

HOUSE No. 5955

The Commonwealth of Massachusetts

LEGISLATIVE RESEARCH COUNCIL

Report Relative to

CRIME ON PUBLIC TRANSPORTATION SYSTEMS

***FOR SUMMARY, SEE
TEXT IN BOLD FACE TYPE***

February 13, 1980

77169

The Commonwealth of Massachusetts

ORDER AUTHORIZING STUDY

(House, No. 6625 of 1979)

Ordered, That the Legislative Research Council is directed to conduct an investigation and study relative to crimes committed on public transportation systems and on related facilities. Said Council shall report the results of its study by filing a copy thereof with the Clerk of the House of Representatives on or before the second Wednesday of February in the year nineteen hundred and eighty.

Adopted:

By the House of Representatives, July 12, 1979

By the Senate, in concurrence, July 17, 1979

U.S. Department of Justice 77169 National Institute of Justice

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CONTENTS

Order Authorizing Study 2
Letter of Transmittal to the Senate and House of Representatives 5
Letter of Transmittal to the Legislative Research Council 6
Summary of Report 7
CHAPTER I. INTRODUCTION 10
Origin of Study 10
Scope of Study 10
CHAPTER II. MASSACHUSETTS PUBLIC TRANSPORTATION SYSTEMS 12
Structure of the Massachusetts Bay Transportation Authority 12
Subsidized Commuter Railroad and Bus Company Services 15
Regional Transit Authorities 18
CHAPTER III. CRIME AND VANDALISM ON PUBLIC TRANSPORTATION 20
Definition of Crime 20
Indexing of Crime 22
Causes of Crime 22
MBTA Crime Statistics 24
MBTA Vandalism Costs 29
Crime Experience-Commuter Bus Companies 31
CHAPTER IV. TRANSPORTATION POLICE & RELATED SECURITY EMPLOYEES 32
MBTA Police 32
MBTA Starters 34
Railroad Police 34
Recommended Action 35

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ACQUISITIONS

**CHAPTER V. SECURITY PROCEDURES
ELSEWHERE**

Transit System Usage	36
External Security Devices	37
Federal Assistance	39

TABLES

1. Voting Strength of MBTA Communities	13
2. MBTA Service Activity	14
3. Summary-Classification of Crimes	20
4. Criminal Activity by Sex and Race	23
5. Average Age of Selected Crime Offenders	24
6. Line Totals of MBTA Incidents by Type of Offense	25
7. Estimated MBTA Vandalism Costs, 1971-1978	30

The Commonwealth of Massachusetts

**LETTER OF TRANSMITTAL TO THE
SENATE AND HOUSE OF REPRESENTATIVES**

To the Honorable Senate and House of Representatives:

LADIES AND GENTLEMEN: — In compliance with the legislative directive in House, No. 6625 of 1979, the Legislative Research Council submits herewith a report prepared by the Legislative Research Bureau relative to crime on public transportation systems.

The Legislative Research Bureau is restricted by statute to "statistical research and fact-finding." Hence, this report contains only factual material without recommendations or legislative proposals by that Bureau. It does not necessarily reflect the opinions of the undersigned members of the Legislative Research Council.

Respectfully submitted,

MEMBERS OF THE LEGISLATIVE RESEARCH COUNCIL

Sen. ANNA P. BUCKLEY of Plymouth, *Chairman*
 Rep. MICHAEL J. LOMBARDI of Cambridge, *House Chairman*
 Sen. JOSEPH B. WALSH, of Suffolk
 Sen. JOHN F. PARKER of Bristol
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 Rep. BRUCE N. FREEMAN of Chelmsford
 Rep. CHARLES N. DECAS of Wareham

The Commonwealth of Massachusetts**LETTER OF TRANSMITTAL TO THE
LEGISLATIVE RESEARCH COUNCIL**

To the Members of the Legislative Research Council:

LADIES AND GENTLEMEN: — House, No. 6625 of 1979 directed the Legislative Research Council to make a study and investigation relative to crimes committed on public transportation systems and related facilities.

The Legislative Research Bureau submits herewith a report in accordance with the above directive. Its scope and content are restricted to fact-finding data only, without recommendations or legislative proposals.

This report was the primary responsibility of Anthony L. Ventresca of the Research Bureau staff.

Respectfully submitted,

DANIEL M. O'SULLIVAN, *Director*
Legislative Research Bureau

The Commonwealth of Massachusetts**CRIME ON PUBLIC TRANSPORTATION SYSTEMS****SUMMARY OF REPORT***Study Directive*

-This report by the Legislative Research Council is submitted in conformity with a joint order adopted by both branches of the General Court in 1979 (House, No. 6625). That order, proposed by Representative Michael J. Lombardi of Cambridge, House Chairman of the Council, required the Council to make a study and investigation of the incidence of crime on public transportation systems within the Commonwealth.

The Massachusetts Transportation System

The transportation system includes both public and private transportation companies. The public companies are created by statute and are political subdivisions of the state. They are financially supported through passenger fares, real property taxes, nonproperty excises, state aid, and grants from the Federal Department of Transportation.

The largest carrier is the Massachusetts Bay Transportation Authority (MBTA) whose district is comprised of 79 cities and towns, the great majority being in the Greater Boston area. It operates a transit network that dates back to the Boston Elevated Railway Company. The MBTA operates about 1,500 vehicles daily, including commuter rail trains (under a contract with the Boston & Maine Railroad), buses, trackless trolleys, and rapid transit cars. Annual MBTA ridership is estimated at 151,400,000 persons who provided the Authority with \$67,670,093 in revenue in 1978. The agency has a work force of approximately 6,500 persons. Established by statute in 1964, the Authority is subject to the terms and conditions contained in Chapter 161A of the General Laws. Administered by a five-member Board of Directors appointed by the governor, the MBTA is governed in part by the decisions of an Advisory Board which is composed of officials from the 79 member communities. The most important power resident in the Advisory Board relates to the approval of the Authority's budget.

In addition to the MBTA, there are 10 statutory regional transit authorities which serve 95 additional cities and towns. Aggregate annual ridership for the 10 districts reached 1.9 million persons in 1979. Providing bus service only, these regional authorities are chartered under Chapter 161B of the Massachusetts General Laws.

Private transportation companies are licensed by the Department of Public Utilities and are limited in Massachusetts to the operation of buses. Currently, over 50 private companies with 640 buses operate within the Commonwealth. Annual ridership is estimated at 22.5 million persons.

Crime on the Massachusetts Transportation System

Generally, crimes are divided into felonies and misdemeanors, depending upon the severity of the punishment accorded. In most jurisdictions, misdemeanors are offenses for which the maximum punishment is confinement for one year while felonies call for a state prison sentence for more than a year.

The causes of crime, according to experts, involve influences that include defects of personality, socio-economic conditions, biological defects, age, and race. The Massachusetts Commission on Probation, in a study involving 5,000 court cases from 1975 to 1978, observed that persons between the ages of 17 and 25 from poor socio-economic backgrounds and neighborhoods accounted for the highest percentage of convictions for crimes against property. Tabulations compiled by the MBTA and other carriers further support the impact of social influences as a cause of crime. The highest levels of criminal activity, according to these sources, occur in Boston neighborhoods which can be identified as blighted, densely populated and socially depressed.

For the period of January to June 1979, the MBTA recorded 5,816 incidents of criminal behavior. However, some law enforcement authorities challenge the validity of the data. The type and level of criminal activity includes crimes against the person such as rape, sex offenses, robbery, aggravated assault, and larceny. Property crimes include vandalism, breaking and entering, purse snatching and pick-pocketing, among others. While the MBTA has insisted that the level of crime has risen at an alarming rate, an analysis of statistical tabulations indicates that criminal activity on the system is less than the crime rate in Boston proper.

