those few who could afford a car often preferred transit for work trips. After World War II, however, the situation changed dramatically. Home owning became increasingly affordable and new housing consumed available land over a dispersed area. Lower density, suburban areas were not attractive transit markets, and operators were reluctant to extend routes for a lower return of revenue-per-mile of operations. As a result, suburban dwellers turned increasingly to automobile use, and ownership soon became a necessity. In turn, this cut sharply into transit patronage, and as revenues dropped, less money was available to replace older equipment, leading to a further deterioration in quality of service and a further decline in ridership.

In 1968 Boston's Massachusetts Bay Transportation Authority (MBTA) purchased the assets and rights of the Eastern Massachusetts Street Railway as part of an extension of its "Red line." As part of the sales agreement, the MBTA agreed to provide service to all Eastern Massachusetts Street Railway communities as long as requested to do so. However, faced with increasing subsidies, all communities except Lowell eventually withdrew to subsidize private carriers with reduced operating schedules.[9]

---

[8]For an excellent explanation of this urban growth pattern see K. H. Schaeffer and Elliot Sclar, Access for All--Transportation and Urban Growth (Baltimore: Penguin Books, Inc., 1975) or Sam B. Warner, Streetcar Suburbs (Cambridge: M. I. T. Press, 1962).

[9]Lowell Regional Transit Authority, Operating Assistance Application FY 1975, (Lowell, Massachusetts, 1977), pp. 44-45.

From the first introduction of regional transit authority legislation, Lowell had a staunch advocate in the efforts of area legislator Raymond Rourke. It was not surprising, then, that in May 1974, the Lowell Regional Transit Authority was formed with members including the city of Lowell and the towns of Billerica, Dracut, and Westford. A subsequent opinion from the state's Attorney General held that the towns of Tewksbury and Tyngsborough were also to be considered as members of LRTA since they had not specifically voted against joining the Authority prior to its formation. Of those communities eligible for membership, only Chelmsford explicitly voted not to join. Subsequently, in 1976, the adjacent towns of Pepperell and Groton joined the LRTA. The regional planning commission, Northern Middlesex Area Commission (NMAC), had been the motivating factor in LRTA's prompt formation, and for some time the Advisory Boards of the two agencies appeared to be interlocking in membership. In July, 1974, the Adivsory Board advertised for an administrator while continuing bus service with the MBTA contract through June 30, 1975. There appeared to be no urgency since service was already offered and the contract with MBTA merely shifted from local supervision to LRTA supervision. Applications were received from 160 persons and the screening process continued until November 1974 when Paul M. Martinek was named administrator at a salary of $24,000. The next seven months were spent in the writing of by-laws, budget planning for fiscal year 1976, and initiation of contracts for schedules and maps to be printed, as well as for transit planning to be conducted by the NMAC.

Transportation planning for the Lowell region had always been carried out by Boston's Metropolitan Area Planning Council (MAPC) since

the region was considered merely a suburb of Boston. Little or no local input was provided, and transportation priority was given to highways in order to get commuters to Boston, rather than to get people to Lowell or around within the region. With the advent of 3-C planning, some local initiative was begun, and in 1969 a bus study was completed by NMAC to look at alternatives for providing public transportation. When the Transportation Development Plan (TDP) was contracted for 1975, the 1969 study was merely expanded and applied to the organizational concept of the LRTA. The TDP was completed and approved in 1976, meeting the UMTA requirement for a planning document prior to the receipt of federal funds for capital equipment.

Fiscal year 1976 saw little more progress for LRTA than did 1975. The status quo seemed to be acceptable to the administrator and Advisory Board. The MBTA served 12 routes within Lowell and one route from Lowell to Boston. This service was under contract through the LRTA, and the local share was subsidized completely by the city of Lowell. Private operators provided limited service without LRTA subsidy from Billerica, Dracut, and Tewksbury to Lowell, and no service was available in Tyngsborough and Westford. Local Councils on Aging or non-profit agencies had limited service to their clienteles. Monthly, the administrator requested an advance payment from the state Treasurer to meet contract obligations, despite the fact that interest on these advances could not be included in net cost of service for reimbursement. Only once was the private financial market tapped for the sale of $225,000 in revenue anticipation bonds. Despite mounting costs, no efforts were made to apply to UMTA for section 5 funds to pay for operating expenses.

In February 1976, maintaining the status quo was no longer possible. The MBTA notified LRTA that effective late June it would no longer be available to provide transit service in the Lowell area. Subsequently, Administrator Martinek tendered his resignation effective March 1, 1976. Joseph P. Hannon, director of the Northern Middlesex Area Commission, was named interim administrator and national advertising for the position was begun. From over 100 applications received, James L. O'Sullivan was selected as the new administrator effective June 1, 1976. O'Sullivan came from the Syracuse, New York, public transit system where he had four years experience coordinating elderly-handicapped programs, working as government liaison on projects and grants, and finally as coordinator of project development. He possesses a Masters degree in Public Administration concentrating in urban development and management science. He came to LRTA with high goals and innovative ideas and took over the authority at a time when it had nowhere to go but up. The progress it has made can be largely attributed to his expertise and determination.

Progress and Policies

When O'Sullivan took over in 1976, a new contract was being negotiated with LoLaw Transit Management, Incorporated, a subsidiary of Trombly Motor Coach of North Andover, Massachusetts. LoLaw would serve only as a management firm while the LRTA would lease all capital equipment and facilities from the MBTA. A reasonable rate of return was negotiated as a management fee of not more than $55,000 annually. LoLaw took over the 12 intra-city routes while Trombly applied for rights on the Lowell to Boston run to be operated without subsidy. The run was

the only profit-making route, but LRTA could not regulate it since it went out of the LRTA region and came under Department of Public Utilities jurisdiction. On June 20, 1976, a smooth transition was made from MBTA to LoLaw-operated transit service. At the same time, another contract for elderly service in Westford and Pepperell was enacted with Leasing Systems Development Corporation, a subsidiary of Marinel Bus Company, of Chelmsford, Massachusetts. LRTA agreed to pay ten dollars an hour for the service, to include a variable rate of return based on usage.

LRTA goals. Only after O'Sullivan arrived did the LRTA Advisory Board take the time to articulate some goals and specific objectives for reaching those goals. O'Sullivan recognized that the LRTA must first establish its credibility with the public and divorce itself from the shadow of the MBTA's poor performance and high expenses. Therefore, for fiscal year 1977, the highest priority was given to improving the current level of transit service including on-time performance, public timetable availability, cleanliness of vehicles, and improved driver safety and courtesy. The LRTA then desired to: (1) modify routes and provide new service to better serve the needs of the residents of the community; (2) apply for and receive needed federal operating assistance; (3) file applications to upgrade the capital equipment for the system including new buses, bus shelters, bus stop signs, maintenance equipment, and for the planned Gallagher Transportation Terminal; and (4) broaden the authority's responsibilities in the neighboring towns.

When the Transportation Development Plan was completed in July 1976, it also presented a cautious approach by recommending the minimum

option as the preferred alternative for development in the first two years of the plan. In effect, this represented the contracts already initiated for service in Lowell, Westford, and Pepperell. In the third year, mid-range improvements were recommended with modest extensions of service into the towns of Billerica, Chelmsford, Dracut, Tewksbury, Tyngsborough, and Westford, offering regular-route as well as elderly handicapped services. Caution was advised in order to recognize "the need to allow the several suburban towns sufficient time to observe the costs and benefits associated with administrative reorganization and system revitalization."[10]

With the smooth transition of administrators and carriers, the first six months of fiscal year 1977 were spent in paperwork, while the transit system continued operation on 12 intra-city routes with minor route changes to better serve residential areas. When the MBTA withdrew service, the city of Lowell was also left without a school bus service which the MBTA had provided. Federal legislation prohibited the LRTA from operating school bus service off its main routes, but O'Sullivan offered his expertise to the school committee to develop a transportation plan and review bids for the service. The LRTA and LoLaw Transit Management, Incorporated, began work on a management reporting system which would implement and computerize the federal Project FARE (Financial Accounting and Reporting Element). In addition to collection of the data required by UMTA, other financial, and operational statistics were programmed which would aid in scheduling modifications and improvements. A subsidiary of LoLaw, the Microsystem Engineering Corporation,

---

[10]Northern Middlesex Area Commission, Preferred Alternative of Comprehensive Transit Development Program (Lowell, Massachusetts, 1976), p. 1.

developed a program applicable to all RTA's in the state in an effort to sell a standardized package. LRTA became the first RTA to convert to computerized data collection for FARE in December 1977.

In February 1977, a ridership survey was conducted which heartened the Advisory Board and administrator of LRTA and justified further initiatives. The results showed that 85 per cent of the respondents felt that service had improved since LoLaw took over, 90 per cent felt that the drivers' performances had improved, and similar satisfaction was reported for cleanliness of the vehicles, on-time performance, and schedule availability. Good results brought a request for service from the town of Billerica and planning began for an elderly service in Lowell as well as extension of the special service in Westford. By the end of O'Sullivan's first year, ridership was up by some ten per cent, and a significant decrease in operating costs had resulted from the change in carrier.

Personnel policy. With progress came problems, and hence a need for policy-making which had been nearly non-existent in the first three years of LRTA existence. Until August 1977, the LRTA staff consisted only of O'Sullivan. His progress was greatly hindered by time constraints and by the fact that the LRTA was considered by some to be merely an extension of the Northern Middlesex Area Commission. In fact, LRTA offices were located within the NMAC offices, and secretarial services were procured under contract from NMAC. O'Sullivan persuaded the Advisory Board that a move was desirable and a larger staff was a necessity. In August, office space was secured for LRTA in the heart of Lowell, overlooking the main square where several bus routes began and in an accessible place for

citizens. At the same time, a secretary was hired, and in September, an assistant to the administrator joined the staff. In addition, the city provided LRTA with one CETA (Comprehensive Employment and Training Act) worker to coordinate special projects for the elderly and handicapped. With this manpower, O'Sullivan was able to make LRTA the autonomous agency it was designed to be, working in conjunction with the RPC but not at its command, and making policy applicable to regional transportation. It also required the enactment of personnel policies regarding conditions of employment and fringe benefits. The input of two women on the LRTA Advisory Board produced a written, rather than implied, affirmative action policy for the authority as well.

Maintenance of effort policy. Finally, in 1977 the grant applications for both section 3 and section 5 funds were prepared and submitted to UMTA. The section 3 application requested funds for new capital equipment based on projected needs in the Transportation Development Plan. A separate section 3 grant would be filed for the proposed transportation terminal. The section 5 application requested operating funds for as far back as fiscal year 1975. While the state contract for operating assistance had been negotiated and paid annually, the federal paperwork had never been initiated by the previous administrator, and revenue anticipation notes were continually turned over to finance the 50 per cent payment available from the federal government. Payment for the time of the MBTA contract through fiscal year 1976 was uncontested. The application for fiscal year 1977, however, was delayed because of an UMTA policy termed "Maintenance of Effort." In effect, this requires that local and state payments must not be less for any one year than their average

payments for the preceding two years. For fiscal year 1976, the net cost of service for LRTA totalled $1,136,790 with 11½ months contracted to the MBTA. For fiscal year 1977, contracted entirely with LoLaw, the net cost of service for the same 12 routes totalled on $603,918. Despite nearly a 50 per cent reduction in costs, the state and local shares must remain the same. LRTA argues that it should not be penalized for making efficient, cost-reducing management decisions which do not reduce service. For one year, LRTA and EOTC have joined together to request an exception to UMTA policy. The present tentative response is negative. O'Sullivan indicates that rather than lose his "due" of the federal pot, he will increase overall expenses by making one-time purchases, such as an increase in parts inventory, an extensive marketing campaign, free promotional service, or an investment in a management information system package. These expenses would not build up long-term financial commitments which service extensions would, but would figure in the yearly balance for net cost of service. It appears, however, that LRTA and the state are locked-in to paying more than their shares until the time that costs again reach the fiscal year 1976 level.

Commuter rail policy. Another financial controversy arose out of the transfer of the MBTA contract to LRTA. A contract between the town of Billerica and the MBTA for commuter rail service was originally assigned to the LRTA with the belief that a portion of the cost of the service would be reimbursable to the Authority as state contract assistance under Chapter 161-B. Under this assumption, LRTA made a payment of $1,756.87 to the MBTA for the service. Subsequently it was notified by the Secretary of Transportation that an expenditure for commuter rail was

not eligible for contract assistance. When Billerica was contacted by LRTA requesting repayment, the town voted down the payment at two town meetings. As of September 1977, this controversy with EOTC had still not been settled, although the LRTA claimed that the bill had been paid pursuant to a valid assignment of contract between the MBTA and an authority member. By November, however, it appeared that EOTC was about to change its policy. Unrelated to RTA involvement, the state accepts responsibility for 75 per cent of the cost of all commuter rail with local municipalities paying 25 per cent. By allowing RTA's to participate in the regulation of commuter rail services, additional state and federal funds would become available to municipalities. In effect, state payments would also be decreased. For instance, considering funding sources per $100,000, the state would currently pay $75,000 under the legislation provided for "State Rail," and the local payment would amount to $25,000. With regulation and contracts through RTA's, out of $100,000, UMTA would pay 50 per cent or $50,000. Of the remaining net cost of service, the state would pay $37,500 under the provision for 75 per cent payment for State Rail. An additional $6,250 under the Chapter 161-B contract assistance of 50 per cent of the remaining net cost of service would also be paid, to equal a state payment of $43,750. The local cost would then be only $6,250, as the RTA's 50 per cent share after federal and other funds are deducted. For financial reasons, LRTA is pursuing a contract with the MBTA for the continuation of commuter rail through Lowell and Billerica, where approximately 800 persons daily board the train for Boston. LRTA participation may also stimulate increased attention to greatly needed improvements for passenger comforts and convenience, such as heating, air-conditioning, and proper scheduling.

Eminent domain policy. The proposed transportation terminal will also be an improvement for those dependent on commuter rail in Lowell. This project was inherited by LRTA and has become one of its most time-consuming. The proposed Gallagher Transportation Terminal involves not only LRTA and the city of Lowell, but the Executive Office of Transportation and Construction, the Bureau of Building Construction, the Department of Public Works, the Urban Mass Transportation Administration, the Massachusetts Bay Transportation Authority, the Boston and Maine Railroad, and the design firm of Skidmore, Owings and Merrill. Unresolved issues have delayed the project so that the $3.8 million cost estimate from 1974 has now been adjusted to $5.2 million, anticipating construction costs for 1979. The outstanding policy issue is whether or not the LRTA has the power of eminent domain. An early draft of the legislation creating RTA's specifically prohibited such powers, but the final version of the bill made no reference. LRTA requested that EOTC seek an opinion from the Attorney General on the question, an action which EOTC is hesitant to take.

> We feel that this would not be the most appropriate time or context for this Office to seek a definitive ruling on this issue. Our understanding is that LRTA may well be able to acquire the properties necessary for the Transportation Terminal by purchase or other arrangements, and we have urged the LRTA to proceed in that direction. If the LRTA's objectives can be accomplished in this manner, we would much prefer not to set a binding precedent with respect to all of the RTA's. The policy of the Attorney General and the Governor is that we avoid unnecessary requests for opinions on matters which can be otherwise handled by Executive Offices or their agencies and authorities. I believe that this is such a case.[11]

---

[11]Letter from Marilyn Newman, Legal Counsel to Executive Office of Transportation and Construction, to Edward J. Owens, Legal Counsel to Lowell Regional Transit Authority, Boston, January 6, 1978.

LRTA officials are not happy with this non-policy-making approach. In applying for the federal or state grant money to build the terminal, the authority must certify that the grant recipient has acquired or is in the process of acquiring a vested interest in the land required for building. If the question of eminent domain is not answered and the LRTA cannot purchase the land, it appears that the LRTA is left in a position of losing or jeopardizing the grant. While the matter is still unresolved, LRTA strongly takes the position that RTA's should have the power of eminent domain and that the question should be resolved by the Attorney General immediately.

Elderly-handicapped policy. UMTA policy mandates service for the elderly and handicapped. LRTA entered this area in 1976 by providing service to Westford and Pepperell, and in 1978 to Billerica. In Lowell, the regular-route service was modified to serve elderly housing projects. In October 1977, LRTA became the somewhat reluctant supervisor of a contract for elderly service offered through the Community Teamwork, Incorporated. For the previous three years the non-profit agency had been funded by Elder Services of the Merrimack Valley through a federal grant program offering transportation to elderly in Lowell and eight surrounding communities. Although officials were aware that funding could not be renewed after October 1, 1977, it was not until September that the LRTA was approached to take over the funding. Through LRTA, the service would be available to the city of Lowell and the towns of Westford and Billerica as authority members if the towns opted for the service. LRTA was powerless to continue the service in the remaining six towns without each town's petition for a contract or membership in the authority. LRTA also operated

under some constraints due to its contract for state assistance, requiring that non-elderly handicapped be served and that a fare be implemented. With these provisions in the contract, LRTA began service only in the city of Lowell on October 1, 1977.

Since neither Community Teamwork, Incorporated, nor Elder Services of the Merrimack Valley notified the surrounding towns of the cut-off in funds, LRTA was left to notify the town officials of the change in funding and operating procedures and the constraints which forbade LRTA to pick up the service without specific requests of the towns. O'Sullivan made the biggest effort to sell the service to Chelmsford, named in section 2 of Chapter 161-B as a potential LRTA member. Although city officials have listened repeatedly to O'Sullivan's offer and explanations of LRTA membership, town Selectman Philip Currier stated that he, for one, did not want the elderly service if it required membership in LRTA. The town has long resisted membership and Currier called the question a "dead issue."[12] In O'Sullivan's view, it is still fear of the MBTA arrangement that has biased communities against other public transportation systems.

The service in Lowell was offered under a three month-trial contract and several problems arose. Costs were much higher than budget predictions, patrons lacked confidence in a temporary program, and the change-over from purely medical to all-purpose trips was not well advertised. Community Teamwork, Incorporated, was not able to secure the required performance bond, which LRTA demands as part of all contracts,

---

[12]"Little Notice of Transit Fund Cutoff," Lowell Sun, November 8, 1977, p. 9.

because of the nature of the non-profit agency. LRTA determined that payments for service would be processed and the contract for service extended for an additional three month-trial period while a formal Request for Proposal was issued to evaluate the services available from various carriers. Thus, LRTA continues to follow the mandate to serve the elderly and handicapped but is looking for the most efficient means.

The expansion of elderly-handicapped transportation required specific policy guidelines. In November 1977, the Advisory Board passed a resolution lowering the age for a reduced fare elderly identification card from 65 to 60 years old. The identification card is issued by the city of Lowell and can be used for discounts on many retail goods and services, as well as being recognized by LRTA in Lowell and Billerica for reduced fares. The LRTA definition of handicapped is a simple one and allows a reduced fare for recipients of Social Security disability payments, Veterans Administration disability payments, Veterans Administration pension for non-service connected disability, aid to the blind or the disabled. Individuals certified by social service agencies may also be qualified and personal appeals are reviewed on a case-by-case basis.

Decision-Making

The Advisory Board of LRTA, charged with decision-making, is not a very active board, nor one that shows much interest in becoming active. The problems stems from the fact that only Lowell has a substantial service offered, and therefore the Lowell Advisory Board member has a majority vote and represents a quorum by himself. Attendance at the meetings ranges from two to four members (out of a total of seven), and

voting is carried out by consensus with the knowledge that only the Lowell vote makes any differences. Towns not receiving service maintain their one vote but do not pay any assessment for overhead costs of the LRTA. This fact has hindered the LRTA staff from making extensive studies about potential service to other member cities, since Lowell pays the bulk of the local share.

The chairman of the Advisory Board is Charles Gallagher, a designee from Lowell, who has served as chairman since the beginning of the LRTA. He is an active community representative desiring the best for his city, but he tends to defer to the administrator in major decision-making. The Advisory Board meets monthly in the LRTA offices in Lowell and discussion is informal, often including non-Board members such as the legal counsel or interested citizens. Very little concern is shown for regional interests, and decision-making is completely parochial with Board members deferring to representatives of the affected towns on operational questions.

Response to questionnaires and requests for interviews appear to be indicative of the level of interest in regional transportation shown by the Advisory Board members. Four out of seven questionnaires were returned, for a rate of 57 per cent, this being after one personal meeting and three subsequent mailings over an eight-month period. Requests for three interviews brought one willing response, one reluctant response, and from the chairman himself, a refusal to return phone calls, a tentative agreement to meet, and a no-show for the interview. Questionnaires which were returned showed that transportation was a very low priority with the three greatest concerns being: (1) industrial

and economic development; (2) housing, building, and zoning; and (3) unemployment.

Respondents indicated that in their communities, the groups most interested in public transportation were (1) local businessmen and merchants, (2) city officials, and (3) elderly and their representatives. In making decisions, the Advisory Board members considered the needs and opinions of (1) the elderly, (2) the administrator, and (3) local businessmen. Those responding indicated no opposition nor controversy concerning the LRTA, though this is certainly not indicative of the region as a whole. The primary goal for the respondents was to provide service to the elderly, which most indicated was being achieved. Also desired was better inter-city service and cost efficient transportation with new capital equipment, not yet available.

Impact

Responses on questionnaires indicated that the formation of LRTA had created little impact within the region with the exception of the city of Lowell. Chairman Gallagher noted that Lowell has experienced increased mobility, improved transit service, and a revitalization of the downtown area and of local businesses since LRTA service began. For the towns where elderly transportation service is offered, responses indicated limited impact from the LRTA service. The majority of LRTA members have experienced no impact from LRTA formation since they do not receive service nor pay any assessment. There has been no impact felt since the formation of LRTA on a sense of regionalism, nor has there been a subsequent increase of regional activities. In fact, LRTA suffers from the opposition expressed by member and non-member towns to any regional efforts.

O'Sullivan agrees with this assessment. In terms of social impact, he notes the reduced fare for elderly and handicapped and increased mobility for captives. Economically, the LRTA has aided the central business district which depends on a high volume of transit for the local businesses. Moreover, Lowell suffers from a shortage of parking and is presently making efforts to decrease parking available, so transit is the major means of bringing citizens downtown. Politically, O'Sullivan sees no impact at all locally or regionally. Lowell's budget has not increased even while minor service improvements have been effected because of the maintenance of effort controversy. For the three towns receiving elderly-handicapped service, payments are small and approved by town meetings. No regional sense is apparent to O'Sullivan at all.

Problems which hinder the progress and impact of LRTA are similar to those felt by other RTA's, one being the delay in receipt of capital equipment. Although LRTA's capital grant has just recently been filed, there still exists a large backlog of bus orders with production companies which must be contended with when approval is given by UMTA. Also, for over a year LRTA was held back by the lack of an adequate staff, but this problem has now been solved. Even so, O'Sullivan feels that an extension of LRTA membership or of service into nonparticipating member towns will be difficult because there is no way for the authority to look good as long as the profitable runs in the region can remain private. A private carrier does not have to operate under subsidy to LRTA, and the only motivation for doing so is when the operation is losing money. Inter-city runs which are generally the money-makers are often unavailable to LRTA because they leave the region. O'Sullivan

feels strongly that route rights should be held by LRTA rather than by the carrier in order for the RTA to truly fulfill the function of being the regional regulator and provider of public transportation.

LRTA's relationships with other public agencies are, for the most part, good ones. As stated earlier, a conflict of goals exists between the LRTA and its regional planning commission, NMAC. While the LRTA personnel feel that the most important priority must be short-range service improvements and planning, those at NMAC are more concerned with long-range planning in order to "see the forest for the trees." A jealousy exists over the control and allocation of UMTA funds, and the NMAC director expressed a desire for complete access to available section 9 (planning) funds as well as to receive an allocation from section 5 (operating) funds for operational studies. At the present, NMAC is not aiding in the daily operational and technical questions and problems of the LRTA. The physical separation of LRTA and NMAC offices and Advisory Boards has helped to alleviate part of the problem.

LRTA relationships with EOTC are good, and personnel from the two agencies have worked together extensively on the management information system, the maintenance of effort problems, and the proposed transportation terminal. O'Sullivan also characterized relationships with UMTA as excellent, while still decrying the amount of paperwork required and the slow response time. O'Sullivan has several personal friends working at UMTA, and this personal relationship often proves to be more valuable than proper paperwork procedures.

Advisory Board member Ron Kangas of Westford is an atypical Board member in that he is a transportation expert, employed by the

federal government at the Transportation Systems Center in Cambridge, Massachusetts. It is this expertise which qualified him to serve as the LRTA designee from Westford. While his goals are lofty ones for a real regional service, interregional service to Boston, new equipment, and completion of the Lowell Transportation Terminal, he has recognized that his own town does not lend itself to public transportation. Westford is a wealthy community and although there is a high percentage of elderly, they have limited need for public transportation. Rather, it is the young who could be better served by demand responsive service, a concept which is not yet acceptable for funding to EOTC.

Ann Mulcahy, designee from Billerica, remarked that public transportation had always been a town meeting issue in Billerica, but that skepticism toward NMAC has delayed the town's participation with LRTA. Since service is new, no impact has been felt as yet, but Billerica desires service for the elderly as well as inter-city runs to Lowell and Boston.

Victor Normand, Assistant City Manager in Lowell, commented that the city benefits whether LRTA becomes truly regional or not. While impact to date has been limited, changes now in the planning stage and the receipt of new equipment will benefit the city. The LRTA has provided the greatest help to the city in advice on the school bus routes, schedules, and bid review procedures. Normand pointed out the importance of educating the public on how to ride the buses. In order to increase ridership, some of the fear must be removed from the non-riding public regarding how and where to get on the right bus, when and what to pay for the fare, and where and how to disembark. The city of

Lowell and LRTA would like to make ridership packets available in the schools to teach children how to use the public transportation offered.

The carriers have felt the most impact as a result of LRTA, both receiving subsidized contracts for service they did not previously offer. Roger Welch of Marinel Bus Company formed the subsidiary of Leasing Systems Development Corporation to provide the elderly-handicapped service in Pepperell and Westford. Because federal law requires that a company receiving federal funds must be open to unionization, Marinel itself refused to contract with LRTA. Moreover, the firm does not want new equipment from LRTA since it cannot be used for non-subsidized routes offered by Marinel. In fact, Welch stated that the "farther away I stay from UMTA the better." For him, the LRTA contract means a little extra profit for the demand-responsive service, a small part of overall Marinel operations.

Gil Barrett, comptroller for Trombly Bus Company, noted that the subsidiary, LoLaw, was created for the same reason, to keep unions out of Trombly. Within eight months of LoLaw's operation, the drivers voted to form a local branch of the Amalgamated Transit Union. Union drivers felt that the LRTA contract opened up a wealth of resources to increase wages and fringe benefits, while LoLaw's view was that the company should still operate as a profit-making business in order to maintain efficient operation. After eight months of negotiations, talks broke down and the drivers went out on strike on October 24, 1977. With the help of a state mediator from the Board of Arbitration and Conciliation, the strike ended in three days and service was resumed. To make up to those left without transportation during the strike, LRTA offered free

service for three days to make sure the passengers returned, possibly boost business, and to make it easier for the drivers on their return. Not only did LRTA make friends by its offer of free service, but the slowdown felt by local businesses during the three days of the strike caused many in the city to appreciate LRTA and its product even more.

Potential

The outlook for the LRTA is less certain than for the PVTA and less dependent on the receipt of new equipment. LRTA has a more severe handicap in its location, being overshadowed by the inefficient and unpredictable MBTA, and being in a region with highly parochial views. The success in LRTA since the new carrier and new administrator arrived has been phenomenal in a short period of time. Much of the credit goes to O'Sullivan who is innovative, productive, and knows how to make good use of inter-governmental contacts. The time-consuming paperwork has largely been completed, the increased staff allows more time for selling the product, and O'Sullivan's expertise has been recognized by the communities involved. The biggest hurdle remaining is one of regional acceptance of an authority dominated by the city. O'Sullivan believes, now that LRTA has been proven to be fiscally responsible, the authority can start being "flashy," and the sale of the product will be easier. He also says that "next year" is the year for LRTA.

Berkshire Regional Transit Authority

Seven members were named in the legislation to become members of the Berkshire Regional Transit Authority (BRTA): the city of Pittsfield, and the towns of Lanesboro, Lee, Lenox, Hinsdale, Dalton, and

Richmond (see Figure 5.3). This region is in the western part of the state, a rural, mountainous area known as both a summer and winter resort area. Only five of these communities actually make up the metropolitan area: Pittsfield, Lee, Lenox, Lanesboro, and Dalton. Pittsfield is the hub of the central Berkshire region and plays the key role in all transportation planning, as well as economic development, in the region. The city of Pittsfield outgrew its surrounding neighbors because of its economic progress, especially evident after the railroad came through the Berkshires. However, one Advisory Board member now calls the region a "monument to its economic failure--charming because it is one hundred years behind the times."

