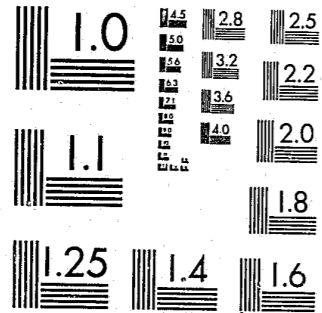


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THE IMPACT OF THE
MANDATORY GUN LAW IN MASSACHUSETTS

83540

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PREFACE

This report represents the efforts of a great many people over more than a two-year period. As with most joint undertakings, the individuals responsible for the entire project focused the major part of their attention on different aspects of the problem. William Bowers and Glen Pierce are responsible for the work on the gun law's impact on crime. Mr. Pierce also directed the collection of data from the Boston Police Department. John McDevitt directed the data collection for all of our court studies, and also had the responsibility of providing the computer analysis of this information. Russell Immarigeon and William Regii aided him in this aspect of our work. David Rossman and Paul Froyd are responsible for the work on charging and arrest decisions, and Mr. Rossman is responsible for the discussion of the law's impact on the courts.

Mr. Froyd had the often thankless task of the administration of this project for much of its duration. In its earliest stages, this job was performed by Janis Hofman.

In our investigation of the effect of the law on Massachusetts' criminal justice system, we came into contact with 13 criminal courts, with their clerks' offices and probation departments; two District Attorneys' Offices; three county Houses of Correction; as well as numerous individual attorneys, judges, court clerical workers, and others affected by Bartley-Fox. Without the cooperation of these individuals who tolerated our presence and continual questioning, we could not have even begun our work. We owe them our thanks.

Over the course of the project, we were aided by several groups of research assistants who not only gathered the data upon which we relied, but also did their share in contributing valuable insights into the analysis which this report represents.

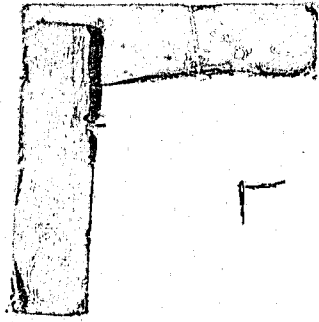
They were:

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Black, Joseph	Nash, Jane
Chiu, Maria	Ney, Richard
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Garrigan, Clyde	Pechenik, Stephen
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Finally, we acknowledge the help in organizing and typing this report that we received from Ms. Joanne Hall, and the editing suggestions made by Professor Sheldon Krantz.

David Rossman

Boston
June, 1979



SECTION ONE: INTRODUCTION

Chapter 1: Executive Summary.

On June 3, 1974, a bill known as the Bartley-Fox law appeared in both houses of the Massachusetts General Court. It was the end of a legislative session marked by virulent debate over the issues of gun control, registration, and confiscation. The new statutory proposal dealt with this general issue by changing the criminal sentence for the offense of carrying a firearm without proper authorization. The Bartley-Fox law preserved the general structure of Massachusetts gun control statutes, adding only a mandatory minimum one-year sentence for those convicted of illegally carrying a firearm. The new law also prohibited suspended sentences, probation, and various informal means of avoiding sentencing a defendant whom the prosecution has shown to have violated the gun carrying prohibition. Passed almost unanimously by both houses, the bill was signed into law on July 30, 1974 and went into final effect on April 1, 1975.

The bill's co-author, retired Judge J. John Fox, called the new law "a finger in the dike against the wave of violence." By removing judicial discretion in the sentencing process, Fox expected the law to be a precedent for altering patterns of judicial behavior, and ending the drift he perceived toward lenient sentences for all crimes of violence. In his words: "This bill is aimed to change people's thinking . . . to make people understand that there are laws and there is punishment."

Indeed, the statement of legislative purpose and intent issued shortly after the amendment was passed in both houses takes Fox's reasoning explicitly into account.

The General Court finds that a major source of violent crime in the Commonwealth is the permissive attitude of the society in general and law enforcement agencies, including courts, in particular, toward the unlicensed carrying of firearms, rifles and shotguns by persons away from their home and places of legitimate business. The purpose and intent of this legislation is to impose a one-year mandatory jail sentence without exception for any person female or male who is unlicensed to carry a firearm away from her or his home or place of business.

Seen from this perspective, the amendment is not merely stricter gun control. Sponsored during an election year, the bill was introduced as a measure to "make it safe for the law-abiding citizen to work, move about safely, and enjoy his family and friends and the fruits of his labor." Offered as a tough law-and-order measure, the bill quickly won the approval of traditional gun control opponents.

The Bartley-Fox law was at the forefront of an emerging national interest in mandatory sentencing. Its implications for the Commonwealth of Massachusetts were several. Since the law had as its focus the illegal use of firearms, one important measure of its effect is on the crime rate. Did the law affect assaults, robberies, and homicides? Another area of the law's impact was on how Massachusetts' criminal justice system would adapt to a mandatory sentencing scheme. Would police officers arrest suspects for illegally carrying a firearm at the same rate? Would defendants arrested for illegal gun carrying be charged with a different crime in order to avoid the mandatory minimum sentence? Would plea bargaining go on in Bartley-Fox cases? Would gun carrying defendants be convicted, or go to jail at the same rate as before Bartley-Fox?

In order to answer these questions, the Law Enforcement Assistance Administration of the United States Department of Justice awarded a grant to the Boston University Center for Criminal Justice

to conduct a two-year study of the effects of the Bartley-Fox law. This study followed an initial investigation of Bartley-Fox by researchers from Harvard University,* who examined the effect of the law after its first year. The current report relied in part on data from the Harvard researchers, but in order to provide a more complete picture of the law's impact, it collected a wider range of data over a larger period of time.

This report relied upon crime statistics from both the FBI and the Boston Police Department; arrest reports from the Boston Police Department; court records from Boston, Worcester, and Springfield; and interviews with criminal justice personnel -- judges, defense attorneys, prosecutors, police officers, as well as inmates -- throughout the state. Although the report draws conclusions about the effect of Bartley-Fox on crime rates in the entire Commonwealth and on the criminal justice system in three cities -- Boston, Worcester, and Springfield -- the focus for most of the discussion is the state's largest City, Boston.

A summary of the major findings of this report, in question and answer format, appear below in the rest of this first chapter. The second chapter of introductory material describes the legislative history of the Bartley-Fox law and sets out the legal issues associated with it. The substantive discussion of the law's effect begins in the

* See Beha, "And NOBODY Can Get You Out!" The Impact of a Mandatory Prison Sentence for the Illegal Carrying of a Firearm on the Use of Firearms and on the Administration of Criminal Justice in Boston, Harvard Law School (1976).

third chapter, with an examination of the law's impact on crime. We then discuss the effect of Bartley-Fox on the criminal justice system. Chapter four examines this question in the context of the decision to make an arrest and the decision to charge; and Chapter five looks at the effect of the law on the courts.

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Has the Bartley-Fox law had an effect on the crime rate? Since the Bartley-Fox law was intended to convey to the public a "get tough" message on crime, one important area in which to explore the effect of the law was on the crime rate. We looked at the impact of Bartley-Fox on the crime rate in Boston, for the rest of the Commonwealth, and for the state as a whole for three types of crime: armed assault, armed robbery, and homicide. In each area, we found that the introduction of the Bartley-Fox law did have an impact on the crime rate.

How did the Bartley-Fox law affect the armed assault rate?

The introduction of the Bartley-Fox law had an immediate two-fold effect on armed assaults in Massachusetts. First, the law substantially reduced the actual incidence of gun assaults even before its effective date in Massachusetts. Second, the law substantially increased non-gun assaults in Massachusetts. Indeed, there was a statistically significant increase throughout the state in non-gun armed assaults shortly after the Bartley-Fox law went into effect, and within a couple of months of the earlier statistically significant decrease in gun assaults. Thus, although the law discouraged gun-related assaults, it encouraged non-gun armed assaults, perhaps because it did not keep offenders away from assaultive situations.

The introduction of the Bartley-Fox law also had the unanticipated effect of stretching the crime reporting behavior of citizens. Specifically, citizens were more likely to report less serious forms of gun assaults to the police after implementation of the gun law.

This was most pronounced in Boston, and it tended to obscure the magnitude of the law's deterrent effects.

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How did the Bartley-Fox law affect the armed robbery rate? Our analysis indicates that the gun law had a moderate deterrent effect on gun robberies in 1975 and in Boston and to a lesser extent also in non-Boston Massachusetts. In the following year, 1976, the estimated deterrent effect of the law was much more pronounced and was of approximately equal magnitude in Boston and non-Boston Massachusetts. The displacement effects of the Bartley-Fox law on non-gun armed robbery are less consistent and less pronounced than in the case of non-gun armed assaults.

In contrast to the assault findings, we observed, in Boston by 1977, the beginning of a shift back to using guns in robberies at least for certain types of targets, specifically, in street, taxi, and residential gun robberies. This upturn in gun robberies points to the need for analysis over a longer potential impact period. It is critical to see whether this tendency for guns to return in armed robbery will continue until the pre-Bartley-Fox level is achieved or whether it stabilized short of that level.

We are finding need to look

How did the Bartley-Fox law affect the homicide rate? Due to data limitations, the analysis of criminal homicides was restricted to Boston and its control jurisdictions. The results of the analysis showed evidence of a deterrent effect of the law on gun homicides, but no indication of displacement effects on non-gun homicides in Boston. Further refinements of the homicide analysis revealed that the deterrent effect of the law occurred principally among assault precipitated gun homicides as opposed to felony related gun homicides. The latter type were too infrequent and erratic in occurrence to give reliable evidence of a deterrent effect.

What type of decisions did the Bartley-Fox law present for police officers? The changes in Massachusetts' gun control laws which Bartley-Fox brought about presented two types of decisions for police officers. The first was in deciding whether the law applied to a particular situation which they might encounter while on patrol. In particular, the law was ambiguous about whether it applied to situations within one's home or place of business. This question remained unsettled until 1978, when the Massachusetts Supreme Judicial Court ruled that it did not.

The second type of decision related to the exercise of a police officer's discretion. Even if an officer recognizes a violation of the law, he may still react to the situation in a way other than an arrest. In a situation involving a firearm, for example, he may simply seize the weapon and let the suspect go.

Did police officers have an adequate understanding of the Bartley-Fox law? Police officers whom we interviewed showed a great deal of confusion about whether the Bartley-Fox law applied in a person's home or place of business. Some of this confusion was common to others in the criminal justice system as well; defense attorneys and prosecutors also had questions about the law's scope.

Did the number of arrests for illegal gun carrying change after the implementation of Bartley-Fox? The number of incidents where the police in Boston arrested an individual for illegal gun carrying decreased after Bartley-Fox. There were 218 incidents in 1974; 186 in 1975; and 168 in 1976. Since the law had a deterrent effect with

respect to assaults with a firearm, it is reasonable to assume that part of the decline in arrests for carrying illegal firearms is due to a deterrent effect of the law in that type of behavior as well as assaults.

Did the police decline to make otherwise valid arrests for illegal gun carrying after Bartley-Fox? Since Bartley-Fox presented carrying charge, there was some speculation that police officers would decline to arrest individuals after the law went into effect in an effort to avoid the new harsh sentence. We examined police behavior in the City of Boston to determine if this were so. As a measure of police reaction to Bartley-Fox, we looked at situations involving a potential carrying arrest and determined how often Boston police officers in these circumstances arrested individuals who were involved rather than merely seizing the weapon and making no arrest. Based upon this information, we found no evidence that there was any widespread evasion of the Bartley-Fox law by Boston police officers.

Most of the incidents involving a potential arrest for gun carrying occurred outdoors. The location is an important factor because, as we have mentioned, there was an element of uncertainty concerning the law's application in some locations (the person's home or business). In the year before Bartley-Fox went into effect, and the two years afterwards, there was no statistically significant change at all in the rate at which police officers made an arrest for a gun charge as opposed simply to seizing the firearm, when the incident occurred out of doors. Thus, in situations which presented no ambiguity about the application of the law, there was no evidence that Boston police officers declined to make valid arrests.

When, on the other hand, ambiguity did exist, there was a change in police arrest behavior. When the incident occurred in the home of the person who possessed the firearm, the first year of Bartley-Fox, 1975, saw an increase in the proportion of cases where the police made an arrest rather than simply seizing the weapon. Quite the opposite of any attempt to avoid the Bartley-Fox law, 1975 saw a more frequent use of arrests in situations involving a firearm in the possessors' homes. However, the trend was reversed in 1976, the law's second year, when there was a less frequent use of a police officer's arrest power in incidents in the possessor's home than in 1974.

One possible explanation for this change in the rate of arrests is the fact that in 1975 a great deal of public attention was focused on Bartley-Fox cases in general. In this atmosphere, police presented with a situation where the law's application was unclear resolved the doubt in favor of vigorous enforcement. The phenomena of an increased arrest rate was absent 1976, and so was the element of public attention.

What we see then, is that in a small area of police behavior where the application of the law was unclear, police officers responded to a one-year mandatory minimum sentence provision by increasing their rate of arrest in the law's first year, and decreasing it in the second. While we discovered some isolated instances which were not officially reported, where police officers declined to make an arrest because of the one-year mandatory sentence, we found no widespread pattern of evasion.

Did the race of the suspect involved in a gun carrying incident affect the decision to arrest? One of the fears surrounding the enactment of the Bartley-Fox law was that the creation of a one-year mandatory minimum sentence would be enforced in a discriminatory way. Police officers might use the law, for example, in a different manner when they dealt with non-white suspects than with whites. From our examination of Boston Police Department data, we concluded that there is no evidence of a racially discriminatory pattern of Bartley-Fox enforcement. In 1974, before the law was passed, the rate at which whites were arrested for gun control crimes as opposed merely to having the firearm seized was just about the same as for non-whites. After Bartley-Fox, there was still no significant difference between whites and non-whites.

What effect did the Bartley-Fox law have on citizens turning in firearms to the police? In 1974, before the Bartley-Fox law went into effect, private citizens voluntarily turned in 21 firearms to the Boston Police Department. In 1975, when illegal gun carrying became subject to a one-year mandatory minimum sentence, 106 firearms were handed over. Whites increased their gun hand in activity to a greater extent than non-whites.

What were the implications of the charging decision for the enforcement of the Bartley-Fox law? Once a police officer makes an arrest, the next decision in the criminal justice system is the charging decision. If a defendant is charged with illegally carrying a firearm, he is subject to the mandatory minimum sentence. If, on the other hand, a defendant is charged with illegal possession of a firearm, he is not. The two types of conduct are similar. Carrying

is simply possession plus movement. Because of this similarity and because of the discretion that charging authorities have in determining which charge to bring, it is possible that possession charges would be brought when carrying charges were otherwise appropriate. If possession charges are used in this manner, it would be one way in which to avoid the rigidity of Bartley-Fox's sentencing policy.

Who makes the charging decision? In general, the decision about whether to bring a carrying or possession charge is made in the District Court. In Boston, during the three years of our study, the major responsibility for deciding upon the charges was with the arresting officers, who often consulted with other police officers and court personnel. Once a police officer decided to request a particular charge, court officials rarely refused to grant it. The one exception to this pattern was in the Boston Municipal Court, where judges rather than clerk's office personnel decide which charge is appropriate.

In Springfield, judges, clerks, and prosecutors took a more active role in deciding the charge than in Boston.

Did the charging officials have an adequate understanding of the difference between carrying and possession? Police officers, who have a great deal of influence over which charge is brought, showed a great deal of confusion over the difference between carrying and possession. For example, 12% of the officers we interviewed said there was no difference, while 31% said they did not know the difference. There was also a degree of confusion about the difference between the two crimes among defense attorneys and prosecutors.

Did the charging authorities use a possession charge rather than a carrying charge in order to avoid the mandatory minimum sentence of the Bartley-Fox law? Charging policy varied in the different jurisdictions which we examined. In Springfield, for example, prosecutors, judges, and clerks all admitted that very often they consciously used a possession charge as a substitute for a carrying charge. If a defendant convicted of possession deserved to go to jail, the judge can still send him, but his hands are not tied in advance.

In the Boston courts, we looked at the ratio of carrying charges to possession charges to see if Bartley-Fox had an effect on the charging authorities' decision to use possession instead of a Bartley-Fox charge. In the Boston Municipal Court where judges conducted the hearing to determine the proper charge, there was no change in the use of carrying charges after Bartley-Fox. In the other District Courts in the City of Boston, there was a change.

In the other Boston Courts, in Bartley-Fox's first year, 1975, carrying charges were used more frequently compared to possession charges than in 1974. Carrying, in other words, was chosen over possession more often in the law's first year. In 1976, this trend reversed; the use of carrying compared to possession went down, below the 1974 level. We spoke with attorneys who represented defendants in the 1976 case sample who were charged with possession and not with carrying. We were able to identify at least 5 cases where a carrying charge rather than a possession charge would have been appropriate. This pattern of a vigorous use of the Bartley-Fox charge in 1975, followed by a decline in 1976, is the same as the pattern we found in the area of arrest. Both these areas are controlled by the police and may have been a factor of increased public attention in the law's first year.

Did the race of the defendant have an effect on the decision to charge? As with the arrest area, during the public debate over the Bartley-Fox law, there was concern that the law would fall unjustly upon minority defendants in the charging decision. Our examination of court records reveals that there was no discriminatory pattern of charging a defendant with carrying rather than possession based upon race. If anything, white defendants are charged with carrying as opposed to possession at a greater rate than non-whites. This phenomenon, however, may not be a factor of racial discrimination as much as it is a factor of different charging policies in different parts of the City. Roxbury District Court, which is almost all non-white, had a charging pattern after Bartley-Fox which used a carrying charge far less after compared to possession than did other District Courts in heavily white areas.

What changes did Bartley-Fox make in the law concerning the way the courts handle charges of illegally carrying a firearm? The major change in the law brought about by Bartley-Fox was at the sentencing stage of a gun carrying case. Bartley-Fox imposed a mandatory minimum sentence of one year in jail. Suspended sentences or probation were prohibited.

The Bartley-Fox law also prohibited continuing cases without a finding, or filing them -- both ways that courts avoid giving someone a criminal record even though they may be guilty.

