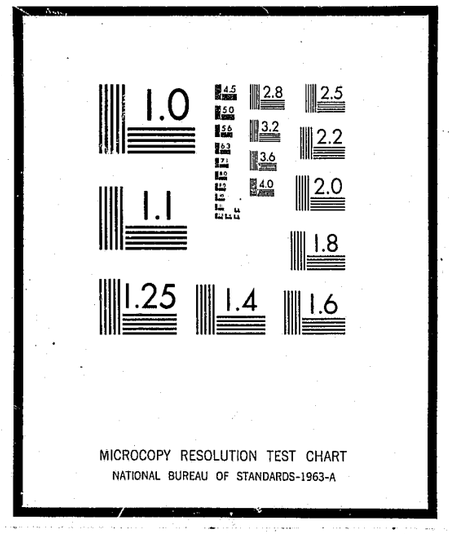

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Crime In Mass Transportation Areas: An Overview

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15395

July 13, 1973

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Introduction

Concerns for improved personal and property safety within and around mass transportation areas are becoming more and more apparent as new and increased mechanical and manpower strategies are employed to immunize against criminal attacks.

As an example, at least two of the transit systems presently under construction, Washington Metropolitan Transit Authority(WMTA) and Bay Area Rapid Transit System (BART) are investing sizable resources in the development and operation of security systems. Alarm systems with on-site control centers for intrusion detection, video cameras for crowd surveillance, turn stiles for pedestrian control and security force personnel for law enforcement and emergency assistance purposes represent some components of these planned security programs.

The question arising as the result of emerging and expanding security programs is: Upon what set of criteria were the needs and subsequent design of these systems based?

In attempts to answer this question, a look at the two aforementioned systems - WMTA and BART - revealed a lack of objective criteria for decisions on security design. WMTA found little information available which could be used to compare its security requirements with those of another system and thereby determine the

resources needed to meet these requirements. 1/ Therefore, the design of this system was based on the "best data" available and on the projections of what knowledgeable persons in the field thought security needs would be. Lack of scientific criteria was evident for BART security system design as well, and the security manpower level has been based on arbitrarily fixed budget limitations. 2/

It is possible that BART may already be witnessing repercussions from these budgetary constraints. Crime records of the first months of their brief period of operation indicated a total of 212 offenses between September 11 through November 10, 1972. Over one-half of these crimes were classified as vandalism, trespassing, and disorderly conduct. There were 15 felony stranger-to-stranger crimes and another 18 felony incidents of vehicle theft or burglary of a vehicle. However, authorities there have taken an "optimistic" view of the problem since there were marked decreases in the December statistics. They suggested that the previous criminal proliferation was probably normal for a "start-up" operation.

Intuitively it is believed that mass transportation environments foster and facilitate the opportunity for numerous criminal activities and in many cases, these incidents are independent of criminal displacement from one environment to another. Some transit users may

1/ Arthur Young and Company, "A Report on the Requirements for Establishing a Metro Security Program," Washington Metropolitan Transit Authority, December, 1972, p.20.

2/ Ibid.

recall personally witnessing cases of disorderly conduct aboard vehicles, harrassment of passengers, or persons attempting to avoid paying fares. Some may even be aware of at least two separate murder incidents on the New York subway in 1965. Although these isolated cases are not very difficult to document, from a national focus we know very little about the total volume and impact or potential threat of crime within these systems.

This point, in fact, is further voiced by Gordon Misner 3/in his statement that . . . "criminal attacks upon transportation systems are not a new phenomenon (and) should logically suggest that there would be an existing body of literature on this particular subject. However, in attempting to compile such information he found that no such body of literature existed."

Thus, this investigation has been initiated to examine the crime problems within and generated by mass transportation systems and to suggest the development of solutions to deal with these problems.

Data Source

In compiling data for the present report it was found that there is no single private or governmental agency to which rapid rail transit systems report crime in a regular and comprehensive manner.

3/ Misner, Gordon, "Reduction of Robberies and Assaults of Bus Drivers," Department of Transportation Demonstration Project CAL-MTD-11, December, 1970.

In addition, attempts to gain access to individual transit authority crime information were lengthy and detailed processes which, in most cases, were not productive endeavors.

Transit authorities in several cities were contacted for information regarding crime problems. Robert Rapp, Chief of New York Transit Authority, assigned a deputy to assist in providing crime data. The Assistant Superintendent of Security Operations of the Chicago Transit Authority, Norman Graver, was resourceful in securing limited data on crime in Chicago.