According to the 1970 census, the population of the Berkshire urbanized area is approximately 63,000, with a density of 1,442 persons per square mile. BRTA figures indicate that the Authority serves a population of close to 83,000, and that region-wide, the density is only 452 persons per square mile. Within the urbanized area, there are approximately 1.1 automobiles per household, while 17.8 per cent of households own no automobile, and 2.4 per cent of workers make their work trip by public transportation.

Public transit in the Pittsfield area has a long history, dating back to the late nineteenth century. Chartered as the Pittsfield Street Railway, the area's first transit system of horse-drawn trollies was built in 1886. The three-mile route through downtown Pittsfield operated at a deficit during its initial years and was sold in 1890. The following year it was electrified and as the Pittsfield Electric Street Railway, it grew and prospered through the early twentieth century. The

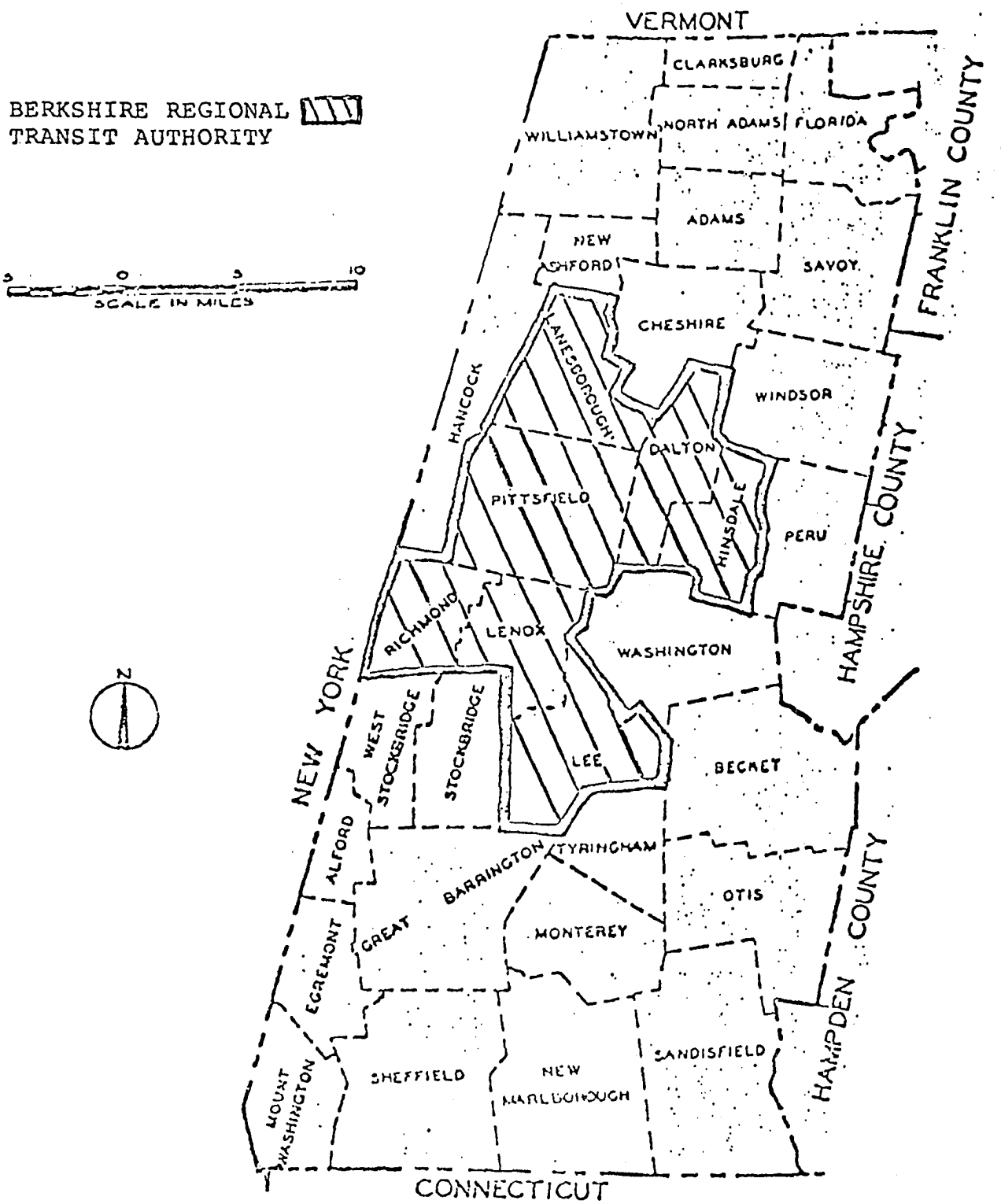


Figure 5.3: Berkshire Regional Transit Authority

Source: Berkshire Regional Planning Commission: Application to U. S. Urban Mass Transportation Administration for an Operating Assistance Grant (Pittsfield, Massachusetts, 1977).

Pittsfield Electric achieved national notoriety in 1902 when a carriage carrying President Theodore Roosevelt and Massachusetts Governor Winthrop Crane was demolished by a trolley on Pittsfield's South Street. A secret service man was killed, but Roosevelt and Crane received only minor bruises.

The transit system grew through company mergers and also grew in ridership, revenue, and track mileage until 1917 when the peak ridership figure of 20,000,000 per annum was reached. By 1920, however, the long, slow decline began, and shortly after World War I, the first reductions in service took place on various suburban lines. From 1929 to 1932, a replacement program of buses for trollies was carried out as an economy measure. Despite the temporary reversal of the ridership decline during World War II, business had reached a new low by 1958 and the company was sold.

A continuation of economy moves by paring routes and schedules did not improve the financial situation of the company, and in 1963, bankruptcy was declared. Yellow Coach Lines was given temporary permission to operate over the Berkshire Street Railway's lines, and it initially operated at a profit. By 1965, however, the yearly ridership of approximately 1,200,000 produced only break-even revenues and ridership declined continually until 1969, forcing Yellow Coach into bankruptcy.[13]

In January 1970, Dufour Brothers began service but reduced the level until eventually only two of the 16 routes (consolidated into one route) were still receiving public transportation. The other carrier in the area, the Dalton-Hinsdale Bus Line, also suffered from the same

---

[13]Berkshire County Regional Planning Commission, Application to U. S. Urban Mass Transportation Administration for an Operating Assistance Grant (Pittsfield, Massachusetts, 1977), pp. 12-14.

loss of ridership and was only able to continue service on one route via a cross-subsidy from the school bus contract. It was this minimum level of transportation service which prompted the Mayor of Pittsfield to institute a study even prior to state enabling legislation for regional transit authorities.

Mayor Evan Dobelle called together interested citizens and representatives of the regional planning commission, community service agencies, the transit operators, and the surrounding four towns in 1972 to look into the available alternatives for improving public transportation in the Berkshire region. The Pittsfield City Council funded the study, carried out by Engineering Computer International. Released in December 1972, the study pointed out the need for public transportation in the region, the latent demand to serve the elderly and the young, as well as an increased need to serve work trips, especially to serve the one large employer in the area, General Electric.

When Chapter 161-B passed in late 1973, the Berkshire region was already prepared to take advantage of the legislation. In May, the BRTA was formed with all seven communities electing to join. The study carried out by the Mayor's Transportation Committee and Engineering Computer International was expanded into the Transportation Development Plan, and an administrator was hired. Michael Musyka was the coordinator for school busing in Pittsfield and was considered the best transportation expert available locally. He was hired on a part-time basis at $5,000 annually. The Advisory Board for the BRTA initially felt that a part-time administrator could complete the required paperwork. The Berkshire County Regional Planning Commission would do the planning, and the contractors

would run the buses. For the first year of BRTA service, transportation was funded through a LINKS grant to Dufour Brothers for elderly-handicapped service on their one fixed route, and to Uncle John's Vans, a demand-responsive door-to-door service run by the Berkshire Community Action Council.

In June 1975, the Dalton-Hinsdale Line, which had been under contract to BRTA for one route, sold out their company and rights to Dufour Brothers, and it became necessary to do more planning for schedule and route changes. The work was too much for a part-time administrator who also held a full-time job. Grant applications were not filed, contractors' grievances were not answered, and the Advisory Board was unable to make decisions, requiring frequent referrals to EOTC for policy decisions affecting BRTA and its contracts. After a nation-wide search, a full-time administrator was hired for an annual salary of $17,000.

The new administrator, Lou Perachi, is definitely a transit expert. He began his career in 1948 as a bus driver for the Berkshire Street Railway. Following his military service in the Korean War, Perachi became assistant to the General Manager of the Yellow Coach Lines in Pittsfield where he remained for fifteen years until the company was forced into bankruptcy. At that time, Perachi went to New York to become Transportation Supervisor for the Westchester County Board of Cooperative Education Services, and later he became a transit manager for ATE Management Services Company, Incorporated, a management firm based in Cincinnati. He served in approximately five different states as a manager and troubleshooter for ATE until personal reasons brought him home to Massachusetts. Unable to find managerial work, Perachi became the dispatcher for Peter

Pan Bus Lines in Springfield until answering the BRTA advertisement for administrator. While he is the only RTA administrator lacking a college degree, he brings with him to the job more transit experience than the other seven administrators combined.

Progress and Policies

Goals. The Transportation Development Plan outlined the proposed goals for the BRTA to take after its formation. It suggested that a five bus fixed-route system be established as soon as possible in the city of Pittsfield in order to meet the essential travel needs of the transit dependent and to provide a reasonable level of service to others in need of public transportation. It proposed that a garage and maintenance facility be constructed to service the transit vehicles and that adequate bus shelters and signs be installed, to be paid for with 80 per cent matching funds from UMTA. It also suggested inter-town transportation between Dalton, Lee, Lenox, and Lanesboro to Pittsfield.[14]

Advisory Board Chairman Karl Hekler sees more long-range goals for a viable mass transit system to serve as an alternative to the automobile. The prerequisite, of course, is additional equipment, which is expected in the next year, and then an effort to get non-member towns to join the BRTA. First priority, however, must be to serve the urban area of Pittsfield and its immediate surroundings.

Lou Perachi has three major goals for BRTA. First, he would like for the Authority to encompass the whole county, at least along the main transportation corridors, in order to serve more work trips,

---

[14] Engineering Computer International, Transportation Development Plan for the Pittsfield Metropolitan Area (1972), pp. 1-2.

particularly to the General Electric Factory. A survey at the factory indicated that of the 300 respondents, 78 per cent would favor a subscription bus service for work trips, and 80 per cent would use the service daily. Second, Perachi wants the BRTA to serve as an umbrella for all elderly-handicapped transportation services in the region, coordinating with social service agencies to improve transportation coverage and to complement rather than duplicate service. Finally, Perachi would like to see a coordinated transportation center in downtown Pittsfield for intra-city, inter-city, inter-state bus service, and railroad service.

Operating contracts. Since the end of 1974, BRTA has enacted contracts with local carriers, first with the aid of a LINKS grant and after 1975, through Chapter 161-B contract assistance. Initially, contracts were with Dufour Brothers and the Dalton-Hinsdale Line for regular-route service. In 1975, Dufour bought out the failing Dalton-Hinsdale Line and contracts were consolidated. Service is provided in Lee, Lenox, Lanesboro, Dalton, Hinsdale, and Pittsfield, with Richmond being the only member not receiving service. Service is provided on three routes, from 6 a.m. to 6 p.m., Monday through Friday, with half-hour or hourly headways. Fares range from 20 cents to 50 cents, with elderly-handicapped patrons paying one-half fare. Service is provided under an agreement stipulating reimbursement to Dufour Brothers for actual costs up to a maximum of $12.09 per hour of bus service, ten per cent of gross revenues, and a management fee of $21,000.

In 1975, Dufour Brothers purchased six new buses for use on BRTA routes, and in 1976, BRTA bought the buses from Dufour with an UMTA

grant. It leases them back to Dufour for one dollar per bus per year. This procedure enabled the Authority to put new equipment on the roads immediately without going through a competitive bidding process as required by UMTA. Although EOTC disputed the legality of the BRTA purchase without bids, the issue was eventually settled in favor of BRTA. Purchase of the capital equipment enabled BRTA to lower its per hour operating costs, and the Authority then expanded the hours of service for both regular-route and elderly-handicapped transportation.

Dufour Brothers is not unionized, so the 13(c) labor agreement was an uncertain requirement. BRTA adopted the policy of negotiating the 13(c) agreement through the employees' negotiating body, offering to the workers the same employee-protective arrangements which they would have with a union.

Elderly-handicapped policy. BRTA states that one of its prime objectives is to make every reasonable effort to ensure that the elderly and handicapped will be able to use mass transportation effectively. Regular-route service has been modified to serve concentrations of elderly, particularly in locations where housing and facilities are provided for senior citizens. Expansion into western Pittsfield where service is lacking will begin with the arrival of new equipment. BRTA expects delivery on four vans and ten fixed-route buses with equipment designed to facilitate the use of transit by the elderly and handicapped. The buses will have a "kneeling feature" enabling the entrances to be lowered by eight inches and vans will be equipped with two-way radios, allowing same-day demand-responsive service.

Presently, demand-responsive service is operated by Uncle John's Vans, a transportation subsidiary of the Berkshire Community Action

Council. The contract provides for payment of costs incurred up to a specified ceiling amount and without a profit. Approximately 80 to 90 persons use the service daily, offered in five member communities, excluding Hinsdale and Richmond. Reservations for service must be made one day in advance, and trips can serve any purpose: medical, shopping, recreation, or to Hot Meal Nutrition Sites, for groups or individuals.

The BRTA definitions for elderly and handicapped are simple ones. For a fare reduction on regular-route service, persons over 60 years of age may ride at half-fare and may be requested to produce evidence of age for the driver. The demand-responsive service is provided for those who "by reason of illnes, injury, age, congenital malfunction, or other permanent or temporary incapacity or disability are unable without special facilities or special planning or design to utilize such facilities and services as effectively as persons not so affected."[15] This loosely-worded definition is open to interpretation, usually carried out by those dispatching vehicles at Uncle John's Vans. The "incapacity" could be interpreted not as a physical health problem, but a financial or locational problem. A liberal interpretation would include any able-bodied transit captive not served by regular-route service as one who requires "special planning" to utilize transportation services effectively. With the present shortage of equipment and the need for advance reservations, the definition is strictly interpreted, but the issue is one which the officials at Uncle John's Vans would like to have settled by the BRTA Advisory Board.

---

[15] BCRPC, Application to U. S. UMTA, p. 66.

The demand-responsive service has brought some complaints of unfair competition from the local taxi operator. When the handicapped riders requested nighttime service, the BRTA opted instead to provide them with tickets to use for a reduced fare on the taxis on a 24-hour daily basis. On weekdays, Uncle John's Vans is still more economical, but the taxi alternative is available if immediate service is needed. The BRTA sells the tickets to local social service agencies who either resell or give the tickets to their clients. Each agency is responsible for determining the eligibility of the client for the reduced-fare ticket, thus leaving the definition a vague one.

Financial policy. Although BRTA's operations remain small, the Authority has still been able to make good use of the UMTA financial grants for planning, operations, and capital expenses. Not only is BRTA current in its receipt of section 5 funds for operating expenses. It is the sole RTA in the state to apply for federal funds in advance based on the proposed budget, which greatly improves the cash flow situation. Section 9 funds for planning were received for the original Transportation Development Plan to be written and more recently for the plan and design of the bus garage and service facility. Section 3 applications have been approved or are pending for purchase of new vehicles, bus stop shelters, signs, and radios, as well as for the actual construction of the garage.

The one controversy between UMTA and BRTA arose over the last grant application for the purchase of new buses. UMTA urged BRTA to combine with another RTA to make one large purchase, thus reducing the overall price. This proved to be unfeasible, and a year later when UMTA finally gave permission for BRTA to order the buses, the price had

increased by ten per cent. To avoid such a delay in the building of the garage facility, BRTA petitioned UMTA for a "letter of no prejudice" allowing expenditures without actual grant approval and a "sole source" approval in order to allow the same firm which prepared preliminary designs to continue with the final design plans for the project. For a small operation such as the BRTA, this appears to be the most prudent course.

To finance the local share of these major expenses, the BRTA must sell bonds or revenue anticipation notes. Local banks bid on the notes, and the confidence felt toward the BRTA is evident by the interest rate proposed. Notes sold in December 1977 were purchased by three local banks at an average rate of 3.99 per cent.[16] This compares favorably with PVTA's average rate of 4.38 per cent in July 1977[17] and LRTA's rate of 6.9 per cent in August 1976.[18]

General policies. Policy-making has been slow at BRTA, as at other RTA's, because of the daily pressures and demands of keeping the buses on the roads. With the arrival of Lou Perachi as full-time administrator, more time became available for policy-making. Personnel policies were finally approved in November 1977, outlining the usual conditions for employment, fringe benefits, and compensation. An additional provision forbade any employees of the Authority to participate actively in political campaigns. Retirement benefits were not yet arranged, but

---

[16]Berkshire Regional Transit Authority, Minutes of Meeting (Pittsfield, Massachusetts, January 5, 1978).

[17]Pioneer Valley Transit Authority, "Monthly Report and Work Program #25" (August 1, 1977).

[18]Lowell Regional Transit Authority, Annual Report for Fiscal Year 1977 (Lowell, Massachusetts, February 2, 1978).

negotiations were under way for an Individual Retirement Annuity plan. Earlier attempts by administrators throughout the state to join the state retirement plan had been refused.

The writing of Advisory Board by-laws was begun in January 1978, as the Board had effectively made decisions without any governing guidelines for nearly four years. The decision to begin a marketing program was also made in January 1978. Perachi feels that service has improved enough to warrant an advertising campaign, and the first step was to create an identifying logo for "The B." The consultant's report on marketing will be available for initiation at the time the new equipment is available.

Decision-Making

Most decision-making for BRTA is left up to the administrator with the advice of Karl Hekler, who is both chairman of the Advisory Board and director of the Berkshire County Regional Planning Commission. The Advisory Board includes representatives from the seven member towns with a weighted voting strength of 17.5. Pittsfield holds only 5.86 votes, so it does not constitute a majority by itself in the voting. Attendance at monthly-scheduled meetings is erratic, and often meetings are called off at the last minute when a quorum cannot be attained.

Decision-making within the Board is by consensus, and a confrontation has not yet occured among the members. Compromises are worked out until unanimity results. Advisory Board members look at the service provisions or capital goods UMTA will fund in deciding what can be offered to the member communities. Hekler's concern is for the transit dependent, so he bases his decisions on a balance between the

most efficient operation with overall flexibility and what will provide the most service to the dependent. Charles Lockwood, Advisory Board member from Richmond, feels that Advisory Board decisions should be strictly dollars and cents business decisions. The Board should look at the cost-benefit tradeoff--what the service costs in relation to how many more persons can be served. It is this factor which has persuaded Lockwood that his own community does not need service. He describes Richmond, Massachusetts, as being to Pittsfield what Grosse Point is to Detroit. In Richmond, 98 per cent of the land is zoned to require a minimum of two-and-a-half acres of land for each home, and the only commerical establishment is an orchard. Richmond supports the BRTA because the town is an economic satellite of Pittsfield and must contribute to Pittsfield's economic viability to enable Richmond to maintain itself as a "high-class residential town, a vestige of New England life."

Questionnaires to the BRTA Advisory Board members were indicative of only one thing--transportation is not a serious problem. In fact, it appears that there may be no serious problems in the Berkshires. The low return rate of questionnaires, however, prevents that generalization from being made. Three out of seven questionnaires were returned, for a rate of 43 per cent, but two of these were incompletely filled out. The responses justify only the assumption that the elderly, poor, and city officials are considered in Advisory Board decision-making and that the BRTA has not been a controversial body in the region.

Impact

Questionnaires indicated that the greatest impact for service has been for the elderly and handicapped. Karl Hekler expanded on this,

adding that BRTA saved the dying regular-route bus service and has expanded the number of routes and hours of service. A recent ridership survey carried out by the Berkshire County Regional Planning Commission indicated that BRTA's service had eliminated a need in some families for a second car. The city budget has felt little adverse impact while the city receives service at 25 per cent of its cost.

Mayor Paul Brindle of Pittsfield commends the BRTA service for bringing the elderly and the young into the city to shop and feels that transportation congestion has been relieved by increased bus service. Isabelle Madison of the Pittsfield Council on Aging stated that the elderly in general have benefitted by the demand-responsive service, but the Council on Aging has not since it operates its own service. She added that relations were good between the Council on Aging and the BRTA and that the service is complementary, not competitive. Joan Coughlan, director of the Berkshire Community Action Council and Uncle John's Vans, observed that BRTA has had a strong impact on the elderly and handicapped, relieving them from the burden of dependence on others for transportation.

Lou Perachi has seen results in his short tenure as administrator of BRTA. He feels that the service has been a real boon to the elderly and handicapped, especially in the demand-responsive service. Benefits are beginning to accrue for the working commuters because of route and schedule changes. Economically, the impact has been minimal on local budgets. For individuals, some employment has been generated by the increase in service offered, and the regional economy has benefitted to some degree by the purchase of goods and services by BRTA and the carrier. For the Pittsfield central business district, the bus service provides

an impact by bringing at least 1500 riders a day through the downtown. All schedules are geared to meet in the center of town, and the service has bolstered plans for revitalization. Service from surrounding communities, which essentially have no business districts, enables riders to get to Pittsfield or to suburban shopping centers. Politically, there has been no impact felt in the way of controversy or in campaign issues.

Generally, relationships between those at BRTA and other agencies are cordial and helpful. Perachi complains about EOTC only that they occasionally "butt in too much" and demand too many statistical figures, making indexes which only tell the RTA's what they already know. He believes that some RTA officials in the state fear that EOTC will take over RTA's, and so they request state assistance less often than they might actually use it. Concerning UMTA, Perachi feels that problems with UMTA during the early years of RTA existence were due to the newness of the section 5 program for operating assistance with which UMTA was not yet familiar. Since 1977, BRTA has experienced a minimum of trouble with UMTA, but Perachi feels the bureaucratic red tape and slow process are inexcusable. UMTA approvals are so long in coming that prices change, and the Authority must then file a change to the application. Perachi would prefer more decentralization of UMTA functions, and he feels the regional UMTA office in Cambridge is very helpful.

Locally, the BRTA and Berkshire County Regional Planning Commission personnel have a good working relationship, especially because the RPC Director is also chairman of the BRTA Advisory Board. State officials expressed some concern over potential RPC domination of the

BRTA, but Perachi claimed that, since the BRTA was so dependent on the RPC for planning and for securing data for grant applications, the relationship must be a good working one. Berkshire County Regional Planning Commission Director Hekler's view is that the RPC was there first and has the ability to coordinate planning and progress in the region, so he opposes "empire building" by the RTA, which he sees happening in other regions around the state. Hekler also fears that Chapter 161-B gives the RTA administrator too much power while the Advisory Board can only hire and fire, approve the budget, make rules and regulations.

Jim Freeman of Dufour Brothers, Incorporated, sees the BRTA as having a very positive impact on the company. Prior to BRTA formation, Dufour's one transit line provided revenues of only $175 daily, greatly reducing cash flow and requiring a cross-subsidy from charter operation revenues. Since the BRTA contract was enacted, Dufour's cash flow problems have been eased. Employees wages have gone up as a result of the BRTA contract. Dufour attempts to keep employees satisfied without unionization, and while BRTA puts a ceiling on the contract amount for wages, Dufour can increase that amount and subtract it from the company's profits. Freeman's complaints came only about EOTC in relation to contract negotiations with the first administrator. Freeman feels that the BRTA administrator and Advisory Board did not make decisions and deferred too often to the state for permission to act. This created delays and controversies over contract provisions with Dufour. Since Lou Perachi took over the BRTA, Freeman says there is mutual trust between the company and the Authority, allowing them to work well for the public.

BRTA has not had an impact on other regional cooperation. The county is so widely dispersed and thinly populated that regionalism is not a necessity. According to Karl Hekler, however, the success of BRTA has been a good example showing that in some service areas, regionalism can work.

Potential

BRTA has been struggling in its first few years of existence, but at this time several battles have been won: paperwork is up to date allowing receipt of state and federal funds on time; capital equipment is on order to enable an expansion of the transit system; transit service has been improved and ridership is increasing according to BRTA ridership counts; and the communities have accepted the concept of public transportation by means of both regular-route and paratransit services. Because of the nature of the region and its geography, public transit does not have the great potential for expansion that it has in other more densely populated regions. It does, however, serve a great need for the transit dependents, and it is on their behalf that the service must be promoted. BRTA recognizes this and the future looks bright.

Conclusion

The three regional transit authorities studied in depth give a picture of what each RTA must deal with in terms of policy enactment, operational progress, and Advisory Board decision-making. While each RTA is unique and chooses to deal with policy and problems in its own manner, some similarity exists because of their common basis in law through Chapter 161-B and their common goal, providing public transportation.

For each region, and indeed for each member government within a region, public transportation is of variable importance as a priority or a problem. The many different decisions made regarding type and extent of service reflect this fact, as well as emphasizing the importance of local option in both RTA membership and in choice of service provided. Because of the local option and the different interpretations of guidelines among the regions (such as the application of the EOTC free-fare policy), it is difficult to make generalizations about policy-making by the RTA's.

The one most common observation, however, is that in Massachusetts, after four years of existence, the RTA's are probably not initiating much policy. Rather, they are following policy guidelines of UMTA and EOTC and providing their own interpretations, refinements, and implementations to the federal and state policies, guidelines, and requirements. Truly, this system is an example of incrementalism or crisis-management. The very passage of Chapter 161-B and the subsequent formation of RTA's were in answer to crises, and in the first four years of RTA operations, the burdens of organization and operational survival have not allowed long-range policy-making to any degree. The day-to-day problems of keeping the transit service running occupy officials of the RTA's in the state.

These officials often make their decisions based on intuitive feelings and observations rather than by means of any scientific process. In fact, in viewing the RTA's across the state, one finds that the administrator's style and expertise are the most important factors accounting for RTA success or failure. Although some criticism has been voiced about the potential powers allowed to the administrator under Chapter

161-B, it appears that this allowance is important to the success of RTA operations. While the vague outlines for administrative power may not have been intentional by drafters of the legislation, this may in fact be the "elastic clause" of Chapter 161-B.

CHAPTER VI

A QUANTITATIVE ANALYSIS OF REGIONAL TRANSIT AUTHORITY OPERATIONS

The qualitative examination and analysis of the regional transit authorities in Massachusetts and an extensive review of the literature concerning mass transportation allow the formation of several hypotheses concerning the results of RTA creation and service. First, the total cost for offering public transportation through the organization of an RTA will be more expensive than through a private transportation company; in short, subsidized service is more expensive. Second, the benefits provided by the RTA-contracted service will be greater than those provided previously by private providers. Third, total revenue for the system will increase with RTA service, though the revenue/cost ratio will decrease because of the higher expenses. Fourth, tax burdens for most member communities will increase with subsidization of public transportation, while burdens for large cities previously subsidizing private operations will remain the same or decrease. Fifth, wages to transportation company employees will increase with RTA contracts for transportation services.

The quantitative data necessary for the examination of these hypotheses were collected from several sources.[1] Before examining the data,

[1]Massachusetts Department of Public Utilities, "1973 Annual Reports of Private Transportation Companies" (Boston); Massachusetts

several qualifiers must be explained regarding the use, accuracy, and generalizations allowed from these data. Prior to the RTA formations which began in 1974, data were reported annually to the Massachusetts Department of Public Utilities (DPU) and the Interstate Commerce Commission (ICC) on ICC forms. The forms reflected the dealings of the entire transportation business without dividing out regular-route transit from school bus, charter, or other special transportation services. Of interest to the Massachusetts DPU was the question of whether the whole business was operating at a profit or loss when rate increase requests were submitted by the private companies. Other than at that time, it appears from the officials interviewed that the annual reports were neither audited nor cataloged, therefore allowing much sketchy and incomplete data to appear on the reports. No record was made nor follow-up

---

Department of Public Utilities, "1974 Reports from Cities Requesting Subsidies for Public Transportation under Chapter 1017" (Boston); U. S. Department of Transportation, Transportation Planning Data for Urbanized Areas (Washington, D. C.: U. S. Government Printing Office, 1973); U. S. Department of Transportation, Federal Register, 40:8--Part IV (Washington, D. C.: National Archives, January 13, 1975); Executive Office of Transportation and Construction, "Program of Statewide Transit Analysis and Technical Assistance" (Boston, June 1975); Executive Office of Transportation and Construction, "Regional Transit Authority sources of funding for FY 75 and 76" (Boston, 1975); Executive Office of Transportation and Construction, "Program of Statewide Transit Analysis and Technical Assistance" (Boston, June, 1976); Executive Office of Transportation and Construction, "Report on Regional Transit Authority Operations FY 76" (Boston, April, 1977); Executive Office of Transportation and Construction, "Report on Regional Transit Authority Operations FY 77 (Draft)" (Boston, April, 1978); Metropolitan Area Planning Council, Cape Ann Transportation Authority Bus Transit Study (Boston, March, 1977); International City Management Association, The Municipal Yearbook (Washington, D. C.: ICMA, 1977); U. S. Department of Commerce, Bureau of the Census, 1970 Census--Characteristics of the Population--Massachusetts, vol. one, part 23 (Washington, D. C.: U. S. Government Printing Office, 1973); U. S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States 1977 (Washington, D. C.: U. S. Government Printing Office, 1977).

request initiated on missing reports or insufficient data. Therefore, this researcher was hampered in efforts to secure accurate figures for public transportation costs, revenues, and services provided for the time prior to RTA formation.