From 1971 to 1978, the MBTA incurred over \$4 million in damage due to vandalism. Private transportation companies report costs of \$345,000 in 1978 and \$492,000 in 1979 as vandalism damage. Both public and private transportation systems indicate that the common vandalism targets are windows, seats, passenger supports, in addition to graffiti.

Passenger Safety and Protection

While private transportation companies rely upon local police agencies for crime prevention and protection, the MBTA functions through its own police department which was created in 1968 through a legislative act (C. 664). Only patrolmen are covered by Civil Service. They have authority to act as police officers in the 79 cities and towns of the MBTA district but are limited in their activities to Boston. Security effort is augmented by MBTA starters who act as special police officers.

Several groups among the MBTA personnel and elected officials argue that the MBTA Police Department should be increased to 200 members and provided with sufficient equipment to allow for modernization. Criticism that it is inefficient and ineffective is frequently uttered. Currently, the department is sparsely equipped with only portable radios and police cars. Average response time with current manpower and equipment is estimated at 15-20 minutes per call, which could be reduced through the establishment of substations, particularly in areas with a high crime rate. The MBTA Police Department receives no direct federal aid; however, it has been provided limited funds through the federal grants for equipment.

Transportation authorities in other states such as New York, Chicago and New Jersey appear to have taken greater steps than the MBTA to insure patron safety. Such approaches as TV surveillance in stations, two-way radio systems in buses, uniformed passengers, audio recording, and helicopters have been used elsewhere with much success.

The Commonwealth of Massachusetts

CRIME ON PUBLIC TRANSPORTATION SYSTEMS

**CHAPTER I.
INTRODUCTION**

Origin of Study

This report is submitted by the Legislative Research Council pursuant to House, No. 6625 of 1979, which was filed by Representative Michael J. Lombardi of Cambridge, House Chairman of the Legislative Research Council. That legislative directive, reprinted on the inside cover of this report, required the Council to investigate crime on the public transportation system and related facilities within the state. The intent of this directive, therefore, is to determine the level, type and impact of crime on public transportation.

Scope of Study

To properly achieve the goal of the legislative directive, it is necessary, due to the nature of the subject, to separate what has been determined to be factual from corresponding data alleged to be factual.

Volumes of statistical tabulations, media accounts, and public debates concerning crime on public transportation have fostered a perception among the citizens that violent crimes and vandalism occur unchecked throughout the transportation system. A recent public opinion poll conducted by the Massachusetts Bay Transportation Authority (MBTA), in which 750 Bostonians were surveyed, indicated that three out of five persons believe that the MBTA subway system has a higher crime rate than Boston proper. Since it may be assumed that those polled were not privy to official police crime statistics, it would appear that their opinions were drawn from mass media accounts, word of mouth, or simply emotional evidence. Because many individuals will always believe that the opinions held in common by a majority of people comprise an acceptable criterion of truth, the report examines the relationship between the statistical tabulations on crime published by the MBTA and the interpretation of those figures by the media.

While statistical data compiled by the MBTA indicates an increase in crime in most areas of public transportation under its jurisdiction, the lack of a clear explanation of those tabulations has sparked uncertainty as to the reliability of the data.

Public transportation includes all companies which are engaged in the transport of people. Thus, the report includes the operational activity of those bus companies which provide daily commuter and passenger service, contract lines, Boston and Maine Railroad, and the MBTA system. It is noteworthy, however, that no crimes against the person have been recorded in B&M records since 1976 and that only one incident of that nature has been reported by private bus companies in 1978.

The investigation of crime requires a review as to the cause of crime. While obvious boundaries have been placed upon this section of the report, the document nonetheless reviews the connection between specific crime rates, the location of the highest crime rates, and the causes of crime.

Determining the legal definition and the classification of different criminal acts is the key to deciphering many of the statistical tabulations which are the basic building blocks of crime reporting. Methods, procedures, and activities of transportation systems in other states provide good comparative examples when reviewing local developments.

Criminal activity and incidents result in financial hardship to both the public and private sector. In this regard the document discusses the cost of vandalism to the transportation industry. It must be understood, however, that no accurate accounting is available due to the fact that not all acts of vandalism are reported as such, and because those costs which are reported are usually estimates based upon current replacement or repair costs.

To develop pertinent data for this study the Legislative Research Bureau conferred or corresponded with management officials and employees of (a) the MBTA, (b) the Boston and Maine Railroad, and (c) private bus companies; the Boston Bureau of the FBI, Boston police, and local police departments. On the national level, information was sought from the Chicago Rapid Transit Police Department, the New York Transit Authority, and other sources relative to passenger security.

CHAPTER II.
MASSACHUSETTS PUBLIC TRANSPORTATION SYSTEM

Structure of the Massachusetts Bay Transportation Authority

General Powers. The Massachusetts Bay Transportation Authority was established in 1964 by Chapter 161A of the Massachusetts General Laws. This statute represents an evolution from the Metropolitan Transit Authority Act of 1947 which provided for the acquisition of the facilities and interests of the privately owned Boston Elevated Railway Company. The MBTA is a body politic and corporate and a political subdivision of the state, consisting of 79 cities and towns. A five-member Board of Directors appointed by the governor for a term coterminous with the governor is responsible for the general management and control of the Authority. The Board appoints key personnel, determines the character and extent of Authority transportation services, approves Authority borrowing and contracts, and exercises other managerial powers within the framework and criteria of the MBTA law. However, the consent of the MBTA Advisory Board is required in relation to the action of the Board of Directors in (a) appointing a General Manager for the Authority, (b) establishing and changing transit system fares, (c) adopting an annual budget, (d) adopting and revising a program for mass transportation within the area constituting the Authority, and (e) authorizing certain capital improvements.¹

Advisory Board. The MBTA Advisory Board is composed of the city manager of each MBTA city having a council-manager form of government, the elected mayor of each other MBTA city, and the chairman of the Board of Selectmen of each MBTA town. Each member municipality has one vote in proceedings of the Advisory Board, plus additional full or fractional votes (see following table) determined by multiplying (a) 1½% times the total number of MBTA members municipalities by (b) that community's percentage share of all MBTA assessments as determined annually by the State Treasurer under MBTA law. Action by the Advisory Board requires a majority vote under that weighted voting system.¹

¹G.L. c. 161A, ss. 3-5.

Table 1. Voting Strength of MBTA Communities

<u>Municipality¹</u>	<u>No. of Votes</u>	<u>Municipality¹</u>	<u>No. of Votes</u>	<u>Municipality¹</u>	<u>No. of Votes</u>
Arlington	3.2027	Lincoln	1.1193	Reading	1.5848
Ashland	1.1452	LYNN	3.0858	REVERE	3.0073
Bedford	1.2078	Lynnfield	1.1961	Rockland	1.2439
Belmont	2.2121	MALDEN	3.6979	SALEM	1.9447
BEVERLY	1.6558	Manchester	1.0978	Saugus	1.7099
BOSTON	55.1194	Marblehead	1.4934	Scituate	1.2138
Braintree	1.9268	Marshfield	1.1491	Sharon	1.2279
Brookline	4.4880	Maynard	1.1594	Sherborn	1.0489
Burlington	1.3976	Medfield	1.1141	SOMERVILLE	5.4298
CAMBRIDGE	8.0922	MEDFORD	4.1694	Stoneham	1.3938
Canton	1.2881	MELROSE	1.8432	Sudbury	1.1882
CHELSEA	2.5725	Middleton	1.0749	Swampscott	1.4406
Cohasset	1.1014	Millis	1.0816	Topsfield	1.0752
Concord	1.2881	Milton	2.1854	Wakefield	1.6401
Danvers	1.4919	Nahant	1.1277	Walpole	1.2849
Dedham	1.7180	Natick	1.5753	WALTHAM	2.1353
Dover	1.0806	Needham	1.6030	Watertown	2.4738
Duxbury	1.0704	NEWTON	3.5045	Wayland	1.2459
EVERETT	3.3523	Norfolk	1.0638	Wellesley	1.5145
Framingham	1.7480	North Reading	1.2084	Wenham	1.0623
Hamilton	1.1211	Norwell	1.1103	Weston	1.1539
Hanover	1.1527	Norwood	1.6012	Westwood	1.2808
Hingham	1.3633	PEABODY	1.7544	Weymouth	2.1528
Holbrook	1.3570	Pembroke	1.1308	Wilmington	1.3293
Hull	1.1486	QUINCY	3.9355	Winchester	1.5910
Lexington	1.7739	Randolph	1.6714	Winthrop	1.4939
				WOBURN	1.8035

¹Cities appear in capital letters.