In addition to Chicago and New York resources, staff members and publications of Arthur Young, Inc., and the Metropolitan Washington Council of Governments (COG) were consulted. The Arthur Young firm was contacted because of their most recent involvement in designing the WMTA and BART security systems. Additionally, a number of studies were reviewed, such as Gordon Misner's "Reduction of Robberies and Assaults of Bus Drivers," which provided information on transit systems of Boston, Cleveland, Toronto, and Port Authority Transit Corporation of Pennsylvania and New Jersey.

Limitations of Data

Although the data collected do substantially define research needs in what appears to be a grossly overlooked crime environment, these data are inadequate, in terms of quality and quantity, to support definitive conclusions regarding the volume and total impact of mass transportation crime.

Three particularly important limitations must be considered in reviewing the crime statistics presented by this report:

(1) In many cases transit crimes are not reported to the transit police.

In New York, for instance, transit security staff are not always aware of crimes attended to by non-transit police.

Considering that this problem exists within a system that employs a 3382 person security force, it can be expected to occur, on an even larger scale, in cities with less or no specially-designated transit police.

(2) Among those crimes recorded, variations in crime categories used preclude uniform reporting.

There is no consistent and uniform system for recording data on transit crimes.

Even for those crimes which are reported, record-keeping procedures are often inadequate. Major variations exist between different transit systems in the types of crimes recorded and even within a single system there may be inconsistencies in the categorizing and processing of crime data. A subcommittee of the American Transit Association was recently formed to study this issue, however, this report does not benefit from its findings. Examples of data inconsistencies in this review were interchangeable uses of two or more crime categories, the

selective recording of crimes, and the failure to acknowledge certain crimes (especially "fare evasion") as either relevant to or part of transit criminal activity. Also noted is the fact that some systems record crimes primarily for insurance purposes, thereby providing only indirect or coincidental measures of criminal behavior. 4/

This lack of uniform recording is a severe limitation in establishing any truly thorough and adequate analysis or comparison from being made, either between systems or within a system over time.

(3) It is difficult to secure data from transit authority agencies.

A third limitation on the data reported is the reluctance of many transit authorities to make records available for inspection. Requests for crime information were denied by most transit authorities contacted. Attempts to discover reasons for denial uncovered several opinions. One (held by a BART transit official) was that systems do not maintain accurate and complete files of crime data, thus making inspection impossible. A second view (as expressed by an Arthur Young staff member) emphasized "image" reasons for keeping crime data confidential. For example, "the New York system is reluctant to reveal the extent of its problem.

4/ Misner, op. cit., p.36

Presently they are doing as much as they can about it, and further disclosure would label them ineffective". . . . since crime remains despite a $103 million security budget.

Whatever the reasons, however, the resulting unavailability of transit crime data is a major problem, not only as an impediment to sound research, but also as a problem in the determination of law enforcement priorities.

In addition to the analytical restrictions generated by the three preceeding problems, transit crime data comparisons are limited even further by other factors such as inter-system differences in record-keeping years and lack of criteria for evaluating data reliability and validity. All of these issues must be borne in mind in considering the statistical material presented in the following report. The data cannot be taken to represent accurate measures of transit crime in either a comparative or conclusive sense and should be viewed instead as indicators of the types of crime patterns which exist in transportation environments. In the latter capacity the data should contribute to an understanding of the transit crime problem and can be utilized effectively in designing security strategies for transportation systems.

Patterns of Crime

The following discussion will present data for the four crimes occurring most frequently in transportation areas: robbery, auto theft,

vandalism and assault. However the Attachment should be consulted to understand the relationship between these crimes and the total data provided by each individual system.

Robbery

Over the past decade bus robberies have comprised a large proportion of transit-related crimes. Some evidence of the graveness of this type of offense was revealed in a 1968 American Transit Association survey of 211 transit companies. Findings from this survey showed that 990 of the total 1,665 robberies reported within the first five months of 1968 were found in as few as seventeen of the major transit systems. In addition, study results indicated that robberies almost tripled between 1966 and 1968 and injuries to bus drivers as the result of various crimes on buses showed a similar increase. More tragically, injuries resulted in deaths of three drivers in the first five months of 1968, two drivers in 1967, three in 1965 and one in 1964.[5/]

To isolate the bus robbery problem even further, the Chicago Transit Authority records for 1968 reflected 472 total robbery incidents of which 338 were robberies of bus drivers.

TABLE ONE

Number of Transit Related Robberies (includes purse snatch and pickpocket)

		Number	% Of Total Crimes
Boston	(1971)	1669	78.0
Chicago	(1968)	472	31.0
New York	(1972)	3227	55.0

1/ American Transit Association, Data Sheet 669 -- "Robbery of Bus Operators," Washington, D.C. Also see Misner, page 13, as well as Feeney, Floyd. "The Prevention and Control of Robbery" Vol. I, University of California at Davis, 1973, p. 314.