From November 1973 through November 1974 when Chapter 1017 of the Massachusetts General Laws provided for emergency state subsidies for urban transportation outside the Boston metropolitan area, more detailed data were required by the DPU before subsidy payments would be made. Individual route analyses were carried out in the New Bedford, Fall River (Southeastern RTA), Springfield (Pioneer Valley RTA), and Worcester areas. In Lowell and Brockton these analyses were not made nor filed, and hence estimated figures had to be used for payment of the subsidies. While these data are probably more accurate than those filed in regular DPU annual reports, they do not always agree with the DPU annual report figures nor with figures compiled by EOTC for the same time period. Again, therefore, the researcher had to make assumptions and estimates to standardize the data.

The Executive Office of Transportation and Construction has required the filing of quarterly reports on RTA operations subsequent to the formation of each and an extensive annual summary report from each. The EOTC also attempted an analysis of pre-RTA compared to post-RTA costs and services. Some data received by EOTC for this analysis made so little sense that the office did not use them in the analysis. The figures that were used often did not agree with DPU figures and represented ludicrously high values for the six-month period which EOTC examined. These problems were compounded by some incorrect calculations made and reported by EOTC

in the 1975 "Program of Statewide Transit Analysis and Technical Assistance." These problems were pointed out by this researcher to EOTC. This study has attempted to standardize the data, relying more heavily on the figures reported to the DPU for subsidies under Chapter 1017.

The EOTC reports on actual RTA operations are more accurate and usable than the pre-RTA reports. For fiscal year 1975, so few RTA's were operating that the statewide report showed only total costs for capital projects. For fiscal year 1976, the first full year of operation for most authorities, an extensive report analyzed many aspects of costs, service, revenue, and route statistics. The comparisons of individual routes from the data reported for subsidies under Chapter 1017 and the reports filed with EOTC for fiscal year 1976 allow the most accurate comparison of costs. For fiscal year 1977, EOTC continued the extensive analysis with the omission of individual route statistics, but with emphasis on percentage change from the preceding year. These data allow an analysis of expansion of service as well as a comparison of costs, revenues, and benefits.

One additional task undertaken by the EOTC has been the development of operating standards for the RTA's. Because of a lack of research on operating standards in smaller areas, EOTC requested operating statistics from authorities in cities or regions which have populations that are comparable to the RTA areas in Massachusetts. Statistics were received from authorities in: Ventura, California; Topeka, Kansas; Winston-Salem, North Carolina; and Northern Kentucky for areas of 250,000 population or less; from Wichita, Kansas; Clearwater, Florida; Syracuse, New York; Tulsa, Oklahoma; Allentown, Pennsylvania. Ft. Worth, Texas;

Albuquerque, New Mexico; Chattanooga, Tennessee; Rochester, New York; and Norfolk, Virginia, for areas with population of 250,000 to 500,000.[2] EOTC points out, however, that too few cases are available to allow for the establishment of reliable statistics, though interesting comparisons are possible. The original purpose of the EOTC survey was to develop service standards for the RTA's which could be issued as regulations, and which could be used to determine the level of state funding participation in services. However, due to the legal provisions for labor protection offered in both the UMT Act and the RTA legislation, if an RTA were to eliminate jobs because such standards were made a condition of federal or state assistance, the RTA would still have to compensate the affected employees. Thus, EOTC determined that the operating service standards would be offered only as guidelines to aid in the evaluation of existing and proposed services.

Since available data are not always completely reliable, and only guidelines, rather than standards, can be used as measuring devices, generalizations for all RTA's are less reliable than would otherwise be the case. Trends can be shown and comparisons among RTA's can be made, however, without relating them to a strict numerical equivalent. The researcher has attempted to take into account different geographic and demographic characteristics in computing comparative statistics, though it must be noted that these factors are not always quantifiable. Therefore, conclusions drawn from this quantitative analysis should not be considered definitive nor viewed as the yardstick for evaluating all RTA-type services.

---

[2]EOTC, "Program of Statewide Transit Analysis and Technical Assistance," 1976, pp. 14-15.

Evaluating the Hypotheses

The first hypotheses states that the total cost for offering public transportation through the organization of an RTA will be more expensive than through a private transportation company; in short, subsidized service is more expensive. Comparable cost figures available for the 1973-1974 time frame of pre-RTA service and the 1976-1977 time frame of RTA subsidized service include calculations for the cost per passenger, cost per mile, and cost per hour of operations. Analysis is done only for those RTA's where pre-RTA data are available.[3] The breakdown is as follows.

Cost per Passenger

1974	$ .497
1977	.548
Percentage change	+10.2%

Cost per Mile

1974	$ 1.417
1977	1.69
Percentage change	+19.3%

Cost per Hour

1974	$14.83
1977	16.50
Percentage change	+11.3%

In terms of dollars spent, these figures certainly validate the hypothesis. However, the analysis is not complete without adjusting for

---

[3]Data are available for Pioneer Valley, Worcester, and Southeastern Regional Transit Authorities.

increases due to the average annual inflation rate of 5.5 per cent.[4] Adjusting for inflation, the figures appear as follows.

Cost per Passenger

1974 plus 5.5% per annum for 3 years	$ .583
1977	.548
Percentage change	-6%

Cost per Mile

1974 plus 5.5% per annum for 3 years	$ 1.66
1977	1.69
Percentage change	+1.8%

Cost per Hour

1974 plus 5.5% per annum for 3 years	$17.41
1977	16.50
Percentage change	-5.2%

With the exception of the minimal increase for cost per mile, comparative costs for the public transportation service have apparently decreased since RTA-contracted operations took over subsequent to 1974. Therefore the hypothesis cannot be validated. Subsidized operations are not necessarily more expensive to operate than private transportation services. It seems reasonable to assume, however, that this misconception comes from a reallocation of the costs for the services.

Accurate figures are not available for local and state subsidies for service prior to the RTA formation, but estimates can be made from

---

[4] Bureau of the Census, Statistical Abstract, p. 902. The inflation rate as measured by the family-of-four market basket is admittedly a rough approximation of inflation's impact on RTA's. It is still useful for evaluating the hypothesis.

available sources (see Table 6.1). The only federal money provided prior to RTA formation was a capital grant to Worcester in 1971 for $796,076.[5] State subsidies were first provided through Chapter 1017 from November 1973 through November 1974, with the estimated total amounting to $1,120,590.[6] Local subsidies were estimated in 1972-1973 to total $619,500,[7] and under Chapter 1017 the local payments were equivalent to state payments of $1,120,590. Accurate figures are available for fiscal years 1975, 1976, and 1977, under the RTA program.

TABLE 6.1

GOVERNMENT SUPPORT FOR RTA-AREA PUBLIC TRANSPORTATION SERVICES[a]

	Pre-RTA	FY 1975	FY 1976	FY 1977
Federal	$ 796,076	$970,813.17 (36.3%)	$3,437,351 (45.7%)	$4,983,869 (49.1%)
State	$1,120,590	$831,330.13 (31.1%)	$2,003,608 (26.7%)	$2,535,521 (25.0%)
Local	$1,120,590	$871,244.54 (32.6%)	$2,073,069 (27.6%)	$2,627,123 (25.9%)

[a]Included in these total amounts is a minimal figure paid to the Greenfield-Montague Transportation Area. Insufficient data were supplied by EOTC to subtract these amounts.

While the bulk of the payment to the RTA is made by the federal government, the figures do not show that prior to RTA formation, the bulk of the total payment was made by the private company. Therefore,

---

[5]Massachusetts Legislative Research Council, Report Relative to Massachusetts Transit Systems and Aid Programs (Boston, April 25, 1974), p. 14.

[6]Memorandum from Nancy Shapiro, EOTC, to Robert Curry, EOTC, "Chapter 1017 Emergency bus legislation of 1974," Boston, April 10, 1975, p. 3.

[7]Massachusetts Legislative Research Council, p. 21.

the cost to the taxpayer for subsidized public transportation is greater, while the cost of the operation itself is not greater. Comparing the estimated figures for pre-RTA subsidy payments and the fiscal year 1977 subsidies, the increase in cost to the taxpayer is 234.07 per cent.

The first hypothesis is not validated, but the reason for the misconception seems to be explained. Subsidized transportation service is not necessarily more expensive than that offered by a private company.

The second hypothesis states that the benefits provided by the RTA-contracted service will be greater than those provided previously by private providers. Data to measure benefits available are for miles operated and number of passengers served. Again, analysis is only carried out for those RTA's where pre-RTA figures are available,[8] as follows.

Passenger Miles of Public Transportation	
1974	6,294,195
1977	9,028,838
Percentage change	+43.4%
Passengers Riding on Public Transportation	
1974	14,025,420
1977	23,180,394
Percentage change	+65.3%

The increases in passenger miles offered and in patrons of public transportation are significant enough to validate the second hypothesis that RTA service provides more benefits than the previous service by private

---

[8]Data are available for Pioneer Valley, Worcester, Southeastern, Brockton, and Berkshire Regional Transit Authorities for passengers and passenger miles. Data for Lowell Regional Transit Authority are available for passenger miles.

providers. Environmental factors such as the energy crisis and inflation are not taken into account in this analysis, so a causal analogy is not implied. There are institutional reasons, however, which could lead to the assumption that the RTA is at least partially responsible for the increase in benefits. Namely, the public authority does not have to pay taxes, has no need to earn a return on its investments, and can operate at a loss. Thus, service can be expanded with less risk involved to the public provider.

The second hypothesis is validated by the analysis. Benefits provided by the RTA-contracted service are greater than those provided previously by private providers.

The third hypothesis states that total revenue for the system will increase with RTA service, though the revenue/cost ratio will decrease because of higher expense. Figures are not available for pre-RTA total revenues. Estimates can be determined by multiplying the fare revenue per passenger[9] times the number of passengers for transit service. Using the 1974 and 1977 figures for each, the following totals result.

Revenue Received per Passenger	
1974	$ .278
1977	.184
Percentage change	-33.8%

Estimated Total Revenue	
1974	$3,899,066.70
1977	$4,265,192.40
Percentage change	+9.4%

[9]Data are available only for Pioneer Valley and Southeastern Regional Transit Authorities.

Accurate figures are available for total revenue received by RTA's for 1976 and 1977,[10] as follows, demonstrating a continuing increase in revenue.

1976	$4,563,077
1977	$5,332,260
Percentage change	+17%

Using the data supplied for Chapter 1017 subsidies where individual routes were analyzed,[11] an accurate revenue/cost ratio can be determined and compared to the revenue/cost ratio for the identical routes in 1976, as follows.

Revenue to Cost Ratio for Identical Routes	
1974	.588
1976	.335
Percentage change	-43.0%

The same six authorities for which data are available can be compared by overall revenue to cost ratios, as follows.

Revenue to Cost Ratio for all Operations of 6 Authority Areas

1974	.588
1977	.388
Percentage change	-42.5%

The data validate the third hypothesis that while revenue increases, the revenue to cost ratio decreases. It is interesting to note as well that

---

[10]This figure will differ from the estimated total revenue figure because of method of calculation necessary for accurate comparison to the 1974 figure.

[11]Data are available for Pioneer Valley, Worcester, Southeastern, Brockton (estimated), Lowell (estimated), and Berkshire Regional Transit Authorities. The total ratio reflects the average for only those routes which are identical in 1976 to those in 1974.

the revenue per passenger is decreasing. This is evident in the pre-RTA to post-RTA analysis as well as between 1976 and 1977 when the percentage decrease in revenue per passenger was minus five per cent. This is due at least in part to the free service offered in the Pioneer Valley Transit Authority on the University of Massachusetts system and for all elderly and handicapped. All other authorities are also offering reduced rates for elderly, handicapped, and often school children. While the first hypothesis that costs were increasing was not validated, the decrease in revenue per cost can be attributed instead to decreasing fares collected even while ridership increases.

The third hypothesis is validated but not for the reason stated. Total revenue for the system increases with RTA service, though the revenue/cost ratio (using unadjusted figures) decreases. This is apparently not attributable to higher expenses but to decreased fare collection.

The fourth hypothesis states that tax burdens for most member communities will increase with subsidization of public transportation, while burdens for large cities previously subsidizing private operations will remain the same or decrease. Quantitative analysis of this hypothesis is not possible due to a lack of data. Prior to RTA-contracted service, only the larger cities were paying subsidies to local transportation companies. Cross-subsidies were being paid, however, through higher school bus contract prices. Accurate figures were not kept on the amount of local taxes paid for a particular service, nor whether strictly local taxes were used for transportation rather than such sources as federal revenue sharing. Qualitatively, an assumption can be made. In the Worcester RTA area, Joseph Early won his congressional election

based, in part, on the promise that the RTA would reduce the burden on the local property tax for transportation subsidies. In Springfield (Pioneer Valley Transit Authority), the city saved more than one million dollars when the school bus contract was adjusted downward by $1.5 million, and the RTA took over subsidization of public transportation. Whether these statements and savings led to a reduction in the overall tax rate is not evident, but a shift in local priorities may have resulted. A similar qualified statement may be applicable to the small cities which had not previously paid transportation subsidies. While it is not evident that the tax rates increased, a change in priorities may have placed transportation in the position to receive local funds previously not available for that use.

Accurate data on the effect of RTA service on the tax rate is available for 1976 and 1977 by individual community. The aggregate unweighted figure shows a slight increase but is not representative in that it compares all cities and towns regardless of size, population, and service offered. The aggregate figures for tax rate effect on RTA commumities (per $1000 at 100 per cent evaluation) are as follows.

1976	.336
1977	.33625
Percentage increase	+.074%

A more accurate assessment involves a sampling of one large city (listed first) and one suburban town (listed second) for each RTA area as shown in Table 6.2. While the tax rate effect for the majority of sampled cities and towns has increased, insufficient data are available to make definite generalizations. It appears convincing, however, that suburban towns experienced a tax rate increase, which could be due to public transportation.

TABLE 6.2

TAX RATE EFFECT ON SELECTED RTA COMMUNITIES
(PER $1000 AT 100% EVALUATION)

Pioneer Valley Transit Authority

	1976	1977	Percentage Change
Springfield	.43	.48	+11.6%
Easthampton	.01	.04	+300%

Worcester Regional Transit Authority

	1976	1977	Percentage Change
Worcester	.31	.34	+ 9.7%
Grafton	.04	.06	+ 50%

Southeastern Regional Transit Authority

	1976	1977	Percentage Change
New Bedford	.35	.32	- 8.6%
Dartmouth	.04	.06	+ 50%

Brockton Area Transit

	1976	1977	Percentage Change
Brockton	.27	.47	+74.1%
NA			

Lowell Regional Transit Authority

	1976	1977	Percentage Change
Lowell	.60	.52	-13.3%
NA			

Berkshire Regional Transit Authority

	1976	1977	Percentage Change
Pittsfield	.06	.07	+16.6%
Dalton	.20	.16	- 20%

TABLE 6.2--Continued

Merrimac Valley Regional Transit Authority

	1976	1977	Percentage Change
Haverhill	.05	.09	+80%
NA			

Cape Ann Transit Authority

	1976	1977	Percentage Change
Gloucester	.06	.06	0%
Rockport[a]	.08	.11	+37.5%

[a]not a member of CATA, but contracts for service

The fourth hypothesis can be neither conclusively proven nor disproven by quantitative analysis. The effect on the tax burden of subsidized public transportation cannot be definitively ascertained.

The fifth hypothesis is that wages to transportation company employees will increase with RTA contracts for transportation services. Data collected by EOTC compared wage rates for six months in 1974 prior to RTA contracts and for six months in 1975 after the formation of Lowell RTA, Southeastern RTA, and Worcester RTA. The following wage rates are reported.

	1974	1975	Percentage Change
LRTA	6.92	7.15	+ 3.32%
SRTA	3.75	4.27	+13.87%
WRTA	4.26	4.74	+11.27%

The figures for the Lowell RTA are not truly indicative of a change from private to public transportation service since both the city of Lowell

and subsequently the LRTA contracted with the MBTA, and wage rates were the same for all MBTA employees. In the Southeastern and Worcester areas, companies were receiving subsidies, but the dramatic increase in wage rates over a one year period still shows the effect of subsidization from all three levels of government. Much of the increase is attributed to a "catching up" of appropriate payment for transportation services. For years, private company wages had been below the standards compared to subsidized transportation wages due to the financial straits of the companies.

The fifth hypothesis is validated. Wages to transportation company employees appear to increase with RTA contracts for transportation services.

This analysis of pre-RTA and post-RTA data allows a consideration of the question: have the RTA's achieved the stated goal of providing better transportation service? Looking particularly at the first two hypotheses, the answer seems to be unquestionably "yes." Without defining "better transportation service" nor setting absolute standards, the comparison of benefits from 1974 to 1977 shows a significant increase in hours of service provided and in numbers of passengers using the service. For the three authorities where complete comparative route analyses were carried out in 1974 and 1976 (Pioneer Valley, Worcester, Southeastern), an average of 12 additional routes were offered in 1976 by each of the three authorities. The fact that revenue per passenger has decreased might also be construed as a benefit to the user, thus improving service. Free fare or reduced fare increases accessibility to the immobile, often those on fixed incomes and those least able to pay high fares. The receipt of

new equipment or anticipation of new equipment in the near future will also greatly improve service in terms of cleanliness and reliability of vehicles. The conclusion, then, is that the RTA's are definitely meeting the goal of providing better transportation service than was provided previously, though not necessarily the best service possible.

Comparative Analysis of RTA Operations

The state Executive Office of Transportation and Construction has attempted an analysis that compares RTA operations to similar operations around the country. This study has been hampered by the fact that very few states have such operations or offer state aid in a similar manner. Moreover, those states which are similar are only beginning to organize their information on a statewide basis. In 1977, Secretary Salvucci reported that the Commonwealth of Pennsylvania was most similar to Massachusetts in the way it provides and administers state aid to urban mass transit. At the time of the study, Pennsylvania had not compiled its data for fiscal year 1976 which was the first full year of operations for most of the RTA's in Massachusetts. Therefore, working with projected data from Pennsylvania and actual data from Massachusetts, the following comparison was made.[12]

Operating deficit for 10 urbanized areas outside Philadelphia and Pittsburgh for FY 1976	$7.5 million
Operating deficit for 7 urbanized areas outside Boston and for Cape Ann for FY 1976	$7.1 million
Per cent of cost paid by total revenue for FY 1976	
Pennsylvania	42%
Massachusetts	39%

[12]Letter from Frederick P. Salvucci, Secretary of Transportation for Massachusetts, to The Honorable Dennis J. Duffin, Boston, April 7, 1977, p. 3.

Cost per bus hour for FY 1976	
Pennsylvania	$14.06
Massachusetts	$16.46
Annual transit rides per capita for FY 1976	
Pennsylvania	17.08
Massachusetts	16.0

The statistics for Massachusetts are comparable, but minimally higher in cost and lower in ridership than for Pennsylvania.

In order to compare the RTA's in Massachusetts among themselves, in relative terms, several indexes ranking the eight authorities were formulated. The first such index looks at the scope of service of the RTA's by comparing data for revenue hours of service (the hours which the buses actually operate on the routes, rather than the inclusive hours of operation from start to finish), revenue miles (the miles which the buses actually travel on the routes rather than total miles which include dead-heading to and from the garage), and the total number of passengers carried in 1977. These figures represent transit service only. School and charter services offered by the private companies under contract to the RTA's are subtracted out of the data before presentation in all cases. This index compares all eight RTA's without reference to size, demographic, or geographic considerations. These are not the only items that might be used to represent the concept of scope of service. From available data, however, these indicators are the most representative of the output of the transportation authorities.

The raw data for each of these four indicators were converted into modified Z-scores[13] and added together. Scope of service is equal

---

[13]See Foster Lloyd Brown, Jimmy R. Amos, and Oscar G. Mink,

to the sum of Z-scores for revenue hours + revenue miles + annual passengers carried (see Table 6.3). The Scope of Service Index ranking compares the service offered among the eight operating RTA's in Massachusetts without relation to cost or other demographic and geographic factors. It does not result in absolute measurements. The ranking is as follows.

1.	Pioneer Valley Transit Authority	357.89
2.	Worcester Regional Transit Authority	331.66
3.	Southeastern Regional Transit Authority	316.44
4.	Brockton Area Transit	292.08
5.	Lowell Regional Transit Authority	282.50
6.	Berkshire Regional Transit Authority	275.39
7.	Merrimac Valley Regional Transit Authority	272.47
8.	Cape Ann Transit Authority	271.57

Scope of service alone does not fairly evaluate the relative performance of the RTA's since each operates under unique political, economic, demographic, and geographic conditions. The index merely reveals what a casual observer might already surmise from the raw data alone: the larger operations produce a higher scope of service. There is no need for the state's categorization of Groups A and B (according to annual ridership of over or under one million) since that classification merely divides the authorities within the same rank order between numbers five and six. Scope of service must be combined with an index of transportation needs which reflects the unique character of each RTA.

The literature on transportation points out four significant groups in society who are considered transportation disadvantaged: the elderly, the poor, the young, and the handicapped. Data on the first

---

Statistical Concepts--A Basic Program (New York: Harper & Row, 1975), pp. 103-106. The formula for the Z score is $Z = \frac{X - \bar{X}}{\text{standard deviation}}$. Brown, Amos, and Mink provide a formula for eliminating minus signs and decimals. The formula used here is $Z = 10\left(\frac{X - \bar{X}}{\text{standard deviation}}\right) + 100$.

TABLE 6.3

SCOPE OF SERVICE INDEX[a] FOR MASSACHUSETTS REGIONAL TRANSIT AUTHORITIES

		PVTA	WRTA	SRTA	BAT	LRTA	BRTA	MVRTA	CATA
Revenue Hours		297,634	213,567	174,128	78,985	50,000	18,130	10,006	7,640
	Z =	118.74	110.51	106.65	97.33	94.49	91.37	90.57	90.34
Revenue Miles		3,571,662	2,367,861	1,560,334	939,231	420,000	300,750	150,872	83,500
	Z =	120.50	110.20	103.30	97.99	93.55	92.53	91.25	90.67
Passengers		9,045,146	6,581,803	5,156,116	2,041,681	1,305,624	355,648	85,600	57,371
	Z =	118.65	110.95	106.49	96.76	94.46	91.49	90.65	90.56
Scope of Service (S)		357.89	331.66	316.44	292.08	282.50	275.39	272.47	271.57

[a] $S = \Sigma Z_{H.M.P}$ where S = Scope of Service, H = revenue hours, M = revenue miles, and P = passengers per annum.

three groups are available from the 1970 census for the RTA areas studied. The data are compared by examining the percentage of area residents over the age of 65, the percentage of residents under the age of 18, and the level of median income. A heated argument within the literature involves the effects of urban transportation on minorities, especially within central cities. Even scholars who dispute whether transportation is the main priority for improving living conditions for minorities agree that transportation has a great impact on the lives of those groups. Therefore, census data showing the percentage of minority population in the area has also been considered. Also available from census data is the percentage of area residents without access to automobiles. This factor has an obvious relationship to the need for public transportation. Finally, from the planning literature come the factors of area population, population density, and size of area. Transportation is needed in more heavily populated areas as well as in those areas with more residents per square mile where congestion is more likely to be a problem. More transportation is needed in larger areas by size.

These eight factors have been considered in computing an index of transportation needs. Modified Z-scores were again computed and added to give a total value for transportation needs. Therefore, need is equal to the sum of Z-scores for population + density + area + percentage without automobiles + percentage over 65 + percentage under 18 + percentage minority population and minus the median income score (since a higher income, and hence higher Z-score, shows less need)(see Table 6.4). The Transportation Needs Index ranking compares the relative potential for success of public transportation service among the RTA's as well as the

TABLE 6.4

TRANSPORTATION NEEDS INDEX[a] FOR MASSACHUSETTS REGIONAL TRANSIT AUTHORITIES

	PVTA	WRTA	SRTA	BAT	LRTA	BRTA	MVRTA	CATA
Population	506,248	285,616	281,783	89,040	94,280	79,792	46,144	33,574
Z =	121.20	106.99	106.74	94.33	94.67	93.74	91.57	90.76
Density	2,131	1,691	3,950	2,835	2,943	1,442	2,544	1,200
Z =	97.52	92.36	118.86	105.78	107.05	89.44	102.37	86.60
Area[b]	214	146	63	53	62	44	71	28
Z =	121.97	110.38	96.23	94.52	96.06	92.99	97.59	90.26
% Without Automobile	18.1	21.0	25.4	15.2	19.4	17.8	21.2	22.9
Z =	93.24	102.92	117.62	83.55	97.58	92.23	103.59	109.27
% Under 18	33.6	31.1	30.95	35.4	32.9	34.4	31.9	32.7
Z =	105.00	87.39	86.87	117.32	100.21	110.48	93.37	98.84
% Over 65	10.8	13.1	13.0	11.0	12.1	11.9	15.4	13.2
Z =	87.19	103.90	103.18	88.64	96.64	95.18	120.62	104.63
% Minority	5.0	1.8	2.15	2.8	1.2	2.1	1.2	0.2
Z =	122.09	98.08	100.71	105.58	93.58	100.03	93.58	86.08
Median Income	10,436	10,634	8,740	10,820	10,787	10,744	10,496	11,160[c]
Z =	99.40	102.28	74.78	104.98	104.50	103.87	100.27	109.91
Needs (N) =	648.81	600.24	655.43	584.74	581.29	570.22	602.42	556.53

[a] $N = \Sigma Z_{P,D,A,W,E,M,Y} - Z_I$ where N = Transportation Needs, P = population, D = density, A = area, W = percentage without automobiles, E = percentage elderly over age 65, M = percentage minority, Y = percentage young under age 18, and I = median income level.

[b] Area statistics are difficult to determine because of irregular RTA boundaries which follow neither county, SMSA, nor urbanized area boundaries. In some cases, estimated figures were derived from available data.

[c] A median income figure for the Cape Ann area was not available, but the mean income was available. Use of the mean for this Z-score lessens the accuracy of the comparison.

requirement for a greater scope of service offered by the RTA in order to meet area needs. The ranking is as follows.

1.	Southeastern Regional Transit Authority	655.43
2.	Pioneer Valley Transit Authority	648.81
3.	Merrimac Valley Regional Transit Authority	602.42
4.	Worcester Regional Transit Authority	600.24
5.	Brockton Area Transit	584.74
6.	Lowell Regional Transit Authority	581.29
7.	Berkshire Regional Transit Authority	570.22
8.	Cape Ann Transit Authority	556.53

In order to evaluate the RTA performance by the specific needs of the area, an index of transit mobility has been constructed. The formula for mobility is the score for scope of service divided by the score for transportation needs. The Transit Mobility Index ranking (see Table 6.5) is useful as a measure of the relative quality of service provided, not as an absolute evaluation.

TABLE 6.5

TRANSIT MOBILITY INDEX RANKING[a] FOR MASSACHUSETTS REGIONAL TRANSIT AUTHORITIES

1.	Worcester Regional Transit Authority	.5525
2.	Pioneer Valley Transit Authority	.5516
3.	Brockton Area Transit	.4995
4.	Cape Ann Transit Authority	.4880
5.	Lowell Regional Transit Authority	.4860
6.	Berkshire Regional Transit Authority	.4830
7.	Southeastern Regional Transit Authority	.4828
8.	Merrimac Valley Regional Transit Authority	.4523

[a] $M = \frac{S}{N}$, where M = Transit Mobility, S = Scope of Service, and N = Transportation Needs as developed by the sum of Z-scores in the Scope of Service Index and Transportation Needs Index.

