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THE PROBLEM OF BOSTON'S METROPOLITAN TRANSIT AUTHORITY

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Chapter 1

I

The planning, financing and adminstration of transit services constitutes a major problem confronting the nation's largest cities. Increasing fares, mounting deficits and decreasing patronage characterize the operations of transit systems in our metropolitan cities. Automobile competition and inflationary operating costs have been the proximate causes of this problem, but the basic dilemma is to be found in the fact that, deeply committed to the automobile s a means of fulfilling their transportation needs, our cities still cannot function without the costly services provided by mass transportation systems.

The urgency of this problem has generated a debate concerning the course of public transit policy which is without precedent since the early years of the century when municipal reformers fought for public regulation of street railways. The results of this public discussion, however, have been fragmentary and inconclusive. Some cities have extended subsidies to private transit operators while a few have instituted public ownership and operation of their transit systems. Nowhere has comprehensive and effective action been taken.

For students of municipal government and planning, the problem is worthy of serious consideration. The part which the street car, rapid transit and the automobile have performed in the evolution of the modern city is widely recognized. That transportation will play a similarly determinative role in shaping the growth and development of the metropolitan areas in the years ahead makes thorough study of the transit problem a necessity. Thus, students and officials alike must come to some conclusions concerning the issues raised by the sickness currently afflicting the urban transit industry in America. How necessary is public transit service for the operation of our cities in the age of the automobile? If private operation of such services is unprofitable, how shall such services be financed and who shall administer them? What have been the defects in the transit policies of the past and how shall they be avoided in making the decisions which the transit problem requires?

In the conviction that dispassionate analysis by the student of metropolitan affairs can make some contribution to the determination of these issues, the Bureau for Research in Municipal Government undertook an analysis of the policies and operations of Boston's Metropolitan Transit Authority. This study reviews the evolution of transit policy in the Boston region since the end of the last century. Against this background we have described the most significant aspects of current operating data and have sought to go beyond the phenomena of fares, deficits and patronage losses to a consideration of the causal elements in the MTA problem. Finally, we have attempted to fulfill the obligation which research and observation impose on the student by suggesting the outlines of a new and, it is hoped, more effective program for the operation of the MTA.

This study is in large measure the result of information and help which others have generously contributed. While they share no responsibility for the final recommendations the author wishes to acknowledge the assistance which the following people gave in the research and preparation of this monograph: Robert Ahern, Boston Globe; Col. John B. Atkinson; Van Ness Bates, United Community Services; Thomas Buckley, State Auditor; Judge Gilbert Cox; Robert E. Cunniff, Boston Finance Commission; Phil T. Desmond, Boston Traffic Commission; Edward A. Dana, MTA; Willis B. Downey, MTA; William Everett, Jordon Marsh; F. B. Gummere, Filene's; Ray Hofford, Boston Real Estate Board; Charles J. Innes, State Senator; R. H. Johnson, Retail Trade Board; Edgar Mills, Christian Science Monitor; John E. Moran, Eastern Massachusetts Street Railway; Melvin Morse, State Planning Board; John Powers, State Senator; John J. Sullivan, MTA; Summner G. Whittier, Leutenant Governor.

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II

The history of the modern transit system in Metropolitan Boston began in the year 1887. In that year seven transit companies operating horse car lines in the area were consolidated to form the West End Street Railway Co. By virtue of this consolidation, the new corporation operated the largest street railway in the country. The legislature, in approving the charter for the West End, reversed earlier public policy in the transit field. Previously, competition among a number of operators had been encouraged in the expectation that greater coverage and better service would result. The unification of local transit lines insured more adequate and coordinated service. Thus, Boston became one of the first major cities in the United States to have a surface transportation system which was capable of facilitating decentralization of the increasingly crowded urban core area.

Soon after it was organized, the West End experimented with electric traction as a source of motive power. Frank J. Sprague, who had made the first large-scale electrification in Richmond, Virginia, was awarded a contract to make a similar installation on one of the West End lines in 1887. The results were so successful that the company proceeded to electrify almost all of its surface system in the next ten years.[1]

The electric car represented a great advance in the technology of mass transportation. However, it soon became apparant that surface transportation alone was inadequate to meet the passenger load which the growing metropolitan area focused on the central business district of the city. The situation was aggravated by the archaic street system in the central area. While they tended to expedite decentralization, the electric street railways

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[1]Harold Passer, "Frank J. Sprague, Father of Electric Traction, 1857-1934", in William Miller (ed.) Men in Business (Cambridge, 1952), pp. 228, 233, 236.

also materially added to the congestion of the streets in this central area. They increased both the number of vehicles and the numbers of people converging on the central area during the business hours. Only a few years after the West End had electrified its first lines, therefore, the inadequacies of surface transportation impelled serious consideration of alternative methods of meeting the transportation needs of the area.

Rapid transit proposals had been considered by the Legislature as early as 1879. But not until electric traction was found to be practicable did the technological barriers to this form of transit disappear. By the middle 'nineties, the problem had become one of raising the increased amounts of capital necessary to finance rapid transit construction. This was the issue which led to the entrance of state and local government as active participants in the field of transportation. The West End owners showed no willingness to divert their increasing profits from their existing surface system into the heavy capital investments necessary for the construction of rapid transit facilities.[1] Confronted with this entrepreneurial lassitude and the dilemma of street congestion, the Legislature embarked upon a series of important measures with regard to rapid transit. First it authorized the Boston Transit Commission, a public authority, to build a subway system for street cars under Tremont Street. Under this policy, the City of Boston constructed and maintained rapid transit facilities which were leased in 1896 to the West End Company for a twenty-year period.[2] It was hoped that since the first costs of constructing rapid transit facilities were so high as to discourage private investment by the transit operator, the municipality could

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[1]Boston Elevated Railway, Fifty Years of Unified Transportation etc., (Boston, 1938), p. 33.

[2]*Ibid*., p. 33; Acts of 1894, Chapter 548.

finance and construct those facilities and then lease them to the private operator with the expectation that the fare revenues would amortize the city's investment over a long period through the lease payments.

Second, the legislature gave its blessing to certain arrangements designed to promote the construction of rapid transit facilities under private auspices. The Tremont Street subway was regarded as little more than a temporary expedient in meeting the total needs for transit in and out of the central business district. The surface car system did not provide the high capacity trunk line service necessary to connect residential areas with the core district. As early as 1894, the Legislature had chartered the Boston Elevated Railway Company with the hope that this new company would be able to provide the necessary private capital to embark upon a program of elevated railway construction. The new company had proved incapable of this task In 1895, however, J. P. Morgan and Kidder, Peabody and Co. bought control of the paper corporation which was the Boston El and determined to exploit the need for rapid transit. To do this, the El's new owners were convinced that a system of rapid transit lines alone, such as existed in Chicago and New York, would not be successful. It was thought that integration of rapid transit and surface systems would not only provide a more attractive and effective service but that the revenues from the lucrative surface lines would be necessary to insure the financial viability of the rapid transit operations.[1]

The West End management, having experienced in the decade from 1887 to 1897 a doubling in passenger traffic and a 75% increase in gross revenues, opposed such a merger. But El interests were able to gain control of the company and they negotiated a twenty-five year lease on the West End property in 1897. The Legislature then passed an act approving the West End lease and

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[1]Boston Elevated Railway, Fifty Years op. cit., pp. 45, 47.

authorizing the El ti finance, construct and operate rapid transit lines. The premise upon which this legislation was enacted was that fare revenues would be sufficient to amortize the heavy capital investments in the rapid transit systems, permit modernization of surface and rapid transit systems and allow expansion of both systems while providing for an adequate return on the investment.

Thus, in summary, the legislature's twofold policy was first to build the Tremont Street subway and lease it to the West End and second to charter the Boston Elevated Co. and subsequently to authorize it to lease the West End and to develop an integrated rapid transit system for Boston.

III

The act of authorization contained a provision fixing the fare of the entire system at five cents for twenty-five years. Provision for fare increases in the future was thought unnecessary since it was supposed that the five cent fare would yield the necessary revenue without imposing unjust charges on the riding public. Public regulation was confined to the approval of new routes, and some of the terms and conditions of service.[1]

This public policy of the fixed fare proved to be a disastrous miscalculation. By 1917, the Boston El was on the verge of bankruptcy and the transit system was threatened with a physical breakdown in service. What neither legislators nor the private operators had foreseen in 1897 was that the transit industry was then at the end of almost two decades of low costs and monopoly-inflated profits. From 1897 to 1917, however, costs spiraled. Thus, while there was an increase in revenue passengers of 111% in this period and an increase in gross

[1]Acts of 1897, Chapter 500.

profits of 110%, the permanent investment in the system increased 364%. While the El had benefited from low labor costs in the preceding period, El employees organized during the War, and their successful wage demands were aided by Government arbitration awards, so that for the period hourly wages increased almost 79%.

While the El had made heavy investments in building the Cambridge Subway, the Sullivan Square and Atlantic Avenue elevated lines, and in providing equipment to operate through the city-built Washington Street and East Boston Tunnels, the physical condition of the surface system had deteriorated to the point where, in 1916, a complete breakdown of service seemed possible. A nationally known transit consultant, hired to survey the system, estimated that 75% of the useful life of surface lines rolling stock and equipment had been expended in 1916. Yet the El had provided for only about one tenth of the actual depreciation of its property which had occurred in that year. Depreciation reserves were wholly inadequate and the revenue position of the company was so poor that it was evident that the El would be unable under existing conditions to raise the estimated $2,700,000 necessary for a five-year rehabilitation program designed to put the system in operating condition.[1]

After a number of studies it was apparent in 1917 that some action by the legislature would be necessary. The alternatives advanced by the parties in interest might be summarized as follows: 1. The El proposed that the twenty-five year contract be amended to eliminate the five cent fare provision and that a system of service at cost be instituted, under which the El would adjust the fares so that the revenues would cover the costs of operation and

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[1]John A. Beeler, Report on the Methods and Practices of the Boston Elevated Railway, (Boston, 1918).

Edward S. Mason, The Street Railway in Massachusetts, (Cambridge, 1932), p. 105.

provide a 6% return on investment. (2) The Public Service Commission countered with a suggestion that the El be placed under permanent public control, that the five cent fare remain unchanged, that a 5½% return on the investment be guaranteed and that deficits be made up out of tax revenues. (3) The Governor who opposed both permanent public control and the public ownership proposals which had been advance, believed that the El faced only a temporary crisis and that public control should be limited to a short period to permit the company to improve its position. He was strongly convinced that the total costs of service and rehabilitation of the property should be paid by the car riders through fare revenues.

There emerged from this confusion of counsels a compromise plan embodied in the Public Control Act of 1918.[1] The act called for public control of the El by five trustees appointed by the governor for fixed terms. Public control was specified for a ten year period, at the end of which time the company might revert to private control or public control might be extended, but neither of these provisions were to hinder public purchase of the property during the period of public control. In return for public management of their property the El owners were to receive a guaranteed annual return on the par value of their stock of 5% for the first two years, 5½% for the next two years and 6% thereafter. The cost of service was defined to include operating expenses, taxes, rental, interest on indebtedness, obsolescence and depreciation, and a guaranteed return on the investment. The trustees were ordered to establish an initial rate of fare to cover this cost of service and to prepare in addition 4 rates of fare above and 4 below this rate to cover any fluctuations in costs and revenues. The El ownership was required to raise three million dollars by the issue of 7% preferred stock,

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[1]Special Acts of 1918, Chapter 159.

two million dollars of which was to be used by the trustees for rehabilitation and one million to go into a reserve fund to be used to "cushion" cost increases. In the event that the cost of service in any period should exceed the revenues produced by the fare structure and the reserve fund be depleted, the deficits were to be assessed on the 14 cities and towns directly served by the El.[1]

This curious blending of public and private interests, which incorporated some of the proposals of almost all the interest groups but not the total programs of any one group, was not received with great enthusiasm. It was generally agreed that the arrangement was a temporary one designed to avoid the disastrous consequences of a protracted transportation crisis. The first years of public control were viewed in the nature of a public experiment.