What change was there in the number of cases involving a charge of illegally carrying a firearm after the Bartley-Fox law went into effect? The total number of gun-carrying cases declined after Bartley-Fox went into effect. This decline follows from our other

findings that gun assaults declined, as did arrests involving only a gun-carrying offense.

Did the proportion of defendants who were convicted of a gun-carrying charge change after Bartley-Fox? One major effect that Bartley-Fox had on the court system was to decrease the proportion of defendants who were convicted of illegally carrying a firearm. In 1974, almost half of all gun carrying defendants (48.6%) were eventually convicted. In the two years after the law went into effect, 1975 and 1976, the rate of conviction fell to about $\frac{1}{4}$ of all defendants (28.2% in 1975; 22.2% in 1976). The decline in convictions came about primarily at the Superior Court level.

Did the proportion of gun carrying defendants who went to jail change after Bartley-Fox went into effect? Although the proportion of defendants who were convicted fell, the proportion who received some jail sentence increased. In 1974, 11.1% of all gun carrying defendants received a jail sentence. The rest of the 48.6% who were convicted received either a suspended sentence, probation, or a fine. Once Bartley-Fox became law, all those convicted received a jail sentence. In 1975, 28.2% of all the defendants who faced a gun carrying charge were sentenced to jail, as were 21.3% in 1976.

Thus, one effect of Bartley-Fox was to increase the proportion of defendants going to jail, but at the expense of decreasing the proportion who are subject to some sanction from the court. It is fair to conclude that some people who would have received a suspended sentence prior to Bartley-Fox now receive no sanction whatsoever.

How many people went to jail after Bartley-Fox who would not have done so if it weren't for the mandatory minimum sentence? Of the defendants who received a jail sentence for gun carrying under Bartley-Fox, some would have gone to jail even if there were no mandatory minimum sentence in effect. For each of the two years of Bartley-Fox, 1975 and 1976, that we examined in the City of Boston, we tried to determine how many people received a jail sentence that would not have occurred without the mandatory minimum sentence. We could only make a rough approximation of this phenomenon.

We looked at all those sentenced to jail in 1975 and 1976. We excluded those whose jail sentence was harsher than the one-year mandatory minimum sentence. We also excluded those whose one-year sentence for gun carrying was concurrent with a longer sentence for another crime. The Bartley-Fox sentence in these cases was of no practical effect. Of the cases that were left, we can conclude that the defendants may have gone to jail only because of the mandatory minimum sentencing provision. In making our estimate, we were conservative, so as not to underestimate the effect of the law. Our results were these: for the half year sample in 1975, we found only 20 cases where Bartley-Fox may have been the cause of the jail sentence. In the half year sample for 1976, we found 17 such cases.

Extrapolating over a full year in the City of Boston, the change in sentencing brought about by Bartley-Fox affected at most about 40 people each year, a particularly small number when we compare it to the effect in reducing gun related crime which the law brought about.

Did the Bartley-Fox law change the way that District Courts handled gun carrying cases? The District Courts in Massachusetts are the entry-level courts for almost all criminal cases. They hold trials for most misdemeanors and minor felony cases, and they hold probable cause hearings for serious felony cases that can only be tried in the Superior Court.

Before Bartley-Fox went into effect, the District Courts in Boston disposed of gun carrying cases adverse to defendants (by convicting them, or finding probable cause and sending the case on for trial in Superior Court) 59% of the time. In 1975, the rate at which they ruled against the defendant was 55%, and in 1976, 54%. This difference was not statistically significant. Boston District Courts, in the aggregate, thus either convicted or found probable cause in gun carrying cases in just about the same proportion after Bartley-Fox as before.

There was a change, however, in the methods that the courts used to rule in favor of the defendant. Bartley-Fox prohibited continuing cases without a finding or filing them. In 1974, the District Court disposed of 9% of its gun carrying cases in these ways. After Bartley-Fox, no cases were treated in this manner -- but rather the dismissal and not guilty rates increased.

One other change occurred after Bartley-Fox in the Boston District Courts: the defendants who were found guilty appealed their cases for a trial de novo at a far higher rate. In 1974, 20% of those convicted in the District Courts went on for a trial de novo. In 1975, when the one-year mandatory sentence began, that rose to 89% and went to 95% in 1976. Thus, upping the ante for defendants by imposing a mandatory jail sentence has the effect of increasing

their incentive to take advantage of all the procedural protections built into the system.

Although the Boston District Courts in the aggregate showed no change with respect to the proportion of gun carrying cases in which they ruled against the defendant, individual courts did change. Before Bartley-Fox, some courts were prosecution-prone and others defendant-prone. After Bartley-Fox, they all came to meet somewhere within a relatively narrow middle range. The law thus promoted some degree of uniformity.

Did the mandatory minimum sentence affect the way District Court judges determined if a defendant was not guilty or should have his case dismissed? As we have already discussed, the District Courts on the whole displayed no pattern of evasion of the Bartley-Fox law by disproportionately ruling in favor of the defendant in a gun carrying case. However, in individual courts in some cases, we believe this conduct did occur. We interviewed attorneys who represented Bartley-Fox defendants in our 1976 case sample whose cases had been dismissed or found not guilty in the District Court. We were able to identify some -- six -- where a fair conclusion is that the judge's sympathy to the defendant or antipathy to Bartley-Fox played a role. Our general interviews with defense attorneys, prosecutors, and judges all revealed a commonly-shared perception that some judges do favor defendants in Bartley-Fox cases.

Did the Bartley-Fox law change the way that Superior Courts handled gun carrying cases? As we already mentioned, after Bartley-Fox became law, a higher proportion of gun carrying cases were disposed of at the Superior Court level than before. Bartley-Fox did bring about

a change in how the Superior Court handled these cases. Of most significance is the decline in the proportion of defendants convicted. In 1974, 71% of the gun carrying cases disposed by the Superior Court were convictions. This fell to 52% in 1975, and 44% in 1976.

This decline came about in two ways. First, a smaller proportion of defendants chose to plead guilty to gun carrying after Bartley-Fox, and a higher proportion went to trial. Second, defendants who went to trial after Bartley-Fox stood a much better chance of winning the case than before. In 1974, 91% of the gun carrying trials ended up with a guilty verdict. In 1975, only 44% did, and in 1976, only 35%. This decrease in the conviction rate was true for both jury trials and trials before a judge alone.

Two explanations may account for the decrease in the conviction rate. First, more weak prosecution cases are going to trial. With only the possibility of a jail sentence, defendants were less likely to accept a District Court conviction or a guilty plea in Superior Court.

The second explanation is that the jury, or judge, evaluated the testimony with a slant toward acquitting the defendant because of the mandatory one-year sentence. We observed a Bartley-Fox trial where the defendant made no real effort to contest the facts of the case but tried in every way short of being impermissibly explicit to get the message across to the jury that this was not the sort of person who deserved to spend one year in jail. The jury acquitted. Defense attorneys, prosecutors, and judges all felt that juries were aware of and influenced by the sentencing provision of the Bartley-Fox law.

What effect did the Bartley-Fox law have on plea bargaining in gun carrying cases? Just as the Bartley-Fox law did not prohibit a police officer from declining to make a gun carrying arrest or from bringing a possession charge where carrying would otherwise be appropriate, it did not prohibit prosecutors from plea bargaining with gun carrying defendants. A prosecutor who does not want a defendant to be subject to the mandatory minimum one-year jail term may agree to dismiss the Bartley-Fox charge in return for a guilty plea to some other crime. The prosecutor may also reduce the carrying charge to possession in return for a guilty plea. The last form which a plea bargain might take would be for a defendant to plead guilty to a Bartley-Fox charge in return for a prosecutor's recommendation that the Bartley-Fox jail sentence be served concurrently with a longer sentence, and thus be of no practical significance to the defendant. In all three types of plea bargains, the defendant receives some advantage in return for not going to trial on the carrying charge.

Using these three types of dispositions as a measure of plea bargaining, we saw that plea bargaining played an important role in disposing of Bartley-Fox cases. Before the law went into effect, 31% of carrying cases fit in these three categories. After Bartley-Fox, this rose to 36% in 1975 and was 15% in 1976. In the two years following Bartley-Fox, in some cases, charges were reduced or dismissed so that the defendant could receive a suspended sentence. In other cases, defendants received a carrying sentence that no practical effect. The Bartley-Fox law removed discretion in one area -- sentencing -- but discretion remained to accomplish the same ends in another area, plea bargaining.

Did the Bartley-Fox law have an effect on gun carrying defendants' decisions to fight their cases as far as possible? After Bartley-Fox went into effect, gun carrying cases became a more serious matter for defendants. Not surprisingly, the rate at which they defaulted -- failed to show up in the District Courts -- doubled. Defendants were also much more prone to appeal for a trial de novo -- obtaining a second chance for acquittal, or delaying the inevitable conviction -- at a much greater rate. In the Superior Court, there was a trend toward an increased use of trials; though contrary to what our interviews with defense attorneys showed, there was no evidence of a preference for juries as opposed to judge trials.

Were prosecutors and judges happy with the Bartley-Fox law? On the whole, the judges and prosecutors with whom we spoke did not feel that Bartley-Fox persuaded those in the criminal justice system to "get tough" with violent crime. About half of them felt that the law interfered with their ability to obtain a fair and effective sentence in an individual case. Even judges with a tough reputation noted that in some cases they would have suspended the defendant's sentence if the law allowed them to do so.

Chapter 2: Background of the Bartley-Fox law.

A. Legislative History.

"I can pinpoint the date this program was born if I wanted to wax dramatic: it was the night I saw the opening of West Side Story."

-- Judge J. John Fox speaking before the Second National Forum on Handgun Control on the origin of the Bartley-Fox law.

A legislative history of the Bartley-Fox law logically would begin with Judge J. John Fox, a retired Massachusetts judge and the man who conceived the law. Judge Fox, like other supporters of the amendment regard it as a means of vigorously discouraging the carrying of firearms and, resultantly, the commission of crimes involving the use of guns. However, Judge Fox extends his hopes for the law further than many others. He believes it is the first volley in a war against crime. The Bartley-Fox law is intended to reverse the thinking, first of judges, then of all others who, in Judge Fox's view, are not sufficiently vigilant in society's effort to protect persons and property from criminal disruption. For many years, Judge Fox worked vigorously to persuade others of the need for his proposed gun law. In 1974, events began to fall in Judge Fox's way. The State was eager to pass a gun law. The traditional handgun control advocates had failed to persuade the lawmakers. Judge Fox found the ear of an influential legislator, David Bartley, the Speaker of the State House of Representatives. With Representative Bartley's help, Judge Fox's idea became law.

In his State of the State address in January, 1974, Governor Francis Sargent called upon the Legislature to pass strict gun control legislation in the coming year. Initially, the reaction

to Sargent's message was positive. Both Speaker of the House David Bartley and Senate President Michael Harrington said that they favored prohibition of the private possession of handguns. It was reported that David Bartley said that if he had his way "all the guns would be locked up in an armory." But both said that although they personally agreed with Sargent, they would not attempt to exert pressure on the legislators to get an anti-handgun bill passed.

In the next few months, approximately 18 anti-handgun bills were filed in the House and the Senate. Three of these bills were given major consideration by the Legislature. On February 12, 1974, State Senator Jack Backman (D. Brookline) filed his annual gun control bill calling for the prohibition of the private ownership of handguns. This bill was similar to others Backman had filed in the past with two major revisions: the first revision would permit licensed businessmen to have guns in their stores for protection. The second revision would allow gun clubs to stay in business provided that local law enforcement agencies certify the clubs' arms caches as secure from theft. The second major bill was filed two days later by Governor Sargent. Sargent's bill proposed banning guns with barrel lengths of five inches or less -- the so-called "Saturday Night Specials" -- and also provided a training program for persons eligible to own handguns. The third bill was filed by Representative Ralph Sirianni, Chairman of the House Committee on Public Safety. Representative Sirianni's bill, like Sargent's bill, aimed at banning cheap handguns but defined them more narrowly. The bill proposed to ban guns with barrel lengths of three inches or less and those that would melt or deform at a temperature of less than 900 degrees Fahrenheit.

The response to the three bills was mixed. Sheriff John Buckley of Middlesex County, founder of People vs. Handguns, was not optimistic about the chances for passage of the Backman bill. It was reported in the Boston Globe that Buckley expected the Backman bill to get turned down by the Public Safety Commission because "too many members of that Committee are too friendly with sportsmen in the state." Sheriff Buckley also saw opposition coming from the two billion dollar per year firearms manufacturing industry. At a hearing of the Joint Legislative Committee on Public Safety, it became clear that the chief opposition to the Backman bill was to come from the Council of Sportsmen's Clubs, a traditional anti-handgun foe of 45,000 members and the Gun Owner's Action League, which had approximately 5,000 members at the time.

Governor Sargent's bill attempted to accommodate sportsmen's clubs by banning only those guns with barrel lengths of five inches or less, which presumably served no legitimate sporting purpose. However, this legislation was not supported by the sportsmen's clubs. There was very little support for Governor Sargent's bill in the House and Senate, and consequently the Governor did not come out vigorously for passage of his bill.

Of the 18 handgun control bills filed in 1974, Representative Sirianni's came closest to enactment. It was generally viewed that Sirianni's bill was politically pragmatic. His draft attempted to skirt domestic firearms manufacturers' objections by defining a class of cheap handguns which also happened to apply only to imported handguns. The definition was written by the Council of Sportsmen's Clubs, and the law itself was based on legislation that had been enacted in Florida. Nevertheless, the Council opposed the bill on

the ground that it was the first step in the confiscation of all guns. Reacting strongly to the Council's opposition, Sirianni stated that the Council was "becoming paranoid."

After the gun control bills had been filed, the Joint Legislative Committee held a public hearing on February 13, 1974. A substantial majority of those attending were from the Council of Sportsmen's Clubs and the Gun Owner's Action League. Their opposition to any gun control was loudly voiced. Those in favor of gun control present at the hearing were representatives from: People vs. Handguns, the League of Women Voters, Boston B'nai Brith Association, the Episcopal Diocese, and the Massachusetts Bar Association.

David O'Brien reported in the Boston Phoenix that the heads of the State's two major sportsmen's clubs, the State Rifle and Pistol Association and the State Council of Sportsmen's Clubs had been to Washington to consult with National Rifle Association officials regarding the mounting of a campaign to fight anti-gun legislation in Massachusetts.

The optimism of the gun control advocates was short-lived. On March 13, 1974, the Committee on Public Safety issued adverse reports on all the gun legislation before it, saving only Sirianni's bill and another minor bill. Late in April, both the Senate and the House accepted the adverse reports of the Committee. Thus, the hopes of the gun control advocates rested on Sirianni's bill.

On May 2, 1974, the Massachusetts House granted initial approval to the proposed Sirianni ban on cheap guns. However, four days later the House sent the Sirianni bill back to Committee for an amendment which would have given an exception to all handguns which were already in circulation. In the following month, it became

apparent that the Sirianni bill would not return from the Committee.

Eighteen bills had come before the Massachusetts legislature and eighteen had been rejected, but the state legislators were eager to pass some kind of anti-gun legislation. They needed a compromise piece of legislation which would be satisfactory to both the opponents and proponents of gun control.

The first mention of the Bartley-Fox legislation in the Boston press came on June 3, 1974, when it was reported that Speaker David Bartley was ready to file a bill in the House which would set a mandatory one-year prison sentence for persons found guilty of illegally carrying a handgun. Bartley stated that the bill was designed to avoid opposition from the pro-gun lobby while strengthening the present state statutes. The purpose of the bill, Bartley stated, was to halt "all unlicensed carrying of guns . . . and to end the temptation to use the gun when it should not even be made available."

Already in effect was an elaborate licensing law, the basic structure of which had been in effect since 1906. Because the bill would do little more than underscore existing law, opposition would have to take the difficult position that present law would have to be rolled back, leaving less control of gun use than there is of auto use. The strategy apparently worked. Two days later, the State Council of Sportsmen's Clubs gave its conditional support to the Bartley-Fox law. The next day at a press conference with David Bartley, Judge Fox blamed the permissiveness of the courts for the increase in illegal handguns. Fox said the courts "have generated this permissiveness because the carrying of a gun is not considered a crime. Here is what happens now without a mandatory sentencing feature: first offense, a slap on the wrist, second offense, probation, third offense, suspended sentence. With this bill,

first offense, jail."

On June 12, 1974, the House approved the Bartley-Fox legislation on a voice vote without debate. A week later, the Senate gave its initial approval to the bill by a roll call vote of 39-0. Two liberal Democratic Senators were critical of the bill. Senator Jack Backman called the bill "a copout." Senator Alan Sisitsky (D. Springfield) said that the bill was approved to assure that no stricter gun control regulations could be approved in 1974.

After the House and Senate gave their initial approval to the bill, it was sent to Governor Sargent for his signature. Sargent refused to sign the bill because it was not tough enough and sent it back to the Legislature with a proposal for two amendments. Sargent's amendments would have banned the possession of all guns with barrel lengths of three inches or less and would have granted full compensation at market value for handguns turned in before October 1. Sargent's two amendments were ruled out of order by both the House and the Senate because they did not come within the scope of the bill. Then, on July 18, 1974, the House passed the Bartley-Fox bill and sent it to the Senate. The Senate quickly gave its approval, and the bill was set to go into effect on January 1, 1975.

Two weeks after the Bartley-Fox law went into effect, David Bartley petitioned the Legislature to suspend the bill until April 1, 1975. The reason for the suspension, according to Bartley was to conduct an educational campaign to inform the public of the existence of the law so that individuals ignorant of the law might not be innocently victimized. According to Bartley, the intent of the bill was to get guns off the street and not to throw people in jail. Consequently, on January 28, 1975 Governor Dukakis signed legislation

suspending the bill for three months retroactive to December 31, 1974.

On April 1, 1975, after the three-month educational campaign, Bartley-Fox went into effect. In an interview with the Boston Globe, Bartley conceded that the additional campaign had not been wholly successful. But, he emphasized that the new law was intended as a deterrent: "We don't want to fill the jails; we just want to get guns off the streets. Unless there is a legitimate reason, there is no excuse for anyone in a civilized society to carry a gun on the street."