Source: G.L. c. 161A, ss. 1 and 7 and Chairman of MBTA Advisory Board.

Physical Description of MBTA. The population of the 79 communities which comprise the MBTA district is 2,763,410.¹ Within the confines of that district the MBTA operates about 1,500 vehicles² which travel about 150,000 miles each day.

The following table itemizes the routes, numbers of vehicles, passenger miles of track, revenue miles, and other operations within the MBTA district.

¹1970 U.S. Census.

²Includes "leased" buses.

Table 2. MBTA Service Activity

<i>Number of Routes</i>		
Bus		176
Street car		5
Rapid Transit		3
Trackless trolley		4
Commuter Rail (North & South)		10
<i>Number of Vehicles</i>		
Bus		1,081
Street car		308
Rapid Transit		333
Trackless trolley		50
Rail Vehicles (36 locomotives; 89 coaches, 92 rail diesels)		217
<i>Ridership</i>		
Weekday (estimated)		506,000
Annual (estimated)		151,400,000
<i>Number of Stations</i>		
Rapid Transit		72
Commuter Rail (North & South)		84
<i>Miles of Track</i>		
In subway		30
Bridges, elevated or surface		90
Rapid Transit (one way)		38.9
Commuter Rail (one way) (North & South)		259
<i>Revenue Miles</i>		
Bus		22,367,682
Rapid Transit		9,669,877
Street car		5,093,884
Trackless trolley		860,367
Commuter Rail (North & South)		5,231,788

Source: 1978 MBTA Annual Report.

Subsidized Commuter Railroad and Bus Company Services

Under its basic statute, the MBTA is authorized to contract with governmental agencies, private transportation companies, and railroads for construction, operation, and use of any mass transportation facility and equipment held or later acquired by the Authority or for the joint or cooperative operation of equipment of any mass transportation facility with another party or for the whole or part of any operation of mass transit. Any such agreement with a private company must include service standards established by the Authority, if that service is to be subsidized or leased, and if any part of the cost is to be financed by the Authority. Mass transportation services operated directly by the Authority, or by parties under contracts with it, are not subject to the jurisdiction and control of the State Department of Public Utilities, except as to the safety of equipment and operations. Those services by private carriers are also exempt from local licensing requirements other than local common carrier permits specified for private transportation companies operating over local streets. The MBTA is totally exempt from local licensing requirements in the operation of its own direct services.

Commuter Rail Service. Since 1964, commuter railroad service has been maintained by the railroads on certain of the Boston area lines, between downtown Boston railroad terminals and outlying suburbs under contracts negotiated with the MBTA.

The original MBTA law of 1964 allowed the Commonwealth to contract with the MBTA to pay up to \$5 million (but not over 50%) of the Authority's cost of its commuter railroad service agreements. In 1967 the General Court increased the state's contract assistance to 90% and in 1972 to 100% of the commuter rail service being provided by the Boston and Maine Railroad to Northern localities and by the Penn Central on the South line, both under MBTA administrative control.

Currently, the MBTA commuter rail lines provide service to the following 37 North line communities, with cities identified by capital letters:

Acton	BEVERLY	GLOUCESTER
Andover	Billerica	Hamilton
Arlington	BOSTON	HAVERHILL
Ayer	CAMBRIDGE	Ipswich
Bedford	Concord	LAWRENCE

Lexington	MELROSE	WALTHAM
Lincoln	NEWBURYPORT	Wenham
Littleton	North Andover	Weston
LOWELL	Reading	Wilmington
LYNN	Rockport	Winchester
MALDEN	SALEM	WOBURN
Manchester	Swampscott	
MEDFORD	Wakefield	

Localities to the south and west of Boston receiving similar rail service include:

ATTLEBORO	Mansfield	Stoughton
BOSTON	Natick	SPRINGFIELD
Canton	Needham	Walpole
Dedham	NEWTON	Wellesley
Framingham	Norfolk	Westwood
Franklin	Norwood	WORCESTER
Foxborough	Sharon	

MBTA Funding. Since July 1, 1918, public policy in Massachusetts has been that the transportation network in Greater Boston is a public service of such benefit to individuals, businesses, and government that the public through real estate taxation pays the difference between income and expenses of operating service.¹

That public policy was implemented when five public trustees began operating the Boston Elevated Railway Company (the "EI") under the lease conditions of the Public Control Act passed by the legislature on May 22, 1918. This occurred six years after the Boston Elevated Railway Company reported its first deficit, amounting to \$429,000. In 1913, the Company lost \$496,000 and there were small surpluses in 1914, 1915 and 1916, but in 1917 there was a loss of \$118,000. In the first half of 1918 when the "EI" was still under private control, losses amounted to \$572,000 and maintenance was being deferred while the company awaited public takeover. Consequently, a large public investment had to be made and the deficit for the first 12 months of public control was \$3.1 million.

In 52 of the 60 years since 1918, public transportation in Boston and vicinity has incurred a deficit. The eight years of surplus were 1922,

1. MBTA Annual Report, 1978.

1923, 1927, 1928, 1929, 1942 and 1943. The Massachusetts Bay Transportation Authority, when it took control of the system from the Metropolitan Transit Authority in 1964, inherited a deficit of approximately \$6.9 million.

The sources of funding for public transit, primarily passenger revenue and local taxation, were expanded to include the federal government with the passage of the Urban Mass Transportation Act of 1974. In 1977 the Authority became eligible for additional assistance in the funding of commuter rail operations. For the year ending December 31, 1979, the Authority received \$36,500,000 in Federal operating grants.

Total income in 1978 (principally from fares) amounted to \$67,670,039 and total current expenses were \$266,590,235, leaving a cost of service in excess of income of \$199,920,196. Currently the MBTA employs 6,554 persons who receive a total of \$121,425,860.87 in wages.

Municipal Assessment Procedures. All 79 cities and towns in the MBTA district pay a share of the MBTA yearly deficit or net cost of service. The assessment formulas for sharing the deficit were originally spelled out in the 1964 legislation creating the MBTA but they have been amended from time to time by the legislature to make the assessment more fair and equitable.

Assessments are governed by two basic types of MBTA service, "express" service and local service. Express service refers to rapid transit service on controlled rights of ways, while local service refers to MBTA buses, trackless trolleys, and street cars on local streets. The net cost of providing each of these types of service is calculated separately and allocated by a different formula. A large portion (75%) of the express service deficit is distributed among all cities and towns while the remaining 25% is assessed to those municipalities with rapid transit and rail service only. The shortfall in local service is assessed at 50% to the 79 cities and towns, with the remaining 50% additionally assessed to localities which have bus service outside the district.