IV

The hopes that the El was passing through a period of temporary crisis and would be returned to private management after a short period of public control and rehabilitation had dimmed considerably by 1930. The balance sheet of public control after 12 years indicated that the basic problems remained unchanged. Five of those years had seen the system incur deficits and there remained in 1930 $1,134,638 which the El still owed the 14 cities and towns

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[1]The cities and towns composing the transit district were those touched by the lines of the Boston El. They were: Arlington, Belmont, Boston, Brookline, Cambridge, Chelsea, Everett, Milton, Medford, Malden, Newton, Revere, Somerville, and Watertown. Deficits were assessed on the basis of the degree to which citizens of each city of town used the system. This was determined by an origin and destination survey of passengers. For further information about this system of deficit assessments, see City of Boston, Finance Commission, <u>Letter to the Honorable John B. Hynes, Mayor of Boston</u>, Boston: January 16, 1952, 9 pp. (Mimeographed); and <u>infra</u> p. 58.

served after having repayed $2,630,818 during the period.[1] Part of these deficits had resulted from the continuing spiral of labor costs despite reductions in payroll afforded by the introduction and expanded use of one-man in place of two-men cars. Another factor was the extension and improvement of rapid transit facilities which increased rental payments to Boston by more than 4 million dollars. The total investment in transit facilities increased from 138 million in 1919 to 175 million in 1930. Of this total Boston's investment amounted to more than 52 million dollars and the Commonwealth, by virtue of its purchase of the Cambridge subway from the El, had invested almost eight million.[2]

It was evident, therefore, that revenues in the period were not sufficient to cover the mounting items of operating expense, fixed charges and guaranteed return on the private investment. It was also apparent that the improvement and extension of the system could only be effected by the investment of public funds. Thus, in the period from 1919 to 1930, the transit system had remained a deficit operation which necessitated continued public support and the modernization of the system, albeit limited, had required an increased public investment in transit facilities.

In view of this experience, the Legislature made several changes in 1929 and 1931 in the original Public Control Act. A popular referendum was held in 1930 to determine whether the El should be returned to private management, be continued under public control or become publicly owned. Public control won handily and the Legislature then made several changes in the terms of control which remedied some of the features of the original act which

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[1] Boston Elevated Railway, Annual Report of the Public Trustees . . .1930, pp. 27, 28.

[2] See Table I, p. 15-A.

had met with considerable criticism. Public control was extended until 1959 and, in return for this long term guarantee, dividend rates on common stock were reduced from 6 to 5%. Moreover, a special political subdivision, the Boston Metropolitan District, comprising the 14 cities and towns served by the El, was created and empowered to buy the bonds of the El and issue its own bonds, the proceeds from which were to be used to retire the outstanding preferred stock of the El. The creation of this device permitted the substitution of the high interest rates on the preferred stock by low interest rates prevailing on municipal bond issues. At the same time, the terms under which public ownership could be effected were changed so that the top option price of $105 per share could be reduced by one half the amount of any unpaid deficit assessments as long as this reduction did not lower the price per share below eighty-five dollars.

The power to determine fares was modified by the creation of a Metropolitan Transit Council consisting of the mayors and a selectman from each of the towns and cities in the District. In the event of a deficit, the trustees were to suggest a change in the fare structure sufficient to eliminate deficits and the Council was to determine whether the deficits should be eliminated by a fare increase or assessed on the taxpayers of the district. Although the Legislative intent behind this provision was to substitute for complete trustee control over fare determination the judgements of a body of elected officials, it cannot be said that the device was as effective as might have been hoped by those critics of trustee control who had proposed and supported it. Notwithstanding recurring deficits during the depression decade, the Council members were understandably reticent in risking their political lives by shifting the total cost of service to car riders through fare increases. In preference, they followed the more expedient policy of passing the deficits along to the tax payers of the district.

Although purporting to be merely a change in the terms of public control, the legislative enactments of 1929 and 1931 must be viewed as an implicit revision of the public transit policy expressed in the earlier act. The profit and loss record of the system after more than a decade of operation indicated that mass transportation services of the caliber to which citizens of the district had become accustomed in the period of public control could not be provided at a profit by the private owners of the El. Even with the total assumption by the public of the cost of extending the system, it was apparent that no rate of fare which was politically palatable would yield sufficient revenues to permit a return to private operation of the system. The resumption of private operation was not, therefore, a feasible alternative in 1930. Faced with the choice of returning to private control at the cost of a substantial restriction of transit services, or retaining public control, the public chose the latter.

The legislature recognized that the course of public policy could only be in the direction of increased public involvement. This was implicit in authorizing the District to purchase the preferred stock of the El, in continuing the system of deficit financing and in revising the terms under which ownership of the system could pass into public hands. A realistic approach to the problem might have indicated a more serious discussion of the merits of outright public ownership, but Legislators favored the easy course of an indefinite perpetuation of public control and contented themselves with a revision of the terms of such control. Public control in 1918 had been framed as an emergency measure, a proximate and temporary arrangement. Public control in 1931 could be justified on no such basis. While there yet seemed to be a possibility of returning the property to the control of its private owners, there was justification for the preservation of the private investment in the system. In 1931, however, it was evident that a return to private control was no longer possible. The Legislature set the stage for public ownership yet refused to take the final step.

V

From 1930 to 1942, the operations of the El resulted in assessable deficits every year. Beginning in 1929, the system had begun to feel the effects of automobile competition. Its passenger volume dropped off and this decline was intensified with the economic depression which struck the country in 1930. Patronage declined steadily from 362 million in 1928 to an all-time law of 267 million in 1933.[1] The revival of economic activity in the next few years resulted in the recovery by the system of an annual volume of 296 million in 1936 but riding leveled off at this point and remained almost static until the beginning of the war in 1941. In the period from 1927 to 1941, cordon count data on automobiles entering and leaving the central business district indicated that there was an increase of 43% in the number of people entering the central area by this means. Although the greatest increase in this period occurred between 1927 and 1932, the totals increased on the average of about 5% annually during the remainder of the period.[2] While the depression accounts in part for the El's drastic loss of patronage, the basic factor was the trend toward increased automobile usage. During the depression decade, however, the fixed costs of the El actually increased even though the system was carrying fewer passengers. Service cuts, a reduction of payroll, and cheaper operating costs tended to decrease the total cost of service. But the heavy burden of fixed charges coupled with the reduction in patronage resulted in chronic deficits averaging 1¼ to 2½ million annually.[3]

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[1]Boston Elevated Railway, <u>Annual Report of the Public Trustees . . . 1941</u>, pp. 40-41.

[2]Data on cordon counts from the Boston Traffic Commission.

[3]Boston Elevated Railway, <u>Annual Report of The Public Trustees . . . 1941</u>, <u>op. cit</u>.

Only one of a large number of legislative proposals to deal with the transit problem received serious consideration. This was a bill authorizing the public purchase of the common stock of the El. There had been, understandably enough, intense public criticism of the provisions of the control act which guaranteed common stock holders of the El an annual dividend of 5%. While transit companies is most major cities were in bankruptcy or were facing imminent insolvency and the El was operating at a loss, there seemed to be little justification for retaining the provision for a guaranteed annual return. In 1938, a bill was introduced into the Legislature, the main provision of which was to authorize purchase of the common stock holdings in the hands of the public and thereby eliminate the dividend payments. Although the bill was hotly debated, it failed of passage by one vote. Nothing was subsequently done either to purchase the stock or to reduce the dividend payments.

A year after this proposal failed of adoption, the Boston Financ Commission began an investigation of the El's financial record. This was essentially an effort to determine whether depreciation allowances were too high. Charges to this effect were almost as old as public control and had been investigated several times by public bodies. The results were less than conclusive, and one consequence was to divert attention from the basic causes of the El's difficulty; its loss of patronage, and the costs of maintaining the public control arrangement. Instead, the conclusion reached by the Commission gave the impression that the El problem might be substantially improved by different accounting methods and that the cause of the deficits was in large measure an administrative problem. As a result of the investigation, however, the Commonwealth instituted a suit against the El trustees for recovery of the alleged overcharges during the period of public control. Meanwhile the Commonwealth withheld over three million dollars in 1941 deficit payments to the El.

TABLE I

"Operations of the Boston Elevated Railway; 1919-1941"[1]

Year	Revenue Passengers	Income	Operating Expenses	Fixed Charges	Assessed Deficit	Deficits Repaid
1919	324,758,685	$29,498,582	$23,700,339	$ 7,873,683	$3,980,151	--
1920	335,526,561	34,031,636	25,769,122	8,342,668	--	--
1921	337,252,080	33,277,025	22,843,056	9,006,357	--	--
1922	356,593,942	32,699,176	22,088,458	9,073,591	--	517,196
1923	382,149,697	34,096,813	24,130,253	9,189,868	--	114,557
1924	382,888,848	34,175,319	25,222,133	9,355,944	--	--
1925	365,036,286	34,547,379	24,405,735	9,462,371	--	20,581
1926	371,218,401	35,481,313	26,076,268	9,713,154	--	22,304
1927	366,938,908	35,193,410	25,132,332	9,705,521	--	60,660
1928	362,005,033	34,843,147	24,900,188	9,719,134	--	895,518
1929	354,214,990	34,096,623	24,024,747	9,871,709	--	--
1930	342,694,905	32,510,721	23,527,974	10,048,505	513,199	--
1931	324,788,577	29,855,107	22,250,748	9,428,547	1,904,945	--
1932	291,753,825	26,428,493	19,542,428	9,322,878	2,569,445	--
1933	267,845,429	24,154,373	16,829,647	9,461,842	2,753,124	--
1934	277,034,175	24,818,625	16,895,090	9,310,234	1,551,631	--
1935	280,402,526	24,926,426	17,665,412	9,387,071	1,396,388	--
1936	296,180,666	26,096,155	18,410,341	9,488,166	2,086,202	--
1937	296,397,493	25,939,777	18,710,803	9,670,191	1,799,357	--
1938	291,175,017	25,383,333	18,799,286	9,641,109	1,674,823	--
1939	295,123,077	25,710,948	18,716,005	9,649,979	2,842,831	--
1940	294,450,628	26,443,297	19,285,456	9,678,130	2,219,069	--
1941	306,815,525	27,593,514	19,387,362	9,715,546	1,311,406	--

[1]Source, Annual Reports of the Public Trustees of the Boston Elevated Railway, 1919-1941,

World War II with its unprecedented demands on public transit as a result of the high level of economic activity and the gasoline and rubber shortages obscured temporarily these unresolved problems. Beginning in 1941, the passenger volume of the system increased phenomenally. In 1946, the volume was more than 433 million revenue passengers, thus establishing an all time record. This task imposed upon the system a very considerable operating strain. Yet the job was accomplished with an actual reduction in the number of revenue miles operated and despite severe labor shortages. The equipment used in most cases, while not obsolete, was approaching the retirement age. It was only as a result of careful maintenance policies and the good state of repair of the system in general that these passenger volumes were carried.

With the physical plant of the system operating at capacity, and with only moderate increases in operating costs, the El by 1944 had restored the one million dollar reserve fund provided for by the public control act and made payments totaling $1,529,805 to the 14 cities and towns in the transit district. Beginning in 1944, however, inflationary trends in wages and material costs resulted in operating losses despite the sustained demand for transit service, although the riding peak was not reached until 1946.[1] These losses appeared in 1944 and 1945. There losses were met by charges against the reserve fund until, in 1946, it was necessary to assess deficits totaling $787,527 against the cities and towns because of the exhaustion of this reserve fund.

The catalyst for public action on the transit problem in 1947 was, as it had been in 1918, an impending financial crisis. The unpaid deficits resulting from operations in 1941 finally resulted in an actual shortage of

[1]Boston Elevated Railway, Annual Report of the Public Trustees . . . 1946, pp. 10-11, 30.

cash for the El early in 1947. With the depletion of the reserve fund in 1946, the El had only $2,408,926 on hand in February of 1947 and faced obligations totaling $3,052,120 before March 31st of that year. The refusal of the Legislature to pass special legislation permitting the El to obtain short term credit and the refusal of the Commonwealth to make advances on the 1941 deficit pending the outcome of its suit against the El trustees, had rendered the Company temporarily insolvent. To conserve cash the trustees first postponed payment of 1946 real estate taxes and prepared to default on interest payments on bonds due the Boston Metropolitan District. With the El facing possible receivership, Governor Robert Bradford arranged a stopgap loan of three million dollars from eight Boston banks.[1] This permitted the El to meet its obligations to the District before the March deadline. The three month crisis in which these events transpired, however, riveted public attention on the transit problem and the nature of the crisis impelled the Legislature to some sort of action.