Thus began Massachusetts' attempt to create a distinctive criminal prohibition. It was to be a law so well known to all citizens, so certain in its consequences, that no one would dare violate it. Attachment of a mandatory minimum sentence to a licensing provision was expected to have the effect of singling out a criminal law from among all the others in effect and bringing it to the center of public attention. The mandatory minimum sentence is intended to increase the certainty of punishment by incarceration for unlawful gun carriers; the mandatory minimum sentence is intended to increase severity of punishment by providing that no convicted person will see the outside of his place of confinement for an entire year. A constitutional attack on the law, alleging that this mandatory sentence constituted cruel and unusual punishment and *denied* defendants due process and equal protection, raised the final challenge to Bartley-Fox. The Massachusetts Supreme Judicial Court rejected these arguments in March of 1976* and left intact the minimum one-year sentence.

* Comm. v. Jackson, 1976 Mass. Adv. Sh_{ts} 735.

If Judge Fox is correct in saying that judges, in particular, and society, in turn, are extremely tolerant of gun carrying, then it would appear to pose a potential dilemma for the gun law. The more tolerance of guns, the less tolerance of anti-gun laws. Similarly, the harsher the law, the greater the hostility to the law. If judges and other members of the criminal justice system -- particularly police and prosecutors -- sustain this hostility, there is a danger that the gun law will be enforced in a very lax or inconsistent manner. To that extent, the intended purposes of the law would be undermined. Whether the calculatedly dramatic tactic of attaching a mandatory minimum sentence has had its intended effect of reducing gun crime and whether it is scrupulously enforced by criminal justice agents are the objects of this report's inquiry.

B. Legal Issues Associated with Bartley-Fox.

Trial of a Bartley-Fox case appears to be generally regarded as a relatively simple matter. Indeed, in many fact situations, the evidence is probably as clearcut as eyewitness testimony by the arresting officer placing the gun in the hand of the defendant. Nevertheless, the following summary of the legal issues associated with a Bartley-Fox case indicate that there are several areas of complexity or ambiguity which can create difficulties for charging decisions and trial decisions. The extent to which these areas are understood and exploited might have implications for the manner in which the law is enforced and the nature of population and activity on which the law impacts. The points at which these issues present themselves will be noted in the summary below.

1. The Bartley-Fox Provision.

The Bartley-Fox law, stated in M.G.L. Ch. 269, §10 is simply the addition of a unique sentencing provision to existing licensing law. The only change it made in the substantive criminal law was to prohibit carrying rifles and shotguns as well as handguns. Prior to Bartley-Fox, only the possession of rifles and shotguns was a crime. No matter what type of firearm the defendant carries, the Bartley-Fox law requires a one-year mandatory minimum sentence. Both probation and suspended sentences are expressly forbidden; however, this alone does not distinguish the law in Massachusetts.

What distinguishes Bartley-Fox and makes the judge's sentencing decision truly mandatory is the explicit prohibition of a "continuance without a finding" or the "filing" of a case. Both are judicial creations. The former typically is ordered at the point following the presentation of all the evidence and argument on the evidence.

Rather than making a finding of guilty or not guilty, the judge simply continues the case until a certain date. Typically, the case is dismissed at that date if the defendant meets certain conditions, such as avoiding further arrests or paying restitution to the victim. This device permits the court to resolve a case without saddling the defendant with a criminal conviction. It would also be available to avoid statutory provisions requiring a specified minimum period of incarceration upon conviction. Without a conviction, no sentence, including a harsh minimum sentence, can be imposed. "Filing" a guilty finding can simply mean the judge makes a finding of guilt and then "files" the case before imposing sentence. Often in such instances, no sentence is ever imposed. Bartley-Fox eliminates both these means of preserving judicial sentencing discretion against legislative encroachments.

Bartley-Fox reinforces its mandatory nature by expressly prohibiting parole, furlough or good time credit. Between parole and good time credit, a person convicted of all but very serious crimes could calculate that with good behavior and good fortune his chances of release by the Corrections Department becomes very good after he has served approximately one-third of the minimum sentence imposed by the court. Furloughs are permission to leave the institution for one or two day periods. The statute, perhaps by virtue of mere oversight, does not expressly prohibit work-release, which is a leave granted near the end of confinement for the purpose of establishing positions in jobs.

This simple sentencing provision is attached to an elaborate gun licensing law which fills over 60 pages of statutory material. More specifically, the conduct prohibited by Bartley-Fox is the

unlawful carrying of a firearm, rifle, shotgun or air gun. Persons who have been issued a license to carry firearms under Chapter 140, §131 or who have been issued a firearm dealer's license under Chapter 140, §123 can legally carry firearms, rifles, shotguns, and air rifles. Persons who have been issued a firearms identification card (F.I.D.) can legally carry rifles, shotguns, and air rifles. An F.I.D. card does not permit the carrying of handguns with a barrel length of less than 16", sawed-off rifles with a barrel length of less than 16", sawed-off shotguns with a barrel length of less than 18", or any other weapons of any description from which a projectile can be fired other than those which qualify as rifles, shotguns or air rifles. However, an F.I.D. card authorizes possession of any of these weapons. (The crucial, but surprisingly unclear distinction between possession and carrying, is discussed below.) An F.I.D. card is issued by the local licensing authority as a matter of right to any applicant who is an adult and a U.S. citizen, has not been convicted of a felony, and has no history of mental disorder or drug or alcohol dependency. The local licensing authority is usually the Chief of Police or his designee. In contrast, a license to carry is issued to those applicants who are adult, U.S. citizens with no drug or felony convictions, who demonstrate that they are "suitable" persons for licensure and have good reason to fear injury to their property or person, or can show any other "proper purpose." Thus, each of the licensing authorities is empowered to impose virtually any criteria it sees fit. The only limitation on these powers would appear to be the minimal due process test of rationality. Thus, authorization to

carry a small gun can be made as difficult as the police wish to make it. On the other hand, most persons can obtain authorization to "carry" long guns or "possess" small guns. The gun carrying statute, as it appeared before and after Bartley-Fox amended it, appears at the end of this chapter.

2. The Carrying Offense.

a. The prima facie case. The four elements of a prima facie case are possession, movement, intent, and knowledge. Possession is a logical prerequisite for a finding of liability, but mere temporary possession does not constitute carrying. The courts will look to movement by the accused while in possession of the gun.¹

While temporary possession without movement is not sufficient, the jury may infer movement from the facts of the case.² The necessary quantum of circumstantial evidence must be sufficient to support a finding that the accused could only have been in possession of the gun if he had carried it himself. Thus, where police found a gun in defendant's locked hotel room after a tip from a hotel employee, the trier of fact was allowed to convict the accused in the absence of eyewitness testimony.³

The absence of intent to carry may prevent a conviction where the elements of possession and movement are satisfied. Thus, a person who found a gun in a public place and picked it up with the intention of turning it over to the police should not be prosecuted.⁴ But, if the defendant manifests control inconsistent with an intention

¹Commonwealth v. Atencio, 345 Mass. 627, 631, (1963).

²Commonwealth v. Morrissey, 351 Mass. 505, 512 (1967).

³Commonwealth v. Mayer, 349 Mass. 253 (1965).

⁴People v. LaPella, 272 N.Y. 81, 4 N.E.2d 943 (1936).

to rid himself of the gun, he may be found guilty under the act. Thus, a defendant who disarmed an alleged attacker but then used the gun to kidnap a passing motorist was found to have the requisite⁵ intent.

b. Place of business or home. From April, 1975 to December 4, 1978, perhaps the most confusing point concerning the application of the Bartley-Fox law was whether it prohibited carrying a firearm within one's home or place of business. The statute does not provide an express exception, and cases from other jurisdictions⁶ have held parallel statutes to apply to this situation.

The drafters' and the Legislature's intent doubtlessly was to impose Bartley-Fox only in situations outside the gun owner's home and place of business.⁷ Perceptions of the scope of the law can have implications for the nature of the activity reached (e.g., domestic disputes)^{and} the type of defendants arrested (e.g., liquor store owners and cabbies). It can also muddy conclusions concerning whether arrest and charging decisions are the subject of a conscious exercise of discretion or of confusion.

In December, 1978, this question was settled by the Supreme Judicial Court of Massachusetts, which held that the law did not⁸ apply in these locations.

⁵Commonwealth v. Kennedy, 341 N.E.2d 697 (1976).

⁶See 79 Am. Jur.2d Weapons and Firearms, Sec. 26 at 29, 94 C.J.S. Weapons Sec. 7 at 490; 73 A.L.R. 339.

⁷Interview with J. John Fox, Boston, May, 1977.

⁸Commonwealth v. Seay, 1978 Mass. Adv. Shts. 2994.

c. Joint venture theory of responsibility. Lack of personal possession does not prevent implementation of the statute if the requirements of knowledge and control are met. Knowledge⁹ can be proven by circumstantial evidence, but control may require the application of a joint venture theory.

Joint power of control has been applied most often in automobile cases. Where illegal guns were found hidden in a car, all persons occupying the car with knowledge of the guns were included under the statute.¹⁰ This was true even though one of the defendants was not present when the gun was found.¹¹ Participation in a joint criminal venture has been used as a substitute for control to convict the non-owner of a car for "carrying" a gun found in the car's trunk.¹² The court found that the defendant's participation in a criminal enterprise with others which involved his use and occupancy of a vehicle containing an illegal firearm warranted submission of the knowledge issue to the jury.¹³

A Florida court has held that "where one of two or more persons possess a weapon in violation of a statute for the purpose of committing an offense to which all are a party, the weapon is possessed jointly by the participants,¹⁴ The Florida statute is phrased in possessory terms, but this idea fits the Massachusetts statute as carrying where motion accompanies the other illegal acts.

⁹Commonwealth v. Boone, 356 Mass. 85, 248 N.E.2d 279 (1969) (dictum).

¹⁰Commonwealth v. Miller, 297 Mass. 285, 8 N.E.2d 603 (1937).

¹¹Id.

¹²Commonwealth v. Gizicki, 258 Mass. 291, 264 N.E.2d 672 (1970).

¹³Id. at 676.

¹⁴Kemp v. State, 254 So.2d 228 (1971).

It is important to note that in Massachusetts it will be necessary to show the existence of an explicit criminal venture. For, if the prosecution does not prove the joint venture, it will be difficult to show control by the non-possessing defendant.¹⁵

d. Firearm: defined. Weapons which discharge a shot or bullet -- including rifles, shotguns, air guns -- will normally be considered to fit the statutory definition of a firearm.¹⁶ However, if the weapon is so defective or damaged that it has lost its initial character as a firearm, it will not be included under the statute.¹⁷ The problem is determining whether "a relatively slight repair, replacement or adjustment will make it an effective weapon."¹⁸ This is a factual determination and hinges upon the knowledge and ability of the individual defendant.

Apparent ability to fire is an appealing test but is inappropriate under Bartley-Fox's specific exception for antiques, replicas, and weapons for which ammunition is not readily available.¹⁹ The courts are more likely to use a practical test in determining whether the weapon is capable of firing or is permanently disabled. Thus, tear gas pens, air guns, zip guns, and starter pistols would all be included if there were capable of firing a shot or bullet.

¹⁵Commonwealth v. Ballow, 350 Mass. 751, 217 N.E.2d 187 (1966).

¹⁶Mass. Gen. Laws Ann. Ch. 140, Sec. 121 (1975).

¹⁷Commonwealth v. Bartholemew, 326 Mass. 218, 93 N.E.2d 551 (1950).

¹⁸Id. at 220.

¹⁹Mass. Gen. Laws Ann. Ch. 140, Sec. 121(a) (b) (1975).

The statutorily defined method of proving whether an item is a "firearm" is by means of a certificate from the Department of Public Safety ballistics expert.²⁰ This method may not be required in obvious cases, but judges can construe the provision strictly. In complex cases, such as where the gun has not been recovered or is in a damaged condition, a ballistics expert will be necessary to give his opinion as to whether the weapon was capable of being fired.

In Massachusetts, a ballistics expert is allowed to testify as to his opinion that a particular bullet was fired from a particular gun.²¹ For instance, if the gun is recovered in a disabled condition and a discharged bullet is also recovered from the scene (assuming the gun was discharged), the ballistics expert might be able to establish, by means of a comparison of bullet groovings, that the bullet came from the gun recovered and, thus, that the gun was capable of firing at the time the defendant was carrying it. Similar procedures can be used to identify empty shells or casings to the gun from which they were fired.

Another hypothetical problem would be where the gun is not recovered, but an eyewitness places an item resembling a gun in the defendant's hands and says that the defendant discharged the gun. Proof that the item was a firearm might be produced by circumstantial evidence, such as an empty cartridge or discharged bullet recovered from the scene. This evidence would be relevant, since the question

²⁰Mass. Gen. Laws Ann. Ch. 140, Sec. 121A (1975).

²¹Commonwealth v. Giacomazzi, 311 Mass. 465, 42 N.E.2d 506 (1942); compare Commonwealth v. Fancy, 349 Mass. 196 (1965).

of whether an item is a firearm under section 121 is one of fact,²² to be decided by a jury or the judge in a trial without a jury: Such evidence, coupled with the witness' testimony, would create a heightened inference that the gun was capable of being fired.

It would appear that there are no peculiar evidentiary problems in this area, although expert testimony will likely play a large part where capability of firing is in question. Since whether an item is a firearm is a question of fact under Massachusetts law, problems of proof can only be confronted on a case by case basis. The absence of many cases directly on point suggests that the status of a weapon as a "firearm" will depend on the particular factual situation of the case.

e. Knowledge. In Commonwealth v. Jackson, the Supreme Judicial Court, while recognizing that the Legislature could create offenses for which no proof of a culpable mental state is required, held that the prosecution must prove, as an element of the offense, that the defendant knew he was carrying a firearm.²³ The Court had previously held that legislative intention to create a strict liability offense must appear in clear and unambiguous language,²⁴ especially where a heavy penalty is enacted.²⁵ There is no such explicit language in Bartley-Fox.²⁶ Moreover, the Court was concerned with constitutional questions which would be raised by imposing strict liability for violations of Bartley-Fox.

²²Commonwealth v. Fancy, 349 Mass. 196, 207 N.E.2d 276 (1965).

²³1976 Mass. Adv. Shts. 635, 344 N.E.2d 166 (1967).

²⁴Commonwealth v. Buckley, 354 Mass. 508, 238 N.E.2d 335 (1968).

²⁵Commonwealth v. Crosscup, 1975 Mass. Adv. Shts. 3482, 339 N.E.2d 731 (1975).

²⁶Mass. Gen. Laws Ann. Ch. 269, Sec. 10a (1975 Supp.).

Jackson does not clearly answer the question of whether the state must prove that the accused has specific knowledge that the weapon was an efficient firearm. But, the Court did not require proof of knowledge by the defendant that the weapon was unregistered,²⁷ implying that the culpability requirement does not apply to all elements of the offense.

Several courts, when confronted by the issue, have not required proof of knowledge that a firearm was capable of being discharged to sustain convictions for illegally possessing or carrying a firearm.²⁸ Bartley-Fox is not a statute which penalized the defendant for an act of omission, but a law requiring active conduct which the average citizen is likely to know is not innocent.²⁹

The Jackson Court seemed to recognize that the legislature, by omitting an express mens rea requirement, intended to create a strict liability offense. The Court believed that knowledge by the defendant that he was carrying a firearm was necessary to preserve the constitutionality of the statute. But, assuming the legislature's intention to create a strict liability offense, the court did not wish to subvert that intention by imposing a requirement that specific knowledge of the firearm's efficiency be proved. Because the Jackson case has resolved most of the ambiguities concerning the knowledge issue, little opportunity exists for judges or others to betray their sympathies by stretching or restricting the knowledge requirement.

²⁷1976 Mass. Adv. Shts. at 751. Note that the statute at issue before the court was a licensure not a registration statute. While this unfortunate choice of language by the court muddies any reading of the passage, it would nevertheless be safe to conclude that the court does not demand knowledge concerning every element of the carrying offense.

²⁸U.S. v. Weiler, 458 F.2d (3d Cir. 1972), Sipes v. U.S., 321 F.2d 174 (8th Cir. 1963).

²⁹Compare Lambert v. California, 355 U.S. 225 (1957).

f. Automobile drivers, riders, and owners. To support a conviction for carrying a firearm under one's control in a vehicle, the state must show that the defendant knew the gun was in the car. "It is not enough to put the defendant and the weapon in the same car."³⁰ In Commonwealth v. Boone,³¹ the defendant was sitting in the passenger seat of the car when arrested, along with the driver, for unauthorized use. When the car was searched subsequent to arrest, a pistol was found under the driver's seat. The Supreme Judicial Court held that, although knowledge may be inferred from the circumstances, there was no proof of knowledge sufficient to uphold Boone's conviction. The court recognized, however, that the situation might be different were Boone the owner of the vehicle.³²

There is a defacto presumption of knowledge against an owner operator in whose vehicle a gun is found.³³ A similar, if less conclusive presumption of knowledge appears to operate where the defendant is the owner of the vehicle in which the gun is carried but not the operator.³⁴ The determining variable in this situation is the control the owner has exercised over the vehicle. Where the requisite control is found, the jury will be able to infer that the defendant has violated the statute.

The recent holding in Commonwealth v. Albano³⁵ appears to indicate that the defendant must have been in control of the vehicle for a sufficient period such that it would be reasonable to presume

³⁰ 356 Mass. 85, 87 N.E.2d 279 (1969).

³¹ Id.

³² Id. at 87, 88.

³³ Commonwealth v. Moscatiello, 257 Mass. 260, 153 N.E. 544 (1926).

³⁴ Commonwealth v. Miller, 297 Mass. 285, 8 N.E. 2d 603 (1937).

³⁵ 1976 Mass. Apps. Adv. Shts. 1060.

knowledge of the gun's presence in the car. The Court imposed a strict proof of knowledge requirement where the defendant was only the operator of the vehicle in which a gun was found, and there was no proof that the use was unauthorized. The weapon was found protruding from under the driver's seat, but there was no showing that it was visible to anyone in the driver's seat or how long the car was in the defendant's possession or that he had previously used the car. The court held that these facts did not illustrate knowledge sufficient to justify a conviction.