To determine the operating loss incurred in each community, costs are first identified with a mode of service: bus, trackless trolley, and street car. All direct costs are identified directly with the appropriate mode, and indirect costs are allocated to modes largely based upon the direct charges to each mode each month. Costs by mode are then allocated to specific routes by means of one of six indices depending upon the type of expense involved. Direct costs of operation of each

rating station (depot) are charged to routes originating from that rating station. For example, costs of operating and maintaining routes from the Quincy garage are allocated only to routes in the Quincy rating station.

Fare box revenue is sampled on each route four times yearly, and the difference between operating cost and annual revenue determines the yearly profit or loss for each route. This profit or loss is allocated to each city or town on the route, on the basis of mileage. If a city or town elects to have no local service, buses then make no stops in the community and the profit or loss from routes passing through that town is distributed among the other localities on the route. For all cities and towns with local MBTA service, the losses and profits from the community are totaled. Half of the MBTA's local service assessment is then based on the percentage of local service operating losses incurred in each municipality.

The MBTA assessment procedures are designed to reach two objectives. The first objective is to recognize that the cities and towns in the MBTA district comprise an integrated transportation district, that all municipalities benefit by the system, and therefore all must share some of the deficit. The second objective is to assess a greater portion of the cost of operating the MBTA on those cities and towns that get a greater degree of service.

The MBTA's net assessable cost of service to the 79 cities and towns, which was assessed to them in November, 1979, was \$146,289,972. Total income in 1978 amounted to \$67,670,039 and total expenses were \$266,540,235, leaving a cost of service in excess of income of \$198,920,196. The difference between the cost of service in excess of income and the net assessable cost of service resulted from state reimbursements of \$24,696,562 for the MBTA debt service; additional state aid of \$1,305,265 for the commuter railroad service outside the MBTA district and federal operating assistance of \$26,628,398.

Regional Transit Authorities

The Regional Transit and Transportation Authority Enabling Act of 1973 (c. 1741) added a new Chapter 161B to the General Laws.

Chapter 161B provided for two types of transportation entities outside the MBTA district: (1) ten regional transit authorities centered on standard metropolitan area statistical districts, whose basic territo-

ries are defined by Chapter 161B and (2) regional transportation authorities whose municipal members are not enumerated by statute, and which may be created only in areas not included in a regional transit authority district or in the MBTA district. Thus, Chapter 161B created ten regional transit authorities having an aggregate membership of 95 cities and towns. To date all ten authorities have been established as indicated in the following description:

(1) The Southeastern Regional Transit Authority includes: FALL RIVER, NEW BEDFORD, Acushnet, Dartmouth, Fairhaven, Free-town, Somerset, Swansea, and Westport.

(2) The Greater Attleboro-Taunton Regional Transit Authority includes: ATTLEBORO, TAUNTON, Berkley, Dighton, Mansfield, Norton, North Attleboro, Raynham, Rehoboth, and Seekonk.

(3) The Brockton Area Transit Authority includes: BROCKTON, Abington, Avon, Bridgewater, East Bridgewater, Easton, Hanson, Stoughton, West Bridgewater, and Whitman.

(4) The Massachusetts Regional Transportation Authority includes: GARDNER, FITCHBURG, LEOMINSTER, Lunenburg, and Westminster.

(5) The Merrimac Valley Regional Transportation Authority includes: HAVERHILL, LAWRENCE, Andover, Groveland, Merrimac, Methuen, and North Andover.

(6) The Lowell Regional Transportation Authority includes: LOWELL, Billerica, Chelmsford, Dracut, Tewksbury, Tyngsboro, and Westford.

(7) The Berkshire Regional Transit Authority includes: PITTSFIELD, Dalton, Lanesborough, Lee, Lennox, Hinsdale, and Richmond.

(8) The Lower Pioneer Valley Regional Transportation Authority includes: CHICOPEE, HOLYOKE, NORTHAMPTON, SPRINGFIELD, WESTFIELD, Agawan, Amherst, East Longmeadow, Easthampton, Hadley, Longmeadow, Ludlow, South Hadley, West Springfield, and Wilbraham.

(9) The Worcester Regional Transportation Authority includes: WORCESTER, Auburn, Boylston, Grafton, Holden, Leicester, Millbury, Paxton, Shrewsbury, and West Boylston.

(10) The Cape Cod Regional Transit Authority includes: Barnstable, Bourne, Brewster, Chatham, Dennis, Eastham, Falmouth,

Harwich, Mashpee, Orleans, Provincetown, Sandwich, Truro, Wellfleet, and Yarmouth.

The aggregate number of passengers served within all 10 districts on an annual basis is an estimated 1.9 million persons. Service is provided by buses only.

Other transit authorities in operation include the recently established Cape Ann Transit Authority (Gloucester, Ipswich, and Rockport) and the Greensfield-Montague Transit Authority (Acts of 1920, c. 599).

CHAPTER III. CRIME AND VANDALISM ON PUBLIC TRANSPORTATION

Definition of Crime

There are many definitions and classifications of crime, depending upon the individual's intended purpose and the precise statutory language. Crimes are generally divided into felonies and misdemeanors according to the severity of the punishment accorded. In most jurisdictions misdemeanors are offenses for which the maximum period of confinement is one year, while felonies generally call for a State Prison sentence of more than a year. There is, however, considerable differences among the courts which have authority to place acts in either of those categories.

Crime is generally classified by those features that most closely affect their measurement and control. Basic to that determination is the distinction between offenses in which one person is regarded as the victim and crimes in which all persons involved participated willingly and do not consider themselves injured in any way. The following Table 3 indicates various indices which influence the classification of acts as criminal.

Table 3. Summary-Classification of Crimes

Type of Crime	Examples	Victimized Participants
Predatory		
Willful predations	Theft, burglary, rape, murder, robbery, kidnapping, assault	Yes
Criminal negligence	Reckless driving, careless construction, speeding	Yes

Type of Crime	Examples	Victimized Participants
Non-predatory		
Illegal performance	Drunk, nudity, vagrancy, disorderly conduct	Usually not
Illegal selling	Narcotics, prostitution	No

Source: President's Commission on Law Enforcement and Justice, 1965.

Predatory crimes (preying on others) can be divided into two categories, willful predations and criminal negligence, according to whether the offender purposely intended to bring harm to another or whether the offender failed to take necessary precautions against accidental injuries.

Predations are further divided into crimes against the person and crimes against property. Crimes against the person are considered acts which intend to injure, hurt or restrain, such as physical attacks, kidnapping, and forced sexual involvement. Property crimes are acts of willful predation in which money or other goods are stolen.

Crimes against the person range in seriousness from the misdemeanor of simple assault, which may only be a push or a punch, to a felony of murder, which is an intentional killing. Between the extremes of simple assault and murder are the offenses of (1) non-negligent manslaughter which is the unintentional killing as a result of an unintended assault, and (2) aggravated assault which is attempting to inflict bodily injury, inflicting bodily injury or attempted murder. However, the most common predatory crime against a person is rape.

Property crimes include theft (larceny) which means the taking of a person's property, as in shoplifting or burglary, the latter being the legal term for breaking into a building to commit a felony. Fraud, a misrepresentation to obtain money, services or goods is usually accomplished by forgery, which is altering or the signing of another's signature to a check or document. The use of deceit to obtain money or other property is defined as larceny by trick.

Robbery is the taking of goods or money by force or the threat of force. The holdup or armed robbery is its most common form although

unarmed robbery through violent assault (mugging) causes more injuries to victims than does armed robbery.

Most tables in the FBI's annual crime register list murder, non-negligent manslaughter, aggravated assault, rape, and robbery as violent crimes while listing property crimes as nonviolent.