IV

Public ownership of the transit system emerged as the most feasible solution to the problem. In 1943, the Legislature had established a Metropolitan Transit Recess Commission to study rapid transit in the Boston metropolitan area. The Commission, headed by Arthur W. Coolidge, later Lieutenant Governor, had submitted a lengthy report to the Legislature in 1945 in which public ownership of the Boston El had been recommended as the first step of a comprehensive extension of the rapid transit system. The recommendations of the Commission will be analyzed later. But at this juncture it is important to note only that the Commission reasoned that any

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[1]Metropolitan Transit Authority, Annual Report of the Board of Public-Trustees, 1947, p. 8 Boston Herald, February 20, 1947.

improvement of the rapid transit system necessitating new capital investments would require the Commonwealth to act as either guarantor or principal. In the words of the report:

> "The use of public funds being involved in either case, that alternative must be employed which will be less expensive. Public ownership is, therefore, the inevitable, if not the desirable, choice."[1]

The Commission noted that new capital could be secured by the Commonwealth through the Boston Metropolitan District at much lower interest rates than were available to private investors and that the 14 cities and towns were already "in the large and important business of transporting passengers locally" due to more than 145 million dollars invested in the physical plant of the rapid transit system and the bonds of the El held by the District. In consequence, the Commission recommended the creation of a Metropolitan Transit Authority comprising 29 cities and towns and empowered to issue bonds to the Metropolitan District for the purchase of the El.

This first report had the effect of focusing serious discussion on the issue of public ownership and the particular mechanism of the public authority as a way of effecting that policy. The membership of the Commission doubtless added some aura of prestige to the idea as well.

The Commission did not pass out of existence after submitting its original proposals but was enlarged and continued in 1945. It was, therefore, at a propitious moment when the Commission issued its second report in April of 1947. In the midst of the debate over some legislative action concerning the transit situation and coming so shortly after the fiscal crisis which the El had faced two months earlier, the timing of the Commission's second report maximized its role in influencing popular and legislative opinion.

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[1]Commonwealth of Massachusetts, Report of the Metropolitan Transit-Recess Commission (1945), (Boston, 1945), p. 14. Hereafter cited as Coolidge Commission-1945.

> "The planning has been done," the Commission stated. "The time for action has now arrived. The answer is evident. We urge that the Metropolitan Transit Authority be established at once..."[1]

The first report of the Commission had only recommended public ownership, outlined the benefits to be obtained from it, and suggested the powers and structure of a proposed public authority. The second report dealt with the controversial subject of the means by which public ownership should be accomplished. The Commission rejected proposals that the Elevated be purchased, either at a price negotiated with the stockholders or by condemnation. The former method involved a great uncertainty as to price, and risked payment to private owners for values created by the expenditure of public funds. Acquisition by condemnation proceedings would involve long and expensive litigation, the final economic results of which were uncertain.

As an alternative the Commission urged that the Commonwealth exercise its option to purchase the outstanding common stock of the El by means of the formula provided in the Act of 1931.[2] The Commission further advocated the

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[1]Commonwealth of Massachusetts, Report of the Metropolitan Transit-Recess Commission (1947), (Boston, 1947), p. 7. Hereafter cited as Coolidge Commission-1947.

[2]Under this formula, all the outstanding deficits paid by the cities and towns in the district were to be totaled, divided in half, and divided by the number of shares of common stock. This process determined the amount of un paid deficits to be assessed against the par value of each share of stock. By subtracting that amount from the maximum option price of $105. per share, the Commission estimated that the stock was worth $66.29 a share. The minimum option price allowable by law, however, was $85. The Commission urged that the Commonwealth exercise its option to purchase the stock at that price and eliminate private ownership and the guaranteed annual dividend payments on the stock which amounted to $1,193,970 each year. The failure to eliminate commonstock ownership, the Commission noted, would result in dividend payments until the end of public control in 1959.

the purchase of the subways owned by the city of Boston as a means of reducing the rental charges aggregating more than two million dollars annually. By the elimination of portions of the fixed charges and by securing the exemption from federal taxation through authority ownership and operation, the Commission was of the opinion that a substantial part of the annual deficits could be eliminated. As its major recommendation, however, the Commission restated its basic premise that complete transit solvency could be achieved only through the extension of rapid transit facilities to the area beyond the extant transit district where new population concentrations were to be found. To the Commission, it was

> "perfectly clear the rapid transit must be extended out to the areas of population which have developed in the last twenty years. Otherwise, the population will continue to use the buses and automobiles, the results of which will be the worsening of the already intolerable traffic conditions and increasing deficits for the Elevated."[1]

The other alternative which the Commission rejected were the important ones under consideration at the time. A continuation of public control no longer was under active consideration although some proposals to this effect were submitted such as popular election of the trustees, changes in the composition of the trustees, and the elimination of the common stock ownership only.

The sentiment favoring public ownership appeared to be overwhelming and the debate centered around the means by which such ownership could be effected. As the report of the Coolidge Commission indicated, the chief alternatives to purchase by exercise of the stock option were condemnation or negotiation. In general, those who had been most critical of public control and who were of the opinion that the stock option price represented values enhanced by the expenditure of public funds, favored condemnation. It was

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[1]Coolidge Commission-1947, p. 7.

argued, and not without logic, that the stock option price represented an artificial value which had been preserved by public control. Had the El been a private company, it was contended, it would have gone into bankruptcy and the market value of the property would have been reduced in consequence. Others were convinced that the private investors in the El had already been grossly over-compensated by the provision for guaranteed dividends and that further compensation of the basis of even the market value of the stock (from $59 to $63 a share) was excessive.

The pressure of the mounting deficit totals in the Spring of 1947 and the temporary nature of the bank loan which had kept the El from insolvency acted to impel immediate action. Under these circumstances, exercise of the stock option gained favor among the legislators and the public as the most expeditious method. In April, Governor Robert Bradford submitted a message to the legislature in which he recommended the creation of a metropolitan transit authority empowered to purchase the Boston Elevated Railway by means of this stock option procedure. After considerable debate and revisions of the Governor's proposals, the Legislature, on June 19th, passed an act creating the Metropolitan Transit Authority and providing for the aquisition by the Authority of the El by use of the stock option. On August 29th, the newly-created MTA turned over to the stockholders of the El a check for $20,297,000 for the purchase of the El common stock at $85. a share. The sale marked the end of almost thirty years of public control of the transit system and over a century of private transit operations in the metropolitan area.

Chapter 2

In the act establishing the Metropolitan Transit Authority, (Chapter 544 of the Acts of 1947) the Legislature committed itself to the principle of public ownership. In other respects, however, the new legislation was almost a duplication of earlier arrangements. The heart of the Act was the restatement of the cost of service provision of the 1918 Act. The five trustees of the authority, subject to the approval of the Department of Public Utilities, were directed to fix rates of fare sufficient to cover operating expenses, taxes, rentals, interest on all indebtedness and depreciation charges. A two million dollar reserve fund, to act as a cushion against deficits, was re-established and the act re-incorporated the deficit assessment system whereby the cities and towns served by the MTA were to be assessed any annual deficits on the basis of the degree to which citizens of the respective towns patronized the system. Included in the definition of the cost of service was an additional provision that it should also be construed to cover any amounts by which income failed to meet the cost of service from January 1st, 1947, to the time when the act should go into effect.

The Authority completed purchase of the El on August 29th of that year and during the previous eight months of service, the deficit amounted to $8,787,121.15! That the deficit for only a part of the year should have been so great as to wipe out this contingent fund is perhaps the most forceful comment that could be made on the wisdom of the Legislature in regard to the cost of service provision.[1]

Operating experience from 1944 to 1947 had demonstrated that no reasonable fare structure could be expected to cover cost of service as defined by law.

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[1]Metropolitan Transit Authority, Annual Report of the Board of Public-Trustees, 1947, p. 11.

The Metropolitan Transit Council charged with authorizing the El trustees to adjust fares to meet the cost of service provision in the public control act, had consistently refused to take any action to raise fares. It had persisted in this refusal despite the record of deficits from 1930 to 1942. In 1946, the Council reluctantly agreed to discontinue a tariff of five cent fares for local rides. But the system as a whole continued to operate with the universal ten cent fare instituted by the public trustees in 1918.

One important element in the calculated cost of service were the annual rental payments amounting to 4½% of the construction costs of the subways and tunnels. Under long term leases negotiated by the City with the El and its predecessors, the MTA was required to pay annual rentals. By the terms of the leases, these rental payments continued even after the subways had been amortized. Rentals went on year after year despite the absence of any profits with which to pay them. Annual rental charges became an important part of the deficits, the largest portion of which Boston was required to pay.

The final items of fixed costs of importance were principal and interest payments to the Boston Metropolitan District on bonds issued by the District. Many of the bonds had been issued at high interest rates and all issues were of fairly short duration. The total of the District debt payments had been increased with public ownership because the District issued bonds to an amount necessary to cover the purchase price paid to the private investors in the El. While only a portion of this debt could have been advantageously refinanced in terms of lower interest rates, some consideration should have been given to spreading the payments over a longer period of time through long term refinancing. There also were many sound reasons to support the proposition that inasmuch as this District debt represented the capital of the Authority, the capital charges should have been provided by the cities and towns of the district and not by the car riders through fare revenues.

The motives which impelled the legislators to reincorporate this cost of service arrangement in the new act were mixed and some of them remain unclear. Interest groups concerned with lowering tax rates in the cities and towns in the district would have opposed proposals to shift any portion of the fixed costs directly to the taxpayers of the cities and towns. The trepidation of elected officials in making such a shift in costs is understandable. It is also apparent, however, that the view of transit as a self-liquidating venture died hard. As we shall show later in this report, this concept has still not been entirely exercized from either the legislative or public mind but there were particular reasons for its persistence in 1947.

II

The basic plan for the direction of the Act of 1947 was the work of the Metropolitan Transit Recess Commission and more particularly its chairman, Lieutenant Governor, Arthur W. Coolidge. The first report of the Commission, which had appeared in 1945, set forth the thesis that the transit problem existed because Boston's population had "moved beyond the area served by the present limited rapid transit facilities and before the war the movement had become so pronounced as to cause an ever-diminishing volume of revenue passengers.[1] Because all but minor extension to the rapid transit system had been made in the era from 1895 to 1920, the rapid transit system left these new areas of population concentration unserved. As a consequence, the Commission asserted that residents of the expanding suburbs were "required to use other forms of

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[1]The Commission had been established by the General Court in 1943 to study the subject of rapid transit development in the metropolitan area. The original Commission consisted of Mr. Coolidge from the Senate, three members of the House, five members of the Department of Public Utilities and a staff which included a counsel, chief engineer and consulting engineer. Mr. Coolidge's long interest and his strong convictions on the subject were the dynamics which brought the Commission into being and shaped its recommendations.

transportation, notably the automobile, and there developed . . . the intolerable traffic conditions which existed in Boston before the war."[1]

The Commission found that the "obvious solution is the extension of rapid transit lines out to the areas where the population is growing . . ." A comprehensive system of nine new rapid transit lines and extensions was proposed. It was to cost an estimated $33,600,000 "or a cost comparable to one multiple deck or super highway through Boston." An additional expenditure of $12,864,000 was the estimated cost of acquiring the new rolling stock necessary to equip the lines. The return from this investment, the Commission calculated, would not only produce a total return of $700,000 over the cost of service and hence be self-liquidating, but it was also hoped that the "unified system . . . would, in our judgement, result in the elimination of the operation deficits which have been... experienced by the Boston Elevated Railway." "The elimination of such deficits", the Commission urged,

> "would be achieved by the completion of public ownership of the Boston Elevated Railway and the consequent elimination of the guaranteed dividend, by the profit from the proposed extensions, and by the elimination of subway rentals from the cost of service just as soon as the cost of constructing the several subways shall be paid."[2]

By creating a public authority to own and operate the transit system, the Commission calculated that a final economy would be achieved by the authority's exemption from Federal income taxes.