The liability under Bartley-Fox of passengers in vehicles in which guns are found is less well defined than the liability of owners and operators. The same presumption of knowledge that operates against owners and drivers cannot be used against passengers because the foundational fact from which knowledge is presumed, control of the vehicle, is absent. Thus, actual knowledge of the presence of a firearm must be shown to sustain a passenger's conviction. The prosecution's burden is lessened, however, by the rule that knowledge may be inferred from the circumstances.³⁶ The prosecution may also prove knowledge by showing participation in a joint criminal enterprise. Use and occupancy of a vehicle in which a gun is found during a joint criminal enterprise is considered sufficient to warrant a jury finding that the defendant has knowledge of the gun.³⁷

The rulings in the Massachusetts cases seem to stop with the question of knowledge. The question of control (actual, constructive, or possible) by a passenger in a vehicle does not appear to have been considered. Knowledge may not always equal control, but the

³⁶ 356 Mass. at 85.

³⁷ Commonwealth v. Gizicki, 358 Mass. 291, 264 N.E.2d 672 (1970).

cases indicate that where the gun is accessible within the car to a passenger who has knowledge of it, the gun is within the passenger's control. However, it is possible that the courts may apply a more restrictive concept of control in future cases due to the more severe penalty under the Bartley-Fox amendment.

For the present, the law would tolerate conviction of anyone in a car in which a gun is found. The extent to which such charges are sought and the extent to which such convictions are levied might indicate the degree of sympathy with Bartley-Fox public purposes.

Masachusetts' Gun Carrying Statute Prior to the Bartley-Fox Law

§ 10. Carrying dangerous weapons; possession of machine gun; punishment; confiscation; return of firearm; colleges and universities

Whoever, except as provided by law, carries on his person, or carries on his person or under his control in a vehicle, a firearm as defined in section one hundred and twenty-one of chapter one hundred and forty, loaded or unloaded, without permission under sections one hundred and thirty-one or one hundred and thirty-one F of chapter one hundred and forty; or whoever so carries any stiletto, dagger, dirk knife, any knife having a double-edged blade, or a switch knife, or any knife having an automatic spring release device by which the blade is released from the handle, having a blade of over one and one half inches, or a slung shot, black jack, metallic knuckles or knuckles of any substance which could be put to the same use and with the same or similar effect as metallic knuckles, or a sawed-off shotgun; or whoever, when arrested upon a warrant for an alleged crime or when arrested while committing a breach or disturbance of the public peace, is armed with or has on his person, or has on his person or under his control in a vehicle, a billy or other dangerous weapon other than those herein mentioned, shall be punished by imprisonment for not less than two and one half years nor more than five years in the state prison, or for not less than six months nor more than two and one half years in a jail or house of correction, except that, if the court finds the defendant has not been previously convicted of a felony, he may be punished by a fine of not more than fifty dollars or by imprisonment for not more than two and one half years in a jail or house of correction; or whoever, after having been convicted of any of the aforesaid offenses commits the like offense or any other of the aforesaid offenses, shall be punished by imprisonment in the state prison for not less than five years, for a third such offense, by imprisonment in the state prison for not less than seven years, and for a fourth such offense, by imprisonment in the state prison for not less than ten years. The sentence imposed upon a person who, after a conviction of an offense under this paragraph, commits the same or a like offense, shall not be suspended, nor shall any person so sentenced be eligible for parole or receive any deduction from his sentence for good conduct. Whoever, except as provided by law, possesses a machine gun as defined in section one hundred and twenty-one of chapter one hundred and forty, without permission under section one hundred and thirty-one of said chapter, shall be punished by imprisonment in the state prison for life or for any term of years. Upon conviction of a violation of this section, the firearm or other article shall, unless otherwise ordered by the court, be confiscated by the commonwealth. The firearm or article so confiscated shall, by the authority of the written order of the court be forwarded by common carrier to the commissioner of public safety, who, upon receipt of the same, shall notify said court or justice thereof. Said commissioner may sell or destroy the same, and, in case of a sale, after paying the cost of forwarding the article, shall pay over the net proceeds to the commonwealth.

The court may, if the firearm or other article was lost by or stolen from the person lawfully in possession of it, order its return to such person, and where it has been the finding of the court that a person has been guilty of unlawful possession of a firearm, but makes the further finding that such possession was in ignorance of the law, the court may order the return of said firearm to its owner upon his compliance with those regulations relative to the establishment of lawful possession.

Whoever, within this commonwealth, produces for sale, delivers or causes to be delivered, orders for delivery, sells or offers for sale, or fails to keep records regarding, any rifle or shotgun without complying with the requirement of a serial number, as provided in section one hundred and twenty-nine C of chapter one hundred and forty, shall for the first offense be punished by confinement in a jail or house of correction for not more than two and one half years, or by a fine of not more than five hundred dollars.

Whoever owns, possesses, or transfers possession of a firearm, rifle, shotgun or ammunition therefor without complying with the requirements relating to the firearm identification card provided for in section one hundred and twenty-nine C of chapter one hundred and forty shall be punished by imprisonment in a jail or house of correction for not more than one year or by a fine of not more than five hundred dollars. A second violation of this paragraph shall be punished by imprisonment in a jail or house of correction for not more than two years or by a fine of not more than one thousand dollars or both.

Whoever knowingly fails to deliver or surrender a revoked or suspended firearm identification card, or receipt for the fee for such card, or a firearm, rifle or shotgun, as provided in section one hundred and twenty-nine D of chapter one hundred and forty, unless an appeal is pending, shall be punished by imprisonment in a jail or house of correction for not more than two and one half years or by a fine of not more than one thousand dollars.

Whoever, not being a law enforcement officer, and notwithstanding any license obtained by him under the provisions of chapter one hundred and forty, carries on his person a firearm as hereinafter defined, loaded or unloaded, in any building or on the grounds of any college or university without the written authorization of the board or officer in charge of said college or university shall be punished by a fine of not more than one thousand dollars or by imprisonment for not more than one year or both. For the purpose of this paragraph "firearm" shall mean any pistol, revolver, rifle or smoothbore arm from which a shot, bullet or pellet can be discharged by whatever means.

Massachusetts' Gun Carrying Statute After the Bartley-Fox Law

§ 10. Carrying dangerous weapons; possession of machine gun or sawed-off shotgun; confiscation; return of firearm; colleges and universities; punishment

(a) Whoever, except as provided by law, carries on his person, or carries on his person or under his control in a vehicle, a firearm, loaded or unloaded, as defined in section one hundred and twenty-one of chapter one hundred and forty without either:

(1) having in effect a license to carry firearms issued under section one hundred and thirty-one of chapter one hundred and forty; or

(2) having in effect a license to carry firearms issued under section one hundred and thirty-one F of chapter one hundred and forty; or

(3) complying with the provisions of section one hundred and twenty-nine C and one hundred and thirty-one G of chapter one hundred and forty; or

(4) having complied as to possession of an air rifle or BB gun with the requirements imposed by section twelve B of chapter two hundred and sixty-nine; and whoever carries on his person, or carries on his person or under his control in a vehicle a rifle or shotgun, loaded or unloaded, without either:

(1) having in effect a license to carry firearms issued under section one hundred and thirty-one of chapter one hundred and forty; or

(2) having in effect a license to carry firearms issued under section one hundred and thirty-one F of chapter one hundred and forty; or

(3) having in effect a firearm identification card issued under section one hundred and twenty-nine B of chapter one hundred and forty; or

(4) having complied as to carrying, with the requirements imposed by section one hundred and twenty-nine C of chapter one hundred and forty upon ownership or possession of rifles and shotguns;

(5) having complied as to possession of an air rifle or BB gun with the requirements imposed by section twelve B of chapter two hundred and sixty-nine; shall be punished by imprisonment in the state prison for not less than two and one-half nor more than five years, or for not less than one year nor more than two and one-half years in a jail or house of correction. The sentence imposed upon such person shall not be reduced to less than one year, nor suspended, nor shall any person convicted under this subsection (a) be eligible for probation, parole, or furlough or receive any deduction from his sentence for good conduct until he shall have served one year of such sentence; provided, however, that the commissioner of correction may, on the recommendation of the warden, superintendent, or other person in charge of a correctional institution, or the administrator of a county correctional institution, grant to an offender committed under this subsection or a temporary release in the custody of an officer of such institution for the following purposes only: to attend the funeral of a relative; to visit a critically ill relative; or to obtain emergency medical or psychiatric services unavailable at said institution. Prosecutions commenced under this section shall neither be continued without a finding nor placed on file.

The provisions of section eighty-seven of chapter two hundred and seventy-six, shall not apply to any person seventeen years of age or over, charged with a violation of this subsection, or to any child between age fourteen and seventeen, so charged, if the court is of the opinion that the interests of the public require that he should be tried for such offense instead of being dealt with as a child.

(b) Whoever, except as provided by law, carries on his person, or carries on his person or under his control in a vehicle, any stiletto, dagger, dirk knife, any knife having a double-edged blade, or a switch knife, or any knife having an automatic spring release device by which the blade is released from the handle, having a blade of over one and one-half inches, or a slung shot, blackjack, metallic knuckles or knuckles of any substance which could be put to the same use with the same or similar effect as metallic knuckles, nunchaku, zoobow, also known as klackers or kung fu sticks, or any similar weapon consisting of two sticks of wood, plastic or metal connected at one end by a length of rope, chain, wire or leather, a shuriken or any similar pointed star-like object intended to injure a person when thrown, or a manrikigusari or similar length of chain having weighted ends; or whoever, when arrested upon a warrant for an alleged crime, or when arrested while committing a breach or disturbance of the public peace, is armed with or has on his person, or has on his person or under his control in a vehicle, a billy or other dangerous weapon other than those herein mentioned and those mentioned in paragraph (a), shall be punished by imprisonment for not less than two and one-half years nor more than five years in the state prison, or for not less than six months nor more than two and one-half years in a jail or house of correction, except that, if the court finds that the defendant has not been previously convicted of a felony, he may be punished by a fine of not more than fifty dollars or by imprisonment for not more than two and one-half years in a jail or house of correction.

(c) Whoever, except as provided by law, possesses a shotgun with a barrel less than eighteen inches in length, or possesses a machine gun, as defined in section one hundred and twenty-one of chapter one hundred and forty, without permission under section one hundred and thirty-one of said chapter one hundred and forty, shall be punished by imprisonment in the state prison for life or for any term of years provided that any sentence imposed under the provisions of this clause shall be subject to the minimum requirements of clause (a) of this section; provided, however, that the commissioner of correction may, on the recommendation of the warden, superintendent, or other person in charge of a correctional institution, or the administrator of a county correctional institution, grant to an offender committed under this subsection or a temporary release in the custody of an officer of such institution for the following purposes only: to attend the funeral of a relative; to visit a critically ill relative; or to obtain emergency medical or psychiatric services unavailable at said institution.

(d) Whoever, after having been convicted of any of the offenses set forth in paragraph (a), (b) or (c) commits a like offense or any other of the said offenses, shall be punished by imprisonment in the state prison for not less than five years nor more than seven years; for a third such offense, by imprisonment in the state prison for not less than seven years nor more than ten years; and for a fourth such offense, by imprisonment in the state prison for not less than ten years nor more than fifteen years. The sentence imposed upon a person, who after a conviction of an offense under paragraph (a), (b) or (c) commits the same or a like offense, shall not be suspended, nor shall any person so sentenced be eligible for probation or receive any deduction from his sentence for good conduct.

(e) Upon conviction of a violation of this section, the firearm or other article shall, unless otherwise ordered by the court, be confiscated by the commonwealth. The firearm or article so confiscated shall, by the authority of the written order of the court be forwarded by common carrier to the commissioner of public safety, who, upon receipt of the same, shall notify said court or justice thereof. Said commissioner may sell or destroy the same, except that any firearm which may not be lawfully sold in the commonwealth shall be destroyed, and in the case of a sale, after paying the cost of forwarding the article, shall pay over the net proceeds to the commonwealth.

(f) The court shall, if the firearm or other article was lost by or stolen from the person lawfully in possession of it, order its return to such person.

(g) Whoever, within this commonwealth, produces for sale, delivers or causes to be delivered, orders for delivery, sells or offers for sale, or fails to keep records regarding, any rifle or shotgun without complying with the requirement of a serial number, as provided in section one hundred and twenty-nine B of chapter one hundred and forty, shall for the first offense be punished by confinement in a jail or house of correction for not more than two and one-half years, or by a fine of not more than five hundred dollars.

(h) Whoever owns, possesses, or transfers possession of a firearm, rifle, shotgun or ammunition without complying with the requirements relating to the firearm identification card provided for in section one hundred and twenty-nine C of chapter one hundred and forty shall be punished by imprisonment in a jail or house of correction for not more than one year or by a fine of not more than five hundred dollars. A second violation of this paragraph shall be punished by imprisonment in a jail or house of correction for not more than two years or by a fine of not more than one thousand dollars or both.

(i) Whoever knowingly fails to deliver or surrender a revoked or suspended license to carry firearms issued under the provisions of section one hundred and thirty-one or one hundred and thirty-one F of chapter one hundred and forty, or firearm identification card, or receipt for the fee for such card, or a firearm, rifle or shotgun, as provided in section one hundred and twenty-nine D of chapter one hundred and forty, unless an appeal is pending, shall be punished by imprisonment in a jail or house of correction for not more than two and one-half years or by a fine of not more than one thousand dollars.

(j) Whoever, not being a law enforcement officer, and notwithstanding any license obtained by him under the provisions of chapter one hundred and forty, carries on his person a firearm as hereinafter defined, loaded or unloaded, in any building or on the grounds of any college or university without the written authorization of the board or officer in charge of said college or university shall be punished by a fine of not more than one thousand dollars or by imprisonment for not more than one year or both. For the purpose of this paragraph "firearm" shall mean any pistol, revolver, rifle or smoothbore arm from which a shot, bullet or pellet can be discharged by whatever means.

(k) For the purpose of this section "sawed-off shotgun" means a shotgun having one or more barrels less than eighteen inches in length and any weapon made from a shotgun, whether by alteration, modification, or otherwise, if such weapon as modified has an overall length of less than twenty-six inches.

(l) The provisions of this section shall be fully applicable to any person proceeded against under section seventy-five of chapter one hundred and nineteen and convicted under section eighty-three of chapter one hundred and nineteen, provided, however, that nothing contained in this section shall impair, impede, or affect the power granted any court by chapter one hundred and nineteen to adjudicate a person a delinquent child, including the power so granted under section eighty-three of said chapter one hundred and nineteen.

SECTION TWO: IMPACT ON CRIME

Chapter 3: The Impact of the Bartley-Fox law on Gun and non-Gun
Related Crimes,

Introduction.*

In April, 1975, Massachusetts formally implemented the Bartley-Fox law, which mandates a one-year minimum prison term for the unlicensed carrying of a firearm. This law was explicitly intended to reduce the incidence of gun-related crimes as well as the illicit carrying of firearms. When David Bartley, one of the law's framers, first submitted the bill to the Massachusetts House of Representatives, he stated that the purpose of the law was to halt ". . . all unlicensed carrying of guns . . . and to end the temptation to use the gun when it should not even be available."

In line with these objectives, this chapter will focus on: (1) evaluating the law's impact on the incidence of gun and non-gun related crime; and (2) interpreting the effects of the law on crime by examining, to the extent we can, how the general public and potential offenders have adapted their patterns of weapon carrying to the new sanctions mandated by the Bartley-Fox law. Specifically, we will examine how adjustments in patterns of weapon carrying are translated into changes in the incidence of crime. Information on this issue is important to our understanding of how the gun law has affected violent crime, and perhaps, to whether we can expect these effects to be maintained. It also provides insight into whether the results we find in Massachusetts are unique or whether they are generalized to other jurisdictions.

The analysis of the gun law's impact on crime is divided into five sections and has an Appendix. The first section outlines the research design, data base, and statistical methodology employed in the Impact on Crime phase of the study. The next three sections evaluate the impact of the gun law on the incidence of armed assault, armed robbery, and

*This section of the study was prepared by Glen L. Pierce and William J. Bowers

criminal homicide. The final section concludes with a summary of the evaluation results and presents our conclusions and recommendations. The Appendix illustrates an attempt to develop tentative estimates of the numbers of assaults, robberies, and homicides either prevented or promoted by the Bartley-Fox law.

B. Research Design and Methodological Issues for The Impact on Crime Analysis.

In developing the research design for The Impact on Crime phase of this study, we sought to focus on two of the major analytic problems which generally face evaluators of crime prevention programs: the fallibility of official crime statistics and the potentially confounding effects of exogenous change factors which may affect the level of crime independently of the policy intervention in question. Relative to the first issue, studies of policy interventions which use crime statistics as dependent variables must rely on either officially reported crime statistics or on victimization survey data. In this study, victimization survey data could not be incorporated into the evaluation. The National Crime Panel's victimization survey does not sample a sufficient number of respondents in Massachusetts to provide accurate estimates of changes in the level of gun related crime over time.

As a result, we must rely on official crime statistics reported to and by the police. Problems related to these statistics have been well documented. However, this study seems to face some unique problems for interpreting reported crime statistics. In particular, the implementation of the gun control law was preceded by a dramatic, and not completely accurate, two-month publicity campaign designed to educate the public concerning the new consequences citizens faced for violating the Massachusetts gun control laws. This advertising campaign may have affected citizens' perception and reporting of gun related crime. Our research design must take into consideration this possibility if we are to properly evaluate the impact of the Bartley-Fox law using reported crime statistics.

The potential threat of exogenous change factors to the validity of

our conclusions is a second major problem we share with virtually all evaluators of crime prevention reform. As noted above, these factors may affect the level of crime quite independently of the impact of a policy intervention. Indeed, exogenous factors can overshadow or mark the effects of a particular program. This situation exists simply because social and economic forces at the societal level account for much of the variation we find in crime. As Zimring (1978: 162) observes:

"The macrophenomena that determine crime . . . are not well understood but produce considerable variance. In the natural course of events, crime statistics will vary widely between areas and over time."