Of the six transit systems reviewed in this investigation robbery was the most prevalent crime in at least three and had the highest aggregate rate of all crimes reported.

More than three-fourths of Boston's crimes in 1971 were those of robbery; and over a period of five years (1967 to 1971), pickpocket crimes alone increased by 500 percent. It is impossible to determine the number of bus driver robberies from the data available.

Robbery was New York's most frequent transit-related crime in 1972, accounting for more than one-half (3227) of all reported transit crime.

A system of "non-cash", "ready fare" "script" or "exact fare" is expected to decrease robberies of transit personnel. At the present time such systems appear to be effective. A study of fifteen companies, conducted by Stanford Research Institute (SRI), concluded that ten of the fifteen companies showed a 100 percent reduction and the lowest reduction reported was 70 percent.

A subsequent study which anticipated that robberies may begin to recur once the system had been in operation for a longer period of time, found that decreases per month ranged from 100 percent to 86 percent. The post exact fare time periods for which data was provided ranged from 6 months to three years.6/

In spite of the positive benefits that non-cash systems obviously

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6/ Stanford Research Institute and University of California In Connection with U.S. Department of Transportation, Reduction of Robberies and Assaults of Bus Drivers, Vol. III, p. 14.

Also see Feeney Vol. I, p. 314.

provide, one outstanding consideration must be addressed --- exact fare systems will have no effect on the reduction of crimes against passengers. This position may be supported by at least two separate New York incidents where bus loads of passengers were robbed as opposed to bus drivers. Since the "token" system is used in New York which negates all cash exchange between personnel and passengers, and since the object of robbery is profitable again, then passengers would probably provide the best target for a fare system of this type.

When the nature of robbery is considered it is not surprising that it probably represents a substantial proportion of transit crime. The close proximity of passengers entering and leaving terminals and transit vehicles provides excellent opportunities for pickpockets. Persons in poorly lit and poorly patrolled transit parking lots are ideal prey for robbers. The presence of vending stands in and around transit stations, attracting those other than riders, contributes to the anonymity of criminals. Additional, structural designs, such as open spaces under stairwells and other isolated areas within terminals often provide settings in which robberies can occur out of view.

What is strongly suggested in the foregoing discussion is a need to evaluate the impact of non-cash systems on the reduction of robbery, including a review of the impact on transit personnel, the overall transit crime rate, and finally the impact of transit crime on the total environment.

Table II

Auto Theft

* Number of Auto Thefts on Transit Properties

	Number	% of Total Crimes
Chicago	242	16.0
Cleveland	116	81.0
Philadelphia-New Jersey (PATCO)	182	25.0

Many transit authority parking lots which are operated for passenger convenience experience a sizable number of damage and theft crimes. The Cleveland system alone, was credited with an average five to six car theft rate per day. 7/ According to Transit Authority data, auto theft accounted for 81 percent of the total transit-related crime rate. It is speculated however, that these records do not approximate the true problem as the Cleveland Transit Authority is only a three-person force and must depend upon an understaffed police department for its crime data. Unable to effectively attend to transit crime problems, the Police Department averages a 20 to 60 minute response time range when their services are required for transit problems. 8/

7/ COG, "Comparative Evaluation of Public Safety Services in Selected Metropolitan Areas with Rapid Rail Transit Systems", February, 1973, p. 37.

8/ COG, op. cit., p. 36.

A review of the Police Department recordkeeping procedures provides additional evidence of their failure to appropriately prioritize transit crimes. In addition to auto theft and "auto tampering", the only crimes recorded as transit-related are vandalism and a category which combines assault and robberies.

This investigation identified two other systems that experienced relatively high percentages of auto thefts, the Philadelphia-New Jersey system (PATCO) and the Chicago Transit Authority.

PATCO's auto crime rate was the second highest of all offenses reported and accounted for one quarter of its total crimes. In the Chicago system, crime showed an increase of 56 percent between 1967 and 1968, with auto theft comprising 15 percent of the total crime rate.

Vandalism

In that vandalism acts may range from the prankish "spray paint" epidemic that pollutes the New York system to the total destruction of a transit car in some other areas, it is difficult to accurately determine the true number of such offenses. Moreover, to designate each act as a criminal statistic is, at first unthinkable and secondly, virtually impossible. It is known, however, that since 1965 the incidence of vandalism has continued to increase dramatically. 9/

9/ DOT. "Summary of Programs to Reduce Crime In Transportation," April, 1973, p. 15.