The Transit Mobility Index ranking compares the eight RTA's in Massachusetts by examining the level of service provided as related to

the needs of the specific RTA areas. Because the scales are relative, ideal performance by an RTA in comparative terms would be demonstrated by identical ranked positions on each of the Scope of Service, the Transportation Needs, and the Transit Mobility Index rankings. An RTA which ranks higher on the Transit Mobility Index than on the Transportation Needs Index is exceeding its comparative expectations in providing mobility. An RTA which ranks lower on the Transit Mobility Index than on the Transportation Needs Index is not meeting its comparative expectations in providing mobility. It must be emphasized, however, that all rankings in this study are in comparative rather than absolute terms. Therefore, position on the scale does not necessarily judge RTA performance as adequate or inadequate.

The Transit Mobility Index provides interesting comparisons, however. The top of the ranking is dominated by larger operations (Worcester, Pioneer Valley, Brockton) which also demonstrate a high scope of service and relatively high needs. The fourth position, held by the Cape Ann Transit Authority, is surprising. Cape Ann is at the bottom of the rankings for scope of service and for transportation needs. It appears to be doing an admirable job, even perhaps an exceptional job, of meeting those needs in terms of mobility. Southeastern Regional Transit Authority is another notable exception. It ranks high in terms of scope of service and leads the ranking for transportation needs. Its mobility score, however, is seventh. Despite the extensive service offered by the authority, needs are so great that mobility provided is less than that for some smaller area transit services. The ranking does not indicate, however, whether authorities higher on the scale are offering too

much service for their needs, which would constitute a waste of efforts and money. Merrimac Valley, which has very little service and very high needs, offers the least mobility for area residents. The political and administrative problems in this authority were pointed out in the previous chapter. Much improvement is warranted in this authority in order for mobility to improve. The middle-ranking authorities, Lowell and Berkshire, appear in similar positions on each ranking. In comparative terms, each is performing as one might expect related to scope of service and transportation needs. Again, emphasis must be made that the scores are comparative and do not indicate that further improvement is not necessary.

The Transit Mobility Index ranking still does not consider the important factors of costs and standards for operations. The Executive Office of Transportation and Construction has developed guidelines for operating standards based on the collection of data from similar authorities around the country. An index of performance standards has been calculated by comparing each RTA performance with the following standards developed by EOTC.

1. Operating ratios[14] should be .20 or greater for regular fixed-route service unless such route is serving a substantial social purpose such as a particular elderly population.

2. Regular route service should maintain a minimum average of 1.5 passengers per mile.

3. Regular route service should maintain an average of at least 15 passengers per revenue hour.

4. An average total 1974 cost per bus hour for national sample of cities with populations of 250,000 or less was $13.41 and $11.42 for cities with populations greater than or equal to 250,001. One

---

[14]Operating ratio is defined in this instance as the proportion of revenue received to costs incurred $(\frac{R}{C})$.

standard deviation of the costs for these cities were $3.41 and $1.92 respectively. Costs per bus hour should be no more than one standard deviation above the mean for corresponding sized cities in Massachusetts with appropriate adjustments for inflation.

5. An average total 1974 cost per bus mile for a national sample of cities with populations of 250,000 or less was $0.94 and $0.88 for cities with populations greater than or equal to 250,001. One standard deviation of the costs for these cities were $0.17 and $0.19 respectively. Costs per bus hour should be no more than one standard deviation above the mean for corresponding sized cities in Massachusetts with appropriate adjustments for inflation.[15]

The index is calculated by determining the number of state standards that each RTA meets or exceeds. The rank ordering of RTA's in cases of ties is determined by calculating the percentage difference between the state standard and the level at which the RTA is operating. RTA's which are exceeding state standards by a greater amount and failing to meet state standards by a lesser amount are given priority in the ranking. The standards for operating ratio, passengers per mile, and passengers per revenue hour are as stated above. Insufficient data were provided, however, to separate out regular fixed-route service from special demand-responsive service provided to elderly and handicapped patrons in the RTA service areas. Neither were data provided concerning special routes serving a substantial social purpose. Therefore, the totals for operating ratio, passengers per mile, and passengers per revenue hour for each RTA are compared to the state standards. The standard cost figures have been calculated by using the maximum 1974 figure (the mean plus the standard deviation) and adjusting upward for inflation based on an annual inflation rate of 5.5 per cent. RTA's with populations of 250,001 or greater are Pioneer Valley, Worcester, and Southeastern. Those with populations of

---

[15] EOTC, "Program of Statewide Transit Analysis and Technical Assistance," June, 1976, p. 17.

250,000 or less are Brockton, Lowell, Berkshire, Merrimac Valley, and Cape Ann. RTA statistics for fiscal year 1977 were compared to the state standards to arrive at the Performance Standards Index (see Table 6.6).

TABLE 6.6

PERFORMANCE STANDARDS INDEX[a] FOR MASSACHUSETTS REGIONAL TRANSIT AUTHORITIES

	PVTA	WRTA	SRTA	BAT	LRTA	BRTA	MVRTA	CATA
Operating Ratio (R/C)	.33	.48	.37	.22	.31	.32	.13	.22
d=	+ .65	+1.40	+ .85	+.10	+ .55	+.60	-.35	+.10
Passengers/ Mile	2.53	2.78	3.30	2.17	3.11	1.18	.57	.69
d=	+ .69	+ .85	+1.20	+.45	+1.07	-.21	-.62	-.54
Passengers/ Revenue Hour	30.39	30.82	29.61	25.85	26.11	19.62	8.55	7.51
d=	+1.03	+1.05	+ .97	+.723	+ .74	+.31	-.43	-.50
Cost/ Hour	18.06	17.85	13.92	23.46	17.54	15.71	16.61	10.51
d=	- .153	- .14	+ .11	-.19	+ .11	+.20	+.16	+.47
Cost/ Mile	1.51	1.61	1.55	1.97	2.09	.947	1.10	.962
d=	- .20	- .28	- .23	-.52	- .61	+.27	+.15	+.26
Performance (P) =	3	3	4	3	4	4	2	3

[a]Performance (P) = number of standards which RTA meets or exceeds. Ties are broken for rank order by calculating the percentage above or below the standard at which the RTA is operating (d).

The Performance Standards Index compares the relative performance of the eight RTA's in Massachusetts by their meeting of state-determined

operating standards related to cost, revenue, and passenger volume statistics, as follows.

1.	Southeastern Regional Transit Authority	4
2.	Lowell Regional Transit Authority	4
3.	Berkshire Regional Transit Authority	4
4.	Worcester Regional Transit Authority	3
5.	Pioneer Valley Transit Authority	3
6.	Brockton Area Transit	3
7.	Cape Ann Transit Authority	3
8.	Merrimac Valley Regional Transit Authority	2

Without additional information related to exact route statistics, particularly those with a "substantial social purpose," it is impossible to determine from this index whether any RTA performance is inadequate or unacceptable for state funding. Moreover, the state standards are issued as guidelines rather than requirements, so adherence is not necessary for receipt of state subsidies.

Like the Scope of Service Index, the Performance Standards Index suffers in not considering demographic and geographic needs of the individual RTA areas. It is somewhat more inclusive than the Scope of Service Index, however, in that it considers cost and revenue figures as well as passengers, hours, and miles (all in relation to the cost and revenue data). Therefore, some conclusions can be drawn from the Performance Standards Index other than merely that large RTA's offer more transportation service, as was determined from the Scope of Service Index.

The larger RTA's are not necessarily those which are achieving the best results in standards of performance. Economies of scale are apparently not being realized as expected (and indicated by lower standard cost figures for authorities of 250,001 and greater). The smallest authorities, Cape Ann and Merrimac Valley, are as might be expected the

lowest ranking in terms of meeting the standards of performance. Very little can be concluded from this index about those authorities which appear in the middle of the ranking. It merely shows an authority where efforts for improvement might be concentrated in order to meet the standards.

It could be more interesting to look at the standards themselves to see how many authorities meet each standard, as follows.

Operating Ratio	7
Passengers/Mile	5
Passengers/Revenue Hour	6
Cost/Hour	5
Cost/Mile	3

Four of the standard figures are met by the majority of the eight authorities being analyzed. The final standard, cost per mile, is met by only three authorities. Perhaps this standard is too strict and should be modified to reflect present average costs.

The final index, a cost-benefit calculation, compares each authority's scope of service related to the cost for that service. Some inequity is unavoidable in the calculation because cost figures include capital costs for some authorities and not for others. Insufficient data were provided to subtract out capital expenditures for fiscal year 1977. Total cost figures were reported as follows and modified Z-scores were calculated.

	Cost	Z
PVTA	$5,374,428	118.26
WRTA	3,813,125	110.15
SRTA	2,423,116	102.92
BAT	1,853,097	99.96
LRTA	877,093	94.89
BRTA	300,265	91.89
MVRTA	166,187	91.19
CATA	80,380	90.75

Cost-benefit ratios can be determined by dividing the RTA scores for scope of service by the scores for total costs, resulting in a Cost-Benefit Index ranking (see Table 6.7).

TABLE 6.7

COST-BENEFIT INDEX[a] FOR MASSACHUSETTS REGIONAL TRANSIT AUTHORITIES

1.	Southeastern Regional Transit Authority	3.075
2.	Pioneer Valley Transit Authority	3.026
3.	Worcester Regional Transit Authority	3.011
4.	Berkshire Regional Transit Authority	2.997
5.	Cape Ann Transit Authority	2.993
6.	Merrimac Valley Regional Transit Authority	2.988
7.	Lowell Regional Transit Authority	2.977
8.	Brockton Area Transit	2.922

[a]Cost-Benefit ratio = $\frac{S}{Z_C}$ where S = scope of service score and C = total costs.

The ranking for the Cost-Benefit Index shows the larger RTA's at the top, apparently indicating that while economies of scale are not necessarily being realized, more benefits per dollar spent are produced. The three smallest RTA's appear in the middle of the ranking. While they may not rank high in terms of service, needs, mobility, nor performance, the cost-benefit rank seems to indicate that the dollars spent are being put to good use to produce benefits for area residents. Lowell and Brockton, being at the bottom of the list, show that not as many benefits are produced per dollar spent as for the other six authorities. This indicates a need to reduce costs, particularly since these two authorities rank higher in terms of mobility and service (indicators for benefits). Lowell has suffered high costs because of its former contract with the

MBTA for service, and now is hampered by the maintenance of effort provision regarding local subsidies. Brockton's pulse system is very expensive and the high costs have caused some consternation among state officials. The low position for Brockton in cost-benefit terms seems to confirm those fears that the service offered is too expensive for the benefits allowed. The Cost-Benefit Index is useful in comparing relative levels of service to costs, even while it does not consider transportation needs, nor geographic and demographic characteristics of the authorities.

All five indexes constructed (Scope of Service, Transportation Needs, Transit Mobility, Performance Standards, and Cost-Benefit) are in relative terms to one another. None of the indexes produces an absolute measure for transportation service nor performance. They compare the regional transit authorities in Massachusetts for available data measuring overall operations in economic, demographic, and geographic factors, as well as service levels of performance. They do not necessarily evaluate in terms of good, fair, or poor performance in general, nor do they compare the RTA's to other public authorities in the nation. They do not give any indication of why particular authorities rank higher than others in a cause-effect relationship. Qualitative assumptions may be expressed about the effects of the abilities of administrators, the amounts of authority exerted by the Advisory Boards, the support of local political bodies, the availability of local funds, the longevity of RTA existence, and other considerations. However, none of the qualitative assumptions can be proven by the quantitative data. The indexes explain only that the higher ranking authorities are providing more service, have more

needs, offer more mobility, meet more state standards, or produce more benefits per dollar of costs than those ranking lower on the scales.

Both the Transit Mobility Index and the Cost-Benefit Index are preferable to the Performance Standards Index of state operating standards and are recommended to the EOTC for use. The state guidelines are preoccupied with per unit measurements which do not reflect the adequacy of a transportation system to meet the demands of a particular area, nor compare total scope of service to costs incurred. Insufficient definitions are provided in the state guidelines to accurately determine whether an authority is meeting the guidelines given the exclusion for substantial social purpose. When dollar constraints are important, the Transit Mobility Index should be used in conjunction with the Cost-Benefit Index to determine areas where improvement is necessary and where efforts should be concentrated. To more completely assess these areas for concentration in relative terms, all five indexes can be compared, as follows.

	Service	Needs	Mobility	Performance	Cost-Benefit
1.	PVTA	SRTA	WRTA	SRTA	SRTA
2.	WRTA	PVTA	PVTA	LRTA	PVTA
3.	SRTA	MVRTA	BAT	BRTA	WRTA
4.	BAT	WRTA	CATA	WRTA	BRTA
5.	LRTA	BAT	LRTA	PVTA	CATA
6.	BRTA	LRTA	BRTA	BAT	MVRTA
7.	MVRTA	BRTA	SRTA	CATA	LRTA
8.	CATA	CATA	MVRTA	MVRTA	BAT

Comparing these five indexes, each authority can determine where efforts must be directed (in relative terms) to improve operations and performance overall. For example, Pioneer Valley offers extensive service, has high needs, and provides good mobility. Efforts could be concentrated to improve the performance levels, particularly related to costs,

although benefits per cost are relatively high. Worcester Regional Transit Authority offers extensive service, has fairly high needs, and provides relatively excellent mobility in relation to those needs. It could also improve performance levels related to costs. Southeastern Regional Transit Authority offers good service but has very high needs, and it provides less mobility in relation to those needs than might be expected. Its performance levels are excellent, as are benefits per cost. Efforts should be concentrated to improve mobility even at the risk of increasing costs. In other words, more risks can afford to be taken to improve mobility.

Brockton Area Transit offers an average level of service to meet average needs, providing good mobility for the area. Performance levels are relatively low and cost-benefit ranking is poor. Efforts must be directed to improve cost-related levels of performance before service extensions are promoted. Lowell Regional Transit Authority offers average service, has average needs, and provides average mobility relative to the other authorities to meet area needs. It ranks high on performance levels, but relatively low for cost-benefit. Efforts should be directed to reduce costs. Berkshire Regional Transit Authority offers limited service, has limited needs, and provides average mobility for those needs. It ranks high on performance levels and relatively high for cost-benefit. It appears to be a well-rounded authority in relative terms and can increase benefits while maintaining per unit costs.

Merrimac Valley Regional Transit Authority offers limited service, has high needs, and provides relatively poor mobility for those needs. Its performance levels are low, but cost-benefit ranking is slightly higher. It must certainly concentrate on improving service

levels without a large increase in per unit costs. Finally, Cape Ann Transit Authority offers limited service, has limited needs, and provides relatively good mobility for those needs. Its performance levels are low, but cost-benefit ranking is better. It can improve its benefits without increasing costs, perhaps by initiating an extensive marketing program for better utilization of the service provided.

Conclusion

The quantitative analyses carried out in this chapter allow some cautious conclusions and generalizations to be expressed. Regional transit authorities in Massachusetts appear to have improved the level of public transportation service offered to their area residents since their creation. The majority of the authorities are operating above most of the minimum desirable levels of performance as determined by the state Executive Office of Transportation and Construction. While per unit costs for service have not necessarily increased, the increase in service and the reallocation of financial responsibility onto the taxpayer have raised costs to the public. Therefore, the decision of whether or not a community continues a transportation service is often one which addresses the question of whether transportation should be a public utility.

The lack of quantitative data analyzing public transportation operations nationally and the lack of data in Massachusetts for the period prior to RTA formation make rigorous analysis impossible. Efforts undertaken by the Massachusetts Executive Office of Transportation and Construction to develop data are to be commended as a start in creating a basis for national standards, goals, and means of evaluation. The UMTA has been criticized for a lack of specific goals and quantitative objectives,

and Massachusetts seems to be a leader in attempting to fill this void. Caution must be used, however, in applying strict quantitative standards to public transportation service because of unique local differences, priorities, and goals. Operating performance standards must be more reflective of area transportation needs and less dependent on merely passenger volume, cost, and revenue statistics. Use of the Transit Mobility and the Cost-Benefit Indexes as developed here are recommended as a more complete means of measuring RTA performances and deficiencies. Quantitative data is thus used to aid in qualitative decision-making. The development of further data is encouraged to be used as a yardstick, but not as a requirement.

CHAPTER VII

CONCLUSION

Regional transit authorities in small urban areas are a relatively new creation nationwide, and Massachusetts has been among the innovative states in organizing and financing these public bodies. Innovators have no other examples to follow in the setting of policies and the execution of functions. Therefore, it is important to examine processes and policies in innovative states in order for the states which enter the transportation business at a later date to learn from others' experiences.

The authorities in Massachusetts have existed for only four years at the most, several for less time. While out of their infancy, the authorities are still in their formative years, learning by doing, making mistakes, setting precedents, and generally muddling through. At this stage of their existence, the most important priority remains that of keeping public transportation running. The very magnitude of that task has often precluded the opportunity for authority officials to create firm policies, arrange standard operating procedures, complete government paperwork, and expand or improve operations. In many cases, the only goal for the authority is to keep the buses running. The development of quantitative measures to assess progress is less important than the provision of a public service.

Nonetheless, this researcher feels that quantitative measures, when used appropriately, can be useful guidelines in future efforts toward the provision of transportation service, as well as in policy-making. Quantitative analysis can also dispel false impressions concerning public transportation. In the preceding chapter, five hypotheses were evaluated with the use of available quantitative data. It was found that public transportation is not necessarily more expensive to operate than is privately operated transportation, but the chief financial burden is redistributed from the private user to the taxpayer. However, it was also found that benefits provided by public transportation are apparently greater than those provided by private operators alone.

Considering the financial implications for governments involving themselves in public transportation, the evaluation found that total revenue for the transportation system will increase under public operation, though the revenue to cost ratio will decrease. In other words, while the total system revenues may increase, costs increase at a greater rate creating a higher percentage deficit of the total costs. Insufficient data were available to determine the effect on the tax rate from the provision of public transportation, though it appears to increase at least in the suburban towns. It was determined that individual employee wages appear to increase under public operation. Using this information, limited as it is, governments considering entering the public transportation arena can consider, according to their own priorities and cost-benefit calculations, whether the increased benefit will be worth the redistribution of financial burden onto the taxpayers.

Quantitative analysis revealed a need to examine unique demographic and geographic differences among the authorities. Standards of performance

and budgetary data alone do not fairly assess the authorities in relation to one another. Comparative indexes of mobility and cost-benefit ratios can be calculated by using and examining more extensive data for the regional transit authorities. Comparison of indexes is most useful to determine areas where the authorities must concentrate their efforts in order to improve service and operating procedures.

Probably more important are the qualitative conclusions which can be drawn from this in-depth study of regional transit authorities in small urban areas of Massachusetts. Chapter two posed several areas of consideration for this study: 1) the stimulus for entry of government into the public transportation arena; 2) the constituent base for public transportation; 3) the resulting inter-governmental relations; 4) the decision-making processes; 5) the goals and 6) effects of transit policy in small urban areas.

Stimulus

Why was transit found to be desirable in small urban areas? Several factors in Massachusetts were responsible for the new status given to public transportation in small areas. Private companies were failing financially, reducing or eliminating service, allowing equipment to fall into disrepair, and raising fares for poor quality transportation. Government officials in the small cities were aware of the need of central city residents for transportation. In several cases, subsidies were paid in order to keep transportation by the private companies in operation. The local subsidies, however, were not enough to improve service, and minimal benefit was experienced by taxpayers who supported the costs of subsidizing the service.

Small cities in Massachusetts wanted equitable consideration from the state in terms of their residents' needs. Public transportation in the Boston metropolitan area was a large financial drain on the state budget. Residents and public officials from outside the Boston area demanded the same state efforts on their behalf as those provided to Boston. This stimulus lifted the topic of public transportation for small urban areas to the state level.

At the same time the immobile were recognized. The young, the old, the handicapped, and the poor, themselves traditionally not politically active, found spokesmen for their cause in many social areas. Transportation was only one need but provided the coordination with many other necessities of life. Emphasis by the state and federal governments was placed on the elderly and handicapped by requiring specific accommodations to their needs in public places. State officials talked about the special "social purpose" of transportation programs. Small cities with a concentration of the immobile groups within the population were also required to meet these special needs.

Federal grants for transportation were on the horizon at the time the legislation for regional transit authorities in Massachusetts was first introduced. By the time of passage, capital grants were available and operating grants were on the horizon. This factor certainly had some influence in Massachusetts, though less than might be expected had the legislation followed the federal enactments. The state's offer of subsidies, a response to local pressure, was more important in stimulating the acceptance of public transportation for small urban areas than was the prospect of federal subsidies.

An additional factor affecting the status of public transportation in small areas was the energy crisis. While it followed enactment of the legislation, the shortage of energy and the drastic increase in price of fuel affected local areas in their consideration of regional transit authority formation.

Stimulus for entry of the government into the public transportation arena came primarily from the local level. Local initiatives brought about a state response which happened to coincide with federal proposals. This fortunate timing allowed immediate action and cooperation by all levels of government in dealing with the public transportation needs of small urban areas.

Constituency

Traditionally, the constituent base for such "public regarding" issues as public transportation has been small. The factors which provided the stimulus to raise the status of transportation as an issue, however, also increased the size of the supportive constituency. Planners have in most cases been the motivating factors in considering public transportation as part of the urban environment. Because transportation is a new field in public administration and political science, planners formerly possessed the only expertise in the area.

City officials and central city residents of the small urban areas of Massachusetts were among the first to support the issue of public transportation. The need of the city residents for public transportation is greater than that in the suburbs and rural surrounding areas. Conditions tend to be more depressed in the cities, as well, with the corresponding conditions of unemployment, failing central business

districts, and a higher percentage of immobile population, the elderly, handicapped, poor, and young.

Environmental groups were instrumental in supporting public transportation and constituted an important coalition of interest groups and individuals. Environmentalists are concerned about various issues related to transportation: the destructiveness of highways to human, animal, and vegetable populations; the quality of air and water resources; congestion in cities; conservation and land use planning; and the conservation of energy resources.

In order to expand the fragile constituent base of public transportation, there is a need to educate citizens on how to ride buses. A fear of getting on the wrong bus, getting off at the wrong stop, not having the correct fare, or being subjected to dirty conditions and unsavory passengers persists despite improvements in public transportation systems. Opposition to public transportation also persists. For those regional transit authorities closest to Boston's MBTA, fear and distrust of the potential financial involvement is a very real factor. For all RTA's, minor opposition comes from those groups which oppose or fear regionalism or oppose any expansion of public support to the private sector.

Inter-Governmental Relations

Generally, inter-governmental relationships for the regional transit authorities are good. Policies are not usually in conflict because of the consensus-type decision-making of the metropolitan planning organization, the RTA Advisory Board, and the option of local withdrawal from RTA membership. The primary requirement for RTA success, however,

is local political support. Without that support, good inter-governmental relations at the state and federal levels are useless.

No two authorities are exactly the same in their operations and contacts. One-to-one relationships exist between each RTA and its corresponding regional planning commission, the Executive Office of Transportation and Construction, and UMTA. Some minor conflict exists between the RTA and its RPC and between the RTA and EOTC over long versus short-range goals. The RTA is primarily concerned with short-range implementation; the RPC looks more to the future development of the transportation system as related to the urban environment; the EOTC wants to develop quantitative guidelines which take longer to develop than the RTA's feel is useful. Some RTA administrators also express a fear that the state is trying to take over local prerogatives. Rather, it appears that the state is more politically-attuned while the RTA's are operationally-oriented.

RTA administrators represent a new orientation to transportation planning. As public administrators, even though many have planning backgrounds, they reflect the need for more than a planning orientation toward transportation. Politics and administration become important factors when transportation enters the public arena. The administrators are a new breed of public officials, and their presence may breed familiarity or contempt in inter-governmental circles. Personality conflicts and power plays have in some cases arisen between RTA administrators and RPC transportation planners or state officials. While these conflicts have not created deadlocks for progress, they point out the importance of personality.

Personal contacts have proven to be as important as professional knowledge and the completion of paperwork for achieving inter-governmental

cooperation. Professional transportation officials are so few in number compared to other inter-governmental bureaucracies that a fraternal atmosphere sometimes exists. There is some transfer of personnel among the levels, and friendship among officials is often the key to producing results. This appears to be true at both the RTA-state and the RTA-federal levels. Certainly the long paperwork process is shortened by a friendly, rather than a professional, call to Boston or Washington, D. C.

Decision-Making

Truly, the decision-making within the regional transit authorities is incremental, a process of muddling through. Each authority has its unique method within its Advisory Board based on some type of consensus and discussion. For the most part, the authorities are not making policy, but are making decisions on daily, operational matters. In terms of policy, directives arriving from UMTA and EOTC are interpreted, refined, and implemented at the local level.

Transportation appears to be a low priority when compared to other public concerns at the local and regional levels. Questionnaire responses indicated that the most important priorities were 1) industrial and economic development, 2) housing, building, and zoning, and 3) education and unemployment. Citizen concern and input is not highly evident in the decision-making process. Advisory Board members indicated in questionnaires that they consider most the opinions and the needs of 1) the elderly, 2) the administrator, and 3) the local businessmen.

Only occasionally do citizens and city officials question whether the service is worth the expense. Decisions are made by one official or designee on the behalf of each community, and assessments are made on the

annual "cherry sheet" along with all local to state payments for public services. Hence, public awareness of decisions, costs, and benefits is very low.

The primary element in decision-making is the administrator: his strength or weakness with the Advisory Board and his expertise in transportation. In authorities with strong administrators, the Advisory Board often merely approves the administrator's suggestions. Innovative administrators produce greater results within their authorities, in dealings with other agencies, in inter-governmental relations, and in showing greater progress on the streets. Again, personality is a much greater factor than the reams of paperwork required of public agencies.

Goals

The goal for each RTA is to provide good transportation and to maximize personal mobility. In order to make that goal more definite, each RTA may specify distinct objectives toward that end. The objectives include the individual specifications for routes, equipment, maintenance, schedules, and personnel. For purposes of generalization, such detail is inappropriate.

In general, the first objective is to improve the present service. This often includes the task of achieving credibility for the RTA and for public transportation as a whole, especially if previous service was poor. Improvements come by way of cleaner buses, more courteous drivers, on-time reliability, and adherence to posted routes. The fare system is often an obvious target for improvement. Fares may be lowered, standardized, or reductions offered for special segments of the population.

The second objective is generally to expand service within the designated RTA area, to increase membership in the RTA, or both. New

equipment is often needed to enable the expansion to occur, and awaiting its receipt may cause long delays in the achievement of this objective.

Special program implementation is generally the third objective. Of primary concern is service for the elderly and handicapped by means of special vehicles, demand-responsive service, or service on a group reservation basis. Other special programs may include subscription commuter service to places of employment, shopper specials, service from fringe parking to central business districts, and service for youth activities.

When these service improvements are achieved, the fourth objective is to carry out a marketing campaign. This objective does not necessarily fall fourth chronologically, but RTA administrators feel that the product must be much improved before marketing is feasible.

Effects

It is very difficult to compare the regional transit authorities in terms of effects. Each is unique in demographic and geographic terms, but a more important difference is the maturation of each. The oldest is four years, the youngest not yet two years and still non-operational. Time is a crucial factor leading to RTA effectiveness. Generally, RTA formation enables at least a continuation of the status quo for an initial period. Further effects are dependent upon the strength of the administrator, the amount of local political support, the receipt of state and federal subsidies, and the receipt of new equipment. Estimates from the administrators are that five years are needed for the RTA to reach potential operating capability.

Efforts to improve service lead to an improved image for public transportation, an important factor in increasing ridership and revenue.

Viable public transportation systems, found in several RTA areas, create economic advantages for the communities by generating some employment and business from the RTA and the contracted company providing service. Central business districts from which transportation routes originate recognize a revitalization or, at the very least, a lessening of degeneration of the area.

The most advantageous effect has been felt by the immobile in the RTA areas. The elderly have experienced the greatest benefit by means of reduced fares, easier accessibility to buses (as required by UMTA), and in several areas by the special demand-responsive programs offered for elderly residents. While the handicapped have also benefitted, few authorities yet have the equipment to meet all the needs of this group for safe transportation. Better advertisement and coordination, as well as the receipt of new equipment are necessary to meet the immense needs of the immobile.

Recommendations

The creation of regional transit authorities for small urban areas, as organized in Massachusetts, seems clearly a worthwhile undertaking. The benefits of such a public body for the provision of transportation, as analyzed herein, seem well worth the minimal burden placed upon the taxpayer by three levels of government. This is not to say, however, that improvements cannot be made in the operation and process of RTA transportation services.