Indeed, before any claims can be made concerning the law's impact, we must first make certain that extraneous social and economic factors or other policy interactions have not produced a change in crime that might erroneously be attributed to the law or overshadow an actual effect.

In order to address the methodological problems confronting this evaluation, we have attempted to obtain sufficiently detailed and comprehensive crime data to allow us: (1) to control for potentially confounding exogenous change factors; and (2) to identify problems of measurement in reported crime statistics. To do this, we have acquired computerized crime data from the FBI's Uniform Crime Reporting Program (UCR) and from the Boston Police Department (BPD). In addition, we have obtained information from written police reports on gun related crime from the manual files of the Boston Police Department.

Access to the FBI's UCR computerized crime statistics has allowed us to employ an interrupted time series control group design to evaluate the impact of the law on crime. This is the strongest design alternative available to us to identify the potential confounding effects of exogenous

factors.*

The importance of obtaining adequate control groups for this type of analysis is noted by Lawrence Ross. He observes that: "The literature of quasi-experimental analysis asserts that causal conclusions based only on the comparison of conditions subsequent to a supposed cause with those prior to a supposed cause are subject to a wide variety of rival explanations." (Ross, 1977; p. 244). The design employed here allows us to compare the level of violent crime in Massachusetts over time with the level of crime in comparable jurisdictions over the same period. Presumably, violent crime in Massachusetts will be subject to relatively the same types of macrophenomena as such crime in other similar jurisdictions is. Thus, the crime rates of control jurisdictions provide important reference points for deciding whether the Bartley-Fox law has had an impact on crime in Massachusetts.

The logic of this type of analysis is, of course, strengthened to the extent that an investigator can select control groups which are truly comparable. Since the data we have obtained from the FBI's UCR program are based on monthly reports from over 3,900 police agencies for the period 1967 to 1976, numerous agencies similar to Massachusetts communities are available.

Using these data, we are able to compare: (1) statewide Massachusetts crime trends with those for the United States as a whole and for the North

* Other potential alternative research designs such as randomized control and treatment group approach or a structural equation analysis are precluded by data limitations and the fact that the Bartley-Fox law (like most laws) was implemented in all Massachusetts communities at the same point in time. This latter fact, of course, forecloses the possibility of randomly assigning communities to treatment or control conditions. With regard to data limitations, we have a wide spectrum of crime statistics for which we simply do not have enough information on exogenous factors to consider a structural equation approach. (See Douglas Hibbs, 1978, p. ; for a discussion of the uses and limitations of structural equations for evaluating policy interventions.)

Central, Middle Atlantic, and New England regions individually: (2) crime trends in Boston with those in other comparably-sized cities of the New England, Middle Atlantic, and North Central regions; and (3) crime trends in Massachusetts cities and towns excluding Boston with those in comparable cities and towns for each of the regions cited above.

In order to address problems of measurement that confront investigators using UCR reported crime statistics, we acquired computerized and manual record crime reports from the Boston Police Department (BPD). A major advantage of BPD crime statistics over those of the UCR program is that they provide greater offense refinement, enabling us to: (1) identify and examine categories of gun related crime which we believe are relatively free of reporting unreliabilities; and (2) investigate the differential impact of the law on various subclasses of crime (e.g., street gun robberies and gun robberies against commercial establishments).

Boston Police Department manual record data on police crimes reports allow us to investigate the gun law's impact on reporting biases and inconsistencies. Using these records, we acquired information concerning the circumstances under which citizens reported gun assaults to the police. This information enables us to examine whether the implementation of the law has increased the reporting of less serious forms of gun assaults.

Finally, the temporal dimension of our research design enables us to address an additional methodological issue of relevance to the evaluation. The fact that both UCR and BPD statistics can be examined on a monthly basis for extended periods prior to implementation of the law has made it possible to take advantage of recently-developed methodological techniques for identifying statistically significant shifts in crime trends. These techniques help us to assess whether any changes we find in crime rates are likely to have occurred by chance and/or reflect the fluctuation that may occur in a highly variable phenomenon such as crime.

C. Aggravated Assault: Deterrence OR Displacement?

As noted above, the manifest purpose of the gun law was to halt the illicit carrying of firearms. However, the Massachusetts legislators who enacted the law hoped, and to some extent expected, that it would also act as a deterrent to gun related felony type crimes. In this section, we will examine the impact the law has on gun and non-gun related armed assaults.

The analysis focuses first on whether the law has succeeded in reducing the incidence of gun assaults. We then examine whether any reduction in gun assaults may be offset by corresponding increases in assaults involving other deadly weapons. Here we are seeking to determine whether potential offenders who are deterred from using guns stop assaulting or simply substitute other types of deadly weapons, and if they do turn to other weapons, whether they utilize situationally-available weapons or make conscious decisions to carry these other weapons.

The final question we examine in this section is whether the law and the publicity surrounding its implementation have affected the reporting of gun related assaults to the police. Here we focus on whether the law has sensitized the public to gun crimes and, as a result, made them more likely to report less serious forms of gun assault to the police.

The analysis of assault is organized into three parts. First, we examine the impact of the gun law on gun and non-gun armed assault throughout Massachusetts. Next, we examine the law's impact on regions within Massachusetts -- specifically, Boston versus all other communities for which we have UCR crime statistics. Finally, we refine the Boston analysis data collected from the BPD. It is here that we focus on the question of the impact of the law on the reporting of gun assault crimes to the police by the citizens.

1. Massachusetts: Statewide Impact.

We first examine change in Massachusetts gun and non-gun assault rates compared to those occurring in selected control jurisdictions. We then undertake an intervention point analysis which attempts to identify the specific point at which we find statistically significant shifts in the level of assaults resulting from either the implementation of the gun control law or initiation of the Bartley-Fox publicity campaign.

a. Control group comparisons. Tables 1 through 4 (below) present annual armed assault statistics for Massachusetts and selected control group jurisdictions:

Table 1

Armed Assaults Per 100,000 in Massachusetts and Regional Comparison Groups for the Period 1967 to 1976

<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Rate % Change	121.9	137.6 12.9	150.7 9-5	158.4 5.1	167.2 5.6	171.5 2.5	179.8 4.9	194.9 8.4	204.5 4.9	201.5 -1.5	+ 3.4
North Central States	Rate % Change	96.2	104.5 8.6	118.2 13.1	123.3 4.3	123.2 -.1	130.5 5.9	142.7 9.3	159.2 11.5	168.9 6.2	164.3 -2.7	+ 3.2
Middle Atlantic States	Rate % Change	128.0	142.0 10.9	149.8 5.5	159.9 6.7	178.8 11.8	192.2 7.4	198.2 3.2	210.0 6.0	213.4 1.6	194.8 -8.7	- 7.3
New England Without Massachusetts	Rate % Change	43.7	56.6 29.6	62.7 10.8	72.7 16.0	75.8 4.3	70.6 -6.9	71.3 1.0	78.2 9.6	81.8 4.6	81.7 -.0	+ 4.4
Counties Contiguous to Massachusetts	Rate % Change	49.4	60.6 22.8	67.0 10.6	78.7 17.4	84.8 7.7	77.1 -9.0	84.1 9.1	87.2 3.7	86.9 -.4	96.4 11.0	+10.5
Massachusetts	Rate % Change	56.7	65.5 15.5	71.1 8.6	79.0 11.1	90.7 14.9	98.8 8.9	117.3 18.7	131.6 12.2	150.9 14.7	154.9 2.7	+17.7

Table 2

Gun Assaults per 100,000 in Massachusetts and Regional Comparison Groups for the Period 1967 to 1976

<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Rate % Change	32.2	39.8 23.5	44.7 12.4	49.3 10.3	54.4 10.3	57.5 5.7	62.6 8.8	66.9 6.9	68.2 1.9	64.0 -6.0	- 4.2
North Central States	Rate % Change	27.6	34.3 24.3	41.0 19.6	45.5 10.9	46.3 1.8	48.7 5.2	54.6 12.0	60.7 11.1	63.5 4.7	59.1 -6.9	- 2.5
Middle Atlantic States	Rate % Change	20.9	26.5 26.8	28.6 7.9	32.4 13.6	40.7 25.6	47.2 16.0	51.1 8.2	51.0 -.3	50.2 -1.5	44.5 -11.3	-12.6
New England Without Massachusetts	Rate % Change	10.6	14.0 32.1	16.6 18.6	18.7 12.7	19.4 3.9	14.6 -24.6	17.0 16.2	15.8 -6.9	17.5 10.6	15.1 -13.9	- 4.8
Counties Contiguous to Massachusetts	Rate % Change	11.1	13.9 25.1	16.3 17.6	19.9 22.0	20.5 2.9	14.7 -28.3	17.0 15.2	14.2 -16.3	16.1 13.3	14.2 -11.7	.0
Massachusetts	Rate % Change	11.1	13.6 22.1	14.3 5.1	18.4 28.8	22.4 22.0	22.4 -.2	27.2 21.3	31.0 14.1	26.1 -15.7	25.0 -4.3	-19.3

Table 3

Non Gun Armed Assaults Per 100,000 in Massachusetts and Regional Comparison Groups for the Period 1967 to 1976

<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Rate % Change	89.7	97.8 9.0	106.0 8.3	109.1 2.9	112.8 3.4	114.0 1.0	117.2 2.9	128.1 9.2	136.4 6.5	137.4 .8	7.3
North Central States	Rate % Change	68.6	70.2 2.3	77.2 9.9	77.8 .8	76.9 -1.1	81.8 6.3	88.1 7.7	98.5 11.8	105.4 7.1	105.2 -.2	6.8
Middle Atlantic States	Rate % Change	107.1	115.5 7.8	121.2 5.0	127.4 5.1	138.0 8.3	144.8 4.9	147.0 1.5	159.0 8.1	163.2 2.6	150.2 -7.9	-5.5
New England Without Massachusetts	Rate % Change	33.1	42.6 28.7	46.1 8.3	54.1 17.2	56.5 4.4	56.0 -.9	54.3 -2.9	62.4 14.7	64.3 3.1	66.7 3.8	6.9
Counties Contiguous to Massachusetts	Rate % Change	38.2	46.7 22.2	50.7 8.5	58.7 15.9	64.2 9.4	62.4 -2.8	67.2 7.7	73.1 8.7	70.8 -3.1	82.2 16.1	12.5
Massachusetts	Rate % Change	45.6	51.9 13.9	56.8 9.5	60.6 6.6	68.3 12.7	76.4 11.9	90.1 17.9	100.6 11.6	124.8 24.1	130.0 4.1	29.2

Table 4

Percent Gun Assaults of Total Armed Assaults in Massachusetts and Regional Comparison Groups for the period 1967 to 1976

<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Percent % Change	26.4	28.9 9.5	29.7 2.7	31.1 4.9	32.5 4.5	33.5 3.1	34.8 3.8	34.3 -1.4	33.3 -2.9	31.8 -4.6	- 7.3
North Central States	Percent % Change	28.7	32.8 14.4	34.7 5.8	36.9 6.3	37.6 1.9	37.4 -.6	38.3 2.5	38.1 -.4	37.6 -1.4	36.0 -4.3	- 5.6
Middle Atlantic States	Percent % Change	16.3	18.7 14.3	19.1 2.2	20.3 6.4	22.8 12.3	24.6 7.9	25.8 4.9	24.3 -5.9	23.5 -3.1	22.9 -2.8	- 5.8
New England Without Massachusetts	Percent % Change	24.2	24.7 2.0	26.4 7.0	25.7 -2.8	25.6 -.4	20.7 -19.0	23.8 15.0	20.2 -15.0	21.4 5.8	18.4 -13.9	- 8.9
Counties Contiguous to Massachusetts	Percent % Change	22.5	22.9 1.8	24.4 6.4	25.4 3.9	24.2 -4.5	19.1 -21.2	20.1 5.6	16.3 -19.3	18.5 13.7	14.7 -20.4	- 9.5
Massachusetts	Percent % Change	19.6	20.7 5.7	20.1 -3.3	23.3 16.0	24.7 6.2	22.7 -8.4	23.2 2.2	23.5 1.7	17.3 -26.5	16.1 -6.8	-31.5

Armed assault rates per 100,000 inhabitants are presented in Table 1. Gun assaults and non-gun aggravated assaults per 100,000 inhabitants are shown separately in Tables 2 and 3. The percentage that gun assaults represent of all armed assaults are contained in Table 4. In each of these tables, we compare crime trends in Massachusetts with those in New England states, excluding Massachusetts, Middle Atlantic states, North Central states, and the United States as a whole (excluding Massachusetts). As a comparison group, we have also included crime trends from counties in Rhode Island, Connecticut, New York, Vermont, and New Hampshire which are contiguous to Massachusetts.

The crime statistics in these tables are based on UCR data from police agencies which have consistently reported crime statistics to the UCR program over the period 1967 through 1976. In Massachusetts, these statistics come from 98 cities and towns. These agencies are responsible for approximately 75% of the aggravated assaults recorded by all police agencies in Massachusetts in 1976.

Each of Tables 1 through 4 contains annual assault trend statistics for the period 1967 through 1976 and also indicates the annual percentage change occurring in these trends over the ten-year period. In addition, the right-hand column shows the two-year percentage change in crime rates from 1974 to 1976.

Table 1 shows the extent to which the gun law has affected the level of armed assault in Massachusetts. In examining the annual assault rates for Massachusetts, we find that armed assaults showed a fairly regular increase throughout the period prior to the Bartley-Fox law. The 14.7% increase in armed assault which occurs in 1975, the year the gun law was introduced, appears to be a regular extension of the prior trend. Thus, we find no evidence at this point to suggest

the law has had an effect on the overall armed assault rates in Massachusetts.

Since the law's primary target is gun related crime, we might expect that the law has had a deterrent effect specific to gun assaults. Table 2 presents annual gun assault rates for Massachusetts and its control jurisdictions for 1967 through 1976. In examining annual gun assault rates for Massachusetts, we find that the first significant decline in this crime appears in 1975 -- the year Bartley-Fox was implemented. Gun assaults in that year were 15.7% lower than in 1974. The fact that this reduction coincided with the introduction of the Bartley-Fox law supports the hypothesis that the law has deterred some potential offenders from assaulting victims with firearms.

Comparison of these results with the gun assault trends in the control jurisdiction lends further support to the view that the gun law has reduced the incidence of gun assaults in Massachusetts. Examination of Table 2 indicates that only one of the control jurisdictions, the Middle Atlantic states, experienced any decline in gun assaults in 1975, and this was a rather minor decline. Compared to the 15.7% drop in gun assaults experienced by Massachusetts in 1975, the Middle Atlantic states showed only a 1.5% decrease, and the New England states (excluding Massachusetts) actually showed a 10.6% increase.*

When we examine the gun assault rates for 1976, a general decline is observed in this type of crime perhaps resulting from various unmeasured macrosocial and economic phenomena. It should be noted that

* We would like to point out that the gun assault rates for the counties contiguous to Massachusetts show considerably more fluctuation than the rates for either Massachusetts or the other control groups due to their relatively small population base. The instability in their statistics reduce their value as a control group.

each of the control jurisdictions and Massachusetts experience^(d) a decline in its gun assault rates ranging from 13.3% for the New England region to 4.3% for Massachusetts. A general downward trend in gun assaults appeared in all the jurisdictions in 1976; when the overall two-year decline in gun assaults from 1974 to 1976 is examined, we find that Massachusetts' gun assault rates have declined by 19.3% versus declines of less than 5% for all other jurisdictions except the Middle Atlantic states, which show a 12.6% decline. As we will indicate below, UCR statistics may underestimate the actual decline that occurred in Massachusetts gun assaults following the introduction of the Bartley-Fox law. In the Refinement of Boston Analysis section, we shall present data which indicate that the gun law and its publicity may have made citizens more likely to report gun assaults. To the extent that such a phenomenon exists, it would tend to artificially inflate post-Bartley-Fox UCR reported gun assault statistics.

We have now observed a considerable decline in gun assaults in Massachusetts associated with the introduction of the Bartley-Fox gun law (Table 2), but no clear change in the overall level of armed assaults after the policy intervention (Table 1). This suggests that the new law has stopped people from assaulting with guns, but that it has not stopped them from assaulting. The data at this point suggest a weapons displacement effect -- that other weapons have displaced guns in assaultive behavior without altering the overall level of assaultive behavior.

Table 3 presents annual statistics on non-gun armed assaults in Massachusetts and its control jurisdictions. Significantly, non-gun armed assaults in Massachusetts show a 24.1% increase between 1974 and 1975, at the same time that gun assaults were showing a 15.7% decrease.

When we examine the pre-intervention history of non-gun armed assaults in Massachusetts, we see that the 24.1% increase in this type of assault occurring in 1975 is much greater than any prior rise.

This evidence suggests that while the law may have induced some offenders to stop using firearms, it did not necessarily stop their assaultive behavior. Indeed, some offenders may have substituted other types of deadly weapons for the guns they carries prior to Bartley-Fox. Whether this is actually the case and/or whether it represents a conscious choice on the part of the potential offenders to carry other weapons as opposed to their simply accessing situationally-convenient weapons when assaultive situations arise are still open questions.

The final table in this subsection, Table 4, shows annual statistics on gun assaults as a percentage of all armed assaults. When viewed as a measure of the gun law's impact, it reflects the combined deterrent and displacement effects of the law. This, of course, makes its interpretation somewhat ambiguous. Hence, we include it here, simply as another way of looking at the gun law's impact. In referring to Table 4, we find that from 1970 to 1974 gun assaults represented approximately 23% of armed assaults in Massachusetts, whereas after implementation of the law, the gun's share of armed assaults dropped to 16% of the total in 1976 -- a 30% reduction.

2. Intervention Point Analysis.

So far, we have analyzed the effect of the law by comparing assault trends in Massachusetts with trends in selected control group jurisdictions. This analysis has revealed that Massachusetts experienced substantial changes in gun and non-gun related assault levels after the implementation of the Bartley-Fox law -- changes not found in the control jurisdictions.

Specifically, we found that following the introduction of the Bartley-Fox law, the incidence of gun assaults showed a relatively greater decline in Massachusetts than in the control jurisdictions, and the incidence of non-gun assault showed a relatively greater increase. Now we will turn to the question of whether the changes we have observed in Massachusetts gun and non-gun assault rates represent statistically significant shifts in the incidence of these crimes, and if so, at what point in time the gun control law shows its first statistically significant impact on gun and non-gun assaults.