Indexing of Crime

In 1927, the International Association of Chiefs of Police established a plan for the reporting, tabulation, and classification of all crimes. With the financial and technical assistance of the Federal Bureau of Investigation, some 32 states had established crime indexing systems by 1978. The main objective of a crime indexing system is to establish lists of criminals who would most likely be responsible for current unsolved crimes, and for criminal acts likely to occur. There are currently seven indexed crimes which are reported into the Massachusetts indexing system: murder, non-negligent homicide, larceny-theft, aggravated assault, forceable rape, robbery, and burglary.

One method employed by many police agencies to establish criminal statistics is the recording of criminal acts through reports by victims. While this procedure may be considered an accurate listing of known crimes, it fails to consider those criminal acts which are victimless such as vandalism to private and public property. Acts of vandalism against public and private property are difficult to assess due to the factors associated with the commission of the act. Vandalism usually occurs during a time period when witnesses are not normally available, such as late evening or early morning hours, or in areas where citizens are least likely to pass by, such as deserted factories, bus or freight yards.

Causes of Crime

Sociologists have established models in which environmental and economic conditions are said to influence the level, type, and characteristics of crime and the criminal. Blighted, densely populated neighborhoods teeming with urban decay, unemployment, racism, inadequate housing, and social labeling produce, according to one model analysis, a greater amount of criminal activity than neighborhoods in which the quality of life is supported by a stable family oriented environment and relatively free from serious socioeconomic impairment. Adding some credibility to this analysis, the Massachusetts

Commission on Probation, in review of 5,000 cases in district and superior courts from 1975 to 1978, concluded that persons between the ages of 17 and 25 and residing in identified socially, economically depressed neighborhoods represent the highest percentage of persons convicted of malicious destruction of property. Of those persons convicted for vandalism, the report indicated that 81 percent had a record of one to three prior offenses involving crime against property and of these, 83 percent had previous criminal juvenile records. While all criminal activities cannot be traced to persons who hail from deprived environments, that circumstance, in combination with other factors such as age, sex and race, must be weighed in identifying people with potential criminal propensities.

The following table identifies by percentage the sex of those who have committed crimes in 1978 in the Commonwealth, based on each group of 100 arrests for the identified offenses.

TABLE 4. *Criminal Activity by Sex and Race*

Type of Crime	Men	Women	Whites	Blacks	Other Minority
Petty theft-larceny	89	83	43	54	2
Disorderly conduct	85	76	38	60	2
Assault	49	5	41	57	2
Robbery	11	1	37	61	2
Burglary	17	4	39	60	1

Source: Boston Police Department Data Center (criminal activity-period of January to June 1978), and Federal Bureau of Investigation, *Uniform Crime Reports, 1978* (race).

The data reveals that men and women are almost equally responsible for criminal activity in the area of larceny and disorderly conduct, an indication that such offenses are frequently committed with accomplices.

An analysis of offenses by age using the same categories of crime indicate that young persons of the age classes below are most frequently involved in criminal activities than persons over 30.

TABLE 5. Average Age of Selected Crime Offenders

Type of Crime	Men/Age	Women/Age
Petty theft-larceny	18	16
Disorderly conduct	17	17
Assault	24	21
Robbery	22	28
Burglary	23	29

Source: Federal Law Enforcement Assistance Administration Newsletter, March 1979.

In the light of the above documentation it would appear that males between the ages of 18 and 30 commit crimes more frequently than all other age groups.

In addition to the above influences on criminal behavior, some clinical psychotherapists ascribe crime to defects of personality, which they attribute to inadequate resolution of childhood emotional problems. But these specialists offer diverse theories on the particular kinds of early experience that cause later misconduct. Also, there are those who have chosen illegal behavior, due to biological factors, as a life's ambition.

Finally spontaneous criminal acts are those acts which occur when the offender has an available target which carries with it a minimal amount of risk such as windows on a deserted building or buses in an unlit storage yard.

MBTA Crime Statistics

Tabulations compiled by the Authority documenting various forms of crime committed on MBTA property are used primarily to provide police and public officials with sufficient information to maintain proper police protection of passengers and equipment. The following table is a tally of reported incidents on all MBTA lines which are connected, such as the subway routes and connecting bus and surface lines. Some law enforcement officers question the validity of the data in reflecting the incidence of crime on the MBTA. An examination of

the file on Authority premises by the author of this Council report indicates that there are many flaws in the reporting and recording practices.

TABLE 6. Line Totals on MBTA Incidents
by Type of Offense
(January through June 1979)

	Red Line	Blue Line	Orange Line	Green Line	Bus	High Speed	General	Grand Total
Robbery	11	15	136	25	13	4	1	205
Sex Offenses	8	—	11	10	1	—	3	33
Police Response	320	114	407	333	110	57	36	1,377
Motor Vehicles	7	39	43	4	24	3	6	126
Missiles	76	35	49	10	157	46	36	409
Vandalism	35	40	28	38	67	23	27	258
Missing Property	31	7	35	244	56	—	18	391
Larceny	20	9	102	114	72	7	17	341
Larceny from the Person	—	—	—	—	—	—	—	—
Drugs	1	—	4	—	—	—	1	6
Disorderly	319	108	681	525	58	31	18	1,740
Drunk	109	24	194	219	42	5	15	608
Bomb Threat	14	—	11	1	1	4	12	43
Breaking & Entering	10	15	31	20	3	1	4	84
Assault	33	21	71	45	14	1	10	195
Total	994	427	1,803	1,588	618	182	204	5,816

Source: MBTA Police Department

While the tabulation indicates compatibility with "known" high crime neighborhoods, there is serious question as to the reliability of the data due to a lack of specific definitions for listed offenses. For example, the category "robbery" includes both those incidents which satisfy the legal definition and other related offenses. The MBTA comparison crime statistics for 1975, 1976, and 1977 combine armed and unarmed robbery. The Massachusetts General Laws clearly differentiate between armed and unarmed robbery. Chapter 265, 17

defines armed robbery as "whoever, being armed with a dangerous weapon, assaults another or robs, steals or takes from his person money or other property which may be the subject of larceny, shall be punished by imprisonment in the state prison for life or for any term of years: provided, however, that any person who commits any offense described herein while masked or disguised or while having his features artificially distorted shall, for the first offense be sentenced to imprisonment for not less than five years and for any subsequent offense for not less than ten years." Unarmed robbery is defined in Chapter 265, section 19 as "whoever, not being armed with a dangerous weapon, by force and violence, or by assault and putting in fear, robs, steals, and takes from the person of another, money or other property which may be the subject of larceny shall be punished by imprisonment in the state prison for life or for any term of years." It is quite clear that the statutory definitions of armed robbery and unarmed robbery represent two different offenses, and warrant separate identification in a statistical tabulation.

A more detailed review of the MBTA charts indicates further discrepancies. Sex offenses are listed without explanation as to category or definition. The Massachusetts General Laws categorize "sex offenses" in two main areas: crimes against the person (Chapter 265 and specifically sections 13F, 22, 22A, 23, 24, and 24B) and crimes against chastity, morality, decency and good order (Chapter 272 and specifically sections 2, 3, 4, 14, 17, 18, 35, 35A, 53, 59, and 63).

Since the sex offenses are not clearly outlined it is difficult to establish the impact and the severity of those incidents. The general ridership of the MBTA, when confronted with the term "sex offense", perceives the phrase in such a way as to assume a physical sexual attack has occurred. When asked for a definition of "sex offense", however, MBTA spokesman Hugh Findlay responded that "all known or reported sex offenses are placed into that category".

Perhaps the least identifiable statistic recorded by the MBTA is the term "Police Response". While generally understood to mean that the MBTA police have responded to a call for help or to investigate a disturbance or potential disturbance, this category, according to the MBTA Research Director, Hugh Findlay, includes special duties, assignments, shifts in assignments to cover sick days and vacation, and general security assignments. Given this factor, it would appear that

the conclusion drawn (1,377 police responses from January to June 1979 result in an average of 229.5 responses per month or 3.825 per month for each of the 60 patrolmen) is debatable.