Table III

Number of Transit Related Vandalisms

	Number	% of Total Crimes
New York (1972)	1799	29.0
PATCO (1971)	370	50.0
Toronto (1971)	479	44.0

Data made available for this review indicate 1799 acts of vandalism or 29 percent of the crimes recorded in New York and 50 percent of all crimes reported by PATCO.

Additionally, vandalism was defined as the major transit-related problem in Toronto, Canada where, according to COG, rates are increasing. 10/ This transit system's vandalism rate for 1970 was 50 percent of 886 total transit-type crimes reported.

When comparing vandalism costs by various types of organizations within several major cities, the President's Commission on Law Enforcement and Administration of Justice discovered that the greatest costs indicated were for those of public transportation properties. Annual costs of $209,000 and $145,000 in Washington and Chicago, respectively, exceeded, by substantial amounts, those costs for housing, public and parochial schools, parks, and recreation areas, highways and gas companies. 11/

10/ COG, op. cit., p. 24.

11/ The President's Commission on Law Enforcement and Administration of Justice. op. cit., p. 46.

Assaults

Table IV

Number of Transit-Related Assaults

	Number	% of Total Crimes
Boston (1971)	263	7.0
New York (1972)	605	10.0
Chicago (1968)	121	8.0

Though each of the six transit cities within this investigation recorded crimes of assault, those demonstrating the highest rates were Boston, New York and Chicago.

Assault crimes in Boston during 1971 comprised 7.4 percent of the total offenses for that period and indicated a decrease of 4 percent as compared to the previous year. Similar rates were seen in both New York and Chicago. Though New York evidenced the highest aggregate rate of all the cities, its assault crimes comprised 10 percent of all reported transit crimes, whereas Chicago's report of two consecutive years (1967 and 1968) reflected this offense in 8 percent of its total incidents.

Review of a 1968 survey of 594 bus drivers in Seattle, Oakland and Chicago provides additional information on the offense of assault. It was revealed that one-third to one-half of the respondents to this survey had been threatened (beaten, struck, slapped, shot, punched or other use of unlawful force against them) within the year preceding the survey. In Chicago alone, nearly one-half of the 240 drivers responding had been threatened during the preceding 14 months and 24 percent of them responded that they usually experienced two or more

threats per month. 12/

Further interviews of 723 bus drivers in four major transit cities revealed that the overwhelming proportion implied that many assaults against transit drivers were provoked by the driver. 13/ However it is apparent that there are many assaults totally unrelated to prior on-board interaction between driver and assailant and that this must be considered in devising security strategies for the prevention of such acts.

Other Offenses

The most prevalent transit and transit-related crimes, as indicated by data in this review, are those of robbery, theft, assault and vandalism though not necessarily in that order. For each of the six transportation systems reviewed, these four crimes represented the highest number of offenses. Though data on other crimes are too small to warrant separate consideration it does not imply that these crimes are any less significant in terms of law enforcement needs and public response.

Recent research indicates that most fear of crime arises from fear of violent crimes despite the volume of other types of criminal acts.

12/ Misner, op. cit., p. 90.

13/ Misner, op. cit. p. 60.

As an example, the number of assaults, though consistently represented in the statistics of each system, was not a major offense in terms of frequency; however, as a crime of violence, it may well generate more fear than other non-violent crimes that occur more frequently.

Again, as in the case of the three incidents of rape, two reported by New York and one by Chicago, the level of fear will probably not be proportional to the actual frequency of these events.

Crimes of burglary and disorderly conduct were frequently represented in the report cities. It should be noted, however, that disorderly conduct statistics are only recorded when arrests are made, therefore, this factor should be considered when comparing these rates with those of other crimes.

Arrests for disorderly conduct constituted 33 percent of the total 4818 crimes recorded in Chicago and increased by 91.0 percent in 1968 over the previous year.

There was no explanation of what properties were burglarized though Toronto recorded 191 burglaries in 1970, 294 in 1971. In most instances transit-related burglaries usually consist of entering property to steal readily fenceable equipment and security devices.

Transit Security Resources

Types of security forces, in terms of who is responsible for transit safety, vary throughout the different systems. For example, the Metropolitan Police Department of Cleveland is responsible for security in that system. Noted though is an emerging widespread practice for grocery store chains and other businesses located near transit stops to hire their own private security guards.

The Chicago Transit Security System was recently abandoned and replaced by a police department transit security force. However, the efficacy of this new system is questionable in terms of responding to public needs. The transit system there extends beyond the Chicago City limits, where the police unit has no operational security responsibility and where their security function is limited to response to calls for assistance from suburban station attendants or patrons.