The first step in our intervention point analysis before any statistical analysis is undertaken will be to carefully examine the period of time over which we might reasonably expect the Bartley-Fox law to show its first impact on crime. As with most policy intervention, the a priori identification of an intervention date is by no means completely clear. April, 1975, the date the gun law was eventually implemented is, of course, a prime candidate as the point of impact of the law. However, the law actually went into effect for the first two weeks of January, 1975, before it was retroactively postponed until *that* April. This false start, plus the gun law's substantial two months' publicity campaign prior to implementation might also have affected crime. If this were the case, we might expect the gun law, or more accurately its publicity, to have affected gun and non-gun related assaults as early as February of 1975.

On the other hand, it may have taken several months or more for many citizens to adjust their patterns of gun carrying or perhaps even to hear about the law. In either of these two cases, we would not expect to find an impact of the gun law immediately after its

implementation (i.e., April, 1975). Therefore, in this analysis, we shall examine a range of hypothetical intervention points for statistically significant departures from the established trends in Massachusetts gun and non-gun related armed assault trends. We have chosen January, 1975 as the earliest and August, 1975 as the latest intervention points we shall examine at which we will look for a statistically significant impact of the Bartley-Fox law. We shall test for statistically significant departures in Massachusetts' crime trends in each month successively over the period January to August, 1975 inclusive.

To conduct the intervention point analysis, we have drawn upon statistical techniques originally formulated by Box and Jenkins (1970) and more recently elaborated by Deutsch (1977) and Glass et al. (1975). Using these statistical techniques on monthly UCR statistics, we can characterize the pre-intervention history of Massachusetts' gun and non-gun assault trends with one of a variety of time series models, usually referred to as ARIMA models (Auto-Regressive-Integrated-Moving Average Models).

For a given ARIMA model, we estimate the model's parameters by using a program (ESTIM) developed by Stuart Deutsch. These estimates in conjunction with the model selected enable us to characterize the pre-intervention history of the time series in terms of its long-term trends, seasonal cycles, and moving average and/or autoregressive components. Once we have characterized the history of the time series, we use this information to predict what future course the series would take if all factors affecting crime rates remained constant. This allows a test of whether the actual observed crime trends after the policy intervention exhibit statistically significant departures from the predicted future of the crime time series based on its history

prior to the policy intervention, in this case, the Bartley-Fox law.

A major advantage of this methodology is that the techniques are capable of incorporating seasonal cycles which are often found in crime data. This is particularly important because seasonal fluctuations can obscure immediate or short-term effects of a policy intervention. When regular seasonal cycles are observed in the data, as has been the case with monthly assault statistics in Massachusetts, the information from Deutsch's ESTIM program is used to deseasonalize the data. After this step, the future of the time series is predicted in terms of its trend and ARIMA components.

Table 5 (below) presents the results of intervention point analysis for gun assaults in Massachusetts:

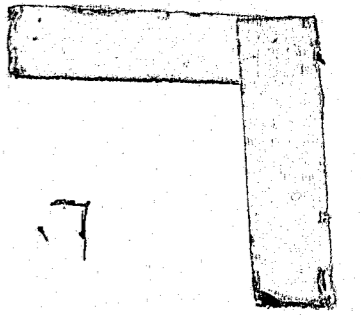


Table 5

Estimated Shift in Gun Assaults Per 100,000 Inhabitants in Massachusetts for Successively Later Post-Intervention Points in 1975

# of Post- Inter- vention Months	<u>Month of Intervention</u>															
	Jan.		Feb.		March		April		May		June		July		August	
	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.
1	-.25	.48	-.06	.86	-.91	.01	-.49	.18	-.42	.26	-.13	.72	-.28	.44	-.43	.24
2	-.19	.50	-.48	.09	-.79	.00	-.50	.07	-.32	.26	-.22	.44	-.38	.18	-.22	.43
3	-.43	.09	-.53	.03	-.76	.00	-.45	.07	-.35	.16	-.31	.22	-.29	.27	-.23	.37
4	-.49	.04	-.57	.01	-.71	.00	-.47	.05	-.41	.08	-.26	.27	-.29	.23	-.21	.39
5	-.53	.02	-.55	.01	-.71	.00	-.51	.02	-.38	.10	-.27	.24	-.28	.24	-.16	.49
6	-.52	.02	-.57	.01	-.74	.00	-.48	.03	-.38	.09	-.27	.24	-.24	.30	-.19	.40
7	-.54	.01	-.60	.00	-.71	.00	-.49	.02	-.38	.08	-.24	.28	-.26	.24	-.20	.38
8	-.56	.01	-.58	.00	-.71	.00	-.48	.02	-.35	.10	-.26	.24	-.27	.22	-.20	.37
9	-.55	.01	-.59	.00	-.71	.00	-.46	.03	-.37	.08	-.26	.23	-.27	.22	-.19	.39
10	-.56	.01	-.59	.00	-.69	.00	-.48	.02	-.37	.08	-.27	.22	-.26	.24	-.19	.39
11	-.56	.01	-.57	.00	-.70	.00	-.48	.02	-.38	.07	-.26	.23	-.26	.24	-.19	.39
12	-.55	.01	-.58	.00	-.71	.00	-.48	.02	-.37	.08	-.26	.23	-.26	.23	-.17	.45

In this table, each column contains results on the statistical significance of departures of shifts in the level of gun assaults for successive months. The results are presented for January, 1975 as the first hypothesized month of impact (in column 1) through August, 1975 (in column 8) the last hypothesized impact month. The first row in the table presents results on whether there is a statistically significant shift in the level of gun assaults for the month of impact noted at the top of the column.

If a statistically significant shift in the level of assaults is maintained for a number of months, these months after the hypothesized impact month will also show statistically significant departures from the pre-impact levels of the time series for that period. If, on the other hand, such a shift is temporary, post-impact months will begin to lose significant effects as assaults return to pre-impact levels. Each of the remaining rows presents the test results for successively later points in time after the hypothesized months of impact being examined. Thus, the first column presents results for January, 1975 through December, 1975, and the last column presents results for August, 1975 through July, 1976.

By looking across the top row of Table 5, we can identify the first month in which a statistically significant shift in gun assaults in Massachusetts occurs. We find no significant change in gun assaults in either January, 1975 or February, 1975. However, in March, 1975, we find the first statistically significant downward shift in gun assaults. Looking down this column, we see that each successively later month after March, 1975 (until the last month January, 1976) also exhibits statistically significant reductions in gun assaults.*

*These results are similar to those reported by Deutsch & Alt (1977) for gun assaults in Boston.

Thus, we find a statistically significant reduction in Massachusetts' gun assaults in the month prior to the implementation of the Bartley-Fox law. These findings support the suggestion that the pre-implementation publicity independently affected patterns of gun carrying among potential offenders, perhaps because they assumed the law was actually in effect. When we examined hypothetical impact points after March, 1975 (the April through August columns to the right of March), we find that the estimated downward shift in gun assaults tends to disappear. This does not represent an attenuation of the law's effect over time; rather, it occurs because as we proceed from April through August, 1975, we are incorporating more and more (post-impact) effects of the law into the (pre-impact) history of the time series.

Table 6 (below) addressed the issue of the law's potential impact on non-gun armed assaults in Massachusetts:

Table 6

Estimated Shift in Non Gun Armed Assaults per 100,000 Inhabitants in Massachusetts for Successively Later Post-Intervention Points in 1975

# of Post- Inter- vention Months	<u>Month of Intervention</u>															
	Jan		Feb		March		April		May		June		July		August	
	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.
1	.48	.55	.30	.67	.07	.92	.43	.54	.81	.25	1.81	.01	1.88	.01	2.35	.00
2	.42	.46	.23	.68	.25	.66	.66	.24	1.40	.01	2.15	.00	2.55	.00	.98	.16
3	.38	.47	.32	.54	.45	.39	1.10	.04	1.79	.00	2.65	.00	1.86	.00	.66	.33
4	.44	.39	.45	.36	.77	.13	1.42	.00	2.22	.00	2.25	.00	1.59	.00	.65	.33
5	.52	.30	.69	.17	1.03	.05	1.77	.00	1.99	.00	2.06	.00	1.55	.00	.55	.42
6	.67	.19	.88	.09	1.29	.02	1.63	.00	1.87	.00	2.03	.00	1.43	.01	.49	.47
7	.79	.14	1.08	.05	1.20	.03	1.55	.00	1.85	.00	1.92	.00	1.34	.03	.48	.48
8	.91	.11	1.02	.06	1.15	.03	1.54	.00	1.77	.00	1.84	.00	1.31	.03	.48	.48
9	.87	.13	.98	.08	1.15	.03	1.48	.00	1.69	.00	1.81	.00	1.31	.03	.48	.47
10	.85	.14	.98	.07	1.11	.04	1.43	.01	1.67	.00	1.81	.00	1.32	.03	.49	.47
11	.85	.13	.95	.09	1.07	.06	1.41	.01	1.67	.00	1.82	.00	1.33	.03	.49	.47
12	.83	.15	.92	.10	1.06	.06	1.41	.01	1.67	.00	1.83	.00	1.33	.03	.49	.48

As we would expect from our control group analysis (see Table 3), we find a statistically significant increase in non-gun armed assaults. Following the top row across the table, we find that non-gun armed assaults show a statistically significant upward shift in June of 1975. This change is indicated as early as May, 1975, although at that point it is not statistically significant.

The results of these two tables support our earlier analysis of the gun law's effect on gun and non-gun armed assaults in Massachusetts, where we found that gun assaults began showing a statistically significant decline starting in March, 1975, and non-gun armed assaults began to exhibit a significant increase in June, perhaps starting in May of 1975. These results suggest that the publicity surrounding the Bartley-Fox law discouraged gun assaults, but that shortly thereafter potential offenders turned to other types of deadly weapons without giving up assaultive behavior.

D. Regions Within Massachusetts: Boston vs. Other Massachusetts Communities.

The previous subsection examined the overall impact of the Bartley-Fox law on gun and non-gun armed assaults throughout Massachusetts. In this section, we examine whether the law has had a differential impact in different areas of the state. We have divided the state into Boston and non-Boston Massachusetts for two reasons. First, Boston is by far the largest city in Massachusetts, and over half the reported assaults occurring in Massachusetts take place in Boston. In 1975, for example, there were an estimated 11,502 aggravated assaults in the entire state, and Boston accounted for 3,290 of these or 29% of the UCR estimated total. (Boston also represented 58% of the UCR estimated robberies in Massachusetts in 1976.) Our second reason for separating Boston from

the rest of the state in this phase of the analysis is that Boston represents a unique environment in Massachusetts, not only in terms of its urban environment, but also because it is a focal point for media attention. Thus, it is possible that the gun law might exhibit unique effects in Boston.

1. Impact on Boston.

As we did in our analysis of Massachusetts as a whole, here we will first compare Boston assault trends with those in selected control groups and then proceed with an intervention point analysis.

a. Control group comparisons. Tables 7 through 11 (below present annual armed assault trends for Boston (the bottom row of these tables) and selected control jurisdictions:

Table 7

Armed Assaults per 100,000 in Boston and Comparison Cities with 250,000 to 1,000,000 Inhabitants for the Period 1967 to 1976

Cities 250,000 - 500,000

<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Rate	172.6	204.6	226.7	240.2	256.4	252.9	267.0	289.5	313.6	324.5	12.1
	% Change		18.5	10.8	6.0	6.7	-1.4	5.6	8.4	8.4	3.5	
North Central States	Rate	135.4	159.5	176.2	189.3	183.1	203.6	209.9	255.9	278.0	292.3	14.2
	% Change		17.8	10.4	7.4	-3.2	11.2	3.1	21.9	8.6	5.1	
Middle Atlantic States	Rate	175.3	210.5	236.9	251.0	278.6	268.9	260.6	238.4	268.4	263.3	10.4
	% Change		20.1	12.5	5.9	11.0	-3.5	-3.1	-8.5	12.6	-1.9	

Cities 500,000 - 1,000,000

United States Without Massachusetts	Rate	206.8	248.1	296.7	295.9	294.8	280.9	278.2	290.2	298.3	290.8	.2
	% Change		20.0	19.6	-.3	-.4	-4.7	-.9	4.3	2.8	-2.5	
North Central States	Rate	148.7	174.2	229.0	229.8	216.4	212.9	214.0	252.5	272.8	266.6	5.6
	% Change		17.2	31.4	.3	-5.8	-1.6	.5	18.0	8.1	-2.3	
Massachusetts (Boston)	Rate	193.2	241.2	246.5	249.8	292.7	309.7	340.1	391.4	468.0	496.6	26.9
	% Change		24.8	2.2	1.3	17.2	5.8	9.8	15.1	19.6	6.1	

Table 8

Gun Assaults per 100,000 in Boston and Comparison Cities with 250,000 to 1,000,000 Inhabitants for the Period 1967 to 1976

<u>Cities 250,000 - 500,000</u>												
<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Rate	51.0	64.9	73.9	78.2	88.1	89.7	99.1	108.1	115.4	111.5	3.1
	% Change		27.2	14.9	5.8	12.7	1.9	10.5	9.1	6.7	-3.4	
North Central States	Rate	42.6	58.4	66.4	72.3	68.4	76.7	83.0	101.6	115.7	117.1	15.2
	% Change		37.0	13.7	8.8	-5.4	12.2	8.2	22.4	13.8	1.2	
Middle Atlantic States	Rate	32.9	45.5	49.3	50.8	70.8	65.4	63.9	57.4	60.2	53.2	-7.4
	% Change		38.2	8.5	3.0	39.3	-7.6	-2.3	-10.1	4.8	-11.6	
<u>Cities 500,000 - 1,000,000</u>												
United States Without Massachusetts	Rate	58.3	78.5	99.2	102.7	106.7	104.7	105.9	111.7	113.8	103.3	-7.5
	% Change		34.6	26.4	3.5	3.9	-1.9	1.2	5.4	1.9	-9.2	
North Central States	Rate	57.5	76.8	111.2	106.4	102.4	98.3	101.6	120.9	130.0	119.2	-1.4
	% Change		33.5	44.7	-4.3	-3.7	-4.0	3.3	19.0	7.6	-8.3	
Massachusetts (Boston)	Rate	43.2	55.1	54.4	60.6	79.8	76.4	89.2	101.4	87.8	89.6	-11.7
	% Change		27.7	-1.3	11.4	31.6	-4.3	16.8	13.7	-13.5	2.0	

CONTINUED

1 OF 6

Table 9

Non Gun Armed Assaults per 100,000 in Boston and Comparison Cities with 250,000 to 1,000,000 Inhabitants for the Period 1967 to 1976

<u>Cities 250,000 - 500,000</u>												
<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Rate	121.6	139.7	152.8	162.1	168.4	163.2	167.9	181.3	198.2	213.0	
	% Change		14.8	9.4	6.0	3.9	-3.1	2.8	8.0	9.3	7.5	17.5
North Central States	Rate	92.7	101.1	109.7	117.0	114.8	126.9	126.8	154.2	162.3	175.2	
	% Change		9.0	8.5	6.6	-1.9	10.6	-0	21.6	5.2	8.0	13.6
Middle Atlantic States	Rate	142.4	165.1	187.6	200.1	207.8	203.5	196.7	181.1	208.2	210.1	
	% Change		15.9	13.6	6.7	3.9	-2.1	-3.4	-8.0	15.0	.9	16.1
<u>Cities 500,000 - 1,000,000</u>												
United States Without Massachusetts	Rate	148.5	169.6	197.4	193.1	188.1	176.2	172.3	178.5	184.6	187.5	
	% Change		14.2	16.4	-2.2	-2.6	-6.3	-2.2	3.6	3.4	1.6	5.0
North Central States	Rate	91.2	97.4	117.8	123.4	114.0	114.6	112.5	131.6	142.8	147.4	
	% Change		6.9	21.0	4.7	-7.6	.5	-1.9	17.1	8.5	3.2	12.0
Massachusetts (Boston)	Rate	150.0	186.0	192.1	189.2	212.9	233.3	250.9	290.0	380.2	407.0	
	% Change		24.0	3.2	-1.5	12.6	9.6	7.6	15.6	31.1	7.0	40.4

Table 10

Percent Gun Assaults of Total Armed Assaults in Boston and Comparison Cities with 250,000 to 1,000,000 Inhabitants for the Period 1967 to 1976

<u>Cities 250,000 - 500,000</u>												
<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Percent % Change	29.5	31.7 7.4	32.6 2.8	32.5 -.1	34.4 5.5	35.5 3.3	37.1 4.7	37.4 .6	36.8 -1.5	34.4 -6.6	- 8.7
North Central States	Percent % Change	31.5	36.6 16.3	37.7 3.0	38.2 1.3	37.3 -2.2	37.7 .9	39.6 5.0	39.7 .4	41.6 4.8	40.0 -3.8	.8
Middle Atlantic States	Percent % Change	18.8	21.6 15.0	20.8 -3.6	20.3 -2.7	25.4 25.4	24.3 -4.3	24.5 .9	24.1 -1.8	22.4 -6.9	20.2 -9.9	-16.1
<u>Cities 500,000 - 1,000,000</u>												
United States Without Massachusetts	Percent % Change	26.2	31.6 12.2	33.4 5.7	34.7 3.8	36.2 4.3	37.3 2.9	38.1 2.2	38.5 1.1	38.1 -.9	35.5 -6.8	- 7.7
North Central States	Percent % Change	38.7	44.1 13.9	48.5 10.1	46.3 -4.6	47.3 2.2	46.2 -2.4	47.5 2.7	47.9 .9	47.7 -.4	44.7 -6.2	- 6.6
Massachusetts (Boston)	Percent % Change	22.4	22.9 2.3	22.1 -3.4	24.3 10.0	27.3 12.3	24.7 -9.5	26.2 6.3	25.9 -1.2	18.8 -27.6	18.0 -3.8	-30.4

Table 11

Estimated Shift in Gun Assaults per 100,000 INhabitants in Boston for Successively Later Post-Intervention Points in 1975

# of Post- Inter- vention Months	Month of Intervention															
	Jan.		Feb.		March		April		May		June		July		August	
	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.
1	-.41	.75	-.04	.97	-4.18	.00	-2.70	.05	.55	.69	-1.12	.41	1.04	.45	-1.13	.41
2	-.32	.76	-2.05	.05	-3.88	.00	-1.50	.16	-.14	.89	-.24	.82	.14	.89	-.58	.59
3	-1.50	.14	-2.47	.01	-3.03	.00	-1.59	.09	.18	.84	-.54	.58	.21	.82	-.33	.73
4	-1.87	.06	-2.14	.02	-2.97	.00	-1.22	.17	-.05	.95	-.44	.63	.30	.75	-.20	.82
5	-1.70	.08	-2.19	.01	-2.66	.00	-1.33	.12	-.00	.99	-.34	.70	.36	.69	-.29	.74
6	-1.77	.06	-2.01	.02	-2.70	.00	-1.26	.13	.04	.95	-.27	.75	.28	.75	-.40	.64
7	-1.67	.08	-2.07	.01	-2.63	.00	-1.18	.15	.08	.92	-.33	.70	.20	.82	-.35	.68
8	-1.71	.07	-2.03	.01	-2.57	.00	-1.13	.16	.04	.95	-.39	.65	.23	.79	-.35	.68
9	-1.70	.07	-2.00	.01	-2.52	.00	-1.16	.15	.00	.99	-.36	.67	.23	.79	-.34	.68
10	-1.68	.07	-1.97	.02	-2.54	.00	-1.20	.13	.02	.98	-.36	.66	.23	.79	-.34	.68
11	-1.67	.07	-1.98	.01	-2.57	.00	-1.18	.14	.02	.98	-.36	.67	.22	.80	-.35	.67
12	-1.68	.07	-2.01	.01	-2.55	.00	-1.18	.13	.02	.97	-.37	.65	.22	.79	-.27	.74

Since Boston's population has averaged approximately 600,000 inhabitants over the last decade, we have selected as our control jurisdictions cities in two size categories: 250,000 to 500,000 inhabitants and 500,000 to 1,000,000 inhabitants for the United States, the North Central region, and the Middle Atlantic states. There are no cities in this population range in New England other than Boston. (The Middle Atlantic states have no cities with 500,000 to 1,000,000 residents.)