Motor Vehicle violations were found to be supported by specific complaints issued by Registry of Motor Vehicle officers rather than by MBTA police. These violations were usually incidents in which accidents have occurred or when cars or trucks became stalled or disabled, thereby disrupting service on surface vehicle lines.

Any object hurled in the direction of passenger or MBTA vehicles is placed into the "missiles" category. While no objection is raised with that definition, it should be explained that, according to MBTA officials, this includes everything from "snowballs to rubberbands".

Vandalism is a catch-all column. It includes known acts of vandalism in which an arrest is made, to discovered acts of vandalism and any damage to vehicles or stations which cannot be otherwise accounted for.

Since "missing property" is a verifiable two party situation in which a person reports that personal property has been lost, and the report is received and recorded, there is little reason to doubt that the figures represent actual occurrences. What is noteworthy, however, is that the MBTA maintains no files to indicate whether such property is returned to the owner upon recovery. Accurate record keeping would insure MBTA personnel against exposure to unfounded complaints of misappropriation in such instances.

Larceny statistics and the recording thereof are subject to question in two areas. The first is concerned with the Authority's interpretation of the statutory definition of the offense. Chapter 266, section 25 defines larceny as "stealing from the person of another" and Chapter 266, section 30 covers the intent to defraud by false pretense and the theft of money, property and other objects. However, the MBTA Police Department lumps in this category known thefts, as defined by the Massachusetts General Laws, and any theft which is assumed to be larceny such as an unverified report of a handbag snatching. While there is no disagreement with the intent of the MBTA in recording these crimes, its reporting classification in this area severely limits any clear understanding as to the level of thefts actually occurring.

The categories of drugs, disorderly, drunk, and bomb threat are considered to be the most reliable areas in which statistical tabulations

have been recorded. No explanation exists for this conclusion other than the material reviewed was supported by more than one other source.

Breaking and entering (B&E) incidents are recorded without follow-up, and in some cases, without investigation. Buses, other vehicles, buildings, and booths which have been broken into are usually discovered by MBTA employees. Some reports, however, indicated a probability that some occurrences should be listed as employee destruction and theft rather than B&E. Since records concerning this area are not allowed public perusal, actual tabulations cannot be verified.

The last category of criminal offense is assault. Chapter 265 of the General Laws defines acts which may constitute various forms of assault such as assault and battery (s. 13A), indecent assault and battery (s. 136), assault and battery to collect money (s. 13C), assault and battery upon certain public officers or employees (s. 13D), assault with intent to murder or maim (s. 15), assault and battery with a dangerous weapon (s. 15A), assault with a dangerous weapon (s. 15B), armed assault (s. 18B), unarmed assault (s. 20), assault with intent to rape (s. 24), and assault with intent to commit felony (s. 29). Since no specific sections are cited with regard to reports of the type of assault, there is serious difficulty in attempting to determine the actual severity of reported tabulations of assault incidents occurring on Authority property and equipment.

Despite the cited irregularities, crime aboard the MBTA, in certain areas, may be less than the average crime rate for the City of Boston. During the period of January to June 1979, 11 robbery incidents took place on the Red Line (Quincy/Ashmont to Harvard), 15 on the Blue Line (Wonderland to Bowdoin), and 136 on the Orange Line (Oak Grove to Forest Hills). During this period the Red Line serviced 14,064,120 passengers, the Blue Line 12,311,880 passengers and the Orange Line 10,905,840 patrons. Thus, on the Red Line one robbery incident took place for every 1,278,556 passengers, for every 820,792 passengers on the Blue Line and for every 80,190 riders on the Orange Line.

Total incidents for the Red, Blue and Orange Lines were 3,224 which when compared to a total ridership of 37,281,840 passengers translates into one incident for every 11,576 passengers. However, it should be

remembered that most offenses listed in the table are not crimes against the person. Crimes against the person (robbery, sex offenses, larceny and assault) for the six month period totaled 437 which means that one incident against the person occurred for every 85,313 passengers.

MBTA Vandalism Costs

The estimated cost of destruction and damage to equipment and property of the MBTA is established through an accounting of employee hours and the cost of materials needed for repair. For the years 1971 to 1978 inclusive, the Authority incurred costs of approximately \$4.3 million to repair or replace equipment or plant property damaged by vandalism.

Labor Hours. Labor hours represent the actual "clocked" time employees worked on jobs which are related to the repair of equipment and property. It is not clear, however, whether all hours clocked for repairs are actually hours worked on repairs related to vandalism. Other factors such as provisions in union contracts whereby employees are assigned to specific jobs for definite periods of time and the requirement that certain employees who have specific job ratings must await the arrival of other rated employees to perform tasks not covered by their immediate job title add hours to the number of hours required to effect repairs. The total number of employee hours, therefore, includes a variety of factors that are not directly related to the actual amount of work performed.

Salary increases on a yearly basis have also added to the cost of repairs insofar as labor is concerned. Moreover, as union contracts become more sophisticated, so does the difficulty in assessing actual labor costs for repairs.

Materials. Fueled by inflation, the cost of materials has placed a heavy burden on the MBTA budget. The steady increase in such expenditures, except for 1974 for which no explanation exists, is second only to labor costs. In the main, replacement material includes windows, seat material, carpentry products, and tires. While the MBTA maintains an adequate surplus of most parts, it is difficult to project which parts will be needed in greater quantity.

Other Services. This category includes contractual agreements with private contractors for repairs, consultants' fees for assessing repairs

and, in some cases, overtime for MBTA police who investigate certain damage caused by vandals.

Restitution/Salvage. This item represents the amount of salvageable material or court ordered restitution paid by persons arrested and convicted of vandalism.

Financial Impact. Since the assessment formula requires that most general expenditures are assessed on all 79 cities and towns within the district, the total cost for vandalism from 1971 to 1978 means that each of the member communities were charged approximately \$52,562.76.

The cost of vandalism is, by any measurement, expensive. The factors involved in calculating those costs are equally expensive. Union contracts which determine the amount of employees working a specific task add untold man hours which cannot be divided into actual hours per man per job. Work shifts in which the repair job was done can add to labor cost if the job was performed by night shift personnel who receive a differential rate higher than day employees. Inflation adds approximately 10% per year to materials cost. Damage to new equipment is often more expensive than damage to old equipment as the sophisticated parts to an LRV are by far more costly than parts of older vehicles. Beyond these considerations is the fact that the MBTA policy on repairs, and related records, does not distinguish damage incurred, which cannot otherwise be accounted for. As a consequence, employee damage is often attributed to vandalism. The MBTA offers no explanation for this except the statement made by Chairman Robert N. Foster during the course of this study that "the cost of vandalism is, without doubt, riddled with the costs of employee damage and we have not yet separated the two into a clear statement of fact".

Crime Experience-Commuter Bus Companies

In an attempt to secure data relative to crime and vandalism experienced by private bus lines, the Legislative Research Bureau through a form questionnaire sought information from 50 bus companies on the following points:

1. Number of Buses or Other Transportation Vehicles Currently in Use.
2. Approximate Number of Cities and Towns Served.
3. Principal County of Operation.
4. Approximate Number of Passengers Served Daily and Monthly.