Perhaps the greatest cost paid, both socially and economically, was reflected in the newly adopted New York system of "blanket patrol" where transit police are stationed at all 477 stations and in every train between 8:00 p.m. and 4:00 a.m. This has increased the staff of the New York transit personnel to 3,383 patrolmen.

SECURITY RESOURCES

Transit System Name	Year Commencing Operation	Mile Length	Daily Passengers	Size of Security Force
Boston Transit Authority	--	--	575,000	63
Chicago Transit Authority	1940	190	1,000,000	--
Cleveland Transit Authority	--	694	--	3
New York Transit Authority	1912	578	4,100,000	3,382
Port Authority Transit Company (PATCO)	1968	14.5	37,500	18
Toronto Transit Commission	--	--	--	--

Recommendations and Conclusions

The extent to which public fear of crime in mass transportation environments is justified is not clear. However, in the absence of this information, documented evidence does suggest that fear of crime is indeed affecting the use of public transit services as more and more previous system users, out of fear of crime, are returning to the use of private transportation and taxis. It is even suggested that many persons who have no other options are staying at home because they fear criminal assault.

This trend will logically pose major threats to the survival of public transportation if anxieties continue to soar.

The present review briefly discusses the prevalent transit crimes in six cities, the crimes of robbery, vandalism, assault and auto theft. However, the point is strongly made that the potential negative impact of less frequent crimes must not be disregarded. This is especially true for other crimes of violence.

Most important, this investigation demonstrates the need for major research and demonstration efforts to define security needs and to design security strategies that will ensure public safety and decrease the present level of fear for crime in transit settings.

As a first undertaking, major research efforts must be employed to identify and determine the extent of the crime problem within transportation settings. This should be done in a systematic and comprehensive manner.

Data forthcoming from the National Crime Survey of LEAA will provide some information on this topic as it will record when and where various types of crime occur. However, since this survey is not especially concerned with transit offenses, it will be necessary to conduct additional surveys to ensure a more accurate representation.

A subsequent activity must be to analyze crime data vis-a-vis the specific characteristics of each city in order to determine individual requirements and to devise strategies to comprehensively address crime needs for the total range of systems.

Once these strategies are devised, a necessary component to this research effort will be to design and implement demonstration activities to define the effectiveness of old strategies and to test new strategies in terms of preventing and controlling specific types of transit-related crimes.

Assuming that a large proportion of crimes occur in environments that

are structurally and socially conducive to breeding these events, security programs must be developed that will address problems of existing systems as well as to anticipate the needs of the new. For example, neither the 61 year old New York system nor the 33 year old Chicago system will benefit from strategies that will require extensive structurla changes. More appropriately, security plans for these cities must allow for adjustments that can be reasonably made to existing public transit programs.

For this type of effort, it is absolutely crucial to gain the support of law enforcement officials, users and others responsible for mass transportation systems, in order that the benefits of this research and demonstration effort are realized. Thus, the participation of these key groups should be encouraged on all levels of development of such a project.

An evaluation of these demonstration strategies should reveal their applicability as crime prevention techniques and effective strategies should be promoted to improve the quality of safety throughout all urban mass transportation systems.

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ATTACHMENT

ATTACHMENT

Percentage of Mass Transit Crimes
As Recorded During 1967, 68, 70, 71 and 72

City Years	Boston 1970	 1971	Chicago 1967	 1968	Cleveland 1970	 1971	New York 1972	PATCO 1971	Toronto 1970	 1971
Assault	11.4	7.4	7.9	7.9	16.9	14.5	9.7	14.9	5.2	4.0
Robbery	8.4	6.5	32.9	22.0			31.8		.1	.1
Burglary			.5	.4			1.2		21.6	27.0
Auto Theft	6.1	3.7	15.0	15.8	80.7	80.6		24.7		
Pickpocket	58.2	71.2	9.5	7.6			4.5			
Pursesnatch			1.8	1.2			18.6			
Disorderly	10.4	7.0	25.7	33.4			1.3		4.9	14.3
Sex offense other than rape	1.3	1.4	1.1					3.3	10.2	8.8
Rape				.1			.1			
Concealed weapon			1.0	1.9			2.9			
Vandalism	2.9	.5	3.8	7.8	2.4	4.9	28.8	50.3	56.0	44.1
Trespassing	.9	1.2	.6	.7			1.1			1.5
Drug possession			.2					6.8	1.6	
Fare evasion	.4	1.1								
Bomb scare									.4	.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Crimes	(2315)	(2147)	(1037)	(1535)	(213)	(144)	(6240)	(736)	(886)	(1087)

END