After submitting its report, the life of the Commission was extended, its personnel expanded and, under the direction of Mr. Coolidge, a second report appeared in April, 1947. This report arrived at a strategic moment.

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[1] Coolidge Commission-1945, p. 9.

[2] Ibid. , p. 13.

The El's financial affairs were in a serious way, and some action by the legislature was patently necessary. In the interim between the two reports, Mr. Coolidge had been elected Lieutenant Governor of the Commonwealth, a position from which he was able to exert considerable influence in shaping the policies of the governor and the actions of the Legislature. The impact of the Commission's recommendations was increased because of the prestige of the group and also because of the thorough grounding in transit problems which the group had achieved. To a Legislature bereft of ideas and to a bewildered public, the Commission and its chairman spoke with confidence and authority when it announced that

> "The planning has been done. The time for action has now arrived. The answer is evident. We urge that the Metropolitan Transit Authority be established at once and authorized to proceed with the execution of the plans."[1]

The Commission's recommendations, the Chairman asserted, offered a "permanent solution" of the transit problem. "We have a chance this time to go to the root of the El trouble and cure it once and for all."

The premises upon which this "permanent solution" was based consisted of several assertions which warrant some attention if the original MTA legislation of 1947 is to be better understood. In proposing a system of rapid transit extensions, the Commission proceeded upon the assumption that the decline in transit patronage in the period from the middle 'twenties to the war was the result of population decentralization beyond the limits of the existing transit net. The Commission did not discuss the alternative proposition that the patronage decline and concomitant increase in automobile usage was the result of personal preference, not physical necessity. The Commission assumed that a comprehensive and efficient rapid transit system could function as a successful competitor to the private automobile.

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[1] Coolidge Commission-1947, p. 7; Boston Herald February 18, 1947.

Given such a high, quality of rapid transit service it was convinced that people going to and from the core area of Boston for recreation as well as work would chose to go by rapid transit.

The Commission's recommendations followed with considerable logic if the major premise is accepted. Since rapid transit lines were capable of handling more people, at a lower initial cost and with greater speed than a superhighway designed to accommodate the same loads, the Commission found that "a fundamental error has been made in trying to solve the (traffic) problem by providing the means for the mass of citizens to ride to and from their work by private automobiles." The proposed system of rapid transit eliminated the high costs of policing, maintaining and expanding superhighways and providing costly off-street parking facilities in the core area for automobiles using them. Thus the Commission concluded that rapid transit offered the answer to the problem of traffic movement and deterioration of the central core area because it provided "faster, more frequent, safer, cheaper and more comfortable service than motor vehicles." The Commission was confident that no system of superhighways would be necessary if attractive rapid transit service was provided. The system of rapid transit extensions proposed by the Commission provided a potential answer to another public policy problem -- railroad commuter service. The reorganization proceedings of the New Haven Railroad were nearing completion and the debtor's plan contemplated the abondonment of commuter service on the Old Colony lines in the South Shore district. It was well known that other commuter roads in the metropolitan region were sustaining heavy losses from their operations and that similar action in reducing or abandoning service might be expected in the post war decade. What the Commission proposed was a system of rapid transit extensions which would utilize the rights of way of many commuter lines and provide a substitute for these unprofitable services. This meant that the "railroads in the area . . . be restricted to their trunk line long haul passenger service and essential freight service, which . . . is their real province. The solution to the problem is rapid transit." Given these circumstances the recommendations of the Commission were bound to gain considerable public support.[1]

III

The Coolidge Commission recommended the creation of a public authority to operate and extend the existing transit system. The act which finally passed the legislature followed the Commission's general recommendations with two important exceptions. First, the legislature declined to expand the transit district from the original 14 cities and towns to cover 29 cities and towns encompassing the area to be served by the proposed extensions. Second, it rejected the Commission's proposal that the authority be given exclusive power to license transit operations within the transit area.[2]

By proposing to expand the old transit district the Commission precipitated the intense opposition by suburbs outside of the old transits. The outer communities had consistently and successfully resisted attempts by Boston and other core area cities to lower their own share of the deficit assessments by spreading those deficits over a larger area. To meet the understandable reluctance of these suburbs to become liable for transit deficits, the Commission replied, in good faith, that their plan of rapid transit extensions

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[1]Coolidge Commission-1947, p. 25.

[2]The cities and towns included in the transit district by Acts of 1947, Chapter 544, were the following: Arlington, Belmont, Boston, Brookline, Cambridge, Chelsea, Everett, Milton, Medford, Malden, Newton, Revere, Somerville and Watertown.
The Coolidge Commission recommended the inclusion of the following towns in addition to those mentioned above: Braintree, Dedham, Lexington, Lynn, Melrose, Needham, Quincy, Reading, Saugus, Stoneham, Wakefield, Waltham, Wellesley, Winchester, and Woburn.

would eliminate such deficits by increasing the riding volume of the system. But the Legislature yielded to suburban pressure and defined the MTA district to include only the area included in the transit district established by the public control act. A provision was inserted, however, which stated that plans for extensions outside the district were to be approved by the Department of Public Utilities and by popular referendum in the towns affected by such extensions.

The commission's proposal that the Authority be given the exclusive power to license transit operations within the expanded area incurred the opposition of the Eastern Massachusetts Street Railway, which also opposed some of the specific plans for rapid transit extension. They viewed both the rapid transit and the licensing proposals as an attempt to restrict and eventually eliminate their operations. For these reasons, the Eastern Massachusetts became an effective opponent to the plan to enlarge the district and to give the Authority exclusive licensing powers. Opposition from both there sources, as we have seen, was sufficient to kill the Commission's proposals in the Legislature.

As a compromise, the Legislature included in the act and finally passed a provision authorizing the Authority to proceed with certain studies and cost estimates. They were to cover the following projects: (1) extensions of rapid transit facilities to South Braintree via the Old Colony Railroad (2) enlargement of the Park Street Station (3) the construction of an additional subway between Scollay Square and Park Street (4) the removal of elevated structures and their replacement by subways and (5) the extension of the Cambridge subway from Harvard Square. All of these proposals had been originally suggested by the Commission.[1]

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[1] Acts of 1947, Chapter 544, Sections 10-A, 10-B, 10-C.

The basic weakness and compromises embodied in the MTA legislation became evident within the first two years of the Authority's operation of the transit system. In the period from January 1st, 1947 to December 31st, of that year, a period which included four months of MTA operation, the loss from operations amounted to 4½ million dollars. Refunds from tax settlement cases and the exhaustion of the 2 million dollar reserve fund established by the MTA act reduced this loss to an assessable deficit of $711,737.31. The inflation cost spiral had raised wages, material costs, depreciation charges and fuel bills by $2,314,220 over similar costs in 1946. The latest operating cost item increase was wages which rose from an average wage on the system in 1946 of $56.63 to $59.38 in 1947 or a total wage increase of $1,061,787. The income of the Authority had remained almost stable in comparison with 1946 but revenue passengers declined from 433,094,952, the system's record volume in 1946 to 388,573,222 in 1947.[1]

The following year, the passenger volume dropped to 381 million which was only slightly less than the peak load carried by the system in 1923 and 1924. This decline combined with the increase in automobile usage resulted in the failure of the system to meet its operating expenses. The largest rise in costs was due to increased labor expenses, which together with other increases in the costs of fuel, materials and snow removal, raised the gross operating expenses to more than 4¼ million dollars over the 1947 total. The total assessable deficit for 1948 was $8,900,854.

The result for 1947 and 1948 demonstrated that under existing conditions the system could not meet its operating expenses plus fixed charges with the fare level remaining at ten cents. Thus the Bradford trustees, in their first

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[1]Metropolitan Transit Authority, Annual Report of the Board of Public-Trustees, 1947, pp. 24-33, 11-14.

report, observed that inflationary cost movements only complicated the basic problem of the excessive total of fixed charges with which the system was saddled by the MTA act. They concluded that "at the 10-cent fare a deficit from operations is inescapable under present conditions." The trustees concluded that without

> "changes in these conditions - such as would result from the reduction or elimination of subway rentals, from adjustment of local real estate taxes, from lower costs, from higher income through increased use of the existing railway system or from extensions of the existing system - the present total cost of operating the railway cannot be met with revenue accruing from the same fare which was charged for the service 28 years ago."[1]

However, despite this recommendation the Legislature did nothing either to reduce the charges or otherwise to change its policies.[2]

The increasing losses of the system had the effect of nullifying the policy of rapid transit extensions. The particular instance which demonstrated this failure was the overwhelming defeat of the proposals to extend the MTA to Quincy and Braintree in referendums held in those towns on May 11th, 1948. Earlier that year, the New Haven had announced that service on the Old Colony lines would be discontinued in March. Through a special appeal from Governor Bradford, the abandonment was postponed from October, 1948, to March, 1949. In the interim, Governor Bradford sent a special message to the Legislature recommending modifications in the procedures to be followed in extending the MTA system. The Public Utilities Commission approved the proposed extension plans which followed in the main the recommendations of the Coolidge Commission. The MTA trustees, headed by the chairman, Carroll M. Meins, actively supported the proposed extensions through public

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[1]Metropolitan Transit Authority, Annual Report of the Board of Public-Trustees, 1948, pp. 1-10.

[2]Senate #581 (1949), Message of the Governor.

statements and various advertisements distributed in the two towns on the eve of the referendum. This public relations campaign by the MTA trustees only succeeded in stimulating hostility in both communities and provided the opponents of extension with the opportunity of raising the cry of "Outside domination". The Extension proposals, as a consequence of this local hostility, were voted down by margins of 5 to 1 in Quincy and 10 to 1 in Braintree.[1]

Thus it was demonstrated that the political expansion of the MTA district by the method provided for in the Act of 1947 would almost certainly be blocked by political opposition from the suburbs. This opposition has only increased as the MTA deficits have grown larger in the years since 1948. Hence, the thesis of the Coolidge Commission that transit solvency would be gained through extension, has proved to be a will-o-the-wisp.

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[1] Boston Herald, May 12, 19, 1948.

IV

Since the legislature refused to reduce the cost of service and since extensions were impossible, the only alternative under the 1947 act was to raise fares to cover the cost of service. The Bradford trustees hesitated during mid-1948 to take such action, however, and the fare level became an issue in the gubernatorial election that fall. The Democratic candidate, Paul A. Dever, charged that the Bradford appointees contemplated a fare increase after the election and that the trustees even had the new fare tokens in MTA vaults ready to put into use. Bradford failed to reply to Dever's challenge to deny this charge and Dever went on with considerable effectiveness to pledge himself to the maintenance of the 10-cent fare. After Dever's victory, the MTA trustees submitted petitions to the Department of Public Utilities in November calling for fare increases, but in January, the entire MTA board resigned under fire from the Governor.

Governor Dever in 1949 submitted to the Legislature a plan for a partial fiscal reorganization of the MTA. He urged that all the Authority's outstanding bonds in the hands of the Boston Metropolitan District be cancelled and that a new bond be issued by the MTA to the Boston Metropolitan District which would amount to the total outstanding indebtedness of the Authority. The principal and interest payments by the MTA on this new bond would be spread over a seventy-five year period. By a long term refinancing of the approximately 76 million net indebtedness, the annual debt charges would be reduced by more than $1,700,000, the Governor estimated. Thus, although the cost of service was still defined to include the principal and interest payments on this outstanding debt, the annual payments would be reduced with a concomitant effect of lowering the annual deficits. Since the MTA operating revenues were still expected to meet the costs of debt retirement, this proposal involved no change from the policy that car riders should in effect furnish this part of the capital investment of the system. The Governor also proposed to reduce the large rental charges on certain tunnels owned by the City of Boston by an elaborate rearrangement of outstanding obligations.