Table 7 presents annual rates of all armed assaults in Boston and its control jurisdictions. We find that Boston actually shows a 19.6% increase in armed assaults between 1974 and 1975. Note that none of the control cities show an increase in armed assault rates between 1974 and 1975 as great as Boston's. If anything, the gun law would appear to have increased the level of armed assaults in Boston -- a result that could occur if any deterrent effect on gun assaults was more than offset by a displacement effect to non-gun armed assaults.

As noted earlier, we expect the Bartley-Fox law to deter gun assaults because the law is aimed specifically at the illegal use of firearms. Table 8 displays annual gun assault rates per 100,000 residents for Boston and its control cities for 1967 through 1976. Examining Boston's annual statistics over this period, we find that the largest decline occurs in 1975, the year the gun law was implemented. By contrast, Boston's control jurisdictions all show increases in their gun assault rates between 1974 and 1975 ranging from 1.9% for all cities (excluding Boston) in the United States with populations of 500,000 and 1,000,000 residents to 13.8% for cities in the North East Central region with populations of 250,000 to 500,000 inhabitants.

When the 1974 to 1976 two-year change is examined, we find that Boston exhibits an overall drop of 11.7% in gun assaults compared to

increases of 3.1% and 15.2% for cities with 250,000 to 500,000 inhabitants in the United States and North East Central region, respectively, and decreases of 7.4%, 7.5%, and 1.4% for the other control groups.

Although Boston's decline of 11.7% in gun assaults does not appear that much greater than the 7.4% and 7.5% decreases shown by Middle Atlantic cities of 250,000 to 500,000 and United States cities of 500,000 and 1,000,000, we will show evidence later (in the Refinement of Boston Analysis section) that indicates these statistics underestimate the impact of the Bartley-Fox law on gun assaults in Boston.

And what about the gun law's effect on assaults with deadly weapons other than guns in Boston? Table 9 presents annual non-gun armed assault rates for Boston and its control jurisdictions. Boston shows a 31.1% increase in non-gun armed assaults between 1974 and 1975 representing the greatest one-year change anywhere in the table. Examination of Table 9 further shows that over the two-year period 1974 to 1976 non-gun armed assaults in Boston experienced a 40.4% increase. This compares with increases of only 5.0% to 17.5% in the control cities over the same period. Evidently, the displacement effect of the gun law is present in Boston as it is statewide. Indeed, at this point in our analysis, the displacement effect appears stronger than the deterrent effect in Boston.

As noted previously, the portion of all armed assaults that guns represent reflects the combined deterrent and displacement effects of the gun law. The annual statistics for Boston, as shown in Table 10, indicate that between 1970 and 1974 gun assaults represented between 24% to 27% of all armed assaults in Boston. After introduction of the Bartley-Fox law, gun assaults dropped to approximately 18% of the total armed assaults. The combined deterrent and displacement effects, as

reflected in these figures for Boston, correspond quite closely to the statewide figures.

b. Intervention point analysis. Following the procedure established in the analyses of the statewide impact of the Bartley-Fox law on gun and non-gun assaults, we shall examine a range of hypothesized impact points for statistically significant departures from prior trends. We will again employ techniques developed by Stuart Deutsch to test for statistically significant shifts in Boston assault statistics.

Table 11 presents the results of the intervention point analysis for gun assaults in Boston. As we did with our earlier analysis on Massachusetts gun assaults, we here examine a range of hypothetical impact months from January, 1975 to August, 1975. For each of these points, the eleven months following the intervention month will be examined to determine whether any intervention effects are maintained over time.

The top row of Table 11 shows that the first statistically significant shift in the Boston gun assault rate occurs in March, 1975 -- the same month identified in the statewide analysis of the gun law's impact. The March, 1975 shift represents a 4.18% drop in the gun assault rate and is significant beyond the .01 level. The March, 1975 column reveals that each month after March continues to exhibit a statistically significant reduction in gun assaults.

In Table 12 (below), we can examine the gun law's impact on non-gun armed assault in Boston:

Table 12

Estimated Shift in Non Gun Armed Assaults per 100,000 Inhabitants in Boston for Successively Later Post-Intervention Points in 1975

# of Post-Intervention Months	Month of Intervention															
	Jan.		Feb.		March		April		May		June		July		August	
	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.
1	2.71	.32	.35	.89	.84	.75	.87	.74	4.37	.10	6.71	.01	10.07	.00	8.29	.00
2	1.94	.38	.63	.77	.96	.65	2.65	.22	6.08	.00	7.61	.00	12.18	.00	2.48	.41
3	1.88	.35	.79	.69	2.10	.29	4.25	.03	8.48	.00	12.00	.00	8.68	.00	1.92	.52
4	1.91	.32	1.61	.40	3.31	.09	6.21	.00	10.46	.00	9.73	.00	7.81	.00	2.04	.50
5	2.43	.20	2.52	.18	4.82	.01	7.84	.00	9.06	.00	8.92	.00	7.81	.00	1.85	.55
6	3.03	.12	3.67	.07	6.10	.00	6.97	.00	8.53	.00	8.87	.00	7.37	.00	1.85	.54
7	3.77	.07	4.64	.03	5.51	.01	6.65	.00	8.52	.00	8.25	.00	7.30	.00	1.84	.54
8	4.39	.05	4.24	.06	5.30	.01	6.68	.00	8.04	.00	8.08	.00	7.27	.00	1.84	.54
9	4.12	.07	4.09	.06	5.34	.02	6.34	.00	7.90	.00	7.98	.00	7.28	.00	1.85	.54
10	4.03	.08	4.13	.06	5.09	.02	6.25	.00	7.81	.00	7.98	.00	7.31	.00	1.85	.54
11	4.05	.07	3.95	.08	5.02	.02	6.18	.00	7.80	.00	8.05	.00	7.33	.00	1.85	.54
12	3.95	.09	3.90	.08	4.98	.02	6.18	.00	7.86	.00	8.10	.00	7.32	.00	1.85	.55

Following the top row across the table, we find, as in the statewide intervention point analysis (see Table 6), that non-gun armed assaults show a statistically significant upward shift in June of 1975. Also, like the statewide analysis, this change appears to be emerging in May, 1975.

The results of these two tables indicate that gun assaults show a statistically significant decline starting one month prior to the implementation of the gun law and that non-gun armed assaults show a significant upward shift three months after implementation. Both these results coincide with our earlier statewide intervention point analysis. We shall now examine the impact of the gun law in Massachusetts on communities other than Boston.

2. Impact on Non-Boston Massachusetts.

For the analysis of Massachusetts cities and towns, excluding Boston, consistent over time, assault statistics were not available for all communities in the state. Over the period from 1967 to 1976, 97 Massachusetts cities and towns showed consistent reporting records to the UCR program. These communities form the basis for the non-Boston Massachusetts analysis. In 1976, they accounted for 65% of the estimated total of aggravated assaults occurring in Massachusetts outside of Boston.

As in the earlier statewide Massachusetts and Boston analyses of armed assaults, we first compared non-Boston Massachusetts communities with those in selected control groups and then proceeded with an intervention point analysis.

a. Control group comparisons. Tables 13 through 16 (below) present annual armed assault trends for Massachusetts communities, excluding Boston, and selected control jurisdictions:

Table 13

Armed Assaults per 100,000 in Massachusetts Excluding Boston and Comparison Cities of Under 250,000 Inhabitants for the Period 1967 to 1976

Regions	Annual Rates and % Change	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1974-1976 % Change
United States Without Massachusetts	Rate % Change	74.3	80.0 7.7	87.5 9.3	97.2 11.1	104.1 7.1	110.3 5.9	119.7 8.5	134.7 12.6	145.6 8.1	146.4 .5	8.7
North Central States	Rate % Change	56.9	65.5 15.1	76.2 16.2	86.2 13.2	85.7 -.7	93.3 8.9	105.1 12.7	115.9 10.2	127.2 9.7	123.0 -3.3	6.2
Middle Atlantic States	Rate % Change	49.5	39.0 -21.2	41.1 5.4	44.7 8.7	54.1 20.9	63.1 16.8	70.8 12.2	76.4 7.9	76.2 -.3	77.0 1.0	.7
New England Without Massachusetts	Rate % Change	45.1	58.5 29.7	65.3 11.6	75.9 16.3	78.9 4.0	73.4 -7.0	74.0 .9	80.7 8.9	85.5 6.0	88.1 3.1	9.2
Massachusetts	Rate % Change	25.0	25.9 3.7	31.3 20.7	38.9 24.2	44.1 13.5	50.7 14.9	67.0 32.3	73.3 9.4	80.0 9.1	78.7 -1.6	7.3

Table 14

Gun Assaults per 100,000 in Massachusetts Excluding Boston and Comparison Cities of Under 250,000 Inhabitants
for the Period 1967 to 1976

Regions	Annual Rates and % Change	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1974-1976 % Change
		United States Without Massachusetts	Rate % Change	20.4	23.6 15.3	26.3 11.6	30.5 15.9	34.0 11.6	36.5 7.4	40.6 11.1	45.8 12.8	47.7 4.1
North Central States	Rate % Change	16.5	20.2 22.2	24.7 22.4	28.8 16.6	30.6 6.4	34.3 12.2	40.1 16.9	44.5 10.9	46.9 5.4	43.8 - 6.6	- 1.6
Middle Atlantic States	Rate % Change	8.7	7.4 -15.0	8.7 17.6	9.3 7.2	11.9 27.5	14.1 18.6	15.3 8.4	15.9 3.9	15.2 - 3.8	15.0 - 1.4	- 5.2
New England States Without Massachusetts	Rate % Change	10.8	14.4 32.5	17.2 19.3	19.4 13.0	20.1 3.5	15.1 -24.6	17.6 16.5	16.1 - 8.9	18.1 12.4	16.0 -11.4	- .4
Massachusetts	Rate % Change	3.7	4.2 14.7	5.2 21.9	8.5 64.3	9.2 8.6	10.1 9.5	13.2 30.8	15.2 15.4	12.3 -18.9	10.6 -14.2	-30.4

Table 15

Non-Gun Armed Assaults per 100,000 in Massachusetts Excluding Boston and Comparison Cities of Under 250,000 Inhabitants
for the Period 1967 to 1976

Regions	Annual Rates and % Change		1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1974-1976 % Change
	Rate	% Change											
United States Without Massachusetts	Rate	% Change	53.8	56.5 4.9	61.2 8.4	66.7 9.0	70.1 5.1	73.7 5.2	79.1 7.2	88.9 12.4	97.9 10.2	101.2 3.3	13.8
North Central States	Rate	% Change	40.4	45.4 12.2	51.5 13.5	57.5 11.6	55.1 - 4.2	58.9 7.0	65.0 10.3	71.4 9.8	80.3 12.5	79.2 - 1.3	11.0
Middle Atlantic States	Rate	% Change	40.8	31.6 -22.6	32.4 2.6	35.4 9.1	42.2 19.2	49.0 16.2	55.6 13.3	60.6 9.0	61.0 .6	62.0 1.6	2.3
New England States Without Massachusetts	Rate	% Change	34.2	44.1 28.9	48.1 9.0	56.5 17.4	58.8 4.2	58.2 - 1.0	56.4 - 3.1	64.6 14.5	67.4 4.4	72.1 6.9	11.6
Massachusetts	Rate	% Change	21.3	21.7 1.9	26.1 20.4	30.4 16.3	34.9 14.9	40.6 16.3	53.9 32.6	58.1 7.9	67.6 16.4	68.1 .7	17.1

Table 16

Percent Gun Assaults of Total Armed Assaults per 100,000 in Massachusetts Excluding Boston and Comparison Cities of under 250,000 Inhabitants

Regions	Annual Rates and % Change	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1974-1976 % Change
United States Without Massachusetts	Rate % Change	27.5	29.4 7.0	30.1 2.1	31.4 4.4	32.7 4.1	33.1 1.4	33.9 2.4	34.0 .2	32.7 -3.7	30.9 -5.8	- 9.2
North Central States	Rate Change	29.0	30.8 6.2	32.4 5.3	33.4 3.0	35.7 7.1	36.8 3.1	38.2 3.7	38.4 .6	36.9 -4.0	35.6 -3.4	- 7.3
Middle Atlantic States	Rate % Change	17.6	18.9 7.9	21.1 11.6	20.8 -1.4	22.0 5.4	22.3 1.6	21.6 -3.4	20.7 -3.7	20.0 -3.6	19.5 -2.4	- 5.9
New England Without Massachusetts	Rate % Change	24.1	24.6 2.1	26.3 7.0	25.6 -2.8	25.4 -.5	20.6 -18.9	23.8 15.5	19.9 -16.3	21.1 6.1	18.2 -14.0	- 8.8
Massachusetts	Rate % Change	14.7	16.3 10.6	16.5 1.0	21.8 32.3	20.8 -4.3	19.9 -4.7	19.6 -1.1	20.7 5.5	15.4 -25.6	13.4 -12.7	-35.1

Massachusetts communities other than Boston all have fewer than 250,000 inhabitants. For the control jurisdictions, then, we used communities with populations under 250,000 for the United States, the North East Central states, the Middle Atlantic states, and the New England states, excluding Massachusetts). These communities were drawn from our UCR Return A data base.

Table 13 presents armed assault rates for non-Boston Massachusetts cities and towns and control jurisdictions. This table shows that non-Boston Massachusetts experienced a 9.1% increase in armed assaults in 1975. This increase is virtually the same as the 9.4% increase which non-Boston Massachusetts exhibited the year before. It is no more substantial than increases experienced in other jurisdictions, and it is by no means as strong as the increase in armed assaults exhibited in Boston after the introduction of the Bartley-Fox law.

What about the law's impact on gun versus non-gun armed assaults in non-Boston Massachusetts? Table 14 presents annual gun assault statistics for non-Boston Massachusetts communities and their control jurisdictions, and Table 15 presents annual non-gun assault statistics for these same geographic areas. At this point, it is useful to note the rather wide discrepancy in the per capita incidence of armed assaults, gun assaults, and non-gun armed assaults in Boston compared to the rest of Massachusetts. In 1975, for instance, Boston had an armed assault rate of 87.8% per 100,000 versus corresponding rates in other Massachusetts communities of 80.0% and 12.3% per 100,000 residents. The overall pattern of change we find associated with the introduction of the Bartley-Fox law is roughly similar to what we found in the analysis of Boston's gun and non-gun assault trends. Like Boston, other communities in Massachusetts showed a substantial decline (18.9%) in gun assaults

between 1974 and 1975. In the following year, however, these communities, unlike Boston, continued to show a decline in their gun assault rates. Over the two-year period following the Bartley-Fox law, gun assaults showed a 30.4% decline in non-Boston Massachusetts communities versus an 11.7% decline in Boston. Importantly, the 30.4% decline experienced by non-Boston Massachusetts communities (between 1974 and 1976) is also substantially greater than that experienced by any of the non-Boston Massachusetts control jurisdictions. None of these groups showed declines in their gun assault rates greater than 5% between 1974 and 1976.

We now turn to the potential displacement effects of the gun law in non-Boston Massachusetts communities. Here we see that non-gun armed assaults rose quite markedly in these communities as they also did in Boston following the introduction of the Bartley-Fox law. However, although upward patterns in non-gun armed assaults in these non-Boston Massachusetts communities is similar to what we found in Boston, the magnitude of the change is somewhat less. Non-gun armed assaults increased 16.4% in 1975 in non-Boston Massachusetts compared to a 31.1% increase in Boston. Likewise, the overall two-year change following Bartley-Fox (1974 to 1976) was 17.1% for non-Boston Massachusetts versus a 40.4% increase for Boston. Importantly, the rise in non-gun armed assaults experienced by non-Boston Massachusetts communities, although less than Boston's increase, is nevertheless more than that exhibited by any of its control jurisdictions (see Table 15).