Most important for consideration is the shortening of the process for application, review, acceptance, and payment of federal grant monies. The Massachusetts Department of Elder Affairs discovered through its LINKS

program that the grant procedure through UMTA would probably require five years from inception to the receipt of capital equipment. During this amount of time prices increase, needs vary, and available equipment becomes more advanced. This outdates system improvements by the time they are made. RTA administrators emphasize that UMTA officials in Washington, D. C., are mired in bureaucratic paperwork, out of touch with local and regional needs, and occasionally even inept in their counsel and advice to the authorities. The decentralization initiated within federal agencies several years ago should be continued as expeditiously as possible to enable decisions to be made by regional offices. UMTA officials at the Cambridge, Massachusetts, regional office appear to be attuned to regional needs, willing to provide technical or policy advice, and eager for speedy action on all grant applications. They should be given the authority to approve grant applications at this regional level.

The amount of paperwork and the extreme duplication of paperwork must be reduced or eliminated. Planning documents and grant applications required by the federal government often total several hundred pages and include repetitious information concerning history, geography, demography, and analyses of alternatives for the sake of analysis. The same or similar information must be reported again in each document in order for the document to be complete. Not only does this paperwork requirement waste the administrator's time and the authority's money, but it is often irrelevant to the review of the document by UMTA. While the initial study and report of such information by the regional transit authority or the regional planning commission may be useful, its repetition in print can serve no obvious purpose.

The reporting of quantitative data also must be simplified and reduced. Efforts to simplify such requirements by means of Project FARE (Financial and Accounting Reporting Elements) have now expanded to such a point that computerization of the reporting system is advised. Officials of the transportation companies under contract to the RTA's complain that present personnel must be diverted from assigned responsibilities or new personnel hired to handle reporting of such extensive data. While quantification is desirable, its use is limited when it becomes too complicated or produces results too late for implementation. Annual reports from the RTA's to EOTC, due at the end of the fiscal year, are often months late, and final analysis may lag by one year from the time period under consideration.

The analysis of such data must be more sensitive to geographic and demographic differences among the RTA's. While EOTC divides the authorities for analysis into Groups A and B by means of total ridership, no effort is made to evaluate the specific needs of the authority areas for public transportation. While EOTC mentions that operating guidelines may be relaxed when routes serve a substantial "social purpose," this purpose is not defined nor considered in the quantitative analysis. RTA administrators argue that EOTC places too much emphasis on the quantitative analysis without recognition of unique differences among the authorities. This researcher feels that EOTC also confines its quantitative analysis to too narrow a data base.

In order to improve the understanding of EOTC officials for the unique needs and characteristics of the RTA areas, a process of decentralization must take place within the state. State transit officials should

make more of an effort to visit the regions regularly, ride the buses, evaluate the accessibility, mobility, and visibility of the transportation system, and obtain a feel for the particular area. While RTA administrators complain that the state transit staff do not visit the regions frequently enough, administrators often spurn their attempts at visitation. Administrators fear that the state bureaucracy will encroach on regional autonomy and authority in policy and operational decisions. This researcher did not find that the state transit staff had that goal in mind. Even so, however, a recommendation for more decentralization of authority and autonomy is suggested. In order for the RTA's to establish credibility as businesses, quasi-governmental bodies, employers, and regulators (all of which they are), they must be able to make decisions within the Advisory Boards without continuously seeking state approval. The older authorities have somewhat more successfully practiced this autonomy.

The RTA's must be allowed and encouraged to operate more with a profit motive. Under the present legislation, private companies may retain the rights to any runs within the region or from within to outside the region. The intent of the legislation was to protect private enterprise by means of the contracting provision for transportation service and by allowing private companies to operate routes without RTA subsidy. In effect, this has delegated the profitless routes to the RTA while enabling private companies to retain or apply for new routes which are profitable. The regulatory power of the RTA should be expanded so that the authority contracts for all public routes of a carrier, regardless of gain or loss of profits, and can apply competitively for routes which leave the region and provide a profit.

Inter-agency cooperation for transportation services must be encouraged and given a high priority. It is a more efficient use of resources, expertise, and the taxpayers' money to coordinate transportation efforts within a region. This includes provision of special services for the elderly, handicapped, subscription commuters, school children, and special groups such as day-care patrons, volunteer workers, shoppers, or from other organizations. Every effort must be made to receive compensation from other governmental agencies for transportation services, including the Department of Health, Education and Welfare, the Administration on Aging, their state counterparts, and other agencies operating under legislative provisions for special transportation services. Within the boundaries of the law protecting private enterprise, RTA's must be allowed to operate special services to accommodate those needing transportation, to include school children when necessary and feasible.

In its four years of existence, the regional transit authority as a public agency has demonstrated that it can provide a substantial public service by means of public transportation. While some local officials express skepticism about the future of federal funding, they are supportive on the whole of the regional transit authority and its task. It is important, then, to insure the future success of the regional transit authority by strengthening its local and regional authority, autonomy, and operating capabilities, rather than by burdening the authority with excessive, unnecessary paperwork and bureaucratic restrictions.

BIBLIOGRAPHY

Articles

Transportation

"A New Stab at Aiding Mass Transit." Business Week (January 26, 1974), 52-53.

"A Shortage of Funds for Mass Transit." Business Week (March 10, 1975), 27.

Adams, Brock. "Transportation and Energy: Outline of a Coherent Policy." The Nation (March 23, 1974), 364-367.

Alcott, Edward S. "Innovative Approaches to Urban Transportation Planning." Public Administration Review, 33 (May/June, 1973), 215-224.

Altshuler, Alan A. "Changing Patterns of Policy: The Decision Making Environment of Urban Transportation." Public Policy, 25 (Spring, 1977), 171-203.

_____. "The Federal Government and Para-Transit." Para Transit, 164 (1976).

_____. "Transit Subsidies: By Whom, For Whom?" Journal of the American Institute of Planners, 35 (March, 1969).

_____, and Curry, Robert W. "The Changing Environment of Urban Development Policy--Shared Power or Shared Impotence." Urban Law Annual, 10 (1975), reprint.

Anderson, J. Edward. "Personal Rapid Transit." Environment, 16 (April, 1974), 6-11.

Avery, George A. "Breaking the Cycle: Regulation and Transportation Policy." Urban Affairs Quarterly, 8 (June, 1973), 423-438.

Barsness, Richard W. "The Department of Transportation: Concept and Structure." Western Political Quarterly, 23 (September, 1970), 500-515.

Bearak, Barry. "Our Frustrating Buses." Miami Herald, August 21, 1977.

Bell, G. W., and Olsen, W. T. "Overview of Public Transportation and the Elderly: New Directions for Social Policy." Gerontologist, 14 (August, 1974), 324-330.

Borukhov, Eli. "Diseconomies of Scale in Urban Transportation." Southern Economic Journal, 38 (July, 1971), 79-82.

Bruce-Briggs, B. "Mass Transportation and Minority Transportation." The Public Interest, 40 (Summer, 1975), 43-74.

Brunelle, Philip D., and Briere, Glenn A. "Compromise on Tornek Adopted." Springfield Union, August 11, 1976.

Burnett, Pat. "Decision Processes and Innovations: A Transportation Example." Economic Geography, 51 (July, 1975), 278-289.

Colcord, Frank, "Decision-Making and Transportation Policy: A Comparative Analysis." Social Science Quarterly, 48 (December, 1967), 383-397.

Cook, Alberta. "Taxis in Demand Downtown as Strike Strands Bus Riders." Sun (Lowell, Ma.), October 24, 1977.

Dewees, Donald N. "Travel Cost, Transit, and Control of Urban Motoring." Public Policy, 24 (Winter, 1976), 59-79.

Dorsey, James R. "Transportation Bill." Lynn Item (October 3, 1973).

Doyle, Ann. "Tornek Defends PVTA Bus Pact." Springfield Union, August 5, 1976.

Due, John F. "Urban Mass Transit Policy: A Review Article." The Quarterly Review of Economics and Business, 16 (Spring, 1976), 93-105.

Eckert, R. D., and Hilton, George. "The Jitneys." Journal of Law and Economics, 15 (October, 1972), 293-325.

Elliott, Ward. "The Los Angeles Affliction: Suggestions for a Cure." The Public Interest, 38 (Winter, 1975), 119-128.

Fall River Herald News. "Final Action on Transportation Bill Due," September 27, 1973.

_____. "Five State Bills Aimed at Transportation Problems," August 24, 1973.

Fletcher, Doug. "...Mostly Trick." Fitchburg Sentinel, October 6, 1973.

"Free Rides, Fare Cuts, Come-Ons--All to Get People Onto Buses." U. S. News and World Report (February 3, 1975), 56-57.

Gillen, David W. "Alternative Policy Variables to Influence Urban Transport Demand." Canadian Journal of Economics, 10 (November, 1977), 686-695.

"Help for Mass Transit." Time (December 9, 1974), 98.

Horton, Frank E.; Louviere, Jordan; and Reynolds, David P. "Mass Transit Utilization: Individual Response Data Inputs." Economic Geography, 49 (April, 1973), 122-33.

"How the Rest of the World Copes with Traffic Jams." U. S. News and World Report (February 7, 1977), 31-33.

Howard, Terry. "Transit Grants Not a Panacea." The American City, 90 (February, 1975), 58.

Kain, John F., and Meyer, John R. "Transportation and Poverty." The Public Interest, 18 (Winter, 1970), 75-87.

Kirby, R. F. "Para-transit: Experience and Potential in the U.S.A." Ekistics, 42 (July, 1976), 19-27.

Koutsopoulos, K. C., and Schmidt, C. G. "Mobility Constraints of the Carless." Ekistics, 42 (July, 1976), 29-32.

Kraft, Gerald. "Free Transit Revisited." Public Policy, 21 (Winter, 1973), 79-106.

" 'Last Hope' Effort for Transit: Where 12 Billions in Aid Will Go." U. S. News and World Report (December 23, 1974), 42-44.

Lisco, Thomas E. "Mass Transportation: Cinderella In Our Cities." The Public Interest, 18 (Winter, 1970), 52-74.

"Making Mass Transit Work." Business Week (February 16, 1974), 74-80.

Marando, Vincent L. "Metropolitanism, Transportation, and Employment for the Central-City Poor." Urban Affairs Quarterly, 10 (December, 1974), 158-169.

Mengies, Ian. "Brockton: You Gotta Be Kidding." Boston Globe, May 7, 1975, p. 3.

Mertins, Jr., Herman. "The Impacts of Transportation Policy-Making." Public Administration Review, 33 (May/June, 1973), 205.

_____. "The 'New Federalism' and Federal Transportation Policy." Public Administration Review, 33 (May/June, 1973), 243-252.

Miller, David R. "New Challenges, New Institutions." Public Administration Review, 33 (May/June, 1973), 236-242.

Moses, Leon N., and Williamson, Jr., Harold F. "Value of Time, Choice of Mode, and the Subsidy Issue in Urban Transportation." The Journal of Political Economy, 71 (June, 1963), 247-264.

Nash, J. "Bus Riding: Community on Wheels." Urban Life, 4 (April, 1975), 99-124.

Newcombe, Nancy. "Selectmen Prefer U. S. Head Count for Transit $." Amherst Record, September 26, 1973, 1.

Newman, John. "A Ride for Everyone." Environment, 16 (June, 1974), 11-18.

New York Times, 1973-1974.

O'Connor, John J. "Legislature to Consider $375 Million for Transit." Worcester Telegram, September 20, 1973, 1-2.

Olcott, Edward S. "Innovative Approaches to Urban Transportation Planning." Public Administration Review, 33 (May/June, 1973), 215-224.

Organization for Economic Cooperation and Development. "Improved Transportation Systems." Environment, 16 (March, 1974), 28-33.

Owen, Wilfred. "Urban Transformation Through Transportation." Nation's Cities, 15 (May, 1977), 15-20.

Page, C. "Is the Ten-Year Wait for a Good City Bus Coming to an End? Are You Holding Your Breath?" Nation's Cities, 15 (May, 1977), 4-6.

Pashigian, B. Peter. "Consequences and Causes of Public Ownership of Urban Transit Facilities." The Journal of Political Economy, 84 (December, 1976), 1239-1260.

Perloff, Harvey S., and Connell, Kathleen M. "Subsidiary Transportation: Its Role in Regional Planning." Journal of the American Institute of Planners, 41 (May, 1975), 170-183.

Poister, Theodore. "Urban Transportation Planning and Policy Making." Public Administration Review, 35 (January/February, 1975), 94-98.

"Public-Transit Boom--Will It Hold Up?" U. S. News and World Report (April 1, 1974), 58-59.

Regunberg, Michael. "Tornek Issue Clouded Over." Springfield Republican, August 15, 1976.

Roos, Daniel. "Doorstep Transit." Environment, 16 (June, 1974), 19-20, 26-28.

Scheiner, James I., and Starling, Grover. "The Political Economy of Free-Fare Transit." Urban Affairs Quarterly, 10 (December, 1974), 170-184.

Schneider, Lewis M. "Urban Mass Transportation: A Survey of the Decision-Making Process" in Bauer, Raymond A., and Gergen, Kenneth J., ed. The Study of Policy Formation. New York: The Free Press, 1968.

Schultz, Carol, and Delo, Pat. "Dukakis Urged to Kill Legislation--Board Acts to Keep Tornek as Director--Transit Chief Faces Decision." Springfield Daily News, August 4, 1976.

Sherman, Roger. "A Private Ownership Bias in Transit Choice." The American Economic Review, 57 (December, 1967), 1211-1217.

Smerk, George M. "The States and New Mass Transit Aid." State Government, 48 (Spring, 1975), 73-78.

Smith, D. Joseph. "State Transportation in Transition." State Government, 48 (Spring, 1975), 67-72.

Smith, Jim. "He Fights Threat of Secession." Springfield Daily News, February 23, 1977.

Springfield Daily News, January, 1975, to August, 1976.

_____. "Bus-Line Aid Faces Vote," September 18, 1973.

_____. Editorial, June 18, 1975.

_____. "Transit Authority Administrator Answers Editorial." June 24, 1975.

_____. "Vote Scheduled Today on Transportation Plans." September 26, 1973.

Stern, Earle. "Transportation Bill Fate Hangs." Lynn Item, September 21, 1973.

Stokes, B. R. "Bay Area Rapid Transit: A Transportation Breakthrough." Public Administration Review, 33 (May/June, 1973), 206-214.

Sun (Lowell, Ma.). "Bus Service," February 13, 1978.

_____. "Cards Available to Give Elderly Substantial Savings," November 18, 1977.

_____. "Change in Bus Times Delayed," October 27, 1977.

_____. "Disruption of Bus Service Looms as Negotiations Stall," October 21, 1977.

Sun (Lowell, Ma.). Editorial, October 26, 1977.

_____. Editorial, October 31, 1977.

_____. "Fine Editorials on Bus Strike," November 8, 1977.

_____. "Little Notice of Transit Fund Cutoff," November 8, 1977.

_____. "LRTA Changes Bus Schedule, Offers Transportation to Boston," February 12, 1978.

_____. "LRTA Offers Holiday Specials," December 12, 1977.

_____. "No Solution in Sight to Bus Service Loss," December 6, 1977.

_____. "Services Available," February 10, 1978.

_____. "Transportation Problem Faces Discussion Tonight," November 7, 1977.

Sylvester, David. "Alternative Bus Service During Strike Considered." Sun (Lowell, Ma.), October 26, 1977.

_____. "Meeting Set Tomorrow in Lowell Bus Strike," Sun (Lowell, Ma.), October 25, 1977.

Texeira, Diogo B., and Karash, Karla H. "An Evaluation of Councils on Aging Dial-a-Ride Systems in Massachusetts." Transportation, 4 (1975), 105-121.

"The Big Problem about Transit: Somebody Has to Pay for It." U. S. News and World Report (August 11, 1975), 42-44.

"The People Mover Muddle." Business Week. (April 13, 1974), 13.

Tobin, Gary A. "Issues in Urban Transportation." Urban Affairs Quarterly, 10 (September, 1974), 102-110.

"Transportation--An Energy Policy is our No. 1 Concern." U. S. News and World Report (December 27, 1976), 55-56.

Veatch, James F. "Federal and Local Urban Transportation Policy." Urban Affairs Quarterly, 10 (June, 1975), 398-422.

Vickrey, William S. "Pricing in Urban and Suburban Transport." The American Economic Review, 53 (May, 1963), 452-465.

Watterson, Thomas. "Regional Transit--a Challenging Task." Christian Science Monitor (reprint).

Webber, Melvin M. "The BART Experience--What Have We Learned?" The Public Interest, 45 (Fall, 1976), 79-109.

Weidman, Gerard. "Legislature Studies Transit Bills." Boston Globe, September 25, 1973.

"What's Needed to Make Transit Work?" The American City (March, 1974), 36.

Whitton, Dennis. "Business Fears Continued Bus Strike." Sun (Lowell, Ma.), October 25, 1977.

_____. "Drivers' Strike Halts City Bus Service." Sun (Lowell, Ma.), October 24, 1977.

_____. "Lowell Bus Strike Settled; Authority Offers Free Rides." Sun (Lowell, Ma.), October 27, 1977.

Widner, Ralph R. "Transport Investment and Appalachian Development." Public Administration Review, 33 (May/June, 1973), 225-235.

Wohl, Martin. "Users of Urban Transportation Services and Their Income Circumstances." Traffic Quarterly (January, 1970).

Policy Analysis

Beckman, Norman. "Policy Analysis for the Congress." Public Administration Review, 37 (May/June, 1977), 237-244.

_____. "Policy Analysis in Government: Alternatives to 'Muddling Through'". Public Administration Review, 37 (May/June, 1977), 221-222.

Davidoff, Paul. "Advocacy and Pluralism in Planning." Journal of the American Institute of Planners, 31 (1965), 331-338.

Elazar, Daniel J. "'Fragmentation' and Local Organizational Response to Federal-City Programs." Urban Affairs Quarterly, 11 (June, 1967), 30-47.

Elkin, Stephen. "Political Science and the Analysis of Public Policy." Public Policy, 22 (Summer, 1974), 399-422.

Engelbert, Ernest A. "University Education for Public Policy Analysis." Public Administration Review, 37 (May/June, 1977), 228-236.

Etzioni, Amitai. "Mixed-Scanning: A 'Third' Approach to Decision-Making." Public Administration Review, 27 (December, 1967), 385-392.

Eulau, Heinz, and Eyestone, Robert. "Policy Maps of City Councils and Policy Outcomes: A Developmental Analysis." American Political Science Review, 62 (March, 1968), 124-143.

Fry, Brian R., and Winters, Richard F. "The Politics of Redistribution." American Political Science Review, 64 (June, 1970), 508-522.

Hofferbert, Richard I. "The Relation Between Public Policy and Some Structural and Environmental Variables in the American States." American Political Science Review, 60 (March, 1966), 73-82.

Jones, Victor. "Local Government Organization in Metropolitan Areas: Its Relation to Urban Development," in Woodbury, Coleman. The Future of Cities and Urban Redevelopment. Chicago: University of Chicago Press, 1953.

Kessel, John H. "Governmental Structure and Political Environment: a Statistical Note about American Cities." American Political Science Review, 56 (September, 1962), 615-620.

Lindblom, Charles E. "The Science of 'Muddling Through'." Public Administration Review, 19 (Spring, 1959), 79-88.

Lyday, James. "An Advocate's Process Outline for Policy Analysis." Urban Affairs Quarterly, 7 (1972), 385-402.

Mushkin, Selma J. "Policy Analysis in State and Community." Public Administration Review, 37 (May/June), 245-253.

Rowen, Henry S. "Bargaining and Analysis in Government" in U. S. Congress. Senate. Committee on Government Operations. Subcommittee on National Security and Internal Operations. Planning--Programming--Budgeting. 90th Congress, 1st session, 1967, 44-49.

Schick, Allen. "Beyond Analysis." Public Administration Review, 37 (May/June, 1977), 258-263.

Schlesinger, James A. "The Politics of the Executive" in Jacob, Herbert, and Vines, Kenneth N. Politics in the American States. Boston: Little, Brown and Co., 1965.

Schubert, Glendon, and Press, Charles. "Measuring Malapportionment." American Political Science Review, 58 (June, 1964), 302-327.

Sharkansky, Ira, and Hofferbert, Richard. "Dimensions of State Politics, Economics, and Public Policy." American Political Science Review, 63 (September, 1969), 867-879.

Smith, Bruce L. R. "The Non-Governmental Policy Analysis Organization." Public Administration Review, 37 (May/June, 1977), 253-257.

Szanton, Peter L. "Analysis and Urban Government: Experience of the New York City-Rand Institute." Policy Sciences, 3 (1972), 153-162.

Ukeles, Jacob B. "Policy Analysis: Myth or Reality?" Public Administration Review, 37 (May/June, 1977), 223-227.

Walker, Jack L. "The Diffusion of Innovations Among the American States." American Political Science Review, 63 (September, 1969), 880-899.

Wilson, James Q., and Banfield, Edward C. "Public Regardingness as a Value Premise in Voting Behavior." American Political Science Review, 58 (December, 1964), 876-887.

Books

Transportation

Brand, Daniel, ed. Urban Transportation Innovation. New York: American Society of Civil Engineers, 1972.

Buhl, Ronald A. Dead End: The Automobile in Mass Transportation. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1972.

Colcord, Frank C. Urban Transportation Decision Making: Summaries and Conclusions. Springfield, Va.: National Technical Information Service, 1974.

Danforth, Paul M. Transportation--Managing Man on the Move. New York: Doubleday and Co., Inc., 1970.

De Salvo, Joseph S., ed. Perspectives on Regional Transportation Planning. Lexington, Ma.: D. C. Heath and Co., 1973.

Doig, James. Metropolitan Transportation Politics. New York: Columbia University Press, 1966.

Fortune, the Editors of. The Exploding Metropolis. New York: Doubleday and Co., Inc., 1958.

Gakenheimer, Ralph. Technics and Conflict: The Open Study and Urban Transportation. Cambridge: M. I. T. Press, 1976.

_____. Transportation Planning as Response to Controversy: The Boston Case. Cambridge: M. I. T. Press, 1976.

Harris, Britton, and Mitchell, Robert B. Metropolitan Development and Transportation Planning. Berkeley: University of California Press, 1966.

Hébert, Richard. Highways to Nowhere--The Politics of City Transportation. Indianapolis: Bobbs-Merrill Co., Inc., 1972.

Hellman, Hal. Transportation in the World of the Future. New York: M. Evans and Co., Inc., 1968.

Hilton, George W. Federal Transit Subsidies. Washington, D. C.: American Enterprise Institute, 1974.

Kraft, Gerald; Meyer, John R.; and Valette, Jean-Paul. The Role of Transportation in Regional Economic Development. Lexington, Ma.: D. C. Heath and Co., 1971.

Leibbrand, Kurt. Transportation and Town Planning. Cambridge: M. I. T. Press, 1964.

Levin, Melvin R., and Abend, Norman A. Bureaucrats In Collision: Case Studies in Area Transportation Planning. Cambridge: M. I. T. Press, 1971.

Lupo, Alan; Colcord, Frank C.; and Fowler, Edmund P. Rites of Way: The Politics of Transportation in Boston and the U. S. City. Boston: Little, Brown and Co., 1971.

Luna, Charles. The UTU Handbook of Transportation in America. New York: Popular Library, 1971.

Martin, Brian V.; Memmott III, Frederick W.; and Bone, Alexander J. Principles and Techniques of Predicting Future Demand for Urban Area Transportation. Cambridge: M. I. T. Press, 1961.

Meyer, John R., ed. Techniques of Transport Planning, vol. I and II. Washington, D. C.: Brookings Institution, 1971.

Miller, David R., ed. Urban Transportation Policy: New Perspectives. Lexington, Ma.: D. C. Heath and Co., 1972.

Miller, III, James C., ed. Perspectives on Federal Transportation Policy. Washington, D. C.: American Enterprise Institute for Public Policy Research, 1975.

Mowbray, A. Q. Road to Ruin. New York: Lippincott, 1969.

Munby, Denys, ed. Transport. Baltimore: Penguin Books, 1968.

Murin, William J. Mass Transit Policy Planning--An Incremental Approach. Lexington, Ma.: D. C. Heath and Co., 1971.

Norton, Hugh A. National Transportation Policy: Formation and Implementation. Berkeley: McCutchan Publishing Corporation, 1966.

Ornati, Oscar A. Transportation Needs of the Poor: A Case Study of New York City. New York: Praeger Publishers, 1969.

Owen, Wilfred. Strategy for Mobility. Washington, D. C.: Brookings Institution, 1964.

_____. The Accessible City. Washington, D. C.: Brookings Institution, 1972.

Owen, Wilfred. The Metropolitan Transportation Problem. Washington, D.C.: Brookings Institution, 1956.

_____. Transportation for Cities. Washington, D. C.: Brookings Institution, 1976.

Reische, Diana, ed. Problems of Mass Transportation. New York: The H. W. Wilson Company, 1970.

Schaeffer, K. H., and Sclar, Elliot. Access for All--Transportation and Urban Growth. Baltimore: Penguin Books, Inc., 1975.

Sloan, Allan K. Citizen Participation in Transportation Planning: The Boston Experience. Cambridge: Ballinger Publishing Co., 1974.

Smerk, George M., ed. Readings in Urban Transportation. Bloomington: Indiana University Press, 1968.

_____. Urban Mass Transportation--A Dozen Years of Federal Policy. Bloomington: Indiana University Press, 1974.

Smith, Robert G. Ad Hoc Governments: Special Purpose Transportation Authorities in Britain and the United States. Beverly Hills: Sage Publications, 1974.

Stone, Tabor R. Beyond the Automobile--Reshaping the Transportation Environment. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1971.

Transportation and Community Values. Washington, D. C.: Highway Research Board, 1969.

Transportation and the Prospects for Improved Efficiency. Washington, D. C.: National Academy of Engineering, 1973.

Transportation Research Board. Research Needs for Evaluating Urban Public Transportation. Washington, D. C.: National Research Council, 1975.

United Transportation Union. A Report on the 1970 Conference on Mass Transportation. New York: Popular Library, 1970.

Warner, Sam B. Streetcar Suburbs. Cambridge: M. I. T. Press, 1962.

Weiner, Paul, and Deak, Edward J. Environmental Factors in Transportation Planning. Lexington, Ma.: D. C. Heath and Co., 1972.

Williams, Jr., Ernest W., ed. The Future of American Transportation. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1971.

Zwerling, Stephen. Mass Transit and the Politics of Technology: BART. New York: Praeger Publishers, 1974.

Policy Analysis, Methodology, and General Works

American Political Science Association. Political Science and State and Local Government. Washington, D. C.: APSA, 1973.

Anderson, James E. Public Policy-Making. New York: Praeger Publishers, 1975.

Bauer, Raymond A., and Gergen, Kenneth J., ed. The Study of Policy Formation. New York: The Free Press, 1968.

Benson, Oliver. Political Science Laboratory. Columbus, Ohio: Charles E. Merrill, 1969.

Bish, Robert. The Public Economy of Metropolitan Areas. Chicago: Markham, 1971.

Blalock, Jr., Hubert M. Social Statistics. New York: McGraw-Hill, 1972.

Bollens, John C. Special District Government in the United States. Berkeley: University of California Press, 1957.

_____, and Schmandt, Henry J. The Metropolis. New York: Harper and Row, Publishers, 1970.

Brock, Bernard L.; Chesebro, James W.; Cragan, John F.; and Klumpp, James F. Public Policy Decision Making: Systems Analysis and Comparative Advantages Debate. New York: Harper and Row, Publishers, 1973.

Brown, Foster Lloyd; Amos, Jimmy R.; and Mink, Oscar G. Statistical Concepts--A Basic Program. New York: Harper and Row, Publishers, 1975.

Charlesworth, James C., ed. Contemporary Political Analysis. New York: The Free Press, 1967.

_____. Integration of the Social Sciences Through Policy Analysis. Philadelphia: American Academy of Political and Social Science, 1972.

Cobb, Roger W., and Elder, Charles D. Participation in American Politics: The Dynamics of Agenda-Building. Boston: Allyn and Bacon, Inc., 1972.

Coleman, James S. Policy Research in the Social Sciences. Morristown, N. J.: General Learning Press, 1972.

Conway, Margaret, and Feigert, Frank B. Political Analysis: An Introduction. Boston: Allyn and Bacon, Inc., 1976.

Crenson, Matthew A. The Un-Politics of Air Pollution--A Study of Non-Decisionmaking in the Cities. Baltimore: The Johns Hopkins Press, 1971.