In addition it was proposed that the city transit department be consolidated under the MTA. This would give to the authority complete control over the tunnels through which it operated. The Governor also recommended that rapid transit facilities be defined as public highways so that their maintenance costs could be paid out of state highway funds. By refinancing the subway debt and by charging rapid transit maintenance to the highway funds, Dever estimated that a total of more than 2½ million dollars could be removed from the annual fixed charges of the MTA.

Further reductions in fixed charges of 3¼ million dollars were to be effected by the following means: (1) the elimination of depreciation on fully paid-for rolling stock (2) the exemption of the Authority from the payment of all state and local taxes and (3) the reimbursement to the Authority by the municipalities of snow removal costs. The total reductions to be effected by the entire program were estimated at $8,175,000 and the Governor calculated that, with further reductions in the operating costs totaling $875,000, a grand total of more than 9 million dollars could be eliminated from the annual costs of the MTA. The Governor also proposed that any future deficits be paid for from the general revenues of the state. In addition he requested the repeal of the provisions in the 1947 act which made fare increases to cover the cost of service mandatory and which required assessment of deficits on the cities and towns.

Anticipating criticisms of his program, the Governor observed that it would

> "be objected that the proposed measures are largely financial sleight of hand, transferring burdens without eliminating them; that they postpone to the shoulders of future generations the responsibilities of this one; and that they make the entire state answerable for what is essentially a local problem."[1]

The Governor replied to these objections by recalling that the transit problem with which he was trying to deal had been created by the 1918 Legislature. He observed that their "tender regard for stockholders of obsolete, rundown companies" had been responsible for the "intolerable burden" of deficits incurred in paying guaranteed annual returns. Also, he added that public control had prevented the scaling down by liquidation and reorganization of fictitious book values of the property. He argued that the expenditure of state funds on the MTA was justified because the "Commonwealth which has imposed the burden has in fairness the duty of relieving it." He also categorized as "shortsighted" the

> "failure to recognize that the public transportation system used by one third of our people is as intertwined with the welfare and economy of the state as a whole as are the highways which traverse Massachusetts..."[2]

The Governor predicted that should his proposals be adopted, future deficits "of staggering proportions" would be eliminated.

The basic opposition to the Dever program centered upon the attempt to abandon the cost of service principal. In fact there had been previous attempts by both parties to scuttle this dubious formula. In 1919 Governor Coolidge had written,

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[1] Senate #581 (1949), op. cit.

[2] Ibid.

> Transportation is a public necessity of the first importance. Without it the transaction of business as now conducted would cease. The cost of this service has become prohibitive in many instances but transportation is none the less a public necessity like schools, highways and public lighting. If it cannot be paid for by the car rider, the expense must be met by the remission of taxes or by a contribution from the public treasury.[1]

Successive commissions and public bodies had suggested that some of the cost of service be paid directly by the general public rather than by the car riders through fares, but in each instance such specific attempts to introduce such a concept had met with defeat. In this instance, opponents of the Dever program centered their attack on the provisions for tax exemption, payment of future deficits from the general funds of the Commonwealth and use of public highway funds for rapid transit maintenance.

The Dever proposal to use public highway funds was eliminated soon after the submission of the draft legislation. The elimination was caused by advisory opinion of the Supreme Judicial Court which held that such use of highway revenues would be an unconstitutional diversion of funds. The Legislature, and subsequently the Boston City Council, accepted the proposal to buy the city's subways and tunnels. The Legislature compromised on the provision for tax exemption, however, by exempting MTA property from local taxation but by continuing the imposition of state registration and fuel taxes and tunnel tolls. As something of a consolation award to the cities and towns which had lost their tax revenues from MTA property, the Legislature retained

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[1]Quoted in Coolidge Commission-1947, p. 51.

provisions requiring the MTA to pay for the snow and ice removal costs necessary to keep its lines running in the winter. The most controversial item in the program, the payment of future deficits from the funds of the Commonwealth, was rejected by the Legislature under pressure from representatives of cities and towns outside the district.

Thus the Legislature reaffirmed the cost of service principal set forth in the 1947 legislation. Continuing deficits were to be assessed as in the past upon the 14 cities and towns of the original transit district. This legislation of 1949 was again an interim compromise which failed to deal with the fundamental difficulties. If the operating experience from 1930 to 1947 had shown that fare revenues could not support the burden of fixed charges imposed on the system, further experience had demonstrated by 1949 that this provision was even more unreasonable in an era of inflation and declining patronage. Eliminating the guaranteed dividend payments and Federal income tax liability in 1947 did not make the cost of service provision substantially more workable. The events since 1949 have demonstrated that long term refinancing of the debt structure was ineffective as a remedy.[1]

The most immediate evidence of the failure of the 1949 amendments to effect and substantial reduction in the fixed charges were the two fare increases which occurred in August 1949, and again in late January, 1950. The assessable deficit for the period from January to August of 1949 had been more than 6½ million dollars. Although the Bradford trustees, before their mass resignation in January of 1949, had submitted revised fare schedules to the Department of Public Utilities, pending the development and submission of legislative recommendations, Governor Dever had directed the Department to suspend action on this fare increase. After Chapter 572 of the Acts of 1949

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[1]Acts of 1949, Chapter 572 ammending Acts of 1947, Chapter 544.

had passed the Legislature, however, the Governor's interim MTA trustees received approval of a revised schedule of rates which went into effect in August. These rates proved insufficient to meet the cost of service. A second fare increase was instituted in January of 1950. The fare level was set at 10¢ for a local surface ride without transfer privileges or 15¢ for a combination of surface and rapid transit rides. Withonly minor modifications in regard to pupil rates this level has remained in force until the present.[1]

Operating expenses in 1949 were reduced by $479,856. Some of these reductions were made possible by the elimination of almost two million revenue miles of service occasioned by a reduction of 8% in passenger volume since 1948. A policy of not filling payroll vacancies caused by pension, death or retirement from service reduced the number of employees by 397, exclusive of the group of employees who had constituted the Boston Transit Department who were added to the payroll by the 1949 legislation. The spiral of wage costs continued in 1949, however, when a retroactive wage award by the Board of Arbitration raised the Authority's wage cost by $700,000 for 1950. Despite operating economies, service reductions and the addition of a non-recurring profit item, however, the assessable deficit for the remaining 5 months of 1949 amounted to $1,354,292.[2]

1950 appeared to be the best year the Authority had experienced since the institution of public ownership three years earlier if only final deficit totals resulting from MTA operations are considered. The system produced an operating profit of more than 4 million dollars before fixed charges and after the deduction of these items, the assessable deficit was only a half million dollars in 1949. The new fare

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[1]Metropolitan Transit Authority, _Annual Report of the Board of Public-Trustees_, 1949, p. 6.

[2] _Ibid_.,p. 7.

revenues were responsible in large part for the operating profit since they increased the revenue from transportation by almost 14% over 1949. The general wage level had increased but the average number of employees was 3% below the previous year because of a continuing reduction in the labor force. Other economies were effected by reducing revenue miles operated by another two million miles.[1]

Despite these superficially cheering signs, one basic difficulty continued - - - the secular decline of patronage. In 1946 there were 433,094,592 revenue passengers, a total that declined to 381 million in 1948 and continued decline to a total of 307 million in 1950. The trustees estimated that about 9% of that decline between 1948 and 1950 was the result of two fare increases while the other 10% was the result of increased diversion of patronage by automobiles. Mindful of their responsibilities under the cost of service provision, to raise fares to cover costs, the trustees concluded that "the law of diminishing returns has begun to operate in the matter of rates of fare which can be charged. . . " Fearing that increased fares would reduce the riding volume still further and operate to defeat the major purposes of the Authority, they concluded that "it is inadvisable to increase fares".

V

In 1949 the trustees had authorized preliminary plans, and cost estimates for rapid transit construction totalling $66,500,000. This included a second tube from Scollay Square to Park Street and the demolition of the Forest Hills-Sullivan Square El and its replacement by a subway. These projects alone seemed likely to involve the MTA in additional principal and interest payments of $1,240,000. To this increase in fixed charges it was necessary to add

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[1]Metropolitan Transit Authority, Annual Report of the Board of Public-Trustees, 1950, pp. 6-8.

the carrying charges on the East Boston Tunnel Extension to Orient Heights and certain increases in liabilities for federal taxation. These and certain other incidental obligations pointed in the direction of continually mounting fixed charges. In the light of this situation the relatively favorable operating results of 1950 gave an illusionary impression. To the fact-minded observer it must have been obvious that between mounting fixed charges and inflationary operating costs the future solvency of the system was most dubious.[1]

Operating results of 1951 and 1952 offered further reason for gloom. Decline in traffic continued and passenger volume reached lower levels than had been experienced in the depth of the Depression. Even more alarming than the decline in the total number of passengers is the rate of decrease in patronage in the so-called off-peak hours. Thus it has been recently

TABLE II

	Average revenue passengers weekdays	Average revenue passengers Saturdays	Average revenue passengers Sundays
October 1946	1,328,952	1,231,871(92.69% of weekdays)	694,677(52.27% of weekdays)
October 1952	901,811	668,642(74.14% " ")	319,826(34.46% " ")
****decrease in revenue passengers-	32.14%	45.72%	53.96%
****decrease in revenue miles operated	15.77%	26.61%	33.73%

[1]Metropolitan Transit Authority, Annual Report of the Board of Public-Trustees, 1950, pp. 6-8.

estimated by members of the MTA staff that while the total number of riders has declined by about 33% since 1946, riding in off-peak hours has declined 45 - 50% on Saturdays and Sundays and under 40% during the weekday off-peak period.[1] Despite this impressive deterioration in total patronage and its distribution through the week, however, the MTA estimates that riding volume during the four rush hours has declined only about 10% since 1946. This increasing imbalance in load factors tends to prevent reductions in operating costs relative to the volume of business. At the turn of the century trolley magnete Charles Yerkes replied to the question of why he did not try to provide more seats for strap hangers in the rush hours by quipping that "it's the strap hangers who pay the dividends". When the volume of off-peak hour service more closely approached rush hour loads, the added rush hour business was an overload which produced profits. With the existing differential between patronage in the two periods on the MTA today, however, it would be more exact to say that it's the strap hangers who incur the deficits.

Operating expenses in 1952 exceeded those of 1951 by $1,176,725 and as in previous years, wages and attendant pension costs were the chief items accounting for the increase. Revenue miles operated declined by almost 4% over 1951 in consequence of reduced patronage so that the costs of fuels and materials dropped somewhat over the previous year. Arbitration awards and the operation of escalator clauses in wage contracts more than compensated for such economies even though the average number of employees on the payroll during 1952 was 7,661 or 545 less than the previous year's average. Income decreased by over a million dollars to $39,042,962 in 1952 as a result of the patronage

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[1]Edward A. Dana, General Manager, Metropolitan Transit Authority,- <u>Statement Before Committee on Metropolitan Affairs</u>, January 19, 1953.

decline so that income failed to meet operating costs by $2,853,743. Thus before calculating the heavy fixed charges to which the MTA is subject it should be noted that fares for the first time failed substantially to meet the actual expense of running the system. These fixed costs increased by over half a million dollars in 1952 so that the total deficit amounted to $6,151,473. The most important increases came from interest payments on bonds issued to build and equip the Orient Heights extension of the East Boston Tunnel and from larger principal payments on equipment bonds.[1]

The total income for 1952 failed to meet the total cost of service by more than nine million dollars as compared to a similar unadjusted loss for the previous year more than five million, but favorable decisions on some Federal income tax cases for the period 1940-1943 and several other items reduced this operating loss to an assessable deficit of $7,829,044. While not the ten million dollar deficit that some were predicting confidently in late 1952, the bill to be paid by the 14 cities and towns was the highest since the more than eight million dollars assessed in 1949. After five full years of public ownership and operation, however, the region is confronted with a transit system representing a total investment of more than 180-million dollars whose operations during that period have been subsidized by deficit payments amounting to $30,835,690.[2]

V

To meet the problem of recurring deficits, the MTA's general manager submitted proposals to the legislature in February, 1953, for a redistribution and reduction of the system's losses: first, he suggested the imposition of a head tax on "adults or families" in the 83 cities and towns in the

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[1]Metropolitan Transit Authority, Annual Report of the Board of Public-Trustees, 1952, pp. 5-6. The net operating less for 1951 had been only $4,428.