30

HOUSE — No. 5955

[February

Table 7. Estimated MBTA Vandalism Costs, 1971-1978

	1971	1972	1973	1974	1975	1976	1977	1978
Labor Hours	30,487.7	30,480.6	36,753.3	43,247.3	53,528.6	64,540.2	73,520.1	81,510.1
Labor Costs	\$188,915.51	\$205,538.30	\$264,046.68	\$338,409.11	\$423,553.32	\$510,512.98	\$596,983.21	\$782,775.80
Materials	54,834.97	77,628.48	77,714.60	63,653.12	95,779.93	121,400.20	131,425.31	162,335.20
Other Services	12,397.10	3,189.52	49,620.91	27,637.21	19,966.89	27,420.18	11,247.21	34,420.18
Sub-Total	<u>\$256,147.58</u>	<u>\$286,256.30</u>	<u>\$391,382.19</u>	<u>\$429,699.44</u>	<u>\$539,300.14</u>	<u>\$659,333.36</u>	<u>\$739,655.73</u>	<u>\$979,531.18</u>
Restitution:								
Salvage	286.53	269.28	377.80	27.00	2,787.88	2,425.27	348.29	1,192.20
Total	<u>\$255,861.05</u>	<u>\$285,987.0</u>	<u>\$391,004.39</u>	<u>\$429,672.44</u>	<u>\$536,512.26</u>	<u>\$656,908.09</u>	<u>\$739,307.44</u>	<u>\$978,338.98</u>
Grand Total	<u>\$4,273,591.70</u>							

Source: Massachusetts Bay Transportation Authority

5. Damage to Vehicles.
6. Peak Hours of Vandalism.
7. Day of Week in which Vandalism is Most Likely to Occur.
8. Approximate Cost to Repair Damage Caused by Vandals.
9. Criminal Acts Committed aboard Transportation Vehicles in Last Three Years.
10. What Steps, If Any, Should the Commonwealth Take to Curb Acts of Vandalism and Crime aboard Public Transportation Vehicles?

Of the 20 companies¹ which responded, 15 reported no crimes against the person.² Four had crimes against the person such as pickpockets and purse snatching and one company³ a robbery. All respondents reported acts of vandalism against equipment and vehicles. The approximate number of passengers served by the companies is 18,000,000 persons annually who rode on 350 buses within 169 cities and towns.

The total dollar value of vandalism damage reported by the 20 companies was \$345,000 in 1978 and \$492,000 as of October 1979. The more common targets of vandalism were windows, seat and passenger supports. Damage attributable to graffiti was very frequently mentioned. All reporting companies agreed that more stringent laws against vandalism and added local police protection would help in curbing acts of crime and vandalism.

CHAPTER IV. TRANSPORTATION POLICE & RELATED SECURITY EMPLOYEES

MBTA Police

Prior to March 1965, any reported criminal activities on MBTA properties awaited the response of members of local law enforcement

¹ABC Inc. (Plymouth); Almeida Bus Lines (New Bedford); Bane Bus Co. (Rutland); Bay State Bus Corp. (Brockton); Bettencourt Bus Co. (Milford); Birmingham Bus Co. (Milford); Boston Commuter Lines (Haverhill); Brander Bus Line (Rehoboth); Canton & Blue Hills Bus Line (Medford); Fitchburg & Leominster Street Railway (Fitchburg); Michaud Bus Co. (Salem); Natick Bus Co. (Natick); New England Bus Co. (Acushnet); Northside Bus Co. (Barnstable); Peter Pan Bus Lines (Springfield); Pierce Transit Co. (Dracut); Plymouth & Brockton Street Railway Co. (Plymouth); Rapid Transit Inc. (Winthrop); Trombly Motor Coach Service (North Andover); and Travel Time Inc. (Oxford).

²A review of police reports in four cities serviced by one of the 15 bus companies which reported that no crimes against the person occurred revealed that a total of 11 incidents took place in 1979. There appears to be a reluctance by bus companies to report incidents which may endanger ridership, insurance rates, school bus service contracts and, as a consequence, cast dispersions over the company's ability to protect its passengers.

³Trombly Motor Coach Service (North Andover).

agencies. The response was generally inadequate, being primarily due to the priority of local community commitments. In view of this fact, the general escalation of crime and the Authority's realization that public perception of the system's safety record was affecting ridership, the Board of Directors voted to create an MBTA Police Department. During the planning stages, from March 1965 to January 1966, it was necessary to hire Boston police on a paid detail basis to protect various rapid transit stations. In January of 1966, the Boston Police Department assigned a 35-man force (known as Unit B) to provide this service. This unit was paid for by the Authority and functioned primarily during the day. Special detail men were assigned for night duty. This practice continued until late 1968. In 1968, legislation was passed authorizing the creation of an MBTA police force subject to Civil Service provisions (G.L. c. 31).¹ The police force was formed on December 9, 1968, with the hiring of 30 men, certified by Civil Service and authorized to exercise police powers in the 79 cities and towns of the MBTA district.

The new MBTA police officers were primarily assigned to ride buses in the Roxbury area, and to patrol the rapid transit system. This effort was supplemented as needed by the Boston Police Department in the form of paid details. After the Authority conducted a cost and value analysis of the special paid units, it was determined that a more practical cost-effective approach would be to discontinue the Boston Police details and substitute them with full-time MBTA policemen. Consequently, in 1971, the MBTA Police Department was expanded to its present compliment of 63 patrolmen.

The MBTA Police Department underwent some administrative operational changes during 1978. The command structure was revised with the assignment of a lieutenant to serve as assistant to the chief, and later in the year another lieutenant position was established. The assignment of one lieutenant to day duty and the other to the night shift simplified the chain of command with three sergeants reporting to each of the lieutenants. Two new staff members were added, a manager of planning and research and a new administrative assistant — both with backgrounds in police planning and administration. By the end of 1978, a police communications system was in operation through the use of mobile and portable two-way radios that established communication from MBTA police headquarters at the Cabot Center to all

¹Acts of 1968, c. 664.

officers on the system, between officers anywhere in the system and with other police departments, through the Boston Area Police Net (Bapern). In 1979 the MBTA Board of Directors appointed Mr. John Dow, a retired Boston Police Captain, as chief of police. Since his appointment Chief Dow has established "CARE", the community area response effort, to develop close contact with residents of MBTA neighborhoods in order to establish priorities to prevent and deter crime.

MBTA Starters

MBTA starters are management employees who supervise the operation and scheduling of subway trains, buses, trackless trolleys, and light rail vehicles. Usually located within the MBTA stations, starters are available to advise operators of operational decisions and changes in scheduling or routing due to accidents, emergencies or other events.

In addition to these duties, some starters are authorized to act under special assignment as security personnel. Given special police powers by the City of Boston upon written request of the MBTA, starters may act as police officers upon the premises and vehicles under control of the MBTA. Generally, starters enforce the rules and regulations relative to passengers such as smoking bans, littering, and loitering. They are further responsible for preventing any breach of peace or other criminal acts which occur in their presence.

Railroad Police

Boston and Main Railroad police are organized under Chapter 22, section 9L of the General Laws which reads as follows:

Upon the petition of a railroad corporation, or of a railway company or the Boston Terminal Corporation, or of a railway express agency or a common carrier of passengers by water for hire having a usual place of receiving or discharging passengers within the Commonwealth; may from time to time, appoint as police officers as many of the persons designated as it may deem proper, for the purposes and the powers set forth. Any personnel appointed as a police officer upon the petition of a railroad corporation may act as a police officer upon the premises and vehicles of any corporation transporting passengers or property by motor vehicle under the joint control and management of said corporation and said railroad corporation.

Petitions by railroad corporations on behalf of employees to be appointed as police officers are made to the Department of Public Safety.

The Boston and Maine Railroad police are currently responsible for 189 miles of track, 135 buildings and structures, 200 vehicles, and 42 substations within the state.

In addition to providing protection to the public against the more frequently committed "common law" and statutory crimes, the MBTA and railroad police are responsible for the enforcement of a host of statutes dealing with a wide variety of acts such as loitering, vandalism and interference with the operation of rolling stock. Provisions governing such offenses are found principally in Chapters 160 and 161 of the General Laws.