Dacy, Douglas C.; Kuenne, Robert E.; and McGuire, Martin C. Approaches to the Treatment of Incommeasurables in Cost-Benefit Analysis. Springfield, Va.: National Technical Information Service, 1973.

Derthick, Martha. The Influence of Federal Grants--Public Assistance in Massachusetts. Cambridge: Harvard University Press, 1970.

Dror, Yehezkel. Design for Policy Sciences. New York: American Elsevier Publishing Co., Inc., 1971.

Dye, Thomas. Politics, Economics, and the Public: Policy Outcomes in the American States. Chicago: Rand McNally and Co., 1966.

_____. Understanding Public Policy, 2nd ed. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1975.

Easton, David. A Framework for Political Analysis. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1965.

_____. A Systems Analysis of Political Life. New York: John Wiley and Sons, Inc., 1965.

_____. The Political System. New York: Alfred A. Knopf, 1953.

Feld, Richard D., and Grafton, Carl. The Uneasy Partnership. Palo Alto, Ca.: National Press Books, 1973.

Goodall, Leonard E. The American Metropolis. Columbus, Ohio: Charles E. Merrill, 1968.

Hawkins, Brett W. Politics and Urban Policies. Indianapolis: Bobbs-Merrill Co., Inc., 1971.

Hofferbert, Richard I. The Study of Public Policy. Indianapolis: Bobbs-Merrill Co., Inc., 1974.

Hoos, Ida R. Systems Analysis in Public Policy. Los Angeles: University of California Press, 1971.

Horowitz, Irving Louis, and Katz, James Everett. Social Science and Public Policy in the U. S. New York: Praeger Publishers, 1975.

International City Management Association. The Municipal Yearbook. Washington, D. C.: ICMA, 1977.

Irish, Marian, ed. Political Science: Advance of the Discipline. Englewood Cliffs, N. J. Prentice-Hall, Inc., 1968.

Isaac, Stephen, and Michael, William B. Handbook in Research and Evaluation. San Diego: Robert R. Knapp, Publisher, 1971.

Issak, Alan C. Scope and Methods of Political Science. Homewood, Ill.: The Dorsey Press, 1969.

Jacob, Herbert, and Vines, Kenneth N., ed. Politics in the American States. Boston: Little, Brown and Co., 1965.

Jencks, Christopher. Inequality: A Reassessment of the Effect of Family and Schooling in America. New York: Basic Books, 1972.

Jones, Charles O. An Introduction to the Study of Public Policy. Belmont, Ca.: Duxbury Press, 1970.

Kirkpatrick, Samuel A. Quantitative Analysis of Political Data. Columbus, Ohio: Charles E. Merrill, 1974.

Lambert, Richard D., and Heston, Alan W., ed. The Annals--Intergovernmental Relations in America Today. Philadelphia: The American Academy of Political and Social Science, 1974.

Lasswell, Harold D. A Pre-View of Policy Sciences. New York: American Elsevier Publishing Co., Inc., 1971.

Lineberry, Robert L., and Sharkansky, Ira. Urban Politics and Public Policy. New York: Harper and Row, 1974.

Mills Jr., Warner E., and Davis, Harry R. Small City Government--Seven Cases in Decision Making. New York: Random House, 1962.

Mitchell, Joyce M., and Mitchell, William C. Political Analysis and Public Policy. Chicago: Rand McNally and Co., 1969.

Mogulof, Melvin B. Governing Metropolitan Areas. Washington, D. C.: The Urban Institute, 1971.

Morgan, David. Handbook of State Policy Indicators. Norman: University of Oklahoma Bureau of Government Research, 1974.

_____, and Kirkpatrick, Samuel A., ed. Urban Political Analysis--A Systems Approach. New York: The Free Press, 1972.

Quade, E. S. Analysis for Public Decisions. New York: American Elsevier Publishing Co., Inc., 1975.

Ranney, Austin, ed. Political Science and Public Policy. Chicago: Markham, 1968.

Riker, William H. The Study of Local Politics. New York: Random House, 1959.

Ripley, Randall B.; Franklin, Grace A.; Holmes, William M.; and Moreland, William B. Structure, Environment, and Policy Actions: Exploring a Model of Policy-Making. Beverly Hills: Sage Publications, 1973.

Rivlin, Alice M. Systematic Thinking for Social Action. Washington, D. C.: Brookings Institution, 1971.

Sharkansky, Ira, and Van Meter, Donald. Policy and Politics in American Governments. New York: McGraw-Hill, 1975.

Simon, Julian L. Basic Research Methods in Social Science. NewYork: Random House, 1969.

Suchman, Edward A. Evaluative Research. New York: Russell Sage Foundation, 1967.

Wade, Larry L. The Elements of Public Policy. Columbus, Ohio: Charles E. Merrill, 1972.

_____, and Curry, Jr., R. L. A Logic of Public Policy. Belmont Ca.: Wadsworth Publishing Co., Inc., 1970.

Walter, Oliver, ed. Political Scientists at Work. Belmont, Ca.: Duxbury Press, 1971.

Wholey, Joseph S.; Scanlon, John W.; Duffy, Hugh G.; Fukumoto, James S.; Vogt, Leona M. Federal Evaluation Policy--Analyzing the Effects of Public Programs. Washington, D. C.: The Urban Institute, 1975.

Williams, Walter. Social Policy Research and Analysis. New York: American Elsevier Publishing Co., Inc., 1971.

Wilson, James Q., ed. City Politics and Public Policy. New York: John Wiley and Sons, Inc., 1968.

Woll, Peter. Public Policy. Cambridge: Winthrop Publishers, Inc., 1974.

Young, Oran. Systems of Political Science. Englewood Cliffs, N. J.: Prentice-Hall, 1968.

Unpublished Works

Altshuler, Alan A. "The Changing Institutional Environment of Urban Transportation." Paper presented at Center for Transportation Studies, Massachusetts Institute of Technology, Cambridge, Ma., March 1976.

_____. "The Federal Government and Para-Transit." Paper presented at Conference on Para-Transit, Transportation Research Board and Urban Mass Transportation Administration, Williamsburg, Va., November 9-12, 1975.

_____. "Transit Finance in Greater Boston." Paper presented at conference on Financing Public Transit, San Francisco, Ca., February 21, 1975.

Attanucci, John. "Transportation Planning in Massachusetts: Policy Directions in the State Reorganization Plans." Unpublished graduate paper, Massachusetts Institute of Technology, 1973.

Geiser, Jr., Kenneth R. "Political Processes of Urban Freeway Controversies." Unpublished Masters thesis, Massachusetts Institute of Technology, 1970.

Grumm, John. "Structure and Policy in the Legislature." Paper presented at the 1967 annual meeting of the Southwest Social Science Association, Dallas, Texas, March, 1967.

Levitan, Donald. "Highway Development and Local Government: An Analysis of Relationships--A Case Study of Massachusetts Route 128." Unpublished Ph.D. dissertation, Graduate School of Public Administration, New York University, 1972.

Littig, David M. "The Politics of Mass Transportation: State and City Policy-Making in a Federal System." Unpublished Ph.D. dissertation, University of Wisconsin--Madison, 1974.

Mauro, George T., and Abrams, Edward M., of Simpson and Curtin, Division of Booz, Allen and Hamilton. "A Concept for Transit Purchase of Service Arrangements." Unpublished presentation to Executive Office of Transportation and Construction, Commonwealth of Massachusetts, and Administrators, Massachusetts Regional Transit Authorities, Boston, Ma., September, 1977.

Rosenbloom, Sandra. "The Impact of Federal Urban Mass Transportation Programs on Metropolitan Transportation Systems: Los Angeles and San Diego." Unpublished Ph.D. dissertation, University of California at Los Angeles, 1975.

Sowyrda, Michael W. "Chapter 161-B: A Transit Solution?" Unpublished seminar paper, Harvard College, 1977.

Public Documents and Reports

Advisory Commission on Intergovernmental Relations. Toward More Balanced Transportation: New Intergovernmental Proposals. Washington, D.C.: U. S. Government Printing Office, 1974.

_____. State Legislative Program--Transportation. Washington, D. C.: U. S. Government Printing Office, 1975.

_____. Regional Governance: Promise and Performance--Substate Regionalism and the Federal System, vol II. Washington, D. C.: U. S. Government Printing Office, 1973.

_____. "A New Approach to Coordinated Transportation." Intergovernmental Perspective, 1 (Fall, 1975), 6-15.

Anastas Advertising Associates. "Marketing Activities Plan of Action, January and February 1978--Lowell Regional Transit Authority." Lowell, Ma., 1977.

Berkshire County Regional Planning Commission. Application to U. S. Urban Mass Transportation Administration for an Operating Assistance Grant. Pittsfield, Ma., 1977.

Bernie, Thomas S. Status Report--Cape Ann Transportation Authority. Gloucester, Ma., 1977.

Brockton Transit Authority. "Interim Application for Operating Assistance Funds: Section 5 Urban Mass Transportation Act of 1964, as amended by National Mass Transportation Act of 1974." Brockton, Ma., June 30, 1976.

Cape Ann Transportation Authority. Annual Report of the Cape Ann Transportation Authority for the Fiscal Year Ending June 30, 1977. Gloucester, Ma., 1977.

Cape Cod Planning and Economic Development Commission. "A Summary of the Public Transportation Program for Barnstable County." Barnstable, Ma., 1976.

Coleman, James S. Equality of Educational Opportunity. Washington, D. C.: U. S. Government Printing Office, 1966.

Commonwealth of Massachusetts. Report on the Examination of the Accounts of the Berkshire Regional Transit Authority--Inception to March 1, 1976. Boston: State Auditor's Office, 1976.

_____. Report on the Examination of the Accounts of the Brockton Regional Transit Authority--December 1, 1974 to June 30, 1975. Boston: State Auditor's Office, 1976.

_____. Report on the Examination of the Accounts of the Lowell Regional Transit Authority--February 18, 1976 to January 3, 1977. Boston: State Auditor's Office, 1977.

. Report on the Examination of the Accounts of the Lower Pioneer Valley Regional Transit Authority--Inception to January 27, 1976. Boston: State Auditor's Office, 1976.

_____. Report on the Examination of the Accounts of the Southeastern Regional Transit Authority--Inception to October 26, 1975. Boston: State Auditor's Office, 1976.

Engineering Computer International. Transportation Development Plan for the Pittsfield Metropolitan Area. 1972.

Executive Office of Transportation and Construction. "Evaluation of the Agawam Transportation Service for the Elderly and Handicapped." Boston, 1977.

_____. "Evaluation of the Amherst Transportation Service for the Elderly and Handicapped." Boston, 1977.

_____. "Evaluation of the Easthampton (Council on Aging) Transportation Service for the Elderly and Handicapped." Boston, 1977.

_____. "Evaluation of the East Longmeadow Transportation Service for the Elderly and Handicapped." Boston, 1977.

_____. "Evaluation of the Longmeadow Transportation Service for the Elderly and Handicapped." Boston, 1977.

_____. "Evaluation of the Northampton Transportation Service for Elderly and Handicapped." Boston, 1977.

_____. "Evaluation of the South Hadley Transportation Service for the Elderly and Handicapped." Boston, 1977.

_____. "Evaluation of the Springfield Transportation Service for the Elderly and Handicapped." Boston, 1977.

_____. "Evaluation of the Westfield Transportation Service for the Elderly and Handicapped." Boston, 1977.

_____. "Evaluation of the West Springfield Elderly and Handicapped Transportation Program." Boston, 1977.

_____. "Evaluation of the Wilbraham Transportation Service to the Elderly and Handicapped." Boston, 1977.

_____. Phase II Reorganization Recommendations. Boston, January 1973.

_____. "Program of Statewide Transit Analysis and Technical Assistance." Boston, 1975.

_____. "Program of Statewide Transit Analysis and Technical Assistance." Boston, 1976.

_____. RTA Manual. Boston, 1974-1978.

_____. "Regional Transit Authority Sources of Funding for FY 75 and 76." Boston, 1975.

_____. "Report on Regional Transit Authority Operations FY 76." Boston, 1977.

_____. "Report on Regional Transit Authority Operations FY 77 (Draft)." Boston, 1978.

Institute of Public Administration. Coordinating Transportation for the Elderly and Handicapped. Washington, D. C.: U. S. Department of Transportation, 1976.

International City Management Association. Applying Systems Analysis in Urban Government. Washington, D. C.: U. S. Department of Housing and Urban Development, 1972.

John J. Hurley & Co., Inc. Lowell Regional Transit Authority--Financial Statements as of June 30, 1975, Together with Auditor's Report. Lowell, Ma., 1975.

_____. Lowell Regional Transit Authority--Financial Statements as of June 30, 1976, Together with Auditor's Report. Lowell, Ma., 1976.

_____. Lowell Regional Transit Authority--Financial Statements as of June 30, 1977, Together with Auditor's Report. Lowell, Ma., 1977.

Lowell Regional Transit Authority. Annual Report for Fiscal Year 1975. Lowell, Ma., 1975.

_____. Annual Report for Fiscal Year 1976. Lowell, Ma., 1976.

_____. Annual Report for Fiscal Year 1977. Lowell, Ma., 1978.

_____. Operating Assistance Application--FY 1975. Lowell, Ma., 1977.

Lower Pioneer Valley Regional Planning Commission. The Transit Development Program for the Lower Pioneer Valley Region 1977-1981 (Draft Report). West Springfield, Ma., 1977.

_____. Transit Studies for the Lower Pioneer Valley Massachusetts: Latent Demand (Draft Report). West Springfield, Ma., 1976.

_____. Transportation Improvement Program. West Springfield, Ma., 1976.

Lower Pioneer Valley Regional Transit Authority. Annual Report--FY 1976. Springfield, Ma., 1976.

_____. Application of the Lower Pioneer Valley Regional Transit Authority for an Operating Assistance Project under the Urban Mass Transportation Act of 1964. Springfield, Ma., 1976.

Massachusetts Bureau of Transportation Planning and Development. Transportation Planning Status Report. Boston, 1975.

Massachusetts Department of Public Utilities. "1973 Annual Reports of Private Transportation Companies." Boston, 1973.

_____. "1974 Reports from Cities Requesting Subsidies for Public Transportation under Chapter 1017." Boston, 1975.

Massachusetts General Court. Bulletin of Committee Work and Business of the Legislature. 1920, 1964-1973.

_____. Journal of the House of Representatives. 1964-1973.

_____. Journal of the Senate. 1964-1973.

_____. Massachusetts Legislative Documents. 1920, 1964-1974.

_____. Achievements--Massachusetts Legislature 1971-72. 1972.

Massachusetts General Laws Annotated. St. Paul: West Publishing Co., 1976.

Massachusetts Legislative Research Council. Federal Transportation Assistance Programs, 1789-1973, 1974.

_____. Report Relative to Massachusetts Transit Systems and Aid Programs, April 25, 1974.

Massachusetts Transportation Commission. Mass Transportation in Massachusetts. Boston, 1964.

McCarthy, Hargrave and Co. Worcester Regional Transit Authority--Report on Examination of Financial Statements and Additional Information. Worcester, Ma., 1976.

McCone, John A., chairman. Violence in the City--An End or a Beginning. A Report by the Governor's Commission on the Los Angeles Riots. Los Angeles, 1965.

Merrimack Valley Planning Commission. Merrimack Valley Area Transit Study. Haverhill, Ma., 1976.

Metropolitan Area Planning Council. Cape Ann Area Regional Transit Authority Preliminary Draft of Technical Study Findings. Boston, 1976.

_____. Cape Ann Transportation Authority Bus Transit Study. Boston, 1977.

Montachusett Regional Planning Commission. "Executive Summary--Montachusett Region Transit Development Program." Fitchburg, Ma., 1977.

_____. "Executive Summary--Public Transportation Needs in the Montachusett Region." Fitchburg, Ma., 1977.

Northern Merrimac Area Commission. Elderly-Handicapped Transportation Plan. Lowell, Ma., 1977.

_____. Preferred Alternative of Comprehensive Transit Development Program. Lowell, Ma., 1976.

Old Colony Planning Council. Brockton Area Transit Development Program. Brockton, Ma., 1975.

_____. Transportation Improvement Program/Transportation Systems Management. Brockton, Ma., 1977.

Pioneer Valley Transit Authority. "Analysis of U. Mass./Amherst Proposal and Administrator Recommendations." Springfield, Ma., 1976.

_____. Annual Report--FY 1977. Springfield, Ma., 1978.

_____. "Interim Progress Report--April 1976." Springfield, Ma., 1976.

RRC International, Inc. Report on Bus Characteristics Needed for Elderly and Handicapped in Urban Travel. Springfield, Va.: National Technical Information Service, 1976.

Sargent, Frances W., with Flannery, Jack. The Sargent Years--Selected Public Papers of Francis W. Sargent, Governor, 1969-1975. Boston, 1976.

Southeastern Regional Planning and Economic Development District. "A Summary of the Transit Development Program for the Taunton and Attleboro Urban Areas." Marion, Ma., 1976.

_____. Transit Development Program--Update: Southeastern Regional Transit Authority. Marion, Ma., 1975.

_____. Transit Operating Procedures Including Financial Statements for the Southeastern Regional Transit Authority. Marion, Ma., 1976.

Southeastern Regional Transit Authority. Annual Report--FY 1977. New Bedford, Ma., 1977.

_____. Rider's Kit. New Bedford, Ma., 1976.

Texeira, Diogo, of Transporting the Handicapped and Elderly in Massachusetts, Inc. "The LINKS Project--A State-Wide Elderly Transportation Program." Boston, 1975.

U. S. Department of Commerce, Bureau of Census. 1970 Census--Characteristics of the Population--Massachusetts, vol. one, part 23. Washington, D. C.: U. S. Government Printing Office, 1973.

_____. Statistical Abstract of the United States 1977. Washington, D. C.: U. S. Government Printing Office, 1977.

U. S. Department of Housing and Urban Development. "Transportation Problems in Revitalizing Cities." HUD International Brief. Washington, D. C.: U. S. Government Printing Office, February 1971.

U. S. Department of Transportation. A Study of Urban Mass Transportation Needs and Financing. Washington, D. C.: U. S. Government Printing Office, 1974.

_____. An Urban Transportation Bibliography. Springfield, Va.: National Technical Information Service, 1971.

_____. Background Information on the Urban Mass Transportation Administration. Washington, D. C.: Urban Mass Transportation Administration, 1974.

_____. Demand-Responsive Transportation--State-of-the-Art Overview. Cambridge, Ma.: Transportation Systems Center, 1974.

_____. Federal Register, 40:8-IV. Washington, D. C.: National Archives, January 13, 1975.

_____. Highlights of the Federal-Aid Highway Act of 1973 for Local Officials. Washington, D. C.: U. S. Government Printing Office, 1974.

_____. Improving Urban Mobility. Washington, D. C.: U. S. Government Printing Office, 1973.

_____. Integrated Dial-A-Ride and Fixed Route Transit in Ann Arbor, Michigan. Springfield, Va.: National Technical Information Service, 1977.

_____. Major Urban Mass Transportation Related Provisions of the Federal-Aid Highway Act of 1973. Washington, D. C.: Urban Mass Transportation Administration, 1974.

_____. Ninth Annual Report. Washington, D. C.: U. S. Government Printing Office, 1975.

_____. "Paratransit Services--Proposed Policy." Federal Register. Washington, D. C.: National Archives, October 20, 1976, 46412-46413.

_____. Short Range Transit Planning. Washington, D. C.: U. S. Government Printing Office, 1973.

_____. Small City Transit--Amherst, Massachusetts. Springfield, Va.: National Technical Information Service, 1976.

_____. Small City Transit--Ann Arbor, Michigan. Springfield, Va.: National Technical Information Service, 1976.

_____. Small City Transit--Bremerton, Washington. Springfield, Va.: National Technical Information Service, 1976.

U. S. Department of Transportation. Small City Transit--Chapel Hill, North Carolina. Springfield, Va.: National Technical Information Service, 1976.

_____. Small City Transit Characteristics: An Overview. Springfield, Va.: National Technical Information Service, 1976.

_____. Small City Transit--East Chicago, Indiana. Springfield, Va.: National Technical Information Service, 1976.

_____. Small City Transit--El Cajon, California. Springfield, Va.: National Technical Information Service, 1976.

_____. Small City Transit--Eugene/Springfield, Oregon. Springfield, Va.: National Technical Information Service, 1976.

_____. Small City Transit--Evansville, Indiana. Springfield, Va.: National Technical Information Service, 1976.

_____. Small City Transit--Merced, California. Springfield, Va.: National Technical Information Service, 1976.

_____. Small City Transit--Merrill, Wisconsin. Springfield, Va.: National Technical Information Service, 1976.

_____. Small City Transit--Sudbury, Massachusetts. Springfield, Va.: National Technical Information Service, 1976.

_____. Small City Transit--Summary of State Aid Programs. Springfield, Va.: National Technical Information Service, 1976.

_____. Small City Transit--Westport, Connecticut. Springfield, Va.: National Technical Information Service, 1976.

_____. Small City Transit--Xenia, Ohio. Springfield, Va.: National Technical Information Service, 1976.

_____. Special Transportation Services for the Elderly and Handicapped in Baton Rouge. Springfield, Va.: National Technical Information Service, 1976.

_____. The Call-A-Bus Demonstration Project--Specialized Transportation for the Elderly and Handicapped in Syracuse, New York. Springfield, Va.: National Technical Information Service, 1977.

_____. Transportation and the Elderly and Handicapped--A Literature Capsule. Cambridge, Ma.: Transportation Systems Center, 1977.

_____. Transportation for the Handicapped--Selected References. Washington, D. C.: U. S. Department of Transportation, 1975.

U. S. Department of Transportation. Transportation Planning Data for Urbanized Areas. Washington, D. C.: U. S. Government Printing Office, 1973.

_____. Urban Mass Transportation Abstracts--vol. 3. Springfield, Va.: National Technical Information Service, 1976.

_____. Urban Mass Transportation Act of 1964 and Related Laws as Amended Through November 26, 1974. Washington, D. C.: U. S. Government Printing Office, 1975.

_____. User-Side Subsidies for Shared Ride Taxi Service in Danville, Illinois. Springfield, Va.: National Technical Information Service, 1977.

Wilbur Smith and Associates. "Highlights of Recommended Transit Improvement Program--Lower Pioneer Valley." New Haven, Connecticut, 1974.

_____. PVTA--Marketing Mass Transit. New Haven, Connecticut, 1976.

Worcester Regional Transit Authority. Annual Report of Operations 1975. Worcester, Ma., 1975.

_____. Annual Report of Operations 1976. Worcester, Ma., 1976.

_____. Application of the Worcester Regional Transit Authority for an Operating Assistance Project under the Urban Mass Transportation Act of 1964, as Amended. Worcester, Ma., 1977.

_____. Program for Transit Improvement 1978-1980. Worcester, Ma., 1977.

APPENDIX A

INDIVIDUALS INTERVIEWED

Alan A. Altshuler, Former Secretary of Transportation for Massachusetts

Benjamin Baker, Administrator, Southeastern Regional Transit Authority

Ann Barry, Transportation Aide to Senator Burke, Massachusetts General Court

Thomas Bernie, Administrator, Cape Ann Transit Authority

Daniel Brand, Assistant Secretary of Transportation for Massachusetts

Paul Brown, Acting Administrator, Cape Cod Regional Transit Authority

Edward Burke, Senate Chairman, Joint Transportation Committee, Massachusetts General Court

Charles Carlson, Assistant Administrator, Brockton Area Transit

Patricia Cass, Urban Mass Transportation Administration Elderly-Handicapped Programs

Eileen Cioe, Transportation Planner, Southeastern Regional Planning and Economic Development District

Sue Clippenger, Greater Boston Committee for the Transportation Crisis

Catherine Debo, Manager, Greenfield-Montague Transportation Area

Ann Downing, Massachusetts Department of Elder Affairs

John Eller, Former Research Director for Speaker Bartley, Massachusetts General Court

Barney Frank, Former Member, Joint Transportation Committee, Massachusetts General Court

Raymond Gareau, Manager, Union Street Railway, New Bedford, Massachusetts

Murray Gintis, Transit Staff, Massachusetts Executive Office of Transportation and Construction

James Gutensohn, Massachusetts Executive Office of Transportation and Construction

John Ingalls, Director, Bus and Rail Division, Massachusetts Department of Public Utilities

Karla Karash, Assistant Secretary of Transportation for Massachusetts

George Kenneally, Former Senate Chairman, Joint Transportation Committee, Massachusetts General Court

Toivo Lamminen, Transportation Planner, Cape Cod Regional Planning Commission

Denny Lawton, Transportation Planner, Montachusetts Regional Planning Commission

Marsha Lenoff, Transit Staff, Massachusetts Executive Office of Transportation and Construction

Dave Marchand, Massachusetts State Treasurer's Office

Robert Menhardt, Transportation Planner, Old Colony Planning Council, Brockton, Massachusetts

Lou Mraz, Urban Mass Transportation Administration Regional Office, Cambridge, Massachusetts

Larry Murphy, Acting Administrator, Greater Attleboro-Taunton Regional Transit Authority

James McIntyre, Former Senate Chairman, Joint Transportation Committee, Massachusetts General Court

William Najam, Former Assistant Secretary of Transportation for Massachusetts

Louis Nickinello, House Chairman, Joint Transportation Committee, Massachusetts General Court

Robert Ojala, Administrator, Worcester Regional Transit Authority

Richard Olson, Palmer and Dodge Legal Firm, Boston, Massachusetts

Michael Padnos, Administrator, Brockton Area Transit

Raymond Rourke, Former House Chairman, Joint Transportation Committee, Massachusetts General Court

Frederick Salvucci, Secretary of Transportation for Massachusetts

Francis Sargent, Former Governor of Massachusetts

William Schultz, Administrator, Merrimac Valley Regional Transit Authority

Nancy Shapiro, Transit Staff, Massachusetts Executive Office of Transportation and Construction

Mary Snyder, Joint Transportation Planning Staff, Boston, Massachusetts

Donald G. Sullivan, Urban Mass Transportation Administration Regional Office, Cambridge, Massachusetts

George Thomson, Bureau of Transportation Planning and Development, Massachusetts Department of Public Works

William Twomey, Transportation Aide to Representative Nickinello, Massachusetts General Court

Joseph Woods, Business Agent, Local Chapter of Amalgamated Transit Union, Worcester, Massachusetts

Berkshire Regional Transit Authority

Paul Brindle, Mayor of Pittsfield

Joan Coughlan, Uncle John's Vans, Elderly-Handicapped Transit Operator

James Freeman, Dufour Brothers, Incorporated, Transit Operator

Karl Hekler, Chairman and Advisory Board Member, Pittsfield, and Director, Berkshire Regional Planning Commission

Charles Lockwood, Advisory Board Member, Richmond

Isabelle Madison, Director, Pittsfield Council on Aging

Louis Perachi, Administrator, Berkshire Regional Transit Authority

Rita Ramsdell, Dispatcher, Uncle John's Vans

Glenn Russo, Transit Planner, Berkshire Regional Planning Commission

Kenneth Walto, Assistant Administrator, Berkshire Regional Transit Authority

Questionnaires Received From:

John Bartels, Advisory Board Member, Dalton

Charles Lockwood, Advisory Board Member, Richmond

Bertram Robinson, Advisory Board Member, Lanesboro

Lowell Regional Transit Authority

Gil Barrett, Comptroller, Trombly Motor Coach, Transit Operator

Joseph Hannon, Director, Northern Middlesex Area Commission

Ronald Kangas, Advisory Board Member, Westford

Loring Kew, Director, Lowell Council on Aging

Ann Mulcahy, Advisory Baord Member, Billerica

Bruce McLaughlin, Amalgamated Transit Union Local # 1578

Victor Normand, Assistant City Manager, Lowell

James O'Sullivan, Administrator, Lowell Regional Transit Authority

Francis J. Trombly, Jr., Manager, LoLaw Transit Management Company, Incorporated, Transit Operator

Roger Welch, Manager, Leasing Systems Development Corporation, Elderly-Handicapped Transit Operator

Questionnaires Received From:

Joseph P. Czarnionka, Advisory Board Member, East Pepperell

Charles Gallagher, Chairman and Advisory Board Member, Lowell

Linda Murphy, Secretary to Advisory Board Member Richard Fay, Tyngsborough

Ronald Kangas, Advisory Board Member, Westford

Pioneer Valley Transit Authority

Tim Brennan, Transit Planner, Lower Pioneer Valley Regional Planning Commission

William L. Fox, Manager, Springfield Street Railway, Transit Operator

Paul Gardell, Manager, Longueil Bus Company, Transit Operator

Robert Godding, Manager, University of Massachusetts Transit System, Transit Operator

Vincent R. Gonzalez, President, Amalgamated Transit Union Local # 448, Springfield

Charles T. (Tom) Grucci, Advisory Board Member, West Springfield

James Hunter, Advisory Board Member, South Hadley

John Lovejoy, Chairman and Advisory Board Member, Wilbraham

Frank Motley, Mechanics' Representative, Amalgamated Transit Union Local # 448, Springfield

Margaret McDonnell, Director, South Hadley Council on Aging

Robert Oakes, Advisory Board Member, Springfield

Edward O'Keefe, Business Agent, Amalgamated Transit Union Local # 448, Springfield

Bino Ralph Paci, Vice President, Amalgamated Tranist Union Local # 448, Springfield

Louis Pellisier, Manager, Holyoke Street Railway, Transit Operator

Peter Picknelly, Manager, Peter Pan Bus Company, Transit Operator

Terry Tornek, Administrator, Pioneer Valley Transit Authority

Cindy Scott, Director, Northampton Council on Aging

Jeffrey Spear, Advisory Board Member, Northampton

Questionnaires Received From:

Leslie Brodacki, Advisory Board Member, Westfield

Stanley Brown, Advisory Board Member, East Longmeadow

Olive Dragon, Town Clerk, Easthampton

Louis Hayward, Advisory Board Member, Amherst

James Hunter, Advisory Board Member, South Hadley

Donald Jacques, Advisory Board Member, Longmeadow

Klaus Kroner, Advisory Board Member, Leverett

John Lovejoy, Advisory Board Member, Wilbraham

Robert Oakes, Advisory Board Member, Springfield

James Saloio, Advisory Board Member, Ludlow

Jeffrey Spear, Advisory Board Member, Northampton

Marc Webb, Advisory Board Member, Chicopee

James Westman, Adviosry Board Member, Agawam

James Wininger, Advisory Board Member, Holyoke

APPENDIX B

QUESTIONNAIRE TO ADVISORY BOARD MEMBERS

Name of Respondent _____

Position _____

City/Town _____

1. Out of the following list of subjects, which has been (1) a very serious problem in your city/town; (2) a fairly serious problem in your city/town; or (3) not serious ?