[2]Ibid., pp. 7-8.

metropolitan area, to raise about 2 3/4 million dollars by taxing not only those actually served by the MTA but also those residents of the area who benefit indirectly by its existence. Second, he proposed that automobiles in the transit district and in 15 fringe cities be taxed at the rate of $1.00 per vehicle which would produce an estimated revenue of about $600,000. Third, he again recommended-that state fuel taxes be eliminated and that the cities and towns in the transit district repay the Authority for the amounts it expends in removing snow and ice from the streets. Fourth, the general manager pointed to a possible saving of 700,000 by eliminating wasteful labor practices but he noted that "employees must not be required to subsidize the car rider or taxpayer through inadequate wages. . . " Fifth and finally he outlined changes in the fare structure which would add to the system's revenue. His programs called for raising the charge for local rides from 10¢ to 15¢ and an increase in the system fare to two tokens for 35¢. Since these higher fares would probably result in a patronage loss of about 20 million riders, the general manager repeated his warnings that the 4½ million dollars in revenues which would be added by the new fares would not eliminate deficits, that no fare increases could be expected to eliminate deficits and that no fare changes should be made without corrolarly measures such as the ones outlined in his program.[1]

Whatever the merits of the program which was presented to it, the General Court neither enacted it nor developed one of its own. The Governor similarly refrained from submitting any comprehensive plan for legislative action. His proposals were confined to modifications in the Authority's administrative organization and their passage represents the only action of importance concerning the MTA which has occurred this year. In part, the measures which

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[1]Edward A. Dana, Statement etc. op. cit.

the Governor submitted to the General Court were the result of the refusal by the MTA trustees to follow the example of their predecessors by resigning with the election of a new administration. Thus, the Governor was forced to ask for the abolition of the old board of MTA trustees. In its place, he proposed a board of three members, one of whom "shall be experienced in transportation, one in labor relations, and one in administrative and financial matters".

The Governor also asked for the enlargement of the powers of the recently created transit advisory board. Like the older group with this name, the board is made up of the city managers, or if there are none, mayors and chairmen of the board of selectmen of the cities and towns in the transit district. Upon the Governor's recommendation, the advisory council was given the power to approve the appointment of officers, pass on changes in fares and approve bond issues. All actions of the council, however, are required to have 85% of the votes to secure passage and votes are distributed in proportion to the amount of taxes paid by the cities and towns.[1]

These administrative changes conform to criticisms of the MTA voiced in the last gubernatorial campaign. It was argued, for example, that the old board of trustees should be replaced because they had taken no action to raise fares or suggest alternative means of reducing transit deficits. Some critics thought that the system might be operated more efficiently if the trustees were selected on the basis of some particular competence or training rather than because of their general acceptability to the Governor. In giving the cities and towns of the district more substantive power in passing on personnel, fares, and capital improvement it was suggested that the Authority would become more responsible to those who pay the deficits. It should be

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[1] Acts of 1953, Chapter 197; Acts of 1952, Chapter 404.

noted, however, that none of these remedies were without precedent in the history of public control and ownership of the area's transit system. Having met perennial criticisms and persisting deficits with tranditional remedies, neither the Executive nor the General Court has ventured on to more comprehensive or unique action regarding the MTA.

Chapter 3

The function of the transit system in fulfilling the transportation needs of the metropolitan area has undergone a radical redefinition in the last three decades. Under the impact of expanding automobile ownership and usage, the system has been transformed from the area's basic transportation medium into a service competing with and supplementing the automobile. The future of the MTA, therefore, and the wisdom of public policy regarding it, is dependent upon assessing trends in automobile ownership and usage in the next decade and evaluating the relationship of the transit system to these trends.

During the last 10 years automobile ownership has increased at a stable rate. In the Commonwealth, registration totals increased 6% in the last decade so that there are now 1,162,034 vehicles operating. Increasing automobile ownership must be viewed, therefore, as a secular trend. It is apparent that automobile usage is expanding as well. Thus the number of vehicles entering and leaving the central business district increased by more than 50% in the period from 1927 to 1950 and the peak number of vehicles parked in the area during an average working day increased from 24,000 to 32,000. These and similar figures indicate that the number of automobiles used for commutation purposes in particular has increased far more rapidly than the number of new vehicles.[1]

Our conclusion that automobile ownership will continue to exhibit a stable rate of increase in the foreseeable future, is premised upon the observation that the automobile has become a necessity in modern American life. For most Americans at mid-century the automobile is one of the central elements in the "good life". This is only in part due to the utilitarian function of the automobile. With the institution of mass production of the

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[1]Unpublished data from the Commonwealth of Massachusetts, Registrar of Motor Vehicles and Boston Traffic Commission.

automobile after World War I, millions of urban dwellers found it the means for a mass migration away from the dirt, noise and crowding of the central city to suburban areas. The automobile has come to symbolize the mobility and freedom which life in the "green spaces" made possible for the millions who could achieve it and for millions more for whom it has become a goal.

From the very beginning this outward movement of urban population concentrations was a "selective process; those who had a modicum of well-being, who could afford the higher rents and transportation charges, moved most freely. The poorest were immobilized by their poverty."[1] Thus the great migration to the suburbs can be seen not only as a quest for a more physically desirable setting for life, but as a symbol of the great American desire for "getting ahead". The population of our great cities moved ever outward away from the center toward the vacant surrounding territory. Those with the greatest means moved first, but others soon followed and there began the creation of rings upon rings of satellite suburbs and towns. These concentric rings of suburbs have become a vast ladder along which millions move in their quest for greater status and security. In the popular mind, at least, the farther one moves from the center, the greater one's status, the more evident, one's achievement in "getting ahead".

As suburban living has become the goal toward which millions of urban dwellers strive, so automobile ownership has become a symbol of the striving toward that goal, if not its attainment. Conversely, the inability to possess an automobile has become the mark of those with lowest incomes and the least prestige in our society. That the inability to own an automobile has taken

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[1]Oscar Handlin, The Uprooted, Boston, 1951, p. 165.

on such invidious connotations can best be seen by the lengths to which low income groups will go in order to become automobile owners. This type of behavior is less the mark of poor judgment than it is evidence of the compelling degree to which the automobile has become a social "necessity". Social workers and sociologists discovered during the depression that the families of unemployed would sacrifice almost every household necessity in the face of economic need before partirg with the family car. As the Lynds observed in their study of Middletown, "Car ownership....was one of the most depression-proof elements of the city's life in the years following 1929--far less vulnerable, apparently, than marriage, divorce, new babies, clothing, jewelry, and most other measurable things, both large and small ...." "All of this suggests", they concluded, "that since about 1920, the automobile has come increasingly to occupy a place among Middletown's "musts" close to food, clothing and shelter."[1]

These behavior patterns are incomprehensible as long as the automobile is viewed as only another utilitarian device like lawnmowers or refrigerators. Seen as a symbol of status striving, of the desire to "get ahead", to "be somebody", the automobile has come to occupy a significant place in American life which far transcends the practical uses to which it may be put. We can only conclude from such evidence, therefore, that the trend toward increased automobile ownership is a deeply rooted phenomenon in current society which will not abate or diminish until such ownership reaches the obvious saturation point in terms of total population. The only limitation on this trend, therefore, is the level of income. A considerable, though ever decreasing segment of the population in the metropolitan area will be without automobiles and

[1] Robert S. and Helen M. Lynd, Middletown in Transition, New York, 1937.

will therefore depend upon public transit services. It is impossible to predict the exact number of people who will still be in that category at the end of the next decade but our analysis suggests that it will persistently decrease in size, particularily in view of the price policies and extent of the used car market.

The impact of these trends in automobile ownership upon the transit system are already evident from the experience of the years since the end of World War II. The MTA has lost about one third of its 1946 patronage, and passenger totals continue to decline at the rate of about 8% annually. Although no part of the system has been exempt from this decline in riders, the surface system shows a greater loss in patronage than does the rapid transit network. In general, riding has declined most precipitously on Saturdays and Sundays with the institution of the five day work week. During the day, traffic on the system as a whole is lightest in the so called "off peak" hours or "base period".[1] There are also seasonal variations in riding with traffic being heaviest in the winter months and falling off considerably during the hot weather months.

Further analysis suggests some facts concerning the composition of the MTA's current patronage. A recent survey of downtown shoppers, for example, indicates that 72% of these shoppers used the transit system as a means of access to the downtown area. Of all the shoppers 72% of the women and about 65% of the men used the transit system while the two most important age groups patronizing the system were young people under the driving age and people over fifty. Differentiating shoppers by income groups, it was found that the upper income group was least dependent upon the transit system while 79% of those in the middle brackets and 87% in the lowest group had used the MTA. These

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[1]That is, during all periods of the day except the rush hours from 7 to 9 a.m. and from 4 to 6 p.m.

figures and other data at our disposal suggest that the MTA is currently used by three groups of people: lower income groups who do not own automobiles, young people who have not reached the driving age, and those in the middle and upper age and income groups who cannot drive or do not have automobiles available for daytime use.

The figures also indicate the trends in transit patronage which we may expect during the next decade. Transit riding during the off peak hours and on week ends will probably continue to decline as more and more people use the automobile for shopping and recreation. Already such riding has considerably diminished as a result of increased fares which discourage short-haul and convenience riding during these periods and particularly tend to diminish patronage on the surface lines where such riding is most prevalent. The residuum of transit patronage during these "off peak" periods will probably consist of the groups mentioned above. This fact involves, as a result, a curious anomaly. While the demand for transit patronage is most elastic, that is, it has and will continue to decline most precipitously, there is still an irriducible minimum beneath which it cannot fall. Even after all patrons who have alternative means of transportation depart from the system, there will still be a group of people in the community who will be wholly dependent upon the MTA for their transportation needs. These are the young, school children bound for school and places of recreation, the elderly and infirm who cannot drive automobiles, lower income groups who do not own automobiles, and those in one car families who do not have access to the family car during working hours. These people might be termed the "necessity riders" who will continue to patronize the transit system because no other form of transportation is available. Higher fares may discourage the frequency with which they use the system but nothing short of an almost complete deterioration in transit service can drive them away.

The most heavily patronized and valuable function performed by the MTA is the rush hour commutation service it provides to the central business district and to certain business sub-centers in the core area of the metropolitan region. This rush hour patronage has proved to be the most inelastic segment of MTA patronage to date. Passenger totals have declined and the losses have been largest among upper income groups who have switched to automobiles, but the system still carries impressive loads during these hours, and performs thereby an important function in the operation of that part of the economic life of the region which is centered in this downtown district. As currently planned expressways and street improvements are completed, additional transit patrons will probably turn to their automobiles as a means of commuting to work, but the number of patrons who do so probably depends in part upon the extent to which MTA service can be made to remain attractive to this clientele during the years ahead.

In addition to serving the central business district and providing transportation for those who have no other alternative, the MTA performs an important stand-by service for all automobile users. When weather conditions make driving impossible or difficult, the transit system is a readily available alternative. The record of the MTA in absorbing these sudden increases in patronage on short notice and at times when operating conditions are the most difficult is an impressive one which has received insufficient attention. When bad weather strikes the area or when our automobiles are out of service temporarily, we have come to expect that the transit system will be available to take us to our places of work. Without the MTA in periods like this the economic life of the area would come to a halt causing untold economic losses as well as considerable personal inconvenience. As a stand-by device, the MTA is a costly necessity which cannot be discarded.

When considering the total traffic and transportation system in the metropolitan area, it is evident that a large percentage of the current passenger load carried by the MTA represents a potential for increased traffic congestion. Already the system has lost patrons who have turned to the automobile and this loss of patronage has served to increase almost intolerable traffic congestion in the central business district. It is also apparent that the continued deterioration in MTA patronage can only result in further overcrowding on the streets and highways leading to the downtown area before the capacity of the arterial system can be expanded through projects planned or in the process of construction.