Recommended Action

Interviews by Bureau staff with various transit employees, such as MBTA policemen and starters, and members of the MBTA Advisory Board indicate a dissatisfaction with current passenger security methods. Generally, those interviewed regarded the MBTA Police Department as inefficient. Criticisms, however, were not directed toward individual employees, but upon the methods of operation and the ability of the department to meet security needs. There is apparent unanimity among those interviewed in the following areas:

1. The MBTA Police Department is too small to be effective.
2. Communication equipment is not sufficient.
3. The MBTA Police Department lacks a crime prevention program.

Other criticisms involved general operation methods such as shift assignments, overtime, training, public relations, and police visibility.

The following text summarizes the recommendations made in interviews to correct the apparent deficiencies.

The MBTA Police Department should be expanded to a staff of 200 patrolmen, each to be trained at the State Police Academy. Shift assignments would include: 50 patrolmen assigned to the 8-5 pm shift, 100 patrolmen to the 4-1:00 pm shift, with the remaining 50 assigned to revolving shifts. The command staff should be augmented to include two more lieutenants and two sergeants who would act as shift supervisors, and two captains, one of whom would act as shift commander on the 4-1:00 pm shift and the second would supervise the 50 revolving policemen.

It is also suggested that the department be vested with greater autonomy, thus freeing it from compliance with MBTA administrative directives, which often include reassignment of personnel to stations as a result of passenger complaints which are often not properly screened.

Equipment in the form of electronic surveillance devices such as TV monitors and station "call for help" buttons should be purchased for the department. MBTA police substations should be located at central line locations such as Egleston Station, Fields Corner, North Station and Boylston. Critics contend that the use of substations would reduce response time by policemen and would provide a visible deterrent.

Public relations should be stepped up with visits by MBTA police employees to schools, community centers, and neighborhood civic meetings.

Although, as has been indicated, these proposed courses of action originated from several sources, none of the advocates furnished any cost estimates of implementation, or references to funding sources.

Chief John Dow of the department indicates that the department has some difficulties but, as of the time of this report, he has not proposed any formal recommendations for changes either in policy areas or the structure of the police unit.

CHAPTER V. SECURITY PROCEDURES ELSEWHERE

Transit System Usage

Today, in the United States, there is no urban public transit system which can be considered a serious competitor of the private automobile for commuter preference except perhaps in New York City where driving is so difficult and parking costs so prohibitive. According to the 1978 report of the American Public Transit Association (APTA), the combination of bus,¹ street car, urban rail, and commuter rail accounts for only 5.5 percent of the commuter trip miles. During the 1965-1975 decade, while urban automobile usage increased 74 percent in passenger miles traveled, bus usage dropped 26 percent and commuter rail 8.5 percent. Since 1975, with the massive infusion of public funds, the downward trend in transit use has been arrested. However, patronage continues to remain at a low ebb because urban transit systems have not offered a service which attracts people away from their automobiles. A factor contributing to the negative response to public transit is

¹Includes trolley-bus but excludes school bus.

the notoriety given to criminal actions committed on the systems which cultivates an impression on the part of the public that one travels "at your own risk."

External Security Devices

From the viewpoint of a traveler, personal security is a very important service feature of any public transportation system. Protection of the system from vandalism and property damage is of less direct concern to the average rider, except that the steps taken to curb vandalism may impinge on the kind of service offered.

For obvious reasons, most transit companies will not reveal the details of security systems currently in use. Hence, the following text treats the physical improvements implemented in Montreal, New Jersey, Los Angeles, New York City, Chicago, Philadelphia, and other selected cities in which data were obtainable.

The question of passenger security begins when the passenger enters the vehicles or premises of the carrier. Clearly the larger security problem is the walk through city streets on the way to a station or vehicle, but this is beyond the responsibility of the system operator.

In many cities closed circuit television surveillance of the station platform is frequently used. Elevators to the stations and station platforms are an effective crime deterrent. The Montreal transit system is considering the use of video surveillance on board trains which travel late at night when personnel is at a minimum. Massive lighting programs have been undertaken in New York, Los Angeles, and Philadelphia. "Call for Help" buttons are currently being installed as an experiment in New York and Los Angeles. A passenger would, if threatened, push a "call" button which would notify security personnel on patrol that a passenger is in danger. Fines and penalties for misuse of the system by pranksters are the same as for the offense of false fire alarms, a maximum fine of \$10,000 or imprisonment for a minimum of five years, or both.

More and more carriers are demanding that passengers have the exact fare, and locked fare boxes are considered a strong deterrent against theft and robbery. Transport of New Jersey (TNJ) equips its vehicles with hazard lights which, when flashing, indicate a need for police assistance. Moreover, all new buses that TNJ is acquiring are equipped with unbreakable windows and broken glass windows will be replaced with this material.

Other systems and techniques tried by other carriers include:

1. Two-way voice communication. Radios installed in buses permit operators to talk to dispatchers in a central location at any time.

2. Tele-camera. Such cameras have been placed in buses in San Diego and recording is made when activated by the operator.

3. Security force. The Baltimore Mass Transit Authority has its own private security force which responds to emergencies when impractical for local police to do so.

4. Uniformed passengers. The Southeastern Pennsylvania Transportation Authority (SEPTA) encourages uniformed persons to ride their buses free of fare as a psychological deterrent.

5. Audio recording. The Bi-State Transit Authority in St. Louis records telephone and radio conversations for future administrative and legal uses.

6. Helicopter Patrol. The Newark division of the Erie-Lackawanna Railroad uses a helicopter to patrol the tracks within a 16-mile radius. The main objective of the helicopter patrol is to increase the effectiveness and mobility of the railroad police. Railroad helicopter patrols are presently operating in Philadelphia and New York City.

The Chicago Transit Authority (CTA) employs, either through direct employment, temporary employment or contractual agreement about 1,200 persons who are involved in transportation security and passenger safety. The Authority's security structure includes a police force, station guards, decoy passengers on buses, investigation units, and police planning and research personnel.

In 1978, the CTA recorded 11,000¹ incidents of crime and vandalism. Of those incidents, over 9,000 related to acts of vandalism, 1,000 involved crimes against the person such as robbery, assault and sex offenses, and the remainder involved offenses against property such as

¹Rounded to the nearest 1,000.

larceny, pickpocketing and handbag snatching. Of those crimes against the person, 409 involved CTA employees such as trainmen and bus drivers who were robbed or assaulted. Crimes against property largely involved passengers; however, CTA notes an increase in stolen employee property, such as wallets and handbags.

The CTA has given priority to patron security and the reduction of vandalism as the main focus of its crime prevention efforts. This security effort includes:

1. Vehicle radio system. This system is monitored by the radio dispatcher's office.

2. Closed circuit TV surveillance of stations, platforms and buildings.

3. K-9 patrols, particularly in stations where high incidence of crime occur.

4. Community education programs. CTA employees visit schools and community organizations to inform citizens of security procedures and provide information on crime.

Federal Assistance

While no direct funds are available for security under Department of Transportation grants, transit systems have utilized federal money to serve a dual purpose for security and equipment improvement and maintenance. The design of physical property such as stations and terminals to include adequate lighting, communication facilities and passenger safety devices, such as "help" buttons and emergency phones, have helped transit officials in Chicago, California and New York in combating crime. Choosing alternative materials for windows, such as nonbreakable plastics and vehicle seats made from hard plastics, has proven to be cost efficient and a deterrent to vandals.

To date, it appears that the MBTA has used federal grants to underwrite only one security-related development, namely the purchase of portable radios for police department use. Since the MBTA has been criticized for the lack of a clear policy relative to combating crime within its jurisdiction, it is difficult to assess the projected use of federal transportation grants for the security needs of the MBTA.

END