A. Industrial and economic development	1	2	3
B. Housing and building, zoning	1	2	3
C. Public improvements, transportation, utilities	1	2	3
D. Health and sanitation	1	2	3
E. Cultural programs, libraries, theatres	1	2	3
F. Education and schools	1	2	3
G. Crime and delinquency	1	2	3
H. Social welfare, poverty, the aged, handicapped	1	2	3
I. Urban renewal	1	2	3
J. Unemployment	1	2	3

2. Are there other problems not named above which your city/town has been involved with since 1973?

No _____

Yes _____

What were they?

How serious were they? 1 2 3

3. Considering the subject areas above, please rank them for the three most important and the three least important for the past four years.

Most important	Least Important
1.	1.
2.	2.
3.	3.

4. Listed below are seven different things which most cities would like to do. However, no one city can do all at the same time. Please indicate for your city/town which is (1) most important; (2) second most important; and (3) third most important.

_____A. Seeing to it that this city becomes a very attractive place to live with good residential areas and pleasant community facilities.

_____B. Seeing to it that this community has a good climate for business which would encourage economic growth.

_____C. Seeing to it that the city provides its poor and disadvantaged with a decent life with adequate food, housing, transportation and opportunity.

_____D. Seeing to it that this city is a city free from harmful strife between economic, religious or neighborhood groups.

_____E. Seeing to it that this city maintains its heritage and its traditional values.

_____F. Seeing to it that the city has a government which is efficient, honest and economical.

_____G. Seeing to it that the city is a place where citizens play an active role in government.

5. Have any of the following people ever talked with you or other members of your local government about problems of public transportation in your city/town?

_____City officials

_____Industrial executives

_____Retail merchants

_____Bankers

_____Local businessmen

_____Labor union officials

_____Other -- Please specify _____

6. When making policy decisions in the RTA Advisory Board, to what groups' opinions and needs do you give the greatest weight?

_____Local businessmen

_____Neighborhood groups

_____Ethnic groups -- Which ones? _____

_____Labor unions

_____Local newspapers

_____Regional Planning Council

_____RTA Administrator

_____Transportation operator

_____Elderly

_____Poor

_____Other -- Please specify _____

7. Has the RTA or the issue of public transportation created any controversy in your city/town?

No _____

Yes _____

Over what specific issues?

Who are the persons or groups on each side of the issue?

Has the problem been resolved? How?

8. Has there been opposition to the RTA?

No _____

Yes_____

For what reason?

By whom?

At what time (Formation or later?)

9. What are your city's/town's goals for the RTA in your area?

Are the goals being met?

Yes _____

No _____ Why not? _____

10. What impact has the RTA had on your community and its citizens?

11. What changes would you suggest for the RTA organization, operation or relationships with other governmental bodies?

12. Has the regional cooperation within the RTA led to or improved regionalism in other problems or ventures?

No _____

Yes _____ What? _____

Comments can be made on the other side. Thank you for your time and cooperation.

APPENDIX C

RELATED UNSUCCESSFUL

TRANSPORTATION BILLS INTRODUCED

1971 Legislative Session

H 3529 by Alan Sisitsky (D, Springfield) and James Bowler (D, Springfield) proposing an investigation relative to mass transportation outside the MBTA area as it affected Springfield and Worcester.

H 3935 by Gerald Lombard (D, Fitchburg) providing that any city or town in the Commonwealth could enter into agreements to contribute to the costs of transportation services in order to avoid reduction or discontinuance of service and in order to secure federal grants.

H 4129 by Dave Vigneault (D, Springfield-Holyoke) proposing to investigate the creation of a public transportation authority for lower Connecticut Valley (the Springfield-Holyoke area).

H 4317 by James Grimaldi (D, Springfield) providing for a transportation authority for the Greater Springfield area.

H 4322 by Raymond Rourke (D, Lowell) providing for a regional transit authority in Lowell with 90 per cent state capital assistance and $25 million in bonds authorized.

1972 Legislative Session

H 1459 by Raymond Rourke (D, Lowell) and David Bartley (D, Holyoke) proposing a study relative to free intra-city transportation for the general public throughout the Commonwealth where necessary and advisable.

H 2619 by John Murphy (D, Peabody) proposing a study concerning the establishment of a North Shore Transportation Authority.

H 3853 by James Grimaldi (D, Springfield) providing for a transit authority in the Springfield area.

H 3863 by Dave Vigneault (D, Springfield) proposing a study of the establishment of a public transportation authority in the lower Connecticut Valley.

H 4022 by John Businger (D, Brookline), Chester Atkins (D, Acton), James Smith (D, Lynn), Alan Sisitsky (D, Springfield), David Mofensen (D, Newton), David Liederman (D, Malden), and David Ahearn (D, Norwood) providing for regional transit development corporations for the maintenance of transportation facilities and services coordinated with highway systems and urban development plans and for amending the MBTA statute, authorizing said authority to issue additional bonds.

1973 Legislative Session

S 1370 by Alan Sisitsky (D, Springfield) and John Olver (D, Amherst) providing for eight regional transit development corporations.

S 1379 by Mario Umana (D, Boston) providing for the Commonwealth to pay for mass transit services throughout the state.

H 391 by Jon Rotenberg (D, Brookline) providing for the Commonwealth to reimburse cities and towns for costs of certain transportation.

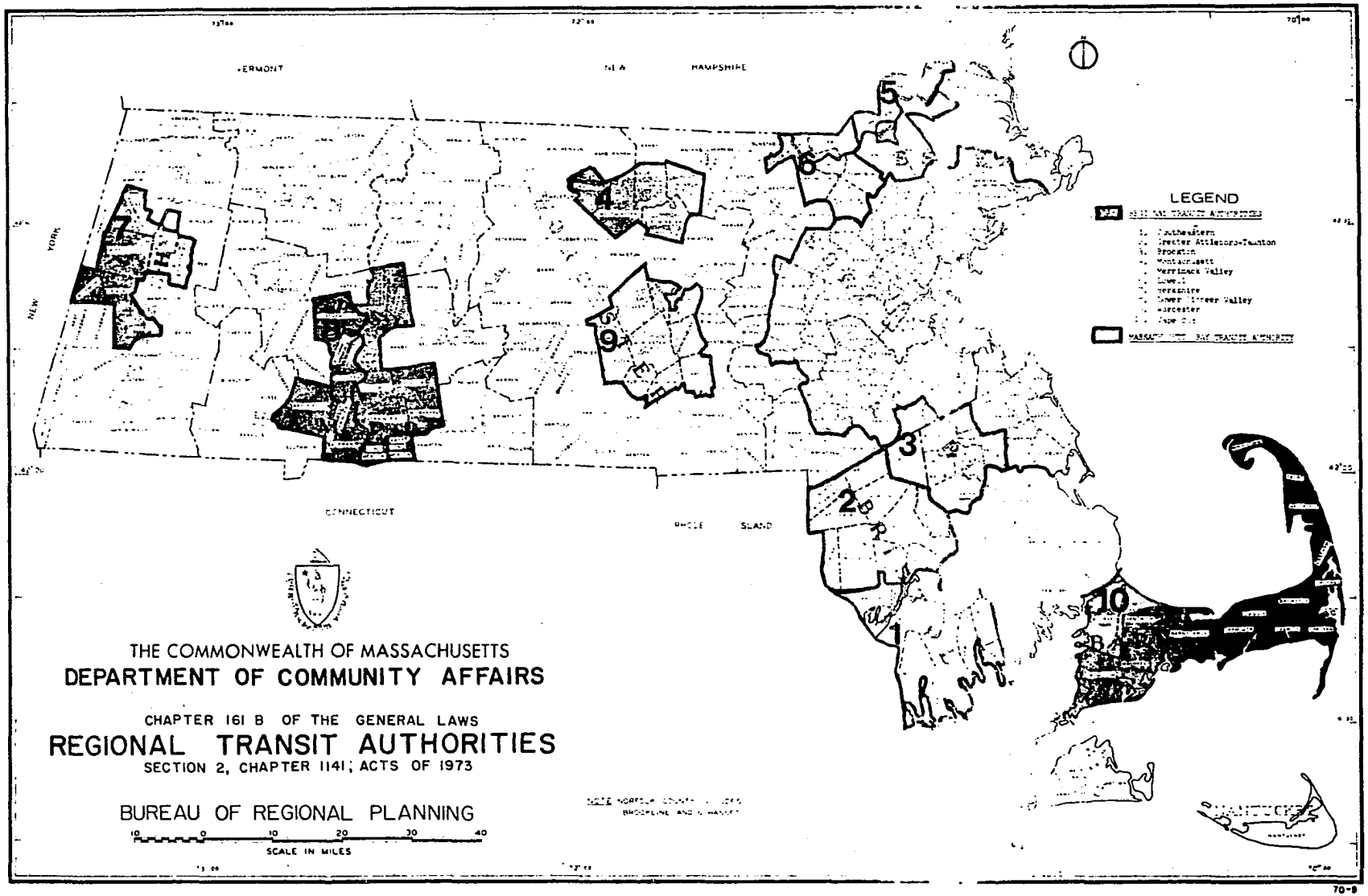
H 1645 by James Grimaldi (D, Springfield) providing for a transportation authority for the Springfield area.

H 5777 by James Grimaldi (D, Springfield) providing for a transportation authority for the Springfield area.

H 5783 by James Smith (D, Lynn) providing for eight regional transit development corporations.

APPENDIX D

MAP OF REGIONAL TRANSIT AUTHORITIES


VERMONT
NEW HAMPSHIRE
NEW YORK
CONNECTICUT
RHODE ISLAND
LEGEND
1 Southeastern
2 Greater Attleboro-Taunton
3 Brockton
4 Montachusett
5 Merrimack Valley
6 Lowell
7 Berkshire
8 Lower Pioneer Valley
9 Worcester
10 Cape Cod
MASSACHUSETTS BAY TRANSIT AUTHORITY
THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF COMMUNITY AFFAIRS
CHAPTER 161 B OF THE GENERAL LAWS
REGIONAL TRANSIT AUTHORITIES
SECTION 2, CHAPTER 1141, ACTS OF 1973
BUREAU OF REGIONAL PLANNING
10 0 10 20 30 40
SCALE IN MILES
70-9

3/15

APPENDIX E

TEXT OF CHAPTER 161-B

Chapter 1141.

THE COMMONWEALTH OF MASSACHUSETTS

In the Year One Thousand Nine Hundred and Seventy-three

AN ACT PROVIDING AND MAINTAINING TRANSPORTATION FACILITIES AND SERVICES COORDINATED WITH HIGHWAY SYSTEMS AND URBAN DEVELOPMENT PLANS IN CERTAIN AREAS AND THROUGHOUT THE COMMONWEALTH.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. The General Laws are hereby amended by inserting after chapter 161A the following chapter:-

CHAPTER 161B.

TRANSPORTATION FACILITIES, HIGHWAY SYSTEMS AND URBAN DEVELOPMENT PLANS.

Section 1. Wherever used in this chapter, unless the context otherwise requires, the following words or terms shall have the following meanings:-

''Authority'', an authority established by section three or section fourteen.

''Department'', the executive office of transportation and construction.

''Equipment'', all rolling stock, and other conveyances, vehicles, rails, signal and control systems, lighting and power distribution systems, fences, station equipment, fare collection equipment, incidental apparatus and other tangible personal property, whether or not affixed to realty, required or convenient for the mass movement of persons.

''Fiscal year'', the year beginning with July first and ending with the following June thirtieth.

''Mass transportation facilities'', all real property, including land, improvements, terminals, stations, garages, yards, shops, and structures appurtenant thereto, and all easements, air rights, licenses, permits and franchises, used in connection with the mass movement of persons.

''Net cost of service'' the difference between (a) all income received by the authority, including but not limited to revenues and receipts from operations, advertising, parking, sale of capital assets in the ordinary course of business, and gifts and grants for current purposes, and (b) all current expenses incurred by the authority, including but not limited to expenses for operations, wages,

contracts for service by others, maintenance, debt service, including any debts, liabilities and obligations assumed under the provisions of law and including any applicable sinking fund requirements, taxes and rentals, and all other expenses which the authority determines not to capitalize, when such expenses exceed such income. Expenditures from the proceeds of bonds or bond anticipation notes shall not be included in current expenses.

''Net Saving'', any excess of the income items included in the definition of the net cost of service over the expense items included in that computation.

''Secretary'', the secretary of the executive office of transportation and construction.

Section 2. The territory within and the inhabitants of each of the following groups of cities and towns may, upon compliance with section fourteen, become a body politic and corporate and a political subdivision of the commonwealth under the name preceding each group.

Southeastern Regional Transit Authority. The cities of New Bedford and Fall River, and the towns of Westport, Acushnet, Dartmouth, Fairhaven, Freetown, Somerset and Swansea;

Greater Attleboro-Taunton Regional Transit Authority. The cities of Attleboro and Taunton and the towns of North Attleborough, Rehoboth, Seekonk, Mansfield, Norton, Raynham, Berkley and Dighton;

Brockton Regional Transit Authority. The city of Brockton and the towns of Abington, Avon, Bridgewater, East Bridgewater, Easton, Hanson, Stoughton, West Bridgewater and Whitman;

Montachusetts Regional Transit Authority. The cities of Gardner, Fitchburg and Leominster, and the towns of Lunenburg and Westminster;

Merrimac Valley Regional Transit Authority. The cities of Lawrence and Haverhill and the towns of Andover, Groveland, Merrimac, Methuen and North Andover;

Lowell Regional Transit Authority. The city of Lowell and the towns of Billerica, Chelmsford, Dracut, Tewksbury, Tyngsboro and Westford;

Berkshire Regional Transit Authority. The city of Pittsfield and the towns of Dalton, Lanesborough, Lee, Lenox, Hindsdale and Richmond;

Lower Pioneer Valley Regional Transit Authority. The cities of Chicopee, Holyoke, Northampton, Springfield, Westfield, and the towns of Agawam, East Longmeadow, Easthampton, Hadley, Longmeadow, Ludlow, South Hadley, West Springfield, Wilbraham and Amherst;

Worcester Regional Transit Authority. The city of Worcester and the towns of Auburn, Boylston, Grafton, Holden, Leicester, Millbury, Paxton, Shrewsbury and West Boylston;

Cape Cod Regional Transit Authority. The towns of Barnstable, Bourne, Brewster, Chatham, Dennis, Eastham, Falmouth, Harwich, Mashpee, Orleans, Provincetown, Sandwich, Truro, Wellfleet and Yarmouth.

An authority established under the provisions of section three or section fourteen shall have the power to hold property, to sue and be sued in law and equity and to prosecute and defend in all actions relating to its property and affairs. Each authority shall be liable for its debts and obligations, but the property of an authority shall not be subject to attachment or levied upon by execution or otherwise. Process may be served upon the administrator of an authority or his designee. Section three of chapter twelve shall not apply to the authorities established under this chapter.

Section 3. Any city or town, or group or combination of cities or towns, other than a city or town included in the Massachusetts Bay Transportation Authority may, subject to the approval of the secretary, and upon compliance with the provisions of this section, by majority vote of the city council or majority vote of the town meeting or majority vote of any other legislative body, respectively, be made into a body politic and corporate and a political subdivision of the commonwealth under the name of the municipality within the new authority having the greatest population, or under any other appropriate regional name agreed to by a majority of the member municipalities, and followed by the words ''Transportation Authority''.

Any such authority shall be deemed to be established upon written notification to the governor that the member municipalities have voted to establish a regional transportation authority. Having so notified the governor, the advisory board established pursuant to section five shall proceed to appoint an administrator in accordance with section four. Once established, each such authority shall have the same powers, limitations, duties and organization as an authority established pursuant to section fourteen and shall in all respects be subject to the provisions of this chapter, except section fourteen, as if it were an authority so established.

Any city or town, or group or combination of cities and towns, other than a city or town included in the Massachusetts Bay Transportation Authority or

included in an authority established pursuant to section fourteen, may, subject to the approval of the secretary, by majority vote of the city council or of the town meeting respectively, join a contiguous authority.

Section 4. The affairs of an authority shall be managed by an administrator who shall be appointed by and serve at the pleasure of the advisory board of the authority established pursuant to section five; provided, however, that the administrator shall not be appointed until after the board has provided the notification required by clause (c) of section fourteen. The administrator shall be the chief executive officer of the authority and shall receive such annual salary as shall be determined by said advisory board. Upon his appointment, the administrator shall give the state treasurer a bond for the faithful performance of his official duties in such penal sum and with such sureties as may be approved by the advisory board.

Section 5. There shall be an advisory board to each authority consisting of the city manager in the case of a Plan D or Plan E city or the mayor of each other city, and the chairman of the board of selectmen of each town, constituting the authority. Each mayor or city manager and each chairman, may, by writing filed with the authority, from time to time appoint a designee to act for him on the advisory board. Each city and town shall have one vote on the advisory board plus additional votes and fractions thereof determined by multiplying one and one half times the total number of cities and towns in the authority by a fraction of which the numerator shall be the total amount of all assessments made by the state treasurer to such city or town under this chapter and the denominator shall be the total amount of all such assessments made by the state treasurer to such cities and towns. The total vote of each city and town shall each year be determined by the authority and delivered in writing to the advisory board thirty days after the state treasurer has sent his warrants for payments to the cities and towns. The determination of votes shall be based upon the most recent annual assessment. Until the first such assessment, the fraction specified above shall be replaced by a fraction of which the numerator shall be the population of each such city or town and the denominator shall be the total population of all cities and towns in the authority. Population data shall be determined in accordance with the latest decennial census made by the United States Department of Commerce.

The advisory board shall act by majority vote, except that it may delegate

its power of approval to an executive committee formed and elected pursuant to duly adopted by-laws of the board and constituting among its members at least a majority of the total vote of the board, and may, at any time, revoke such delegation. Until the board has adopted by-laws and elected officers, the mayor or city manager of the city having the largest population or in the case of an authority composed entirely of towns, the selectmen of the town having the largest population within the area constituting the authority may call meetings of the advisory board by sending notice to each other mayor or city manager and chairman and shall preside at such meetings.

The advisory board may incur expenses, not to exceed ten thousand dollars annually, for stenographic and clerical work, and such expenses shall be paid by the authority.

Section 6. In addition to all power otherwise granted to an authority by law, the authority shall have the following powers, in each case to be exercised by the administrator of the authority unless otherwise specifically provided:-

(a) to adopt and use a corporate seal and designate the custodian thereof;

(b) to establish within its area a principal office and such other offices as may be deemed necessary;

(c) to hold and manage the mass transportation facilities and equipment acquired by the authority;

(d) to appoint and employ officers, agents and employees to serve at the pleasure of the administrator except as may otherwise be provided in collective bargaining agreements, and to fix their compensation and conditions of employment;

(e) to make, and from time to time revise and repeal, by-laws, rules, regulations, and resolutions, and to establish penalties for violation thereof, not to exceed fifty dollars;

(f) to enter into agreements with other parties, including, without limiting the generality of the foregoing, government agencies, municipalities, authorities, private transportation companies, railroads, corporations and other concerns, providing (i) for construction, operation and use by such other party of any mass transportation facility and equipment held or later acquired by the authority; or (ii) for the acquisition of any mass transportation facility and equipment of another party where the whole or any part of the operations of such other party takes place within the area constituting the authority. Any such other party is hereby given power and authority to enter into any such agreements, subject to such provisions of law as may be applicable. Any agreement with a private company

under any provision of this chapter which is to be financed from the proceeds of bonds or bond anticipation notes and which provides for the rendering of transportation service by such company and for financial assistance to such company by subsidy, lease or otherwise, shall include such standards for such service as the authority may deem appropriate and shall not bind the authority for a period of longer than one year from its effective date, but this shall not prohibit agreements for longer than one year if the authority's obligations thereunder are subject to annual renewal or annual cancellation by the authority. Such agreements may provide for cash payments for services rendered, but not more than will permit any private company a reasonable return.

(g) to establish at or near its terminals and stations such off-street parking facilities and access roads as may be deemed necessary and desirable. The authority may charge such fees for the use of off-street facilities as it may deem desirable, or it may allow the use of such facilities free.

(h) to accept gifts, grants, and loans from agencies of local, state, and federal governments, or from private agencies or persons, and to accede to such conditions and obligations as may be imposed as a prerequisite to any such gift, grant, or loan.

(i) to provide mass transportation service on an exclusive basis, except as provided in paragraph (j) of section eight in the area constituting the authority and without being subject to the jurisdiction and control of the department of public utilities in any manner except as to safety of equipment and operations; provided that schedules and routes shall not be considered matters of safety subject to the jurisdiction and control of said department. Nothing contained in this paragraph shall be construed as exempting any privately owned or controlled carrier, whether operating independently, or under contract with the authority, from obtaining any license required under section one of chapter one hundred and fifty-nine A.

(j) to provide mass transportation service under contract in areas outside the area constituting the authority but only pursuant to an agreement with another transportation authority or transportation area or a municipality for service between the area of the authority and that of such other authority, area or municipality, where no private company is otherwise providing such service.

(k) to provide for construction, extension, modification or improvement of the mass transportation facilities and equipment in the area constituting the authority; provided, that any such construction, extension, modification or

improvement shall be subject to the approval of the advisory board, unless specifically authorized by legislation.

(l) to conduct research, surveys, experimentation, evaluation, design, and development, in cooperation with other government agencies and private organizations when appropriate, with regard to the mass transportation needs of the area, and to the facilities, equipment, and services necessary to meet such needs.

(m) to grant such easements over any real property held by the corporation as will not in the judgment of the authority unduly interfere with the operation of any of its mass transportation facilities.

(n) to sell, lease, or otherwise contract for advertising in or on the facilities of the authority.

(o) to issue bonds, notes and other evidences of indebtedness as hereinafter provided.

(p) consistent with the constitution and laws of the commonwealth, the authority shall have such other powers, including the power to buy, sell, lease, pledge and otherwise deal with its real and personal property, as may be necessary for or incident to carrying out the foregoing powers and the accomplishment of the purpose of this chapter.

Section 7. In addition to the powers granted to the authority under section six and all other powers granted by law, the authority shall have the power to establish on a self-liquidating basis one or more separate units of mass transportation facilities and equipment. In establishing such separate units, the authority may enter into one or more unit lease arrangements with such persons, firms and corporations as the authority shall select and franchise. Each such unit lease arrangement shall provide for the following:

(i) acquisition by the authority of real property, including easements and rights of way, necessary or desirable for the operation of such units of mass transportation facilities and equipment, parking and other related auxiliary services and facilities;

(ii) design, construction and acquisition of mass transportation facilities and equipment;

(iii) operation of the mass transportation facilities and equipment so designed, constructed and acquired by a lessee of said facilities and equipment (1) for a period not in excess of forty years, (2) at a rental or lease charge at least sufficient to discharge the authority's financial obligations incurred

in connection with said unit of facilities and equipment under the authority's powers, and (3) upon such provisions and conditions as to fares and other matters relating to the conduct and operation of said mass transportation facilities and equipment as the authority and lessee shall agree; and

(iv) power in the authority to cancel or terminate said unit lease arrangement at stated times which shall not be less frequent than once in each fiscal year.

To meet the expenditures necessary in carrying out the provisions of this section, the authority may issue bonds in accordance with the provisions of clause (2) of the first paragraph of section nineteen and such bonds shall provide, in addition to other provisions allowed under this chapter, that all payments of principal and interest shall be made solely from (i) the rental or lease charges received by the authority under its lease with the lessee of mass transportation facilities and equipment as aforesaid, which said lease may be assigned by the authority to secure the obligations of said bonds; or (ii) in the event the authority terminates said lease from the income derived from operation of said mass transportation facilities and equipment;

Section 8. An authority shall be subject to the following limitations, conditions, obligations and duties:-

(a) The authority shall have the duty to develop, finance and contract for the operation of mass transportation facilities and equipment in the public interest consistent with the purposes and provisions of this chapter, and to achieve maximum effectiveness in complementing other forms of transportation in order to promote the general economic and social well-being of the area and of the commonwealth.

(b) No real estate shall be sold unless notice thereof shall have been given to the advisory board not less than thirty days prior to the date of sale and unless the sale shall have been advertised once a week for three successive weeks prior to the date of sale in a newspaper of general circulation in the city or town in which the real property to be sold is located, such real property shall be sold to the highest bidder.

(c) Any concession in or lease of property for a term of more than one year shall be awarded to the highest bidder therefor unless the corporation shall find, subject to the approval of the advisory board, that sound reasons in the public interest require otherwise.

(d) No change in fares shall be effective unless submitted to the advisory

board and approved by it.

(e) No substantial change in mass transportation service in the region constituting the authority shall be made unless notice thereof shall have been given to the advisory board at least thirty days prior to the change, and approved by said board.

(f) The authority shall in consultation with the department prepare and annually revise its program for public mass transportation which shall include a long-range program for the construction, reconstruction or alteration of facilities for mass transportation of persons within the area constituting the authority together with a schedule for the implementation of such program and comprehensive financial estimates of costs and revenues.

Such program, whether prepared by the authority directly, jointly or under contract with the areawide planning agency, shall be performed in accordance with any agreements that may exist between the department, the authority, and the areawide planning agency officially established or designated to carry out areawide, comprehensive planning on a continuing and cooperative basis for the region in which the transportation authority is principally located. Such mass transportation program shall be consistent with the plans for urban transportation and comprehensive development for the regional area and, so far as practicable, shall meet the criteria established by any federal law authorizing federal assistance to preserve, maintain, assist, improve, extend or build local, metropolitan or regional mass transportation facilities or systems.

In addition to the contracts and agreements authorized in paragraph (f) of section six, the authority may enter into contracts or agreements with any such areawide planning agency or, if the authority determines that an agreement with such agency is not practicable, then with any other public or private party for the provision of planning services. Such services may include, but are not limited to the following: feasibility and need studies, transportation planning, family and business relocation planning, and such other planning services that the authority may require.

(g) The authority shall on or before October first of each year render to the governor, the secretary of transportation and construction, the regional advisory board, the clerk of the senate and the clerk of the house of representatives, a report of its operations for the preceding fiscal year, including therein a description of organization of the authority, its

recommendations for legislation, and its comprehensive program for mass transportation as most recently revised.

(h) All current expenses of the authority shall be in accordance with an annual budget prepared by the authority to the advisory board later than October first of each year for the ensuing fiscal year. The regional advisory board, within thirty days after such submission, shall approve said budget as submitted, or subject it to such itemized reductions therein as the advisory board shall deem appropriate.