The MTA, as it provides a rapid means of access to the central business district, serves to retard deterioration and decentralization resulting from traffic congestion. Already downtown retailers have been moving to the suburbs as traffic strangles the area and discourages shoppers. Even businesses in less competitive sectors of the economy are considering decentralization as they find it more and more difficult to attract and retain large working forces because of the problems which employees have in getting to and from the area. The impact of higher fares, less frequent service, crowded and unattractive equipment on the MTA therefore, can only intensify the forces impelling businesses to move away. In economic terms this means depressed land values, mounting tax rates and a profound disjunction of the patterns of living and economic activity in the entire metropolitan area.

Public transit cannot compete successfully with the private automobile in fulfilling the transit needs of the metropolitan area except in certain limited respects. Taking into account the symbolic as well as the utilitarian role of the automobile in modern life, we are convinced that any public transit system is almost by definition unattractive to great numbers of residents in the metropolitan area. In the years ahead, there are persuasive reasons to believe that the transit system will only supplement automobile transportation in this area. A few necessity riders will remain, and perhaps others can be persuaded to return to the system. Under no circumstances, however, can the transit system be made so attractive in comparison with the automobile that a sufficient volume of patronage can be attracted to pay for the costs of operation.

Public policy premised on the assumption that transit operations can be self-supporting is no longer realistic. In view of more than twenty years of annual deficits sustained by the system and the outlook for transit patronage in the years ahead, it is evident that continued operation of the MTA will require substantial deficit financing. During the 'twenties, while there was still some hope that the decline in transit patronage might be only temporary, there was some justification in retaining the policy of "service at cost". By 1947 it should have been obvious that such a policy of attemptint to finance transit services from fare revenues could only lead to an accelerated decline in transit patronage which would eventually require either a basic readjustment of public policy in this respect or the dissolution of the transit system.

Public transit policy should, therefore, be readjusted to conform to a system of deficit financing which will conserve the considerable public investment in the present transit system and which will maximize the utility of existing facilities. Instead of being a self supporting business enterprise, the MTA is a costly but necessary service. Using this conception of the MTA as a public service, we suggest that transit policy be reconstructed along the following lines.

1. Maximum use of existing MTA plant and facilities should be encouraged by maintaining and in some instances, lowering present rates of fare. The potentialities of the MTA for retarding increases in traffic congestion and inhibiting the decentralization of the central business district cannot be realized if fares are raised to twenty cents. The present rate of fifteen cents represents a point beyond which further increases will result only in diminished returns. Although a reduced rate of fare might be more effective in holding present rush hour patronage, operating losses which would be sustained as a result of any such reductions would probably be so heavy as to be unwise.

2. Because of the valuable service the MTA performs in regard to the central business district, positive measures should be taken to encourage use of the system, particularly during the rush hours. This should include a large scale expansion of the present program of providing off street parking facilities at rapid transit terminals and stations. The MTA is currently operating some small lots which are invariably filled to capacity by 10 a.m. on weekday mornings. All of these are inadequate for the traffic potential which could be attracted by the expansion of such facilities.

The MTA should, in cooperation with the appropriate city and state agencies, institute a detailed study to determine the availability of land for parking purposes in areas around rapid transit stations. In some instances ample vacant land is available while at other stations like Harvard Square, land use is intensive. In any event, off street parking facilities should be made available, even if it necessitates the construction of cage garages at rapid transit stations. Parking facilities at these locations would be considerably more economical than the construction of comparable parking space in the central business district where land values are higher, tax revenues from existing land uses are greater and clearance costs would be more substan tial. To maximize the attractiveness of these parking facilities, their use should be free for transit patrons or fees should be very low.

3. MTA equipment and facilities should be modernized so as to make their operation both attractive and economical. Considerable progress has been made since the war in the modernization of the MTA's rolling stock. However, the MTA has been severely handicapped in recent years by the limitations which the General Court has imposed on the amount of funds available for the replacement of fully depreciated equipment. Such limitations represent false economy since they result in discouraging patronage and increasing operating and maintenance costs. Equipment costs are at an all time high. But there are no indications that they will drop unless there is a marked deflation. Present plans for vehicle replacement and modernization should be speeded up so that all overage rolling stock will be retired from service within the next 3 years. It is particularly important that superannuated rapid transit equipment be retired and that equipment retaining some years of service life be thoroughly modernized so as to compare favorably with the new East Boston Tunnel cars. Certainly no attempts to retain or attract patronage can be fully successful if equipment on the system is old, uncomfortable and unattractive. Most rapid transit equipment now in operation was designed and built in an era

before the public had become accustomed to automotive standards of comfort. As a consequence, most of this old equipment has longitudinal wooden seating, inadequate lighting and open windows admitting noise and dirt. Moreover, all equipment and terminals could be made more attractive by more frequent cleaning and painting.[1]

4. Finally, the greatest caution should be exercised in approving any proposals for extensions of the rapid transit system. Considerable study and attention should be given to any such proposals to determine whether these projects could attract a sufficient increase in patronage to be self-liquidating. Insofar as new facilities would result in operating economies or would replace transit lines now operating on the streets, they would probably be justified but it is doubtful that extensions like the one to Revere, which was recently approved, will result in sufficient economies and new patronage to justify the heavy investment they involve.[2] Rapid transit facilities cannot compete successfully with private automobiles. Additional costly

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[1] The modernized train on the Cambridge-Dorchester subway is a good example of the results to be obtained from old equipment by installing transverse, upholstered seating, fluorescent lighting, and forced air ventilation. In general, attempts such as were made in designing the new East Boston Tunnel cars to incorporate many features found in the P.C.C. street car have been successful and attractive.

[2] The most practical extension now proposed is the plan to extend subway service over the tracks of the Boston and Albany Railroad from Braves Field to the Newtons. Such an extension would permit the removal of street car service from the crowded arteries in the area.

investments will attract little new patronage and will serve only to increase the burden of the transit system to the citizens of the metropolitan area.[1]

III

The unworkable policy of attempting to finance MTA service from fare revenues should be abandoned and there should be a basic reallocation of transit costs among those benefitting from the existence of the system.

1. The MTA's entire fixed cost should be assessed directly upon the fourteen cities and towns served by the MTA. These fixed costs now represent the largest proportion of the annual deficit, and it is evident that fare revenues cannot meet these charges. Since these charges represent the cost of building the MTA facilities and purchasing them from their private owners, there is ample justification to view them as payments in lieu of capital. The MTA, although it is a corporation, has no capital other than its facilities. When it was established, the fourteen cities and towns were not called upon to make any capital investment other than that represented by the deficit assessments they had paid in previous years. Since they are direct beneficiaries of the transit system, they should in all justice be responsible for meeting all the fixed charges, including the cost of rolling stock, necessary to maintain the system.

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[1]Among unnecessary expenditures of this nature, we would include the plans to replace the Forest Hills-Everett elevated structure with a subway to which the General Court has given initial approval. It seems doubtful that such a subway would attract any new patronage but it would substantially increase the debt structure. The el operations have blighted the areas traversed but it is unlikely that their continuance can induce any further blight. If a program were undertaken to redevelop housing in the areas along the line, then the subway plans should be reconsidered but until then the benefits which such a subway program would bring are far outweighed by the construction costs. Construction of another subway tube to connect Park Street and Scollay Square stations is probably a sound investment. In this instance, the new facilities will eliminate a bottle neck which now lowers service. Completion of the extra tube will mean reduced running times especially during the rush hours and will add to the attractiveness of service.

The payment of these charges should be determined on the basis of the population and fixed valuation of each city and town. This system of cost allocation has been outlined by the Finance Commission and variations of this system are used to assess the costs of the Metropolitan District Commission.[1] The existing system of assessing deficits on the basis of an origin and destination survey of MTA passengers, however reasonable it may appear in principle, is both unworkable and unjust in its application. The MTA, like the MDC, is "available to all the metropolitan district and the methods of apportioning sewer and park service costs are equally applicable to the apportionment of transit system service costs in the absence of a workable, fair method of ascertaining the proportion of actual use."[2]

Because of rising costs, the existing fare structure does not produce sufficient revenues to pay even the operating costs of the transit system (i.e. the cost of fuels, materials and wages). Under the present "service at cost" provisions, fares will be raised in order to cover this operating loss. Since we oppose further fare increases, it is evident that in any reallocation of MTA costs some provision must be made for meeting such operating losses. We propose that 25% of future operating losses should be assessed upon 15 towns not now included in the transit district and the remaining 75% should be paid out of the general funds of the Commonwealth.[3] Such operating losses should be assessed on these fringe towns on the basis of the formula mentioned above.

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[1] Finance Commission of the City of Boston, Letter to the Honorable John B. Hynes, Mayor of Boston, January 16, 1952, 9 pp. (mimeographed).

[2] Finance Commission, op. cit., p. 9.

[3]The towns to be assessed are; Braintree, Dedham, Lexington, Lynn, Melrose, Needham, Quincy, Reading, Saugus, Stoneham, Wakefield, Waltham, Wellesley, Winchester and Woburn.

Although not served directly by the MTA these towns benefit from its existence to a degree which warrants their assumption of part of the costs of conducting transportation. Many of these communities are served by transit systems which connect with the MTA. To motorists the MTA provides standby service when normal patterns of automotive transportation are disrupted. Moreover, the part which the MTA plays in freeing the streets and highways in the central area of unnecessary traffic congestion is a direct benefit to the residents of these towns who enter that area by automobile. Further deterioration in MTA service will affect these towns not only through traffic congestion, but through the increased tax contributions necessary to provide more highways and streets.

The responsibility of the Commonwealth in the transit problem is no less important than that of the fringe towns. The Commonwealth early acknowledged its responsibility in this respect by establishing various regulatory devices designed to control the development of mass transportation in the public interest. In 1918 and again in 1947, the Commonwealth widened its interest and participation in the transit system with the result that the MTA is administered by gubernatorial appointees and its basic policies established in the General Court. The anomaly in this arrangement lies in the fact that although the Commonwealth exercises such impressive direction and control over the transit system in the metropolitan area through the MTA, it is not liable or responsible for the financial results of this control.

There is no valid reasons why the Commonwealth should continue to avoid the full implications and responsibilities of its present power. That it assumed no share of the cost of operating the transit system was justified in the past by the tradition against extending subsidies to private business. That reason disappeared when the Commonwealth abolished private ownership of the system in 1947. Thus, the Commonwealth currently supports part of the transportation system of the metropolitan region through its contributions to highway construction and maintenance. There is little logic and less justice in its failure to help support the remaining segment of that transportation system-- the MTA.

This allocation of MTA costs represents an attempt to adjust financing methods to the albeit unpleasant costs involved in the continued operation of the transit system. To the fourteen cities and towns in the transit district should be allocated the fixed charges of the MTA. Although the total costs to each town will be increased by the assumption of these charges and by the revised system of assessment, all evidence indicates that the continued deterioration of the transit system as it now operates will increase deficit assessments to comparable levels in a few years. Under this system, the assessable costs will be stable after the first three year period in which new transit equipment is purchased. Such a system will avoid the difficulties which these cities and towns now face in making budget allotments for undefined transit deficits. Moreover, by eliminating the annual deficit system as it currently operates, much of the political controversy surrounding the MTA will tend to abate. At present, announcement of the quarterly and annual deficits is the signal for legislative pyrotechnics, bizarre accusations and a host of ill-conceived legislative remedies. By making the deficit a fixed amount, calculable in advance, this incessant political pressure which inhibits the management and direction of the MTA should lessen, if not terminate.

In addition, a share of any operating lossed should be allocated to 15 towns on the edge of the transit district which now make no contribution to the transit costs. It is evident that these losses will vary in amounts and their payment will entail budgetary uncertainties, but both these matters are small prices to pay for the continued health of the metropolitan area of which they are a part.