(i) Any agreement entered into by an authority with a contiguous municipality outside of the area of such authority for service to such municipality through an agreement with a private company, shall provide for reimbursement by such municipality to an authority only for the additional expense of such service as determined by the authority. Such agreements may be for such terms, not exceeding five years, as the parties may determine, except as provided in paragraph (f) of section six. They shall not be subject to the provisions of section four of chapter forty or section thirty-one of chapter forty-four. Municipalities may appropriate from taxes or from any available funds to meet their obligations under any such contracts.

(j) Any private company lawfully providing mass transportation service in the area constituting the authority at the commencement of operations by the authority may continue so to operate the same route or routes and levels of service as theretofore, and may conduct such further operations, without a contract, as the authority subject to the approval of the department of public utilities may permit.

(k) As a condition of any assistance to a private carrier operating under lease, contract, or other arrangement with the Authority, the rights, benefits, and other employee protective conditions and remedies of the Urban Mass Transportation Act of 1964, as amended (P.L. 88-365) as determined by the Secretary of Labor, shall apply for the protection of the employees affected by such assistance. Pursuant to said Urban Mass Transportation Act, the terms and conditions of a fair and equitable employee protective arrangement pursuant to this paragraph shall be a proper subject of collective bargaining and arbitration with the labor organizations that represent such employees. Such protective arrangement shall include, without limitation, provisions for the continuing employment or reemployment of those employees who are, or may be, displaced or otherwise affected by such assistance, paid training and re-training

programs, preservation of all employment and retirement rights and interest, and any other protections which are necessary or appropriate to minimize the injury to such persons, provided, however, that any such protection shall not be detrimental to the employment or retirement rights and interests of any other persons affected by such assistance. The contract, lease, or other arrangement for the granting of any such assistance to a private carrier shall specify the terms and conditions of, the protective arrangements.

Section 9. If in any year the commonwealth shall be called upon to pay any amount on account of the net cost of service of any transportation authority, the total amount of such net cost of service shall be assessed upon the cities and towns comprising an authority's territory in the proportion which the loss attributable to each route in each such city or town bears to the loss attributable to all such routes in all cities and towns. The loss attributable to each such route in each such city or town shall be determined on the basis of the difference between the revenues collected from such route in such city or town and the cost of providing such route therein.

Such determination shall be made by the authority in accordance with sound accounting practice and guidelines developed in consultation with the department.

Section 10. If as of the last day of June in any year there was any net cost of service, an authority shall notify the state treasurer of the amount of such net cost of service and all other facts required by the treasurer in order to proceed in accordance with the provisions of this chapter to assess such net cost. Upon notification of the amount of such net cost the commonwealth shall pay over to the authority said amount.

The state treasurer may borrow, from time to time, on the credit of the commonwealth such amounts as may be necessary to make payments required of the commonwealth under this section or under section eleven and to pay any interest or other charges incurred in borrowing such money, and may issue notes of the commonwealth therefor, bearing interest payable at such times and at such rates as shall be fixed by him. Such interest and other charges shall be included in the assessments under this chapter in proportion to the respective assessments on the cities and towns constituting the authority for the net cost of service of the period to which any such payment relates. No note issued under this paragraph shall mature more than two years from its date but notes payable earlier may be refunded one or more times, provided that no refunding note shall mature more than two years from the date of the original loan being refunded.

Such notes shall be issued for such maximum term of years, not exceeding two years, as the governor may recommend to the general court in accordance with Section three of Article LXII of the Amendments to the Constitution of the Commonwealth.

Pending any payment from the state treasurer to the authority and at any other time when the authority in the opinion of the administrator has not sufficient cash to make the payments required of it in the course of its duties as such payments become due, the authority may temporarily borrow money and issue notes of the authority therefor.

All assessments made under this chapter shall be made as provided in section twenty of chapter fifty-nine.

If in any year the income received by the authority, including but not limited to revenues from leasing, advertising, parking, sale of capital assets, gifts and grants, exceeds the expenses incurred by the authority, including but not limited to expenses for wages, contracts for service by others, maintenance, debt service, taxes, rentals, payments to any governmental body and all other costs, the authority shall determine the amount of such excess. Such excess shall be placed in a reserve fund up to such amount as shall be determined by the authority with the approval of the advisory board. Any amount of excess not placed in such reserve fund shall be applied to reimbursing the commonwealth for any amounts which it may have paid under the provisions of this section, and the commonwealth shall thereupon distribute the amounts so received among the cities and towns constituting the authority up to the amounts which they were respectively assessed in the previous fiscal year. All remaining amounts in excess shall be so distributed up to the amounts assessed in each fiscal year immediately preceding, commencing with the most recent such year.

Section 11. If during any fiscal year an authority, in the opinion of the administrator has not sufficient cash to make the payments required of it in the course of its duties, the authority may, from time to time during such year, certify to the state treasurer an amount which together with all amounts previously paid in such year to the authority under this section shall not exceed the net cost of service as estimated by the authority for that portion of such year which has expired up to the date of such certification; and the commonwealth shall thereupon pay over to the authority the amount so certified. If payments made by the commonwealth during any fiscal year under this section exceed the net cost of service as of the last day of such year, such excess shall be repaid to

the commonwealth by the authority at the time the authority notifies the state treasurer of the amount of such net cost or, if there is no such net cost, at the time the authority ascertains that fact. Any amounts which the commonwealth shall be called upon to pay the authority under this section during any fiscal year, less any repayment thereof to the commonwealth under this section, shall be treated as payments on account of the amount which the commonwealth shall be called upon to pay under the preceding section with respect to net cost of service as of the last day of such fiscal year; and the interest and other charges incurred by the state treasurer in borrowing money under this section shall be treated as interest incurred by the state treasurer in borrowing money under the preceding section. In order to meet any payment required of the commonwealth under this section the state treasurer may borrow at any time, in anticipation of the assessments to be levied in the following year under the preceding section, upon the cities and towns constituting the authority such sums of money as may be necessary to make aid payments and he shall repay any sum so borrowed as soon after said assessments are paid as is expedient.

If at any time any principal or interest is due or about to come due on any bond or note issued by the authority, and funds to pay the same are not available, the administrator shall certify to the state treasurer the amount required to meet such obligations and the commonwealth shall thereupon pay over to the authority the amount so certified. If the commonwealth shall not make such payment within a reasonable time, the authority or any holder of an unpaid bond or note issued by the authority, acting in the name and on behalf of the authority, shall have the right to require the commonwealth to pay the authority the amount remaining unpaid, which right shall be enforceable as a claim against the commonwealth. The authority or any such holder of an unpaid bond or note may file a petition in the superior court to enforce such claim or intervene in any such proceeding already commenced and the provisions of chapter two hundred and fifty-eight shall apply to such petition insofar as it related to the enforcement of a claim against the commonwealth. Any such holder who shall have filed such a petition may apply for an order of said court requiring the authority to apply funds received by the authority on its claim against the commonwealth to the payment of the petitioner's unpaid bond or note, and said court if it finds such amount to be due him shall issue such an order.

Section 12. The state auditor shall annually make an audit of the accounts of each authority and make a report thereon to the secretary, the governor and the general court. In making such audits, said auditor may call upon any of the departments, commissions, officers and agencies of the commonwealth for such information as may be needed in the course of making such audits. The state auditor may employ such auditors, accountants and other assistants as he deems necessary for carrying out his duties under this section, and chapter thirty-one and the rules made thereunder shall not apply to such employees. The commonwealth shall be reimbursed by the authority for the cost of the audit.

Section 13. An authority and all its real and personal property shall be exempt from taxation and from betterments and special assessments; and an authority shall not be required to pay any tax, excise or assessment to or for the commonwealth or any of its political subdivisions; nor shall an authority be required to pay any fee or charge for any permit or license issued to it by the commonwealth, by any department, board or officer thereof, or by any political subdivision of the commonwealth, or by any department, board or officer of such political subdivision. Bonds and notes issued by an authority, their transfer and the income therefrom, including any profit made on the sale thereof, shall at all times be free from taxation within the commonwealth.

Section 14. An authority described in section two of this chapter shall be deemed to be established (a) after twenty per cent of the votes on the advisory board have recorded themselves in favor of calling a meeting to vote on the establishment of the authority, (b) notice of the meeting has been sent by a member municipality of the authority to every other member municipality at least two weeks prior to said meeting and (c) the advisory board has sent the governor written notification that the advisory board has voted to establish the authority; provided that such notification shall not be given except after a majority of municipalities have voted to establish the authority.

If a city or town has voted not to become a member of an authority, it shall forward written notice to the secretary so informing him. Thereafter the city or town forwarding such notice not to participate shall not be assessed or subject to any obligation of the authority.

Section 15. If any city or town within an authority is assessed in accordance with section nine, such city or town may place upon the official ballot at any biennial or regular or special city election or annual or special town election next following the last day of June of the year next following the

year on account of which such assessment has been made the following question: ''Shall this (city, town) continue to be a member of the (name) Regional Transportation Authority?''

Yes	
No	

Such question shall not be placed upon the official ballot unless the city council or town meeting shall have voted that such question be so placed, or a petition signed by not less than five per cent of the registered voters of the city or town, certified as such by the registrars of voters thereof, shall have been filed with the city or town clerk, at least sixty days before the date for any such election. Forms for such petitions shall be made available without cost by the city or town clerk and each form shall bear the following heading: ''The undersigned registered voters of the (city or town) hereby petition for the placement upon the official ballot of the question whether this (city, town) shall continue to be a member of the (name) Regional Transportation Authority''.

The votes upon such a question shall be counted and returned to the city or town clerk in the same manner as votes for candidates in municipal elections. Said clerk shall forthwith notify the authority of the result of the vote. If a majority of the votes cast upon the question shall be in the negative, the authority shall forthwith take all steps necessary and appropriate for the termination of membership of such city or town in such authority.

Section 16. In the event of any conflict between the regulatory powers and duties of the department of public utilities in respect to mass transportation service within an area, the department of public utilities shall resolve such dispute and exercise such powers as it deems required in the particular instance.

Section 17. An authority is hereby authorized to provide by resolution at one time or from time to time for the issue of bonds of the authority for any one or more of the following purposes:

(1) To acquire by purchase or otherwise, plan, design, construct, reconstruct, alter, recondition and improve for lease to any eligible private company, mass transportation facilities and equipment.

(2) To pay any capital costs of the authority, whether or not bonds for any such purchase may also be issued under clause (1).

Bonds may be issued for any costs of the foregoing incurred either before or after the issue of the bonds. Bonds issued under either of the foregoing clauses may be issued in sufficient amount to pay the expenses of issues and to establish

such reserves as may be required by any applicable trust agreement or bond resolution. The aggregate principal amount of bonds for all authorities established under this chapter which may be outstanding at any one time under this section shall not exceed the sum of twenty million dollars; provided, however, that no such bonds may be issued under this section without the prior approval of the secretary. Ninety per cent of such bond proceeds shall be expended only for projects for which the authority has agreements with the federal government providing for grants averaging four fifths of the estimated eligible cost of such projects or for expenditures which are preliminary to the obtaining of federal grants.

The secretary shall make, and from time to time revise, guidelines for the allocation and distribution of the principal amount of said bonds, or any part thereof, among the authorities established by this act.

The secretaries of the executive offices for administration and finance and of transportation and construction shall adopt rules and regulations governing the procedures by which private companies shall apply for assistance pursuant to any agreements financed from proceeds of bonds or bond anticipation notes as provided in paragraph (e) of section five and governing the use of such assistance. Such rules and regulations shall include (a) requiring any private company which receives such assistance to agree to limit its profits and its expenses for salaries and overhead so as to make available as much of its earnings as possible for repayment to the authority of such assistance; (b) requiring such repayment; (c) enabling the authority and the secretary of the executive office for administration and finance to examine and audit the books and records of such company for the purpose of establishing and enforcing such limitation and repayment; and (d) requiring the authority to transfer to the commonwealth, the commonwealth's share of such repayment.

The bonds of each issue shall be dated, shall bear interest at such rates, shall mature at such time or times not exceeding forty years from their date or dates as may be determined by the authority and may be made redeemable before maturity at the option of the authority at such price or prices and under such terms and conditions as may be fixed by the authority prior to the issue of the bonds. The authority shall determine the form of the bonds, including any interest coupons to be attached thereto, and the manner of execution of the bonds, and shall fix the denomination or denominations of the bonds, and the place or places

of payment of principal and interest, which may be at any bank or trust company within or without the commonwealth. In case any officer whose signature or a facsimile of whose signature shall appear on any bonds or coupons shall cease to be such officer before the delivery of such bonds, such signature or such facsimile shall nevertheless be valid and sufficient for all purposes, the same as if he had remained in office until such delivery. All bonds issued under the provisions of this act shall have and are hereby declared to have all the qualities and incidents of negotiable instruments under the Uniform Commercial Code. The bonds may be issued in coupon or in registered form, or both, as the authority may determine, and provisions may be made for the registration of any coupon bonds as to principal alone, and also as to both principal and interest, for the reconversion into coupon bonds of any bonds registered as to both principal and interest and for the exchange of coupon and registered bonds. The authority may sell such bonds in such manner, either at public or private sale, and for such price as it may determine to be for the best interest of the authority.

The proceeds of such bonds shall be disbursed in such manner and under such restrictions, if any, as the authority may provide. The authority may also provide for the replacement of any bonds which shall become mutilated or shall be destroyed or lost. Bonds and bond anticipation notes may be issued under the provisions of this chapter without obtaining the consent of any department, division, commission, board, bureau or agency of the commonwealth, and without any other proceedings or the happening of any other conditions or things than those proceedings, conditions or things which are specifically required by this chapter. Provisions of this chapter relating to the preparation, adoption or approval of plans, programs, projects, budgets and expenditures shall not affect the issue of bonds and notes and the bonds and notes may be issued either before or after such preparation, adoption or approval.

While any bonds or notes issued or assumed by the authority remain outstanding, the powers, duties and existence of the authority and the provisions for payments by the commonwealth to the authority shall not be diminished or impaired in any way that will affect adversely the interests and rights of the holders of such bonds or notes.

Section 18. In the discretion of the authority such bonds shall be secured by a trust agreement by and between the authority and a corporate trustee, which may be any trust company or bank having the powers of a trust company within the commonwealth. Either the resolution providing for the issue of bonds or such trust

agreement may contain such provisions for protecting and enforcing the rights and remedies of the bondholders as may be reasonable and proper and not in violation of law, including covenants setting forth the duties of the authority in relation to the acquisition, improvement, maintenance, operation, repair and insurance of property, and the custody, safeguarding and application of all moneys and may pledge or assign the revenues to be received, but shall not convey or mortgage any property.

Section 19. Bonds issued under this chapter are hereby made securities in which all public officers and public bodies of the commonwealth and its political subdivisions, all insurance companies, trust companies in their commercial departments, banking associations, investment companies, executors, trustees and other fiduciaries, and all other persons whatsoever who are now or may hereafter be authorized to invest in bonds or other obligations of a similar nature may properly and legally invest funds, including capital in their control or belonging to them, and such bonds are hereby made obligations which may properly and legally be made eligible for the investment of savings deposits and the income thereof in the manner provided by paragraph two of section fifty of chapter one hundred and sixty-eight. Such bonds are hereby made securities which may properly and legally be deposited with and received by any state or municipal officer or any agency or political subdivision of the commonwealth for any purpose for which the deposit of bonds or other obligations of the commonwealth now or may hereafter be authorized by law.

Section 20. Any holder of bonds issued under the provisions of this chapter or of any of the coupons appertaining thereto, and the trustee under the trust agreement, if any except to the extent the rights herein given may be restricted by such resolution or trust agreement, may, either at law or in equity, by suit, action, mandamus or other proceedings, protect and enforce any and all rights under the laws of the commonwealth or granted hereunder or under such resolution or trust agreement, and may enforce and compel the performance of all duties required by this chapter or by such resolution or trust agreement to be performed by the authority or by any officer thereof.

Section 21. An authority is authorized to provide by resolution at one time or from time to time for the issue of interest bearing or discounted notes for the purposes and in the amounts that bonds may be issued. The notes shall be payable within three years from their dates, but the principal of and interest on notes issued for a shorter period may be renewed or paid from time to time by the

issue of other notes hereunder maturing within the required time from the date of the original loan being refunded. When bonds are issued for the purposes for which the notes were issued, the proceeds of the bonds shall be used to repay the notes, except that interest on the notes may be financed as a current expense to the extent deemed appropriate by the authority. The notes may be secured by a trust agreement or by the provisions of a resolution, as in the case of bonds. Bond anticipation notes may be issued either before or after the authorization of the bonds being anticipated. If any bond anticipation note is paid otherwise than from the proceeds of bonds or renewal notes, such payment shall be included in the measure of the net cost of service. But, if bonds or renewal notes are later issued to provide for such payment, there shall be a corresponding offset against the net cost of service.

Section 22. Each authority is authorized and directed from time to time to take all necessary action to secure any federal assistance which is or may become available to the commonwealth or any of its subdivisions for any of the purposes of this chapter. If any federal law, administrative regulation or practice requires any action relating to such federal assistance to be taken by any department or instrumentality of the commonwealth other than the authority such other department or instrumentality is authorized and directed to take all such action, including without limitation filing applications for assistance, supervising the expenditure of federal grants or loans and making any determinations and certifications necessary or appropriate to the foregoing, and the authority is authorized and directed to take all action necessary to permit such other department or instrumentality to comply with all federal requirements.

Section 23. The commonwealth, acting by and through the executive office for administration and finance, may enter into contract or contracts with the authorities created pursuant to this chapter providing that fifty per cent of the net cost of service of each authority shall be paid by the commonwealth, and shall not be assessed upon the cities and towns constituting the authorities established by section two and section three. Such amount, not to be so assessed shall be called contract assistance.

Contracts shall provide for payment of debt service by the commonwealth when due except to the extent that the authority shall have previously notified the state treasurer that the revenues of the authority are sufficient for the purpose.

Any debt service on bonds issued by an authority, for which contract assistance is provided, shall mature serially beginning not later than ten years after

the date of issue and ending not later than forty years after the date of the bonds, so that the amounts payable in the several years for principal and interest combined shall be as nearly equal as in the opinion of the authority as is practicable to make them or, in the alternative, in accordance with a schedule providing a more rapid amortization of principal.

Any contracts or agreements made between an authority and any private company or carrier for which contract assistance is provided shall be subject to the following limitations: (i) in determining whether assistance is needed under this paragraph with respect to an operating agreement with a private transportation company, and in determining the terms of such assistance, the authority shall review the entire transportation operations of the company and its affiliates and shall make a finding that the assistance will not permit the applicant company to make more than a reasonable return overall; and (ii) that the assistance shall cover only those services determined by the authority to be in the public interest.

Any contract under this section shall include such provisions as the secretary deems necessary and desirable to assure the efficient operation of the authority, and the minimum burden on the commonwealth and on the cities and towns within the authority, and to insure contract assistance is provided for projects which are consistent with the program for public mass transportation of the authority.

Section 24. Section ten of chapter forty A, sections twenty-eight, fifty-nine to sixty-four, inclusive, eighty-three to eighty-five, inclusive, and ninety-two to one hundred and four, inclusive, of chapter one hundred and fifty-nine, and sections eighty-nine, one hundred and three and one hundred and thirteen of chapter one hundred and sixty-one, shall apply to the transportation authorities created by this chapter, its property and employees in the same manner as though each were a street railway company.

Section 25. Nothing in this chapter shall be deemed to authorize or permit any authority established by this chapter to directly operate any mass transportation service.

SECTION 2. The first paragraph of section 19 of chapter 6A of the General Laws, as appearing in section 3 of chapter 704 of the acts of 1969, is hereby amended by striking out the second sentence and inserting in place thereof the following sentence:- The Massachusetts Bay Transportation Authority, the Massachusetts Port Authority, the Massachusetts Turnpike Authority and any regional transportation authorities established under the provisions of chapter one hundred and

sixty-one B shall also be within the executive office of transportation and construction.

SECTION 3. Clause (a) of section 25B of chapter 58 of the General Laws, as amended by section 1 of chapter 1075 of the acts of 1971, is hereby further amended by inserting after the word ''laws'', in line 4, the words:- , and from time to time when required, the contract assistance to regional transportation authorities, provided under section twenty-three of chapter one hundred and sixty-one B.

SECTION 4. Paragraph (c) of said section 25B of said chapter 58, as appearing in section 2 of chapter 563 of the acts of 1964, is hereby amended by inserting after the word ''sixty-one'', in line 4, the words:- , to each regional transportation authority established under chapter one hundred and sixty-one B.

SECTION 4A. Section 6 of chapter 64H of the General Laws is hereby amended by adding after paragraph (z), added by chapter 932 of the acts of 1973, the following paragraph:-

(aa) Sales of new and used motor buses used to provide scheduled, intracity local service (as defined by the Department of Public Utilities), and repair or replacement parts therefor, and materials and tools used in and for the maintenance and repair thereof to, and for the use of common carriers of passengers by motor vehicle for hire, which hold at least one certificate, issued by the department of public utilities pursuant to the provisions of section seven of chapter one hundred and fifty-nine A. Upon receipt of appropriate evidence of the possession of such a certificate, the commissioner shall prepare and issue to any such duly certificated common carrier a statement that it is entitled to the exemption granted by this paragraph.

The presentation of a copy of the statement which the commissioner is required to prepare and furnish hereunder to the registrar of motor vehicles shall be deemed to constitute compliance with the provisions of the second paragraph of section twenty-five in respect to furnishing evidence of the payment of the tax which would otherwise be due under this chapter.

If any common carrier which qualifies for the exemption granted by this subsection (aa) should ever lose its exempt status hereunder and thereafter purchase any of the items of personal property enumerated hereinabove without paying in full the tax due, it shall be liable to pay interest on the entire unpaid portion of any tax due from it at the rate of six per cent per annum until paid.

Any vendor to whom a copy of the statement, which the commissioner is required to prepare and furnish hereunder, is furnished shall be entitled to rely thereon

and he shall not be liable for the collection or payment of the tax which would otherwise be imposed by this chapter.

SECTION 5. Section 7B of chapter 71 of the General Laws, inserted by section 8 of chapter 563 of the acts of 1964, is hereby amended by inserting after the word ''sixty-one A'', in line 8, the words:- or chapter one hundred and sixty-one B.

SECTION 6. Section 56 of chapter 148 of the General Laws is hereby amended by striking out the sixth sentence, added by chapter 444 of the acts of 1965, and inserting in place thereof the following sentence:- The provisions of this section shall not apply to any open-air parking space established under paragraph (g) of section three of chapter one hundred and sixty-one A or under paragraph (g) of section six of chapter one hundred and sixty-one B and maintained or conducted by the Massachusetts Bay Transportation Authority or by an authority created under said chapter one hundred and sixty-one B or a lessee or licensee thereof.

SECTION 7. Chapter 161 of the General Laws is hereby amended by striking out section 152A, inserted by section 15 of chapter 563 of the acts of 1964, and inserting in place thereof the following section:-

Section 152A. Notwithstanding the provisions of section one hundred and fifty-one, the commonwealth, acting by and through the secretary of administration, may enter into a contract or contracts with the trustees of a transportation area created under the provisions of sections one hundred and forty-three through one hundred and fifty-eight whereby the commonwealth agrees to reimburse the cities and towns comprising the area for fifty per cent of the financial deficit resulting from the operation of the area for any financial year. Contracts made by transportation areas with private carrier companies for which contract assistance is provided shall be within the limitations and subject to the terms of section twenty-three of chapter one hundred and sixty-one B so far as applicable and such contracts shall be eligible for contract assistance as herein provided.

SECTION 8. Section nine A of chapter thirty, chapter thirty-one and chapter thirty-two of the General Laws shall not apply to any officer or employee of any authority created by chapter one hundred and sixty-one B of the General Laws, inserted by section one of this act.

SECTION 9. The state treasurer shall pay the amounts for contract assistance provided in section twenty-three of chapter one hundred and sixty-one B of the General Laws, inserted by section one of this act, in accordance with the terms of

any contracts or agreements made under said section twenty-three in the manner and from the fund referred to in section twenty-five B of chapter fifty-eight of the General Laws, and from any other transportation fund or other sources which the general court may from time to time make available.

SECTION 9A. The secretary of the executive office of transportation and construction is hereby authorized and directed to reserve for the areas comprising the following authorities based on population, eighty per cent of the twenty million dollar bond authorization provided under section seventeen of chapter one hundred and sixty-one B of the General Laws, as inserted by section one of this act, in the following manner:-

Southeastern Regional Transit Authority	$2,182,020.
Greater Attleboro-Taunton Regional Transit Authority	1,110,818.
Brockton Regional Transit Authority	1,446,385.
Montachusetts Regional Transit Authority	820,817.
Merrimac Valley Regional Transit Authority	1,509,453.
Lowell Regional Transit Authority	1,621,944.
Berkshire Regional Transit Authority	630,734.
Lower Pioneer Valley Regional Transit Authority	3,888,498.
Worcester Regional Transit Authority	2,052,047.
Cape Cod Regional Transit Authority	737,284.
Total	$16,000,000.

If, however, a regional transit authority has not been created in any of the above areas within three years of the passage of this act, or any funds reserved have not been committed by any regional transit authority within five years from the passage of this act, then such funds shall revert to a discretionary fund and shall be distributed by said secretary to any regional transit area established pursuant to chapter one hundred and sixty-one B of the General Laws based on need. The four million dollars which have not been reserved shall be distributed by said secretary to any new regional transit authorities established pursuant to said chapter one hundred and sixty-one B and any other regional transit authorities established pursuant to said chapter one hundred and sixty-one B based on the need of said authorities for capital funds.

SECTION 10. The provisions of any federal law, administrative regulation or practice governing federal assistance for the purpose of this chapter shall, to the extent necessary to enable the commonwealth or its subdivisions to receive such assistance and not constitutionally prohibited, override any inconsistent

provisions of chapter one hundred and sixty-one B of the General Laws, inserted by section one of this act.

The provisions of this act are severable, and if any of its provisions shall be held unconstitutional or invalid by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the remaining provisions.

House of Representatives, November 21, 1973.

Passed to be enacted, David M. Bartley, Speaker.

In Senate, November 26, 1973.

Passed to be enacted, Kevin B. Harrington, President.

December 5, 1973.

Approved,

Governor.

APPENDIX F

LIST OF ABBREVIATIONS

A & F	Executive Office of Administration and Finance
AOA	U. S. Administration on Aging
BAT	Brockton Area Transportation Authority
BRTA	Berkshire Regional Transit Authority
BTP&D	Bureau of Transportation Planning and Development, Massachusetts Department of Public Works
CATA	Cape Ann Transportation Authority
CCRTA	Cape Cod Regional Transit Authority
COA	Council on Aging
COS	Committee of Signatories for MPO
DEA	Massachusetts Department of Elder Affairs
DOT	U. S. Department of Transportation
DPU	Massachusetts Department of Public Utilities
DPW	Massachusetts Department of Public Works
EOTC	Executive Office of Transportation and Construction
E & H	Elderly and Handicapped Transportation Service
EPA	U. S. Environmental Protection Agency
FARE	Financial and Accounting Reporting Elements
FHWA	Federal Highway Administration
GATRTA	Greater Attleboro-Taunton Regional Transit Authority
GBC	Greater Boston Committee for the Transportation Crisis

GMTA	Greenfield-Montague Transportation Area
ICC	U. S. Interstate Commerce Commission
JTPG	Joint Transportation Planning Group
LINKS	A Transportation Project Designed to Link the Elderly with Society
LRTA	Lowell Regional Transit Authority
MBTA	Massachusetts Bay Transportation Authority
MPO	Metropolitan Planning Organization
MRTA	Montachusetts Regional Transit Authority
MTA	Metropolitan Transit Authority
MVRTA	Merrimac Valley Regional Transit Authority
PVTA	Pioneer Valley Transit Authority
RPC	Regional Planning Commission
RTA	Regional Transit Authority
RTDC	Regional Transit Development Corporation
Secretary	Secretary of the Executive Office of Transportation and Construction
SRPEDD	Southeastern Regional Planning and Economic Development District
SRTA	Southeastern Regional Transit Authority
TDP	Transportation Development Program
THEM	Transporting the Handicapped and Elderly in Massachusetts, Incorporated
TPAG	Transportation Planning and Advisory Group
UMTA	U. S. Urban Mass Transportation Administration
UMTAct	U. S. Urban Mass Transportation Act
WRTA	Worcester Regional Transit Authority
3C	Comprehensive, Continuing and Coordinated Planning Process