IV

The public authority has found widespread application at all levels of government in the United States in recent years. For the administration of quasi-business enterprises such as transportation, the authority is a type of mechanism which combines the best elements of business management and public administration. While structural details may be open to criticism, the MTA represents a successful application of this device to the peculiar problems involved in conducting local transportation operations in this region. In the same general sense, the quality of administration provided by the MTA staff ranks among the best to be found in transit systems of the nation's large cities. This record of managerial performance is the more impressive because it was achieved despite severe economic limitations, political pressures and contradictory legislative policies. In our investigation of the structure and operations of the MPA, therefore, we have found no basic defects.

While we suggest some administrative changes, it is important to re-emphasize our primary conclusion that the causes of the MTA problem are to be found in the economic consequences of proliferating automobile ownership and usage. We reiterate this premise because the statements of many public officials in the region indicate that an important segment of public opinion still conceives of the problem and its solution in terms of administrative changes. Thus one official affirms that the MTA "deficit will not end until the Legislature passes a law forcing the MTA to operate within the limits of its present revenues"; another appeals to a familiar symbol by suggesting that "what the (MTA) needs is a real expert to take charge of its affairs"; and in a more wistful vein a board of aldermen resolve that "it seems that there must be some way of operating (the MTA) in a more business-like manner. . ."

These statements evidence the familiar tendency to personalize and over simplify complex problems until the conclusion is reached that all problems can be eliminated by "better men" and "better administration". After several decades of transit deficits, however, the persistence of this type of reasoning is sheer escapism and irresponsibility. No amount of administrative tinkering or personnel changes will bring automobile drivers back through the turnstiles and solvency to the transit system.

Because most of the discussion of administrative reorganization has been conducted at the expense of consideration of the causal elements of the MTA problem, the changes which have been proposed and enacted have been of scant substantive value. The size of the MPA's board of trustees is not a controlling factor in the existence and magnitude of annual deficits and beyond the requirement that such trustees have general competence for decision making, their particular skills and vocational experience appear to be of small importance.

While constructive action on the MTA problem must take place outside the area of administrative reorganization, one structural refinement might be desirable. Since there is considerable merit to the frequent insistence that the MTA be made more responsible to the public it serves, this goal might be furthered by making the tenure of the MTA trustees correspond to the Governor's term of office. Transit policy is a "political issue." Every gubernatorial election since the MTA was established in 1947 has involved debate on the substance and direction of the Authority's policies. Moreover, each governor has succeeded in appointing men of his own choosing to the MTA board in order to implement his particular program for the transit problem. Insofar as these changes in state administrations have involved shifts in public opinion concerning transit policy, the high mortality rate of MTA trustees has been an indication of the responsiveness of the agency to public opinion. Since it seems unlikely that public subsidy of the transit system can be eliminated, it also is unlikely that the MTA will cease to be a sub ject of political debate and controversy. Hence, it may be desirable to convert this widely lamented situation into a positive benefit. By giving the Governor the right to appoint his own trustees, the voter can expect and demand action on campaign pledges. Armed with such power, the voter may find that political debate and promises will take on a more restrained and reasonable character.

The most important impediment to a more efficient and effective administration of the MTA cannot be removed by legislation since that impediment involves the actions and attitudes of the General Court. Sound administration is not possible in a context of persistent legislative interference in matters of administrative policy and procedure. Although the line between politics and administration is not as distinct or easily drawn as students of the subject once thought, it is evident that legislative action on detailed matters of the MTA's administration is both wasteful and destructive. For example, the General Court cannot expect the staff of the Authority to bargain collectively with unions representing its employees, if legislators make it possible to appeal beyond the bargaining and arbitration procedures to Beacon Hill. It is also impossible to administer the MTA efficiently if the legislature is willing to yield to pressures from members who introduce bills for the construction of an escalator at a particular stop or the change in a bus route or additional Sunday service on some lines.

There are no changes in the structure or operation of the MTA which will make it immune to the effects of foolish legislation passed at the behest of special interest groups or patronage-minded members of the General Court.

Effective administration of the MTA, like effective administration in other state agencies, requires legislative self-discipline whether it be imposed by general consent or enforced by party discipline and executive leadership.

It is apparent, however, that as long as no one presents a comprehensive program for a new metropolitan transit policy, the existence of public concern and dissatisfaction concerning the MTA is an invitation to the self-seeking politician equipped with bizarre plans and a hunger for newspaper publicity. Confusion, contradiction and inaction regarding the MTA problem breeds the fantastic accusation, the impractical panacea and the special interest appeal. In such an atmosphere constructive legislation may be difficult but wise administration is almost impossible. Such is the situation in the General Court today as transit deficits mount and executive and legislative inaction persists. To date, the administration of the MTA has been more successful and efficient than might have been expected from such a situation of political impasse and confusion. The time is not too distant, however, when the contradictions in MTA policy will result in further deterioration of the environment in which administration occurs. Then, competent administrators will leave and sound administration will be impossible.

V

Contructive policy decisions concerning the MTA will not remedy the larger transportation problem which exists in this area. The chronic difficulties facing the Eastern Massachusetts Street Railway and the railroads operating commuter services are not greatly different from the basic elements in the MTA problem. To date, the Commonwealth has followed a policy of "drift" concerning these transportation systems despite the intermittent attention and study which particular crises have precipitated. The threatened abandonment of commuter service on the Old Colony lines in 1947 provoked a flurry of public discussion and legislative proposals. With the passing of that particular "crisis", however, no further action was taken to remedy the underlying problems which threaten the continuance of commuter service in this area. Similarly, termination of the recent Eastern Mass. strike was interpreted by most public officials as the signal to end consideration of measures to insure the future of transit service to the cities and towns served by this system.

It will be impossible for the parties-in-interest in the larger transportation problem to continue this policy of drift during the next decade. Commuter railroad service may continue its almost secular decline in quality and frequency until equipment renewals or labor cost increases force operators to discontinue service. More dramatic developments may take place on the Eastern Mass. and the Middlesex & Boston Street Railway Co. since there is evidence to suggest that the time is not too distant when it will be to the advantage of investors in those companies to liquidate their holdings and get out of business. A large part of the operations of both are already yielding chronic losses which are subsidized by a few profitable lines. When increased fares drive more patrons from these lines to automobile usage, profits may disappear altogether and investors will be wise to convert the assets which remain into cash.

Instead of waiting until circumstances make impossible the present luxury of inaction on these matters, immediate study, discussion, and decision can avoid both the social costs involved in the continuing deterioration of these services and the wastes resulting from emergency-dictated measures like those in 1918 and 1947. Further analysis of the railroad commuter problem will be necessary before any recommendations can be advanced for the remedy of this problem but the basic outlines of a new policy for the Eastern Mass ans the Middlesex & Boston already are apparent. Although many routes operated by these companies are unnecessary and are being operated at present only because of franchise agreements or the decision of the public regulatory agencies, the recent strike on both systems showed that they provide transportation services which are a necessity in the lives of thousands of citizens. The protracted strikes drove away most riders who had alternative means of transportation and subsequent fare increases discouraged their return so that a large proportion of the current patronage probably represents "necessity riding". As in the case of the MTA, further inflationary trends in operating costs will eventually make fare revenues collected from these necessity riders insufficient to meet the costs of operations.

Some form of deficit financing will be necessary and the experience of both the MTA and the Eastern Mass under public control indicates that such an arrangement would be unworkable. Because the parallels between the fiscal dilemmas of the MTA and these suburban systems are so clear, there are many reasons to suppose that public ownership of the Eastern Mass and the Middlesex & Boston is the most practical plan available. The cities and towns served by the systems could be designated a transit district for the purpose of issuing the necessary long-term bonds to purchase the companies. A system of assessing the debt charges similar to the one proposed for the MTA could be used and the operating losses could be met by the Commonwealth.

One important benefit to be achieved by public ownership would be the centralization of policy and operations under the direction of the MTA. Such centralization would not only be the means of effecting important operating economies but it also would mean that for the first time in the history of the region it would be possible to have unified direction and planning of these transit services. Because the basic processes of transportation, communication and economic activity which unite the metropolitan area conform only superficially to the configurations of town boundaries, unified transit planning would eliminate the present system whereby transit planning and operations are divided along arbitrary lines which are themselves the result of processes no more rational than tradition and chance.

VI

The present policies which guide the MTA are premised on the assumption that the transit system can be self-supporting through the fare revenues collected from users of the system. The refusal of public and legislative opinion in the face of thirty years of mounting transit deficits to abandon this premise has resulted in the legislative impasse in recent years which has made intelligent action on the MTA problem impossible. As long as this myth of transit solvency persists, deterioration of mass transportation services and the areas served by them will be inevitable.

Because transit service is still a necessity and cannot be abandoned or allowed to disintegrate merely because traditional methods of financing are no longer workable, a basic revision of basic policy is necessary. This is a program designed in the light of the overwhelming evidence that transit deficits are unavoidable. Although the principle of deficit financing is not an appealing one the nature of the transit problem admits no other. The governing criteria of future MTA policy should be the use of present transit facilities for the maximum benefit of the citizens in the region. Because the conduct of such services involves heavy costs which cannot be met by transit patrons alone, costs should be reallocated to all the beneficiaries of transit service rather than to the few who are now meeting them.

Such a program is probably the most adequate adjustment which can be made to the problem confronting mass transportation everywhere in modern American society. While many citizens of the area are committed to automobile trans portation, we are not yet able to do without public transit service. Although the automobile has induced vast changes in the structure and operations of life in the metropolitan area, there is no evidence which gives conclusive proof as to the direction which decentralization of population and economic activity will take in the next few decades, nor can one predict with certainty the pattern of automobile ownership and usage in the future. Until such trends become more evident, we must be satisfied with the knowledge that the area is in a period of transition. Despite the large scale expansion of private transportation in the last three decades, public transportation is still a necessity. By wise policy and careful planning, it can be a useful device in metropolitan life in the years ahead.

TABLE III

"Operations of the Boston Elevated Railway and the Metropolitan Transit Authority: 1942-1952"[1]

Year	Revenue Passengers	Income	Operating Expenses	Fixed Charges	Assessed Deficits	Deficits Repaid
1942	370,265,241	$33,252,621	$21,661,419	$ 9,644,147	--	A
1943	418,203,633	37,653,731	25,200,164	10,767,155		$1,301,291B
1944	417,069,378	37,460,190	27,068,251	10,721,240	C	--
1945	420,196,165	37,603,357	28,604,544	9,821,588	D	--
1946	433,094,952	39,082,107	32,040,456	9,677,648	787,527	--
1947	388,573,222	39,325,681	34,307,679	9,513,852	711,737E	--
1948	381,023,889	38,736,026	38,965,416	8,800,955	8,900,854	--
1949	F	37,399,089	38,485,560	6,883,493	8,250,886	--
1950	307,732,315G	42,567,909	38,285,705	4,950,670	539,820	--
1951	288,972,823	40,715,551	40,719,979	5,405,202	5,315,084	--
1952	277,713,059	39,042,962	41,896,705	6,105,841	7,829,044	--

NOTES:
- A The sum of $924,264 was credited to the Reserve Fund established by Acts of 1918, Chapter 159.
- B The sum of $75,795 was credited to the Reserve Fund to bring it up to the statutory limit of $1,000,000 as provided in the 1918 Act creating the public control system.
- C The system lost $393,020 in 1944 and this net loss was deducted from the Reserve Fund leaving a balance in the Fund of $606,979.
- D The system lost $507,885 in 1945 and this net loss was deducted from the Reserve Fund leaving a balance in the Fund of $99,094.
- E By the terms of the Acts of 1947, Chapter 544, a Reserve Fund of $2,000,000 was established. During the period January 1, 1947 to August 29, 1947, the net loss incurred by the system was $2,787,121. In the period from August 29, 1947, to December 31, 1947, the net loss from operations was $75,383. After deducting profit and loss credits and then deducting the remaining total from the Reserve Fund, the fund was exhausted and the remaining deficit was assessed on the cities and towns.
- F Figures not available because of fare change.
- G January 1, - January 27, 1950, estimated.

[1]Source; Annual Reports of the Public Trustees of the Boston Elevated Railway, 1942-1946. Annual Reports of the Public Trustees of the Metropolitan Transit Authority, 1947-1952.