Table 16 presented annual statistics on the portion of all armed assaults that guns represent in non-Boston Massachusetts and its control jurisdictions. As was the case in the Boston analysis, the percent that guns represent of all armed assaults dropped after the

introduction of the Bartley-Fox law from 20.7% in 1974 to 13.4% in 1975, an overall decline of 35.1% in the share that gun assaults represent of all armed assaults following the introduction of the Bartley-Fox law.

The control group analysis of Massachusetts communities of under 250,000 inhabitants has shown that following the introduction of the Bartley-Fox law, gun assaults declined, and the incidence of non-gun armed assaults increased. These results correspond with our earlier findings from the Boston and statewide analyses. We shall now proceed to examine whether the changes observed represent statistically significant departures from prior gun and non-gun armed assault trends.

b. Intervention point analysis. As in previous intervention point analyses, we shall now examine a range of hypothesized impact months for statistically significant shifts. Statistical techniques developed by Stuart Deutsch and techniques developed by Glass et al. (1975) will again be employed to test for the significance of changes in the levels of gun and non-gun armed assaults.

Table 17 (below) presents the results of the intervention point analysis for gun assaults in non-Boston Massachusetts:

Table 17

Estimated shift in Gun Assaults per 100,000 in Massachusetts Excluding Boston for Successively Later Post-Intervention Points in 1975

# of Post-Intervention Months	<u>Month of Intervention</u>															
	January		February		March		April		May		June		July		August	
	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.
1	-.06	.80	-.18	.47	.03	.91	-.56	.02	.17	.50	-.61	.01	-.23	.39		
2	-.13	.53	-.11	.59	-.25	.24	-.31	.14	-.17	.42	-.53	.01	-.12	.58		
3	-.10	.60	-.27	.16	-.16	.41	-.44	.02	-.21	.27	-.41	.03	-.18	.36		
4	-.21	.24	-.20	.26	-.27	.14	-.44	.01	-.18	.34	-.43	.01	-.18	.32		
5	-.18	.32	-.29	.10	-.29	.10	-.40	.02	-.21	.24	-.42	.01	-.13	.42		
6	-.25	.16	-.31	.07	-.27	.11	-.42	.01	-.21	.22	-.32	.04	-.13	.48		
7	-.26	.13	-.30	.08	-.29	.09	-.42	.01	-.16	.35	-.35	.02	-.14	.41		
8	-.25	.14	-.31	.07	-.30	.08	-.38	.02	-.18	.29	-.36	.01	-.15	.37		
9	-.27	.12	-.32	.06	-.27	.12	-.39	.02	-.19	.26	-.37	.01	-.14	.41		
10	-.27	.11	-.29	.09	-.30	.05	-.40	.01	-.20	.24	-.35	.01	-.18	.21		
11	-.25	.14	-.30	.08	-.31	.05	-.41	.01	-.19	.26	-.33	.02	-.19	.19		
12	-.26	.13	-.31	.07	-.29	.09	-.40	.01	-.19	.27	-.34	.01	-.17	.23		

A range of hypothesized impact months from January, 1975 through August, 1975 are examined. For each of these points, the eleven months following the hypothetical month are examined to determine whether any intervention effects discovered in the first month (the hypothesized month) are maintained over time.

The results are similar to those obtained in the Boston and Massachusetts statewide intervention analyses conducted earlier. Looking across the top row of Table 17, we find that the first statistically significant decline in gun assaults in non-Boston Massachusetts occurs in April, 1975, i.e., the first month the Bartley-Fox law was formally in operation and one month later than Boston's first statistically significant decline in its gun assault rate. Examination of the month after April (looking down the April column) shows that this decline in gun assaults continued at a statistically significant level.

To summarize the results of the intervention point analyses on gun assaults, we have found that both Boston and non-Boston Massachusetts communities experienced statistically significant declines in their gun assault rates and that these declines coincide with the introduction of the Bartley-Fox law. Boston showed a 4.18% shift in gun assaults (significant beyond the .01 level) in March, 1975; the other Massachusetts cities and towns we examined showed a 5.6% decline in gun assaults (significant at the .02 level) in April -- one month later than Boston. Both the timing of the downward shift in gun assaults in Massachusetts communities and the statistical significance of this decline strongly support the conclusion that the Bartley-Fox law had an immediate effect in deterring gun assaults throughout Massachusetts. We now turn to the issue of the law's impact on non-gun armed assaults in non-Boston Massachusetts communities.

Table 18 (below) presents the results of our intervention point analysis for non-Boston Massachusetts:

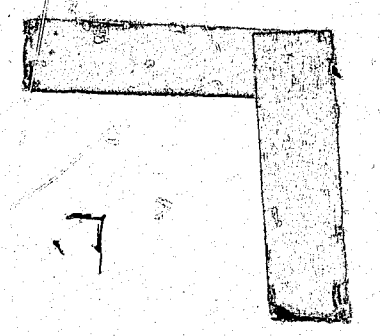


Table 18

Estimated Shift in Non Gun Armed Assaults per 100,000 in Massachusetts Excluding Boston for Successively Later Post-Intervention Points in 1975

# of Post- Inter- vention Months	<u>Month of Intervention</u>															
	January		February		March		April		May		June		July		August	
	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.	Shift	Sig.
1	.02	.95	.07	.89	.27	.62	.21	.70	.95	.09	.32	.56	.79	.16	.01	.98
2	.05	.90	.18	.70	.29	.53	.58	.22	.84	.07	.59	.22	.61	.20	-.17	.72
3	.12	.79	.21	.63	.50	.26	.61	.17	.97	.03	.56	.22	.47	.31	-.28	.55
4	.14	.74	.35	.43	.89	.22	.71	.11	.95	.03	.49	.28	.39	.39	-.31	.51
5	.23	.60	.38	.39	.61	.17	.71	.10	.90	.04	.44	.33	.36	.42	-.41	.39
6	.25	.57	.42	.34	.61	.16	.69	.11	.87	.04	.42	.34	.29	.54	-.42	.38
7	.28	.53	.42	.33	.60	.17	.67	.12	.85	.05	.37	.42	.27	.55	-.41	.39
8	.28	.52	.42	.34	.58	.18	.66	.13	.82	.07	.36	.43	.28	.54	-.41	.38
9	.27	.53	.41	.35	.58	.18	.64	.16	.81	.07	.37	.42	.28	.54	-.41	.39
10	.27	.53	.40	.35	.56	.21	.63	.16	.81	.07	.36	.42	.28	.54	-.40	.40
11	.27	.53	.40	.38	.56	.21	.63	.16	.81	.07	.37	.42	.28	.54	-.40	.43
12	.27	.53	.39	.38	.56	.21	.63	.15	.81	.07	.37	.42	.29	.56	-.40	.43

In this table, unlike our earlier statewide and Boston analysis of non-gun armed assaults (see Tables 6 and 12), we find no statistically significant upward shifts in non-gun armed assaults for any of the hypothesized impact months. However, closer inspection of this table reveals that borderline significant increases (near the .05 level) do appear to be emerging in May of 1975. These results are similar, although not as strong as, the earlier Boston and statewide findings on non-gun armed assaults.

Thus, above analyses show that while Boston and other Massachusetts communities exhibited decreases in gun assaults coinciding with the implementation of Bartley-Fox, these decreases were followed closely by increases in non-gun armed assaults. These results suggest that although some individuals may have ceased carrying firearms, the law did not reduce the likelihood of their becoming involved in assaults. When they did so, they may have either accessed situationally-convenient weapons or used different types of weapons they were carrying in place of their firearms. We shall now examine in greater detail the nature of the displacement effect of the Bartley-Fox law on non-gun armed assaults.

3. Specification of Assault Displacement Effect.

This section examines two types of non-gun armed assaults: those involving knives and those involving other deadly weapons. Both the UCR program and the BPD utilize these categories to collect their assault data. Knives probably represent the major alternative to the gun as an easily concealable weapon. If the increase we see in non-gun armed assaults is primarily confined to assaults with knives, this would suggest that potential offenders are making a purposive decision to

substitute other weapons for their guns, but rather, may instead be accessing situationally-convenient weapons (e.g., chairs, rocks, boards, etc.) when they encounter assaultive situations.

Table 19 (below) presents annual knife assault rates for Massachusetts, Boston, and non-Boston Massachusetts communities:

TABLE 19

Knife assaults per 100,000 in Massachusetts, Boston, and Massachusetts Communities Excluding Boston

<u>Regions</u>	<u>and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976</u> <u>% of Change</u>
Massachusetts	Rate	24.0	28.4	30.9	31.2	35.4	38.4	43.6	47.0	52.8	52.6	11.9
	Change		18.3	8.9	.9	13.7	8.3	13.5	7.8	12.5	-.5	
Boston	Rate	79.2	102.6	106.8	106.3	121.4	126.9	128.3	141.5	170.0	174.9	23.6
	Change		29.4	4.1	-.5	14.2	4.5	1.2	10.2	20.2	2.9	
Non Boston Massachusetts	Rate	11.2	11.7	13.6	13.6	15.6	18.2	24.5	25.8	26.6	25.2	-2.1
	% Change		4.8	16.4	-.4	15.0	16.5	34.5	5.4	3.2	-5.2	

These rates, as before, are based on UCR Return A statistics. The top row shows that statewide, Massachusetts experienced a slight increase in knife assaults in 1975. Further examination shows that most of the increase is confined to Boston. Boston experienced a 20.2% increase in knife assaults between 1974 and 1975 compared to only a 3.2% increase in other Massachusetts communities during this period. In neither Boston nor non-Boston Massachusetts, however, are the increases we see in knife assaults nearly as great as those exhibited by assaults with other deadly weapons.

Table 20 (below) reveals that assaults with other deadly weapons rose by 41.4% in Boston and 26.8% in non Boston Massachusetts between 1974 and 1975 (compared to 20.2% and 3.2% increases for knife assaults in these areas):

TABLE 20

Other Deadly Weapons Assaults per 100,000 in Massachusetts, Boston, and Massachusetts Communities Excluding Boston

<u>Regions</u>	<u>Annual Rate and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
Massachusetts	Rate	1.6	23.5	25.9	29.4	32.8	38.0	46.6	53.6	71.9	77.4	44.3
	% Change		9.1	9.9	13.6	11.8	15.8	22.5	15.2	34.1	7.6	
Boston	Rate	70.9	83.8	84.5	82.9	91.5	106.5	122.7	148.6	210.2	232.1	56.2
	% Change		18.1	.9	-1.9	10.4	16.3	15.2	21.1	41.4	10.4	
Non Boston Massachusetts	Rate	10.1	10.0	12.5	16.8	19.3	22.4	29.4	32.2	41.0	42.8	32.4
	% Change		-1.4	25.0	34.5	14.8	16.1	31.2	10.0	26.8	4.4	

Moreover, the figures for the two-year period following the introduction of the gun law show that the incidence of assaults with other deadly weapons rose by 56.2% and 32.4% in Boston and other Massachusetts communities, respectively, over that two-year period.

Analysis of the assault statistics in Tables 10 and 20 seem to indicate that Boston^x may have experienced two different types of weapon⁽⁵⁾ displacement following the introduction of the Bartley-Fox law. The increase in knife assaults which occurred in Boston (an increase of 23.6% over the 1974 to 1976 period), suggests that some offenders made purposive decisions to substitute knives for guns as the weapon they preferred to carry. However, Boston experienced an even greater increase in assaults with other deadly weapons after Bartley-Fox was introduced. Indeed, assaults of this type showed approximately twice the increase exhibited by knife assaults between 1974 and 1975. The dramatic rise in Boston's other deadly weapon assault rate may indicate that a second, more substantial for of weapon displacement occurred. Thus, while some offenders may have stopped carrying firearms, they did not necessarily switch to carrying other types of weapons but rather accessed situationally-convenient weapons when they encountered assaultive situations.

These results also indicate that the apparent deterrent effect of the Bartley-Fox law on gun carrying has not had the additional effect of causing offenders to shy away from potentially assaultive situations. Indeed, since the displacement effects of the law appear to be greater than the law's apparent deterrent effects, perhaps some offenders may actually be more likely to become involved in assaults now that they (and perhaps their adversaries) are no longer carrying a gun. Potential offenders may now feel that the consequences of an assault are less

serious without a gun. Or perhaps they feel that assertive action becomes more likely or necessary when an offender doesn't carry a gun.

In contrast to Boston, non-Boston Massachusetts communities show no increase in knife assaults, but like Boston, they do exhibit a substantial rise in assaults with other deadly weapons. This may indicate that these communities experienced only one form of weapons displacement as a result of the Bartley-Fox law. Specifically, offenders who have given up carrying firearms appear not to be making a conscious decision to carry knives in these communities, but they are accessing other, perhaps situationally-convenient weapons.

Our conclusions concerning the situational character of Bartley-Fox displacement effects are at this point tentative. Further analysis of Bartley-Fox displacement effects must rely on the acquisition of additional data. In particular, information which can be obtained in Boston from police manual records would be especially useful in specifying the circumstances under which assaults occur. This type of data would allow us to identify whether offenders employed situationally-available weapons (such as chairs, rocks, boards, etc.) or tended to use weapons like knives that they had made a conscious decision to carry on their person (such as blackjacks, chains, etc.).

Apart from the issue of the specific character of the gun law's impact on non-gun armed assaults, comparison of the geographical pattern of the gun law's displacement effects with the law's deterrent effects reveals somewhat contradictory findings. On the one hand, we saw in our analysis that the law appeared to have its greatest relative deterrent effect (in terms of percent of change in crime rates) in non-Boston Massachusetts. In contrast to these findings, the analysis of non-gun armed assaults indicated that the gun law had its greatest

weapons displacement effects in Boston. Thus, we have the anomalous result that where there is more deterrence, there is less displacement.

There are at least two major alternative hypotheses that might account for these discrepant findings. One is that factors in addition to the gun law have accounted for some of the increase we see in Boston's non-gun armed assault rate. Yet, aside from a major school desegregation controversy, Boston has not experienced any known major social or economic disruptions over this period. Furthermore, the timing of Boston's court-ordered desegregation efforts suggests that it is probably not a factor in the rise of Boston's non-gun armed assault rate. Phase I of Boston's court-ordered desegregation began in September 1974, which is eight months before we saw the first statistically significant rise in Boston's non-gun armed assault rate (see Table 11). Likewise, the second phase of the Boston desegregation program (Phase II) began in September 1975, which is three months after Boston's first statistically significant increase in non-gun armed assault. Thus, it appears that Phase I of Boston's school desegregation was implemented too soon to have contributed significantly to Boston's non-gun rates, while Phase II desegregation was implemented after the rise in this type of crime had already begun. Of course, changes in the interracial character of non-gun armed assaults in Boston should be examined to give us a more definitive answer to the question of the impact of desegregation.^{*} However, we believe that evidence on this point suggests that desegregation was not a major factor in the rise of Boston's non-gun armed assault rates.

^{*} Such information can be obtained from manual police records. However, resource constraint prevented our doing so.

A second alternative hypothesis to account for the anomalous deterrence/displacement findings is, as suggested above, that deterrent effects of the law are underestimated in Boston. Here we entertain the proposition that implementation of the Bartley-Fox law and its attendant publicity have increased the likelihood of citizens' reporting gun assaults and that this phenomenon has been primarily a Boston phenomenon. To evaluate this alternative, we shall now focus on the gun law's effect on citizens' crime reporting behavior. This will give us a more accurate picture of the Bartley-Fox law's deterrent impact on gun assaults.

E. Refinement of the Boston Analysis: Impact on Citizen Reporting.

As Block (1974) has noted, the citizen's decision to notify the police of a crime is based in part on a victim's "calculation of the benefits derived from notification and the costs incurred." (Block, 1974: p. 555). For example, a victim may feel he has something to gain by reporting an assault if he believes that the police can actually catch and punish an offender. On the other hand, a victim may be reluctant to report an assault committed by a close relation, for fear of harming and/or antagonizing that person.

The Bartley-Fox law may have altered the likelihood that citizens will report gun crimes, particularly gun assaults, to the police. Compared to robberies or murders, assaults are a relatively ambiguous category of offenses. That is, in some cases it is not altogether clear to the average citizen whether an assault has occurred. It is obvious when one person has been badly beaten and injured by another person that the former is the victim of an assault, but in cases of threats or implied threats within the visible display of a deadly weapon, or where the existence of the weapon is implied, the citizen

may feel victimized but not be sure that what has happened constitutes a criminal assault that the police will take seriously or that the courts will punish severely.

The advent of the Bartley-Fox law may have affected this situation in at least two ways. First, the relatively more severe punishment prescribed under the law may be interpreted by citizens to mean that the police and the courts will take reported offenses more seriously; that is, the citizen may expect "the law" to come to his aid with more swift, certain, and severe punishment. Second, the fact that merely carrying a gun without a license is punishable by a minimum one-year prison sentence may convince citizens whatever their understanding of assault to report any incident involving a gun, and what the citizen reports as a carrying violation might later end up as an incident of gun assault. In other words, the fact that carrying of a firearm has now been singled out for more severe punishment may have the effect of communicating to the public that any gun related behavior is a potentially serious matter that the police should know about.

Such a tendency of the new law to increase citizen^(s) reporting of gun assaults can be expected to occur in the more ambiguous categories of gun assault where threat or implied threat with a gun has occurred. On the other hand, such a tendency of the law to increase reports should be least pronounced for those categories of gun assault that would be reported to the police under any circumstances. A particularly important factor in the likelihood of an assault's being reported to the police is whether the victim has been brought to the attention of medical authorities. In this case, the decision of whether to report the crime is often no longer a matter of the victim's discretion. Empirical research bears out these observations. Block (1974) indicates

that assault victims who have been hospitalized or have received medical attention are significantly more likely to report the crime to the police than victims who were not injured. Thus, logic as well as empirical evidence suggests that gun assaults which result in an injury are much more likely to be reported to the police.

Thus, for a more accurate estimate of the deterrent effects of the gun law on assaultive behavior which is unbiased by possible changes in reporting behavior that the law may also be responsible for, it would be desirable to isolate for analysis those gun assaults where force has been used or where injury has been incurred. This line of analysis could not, however, be followed using the FBI's UCR aggravated assault statistics. The FBI's definition of aggravated assaults is:

"An unlawful attack by one person upon another for the purpose of inflicting severe or aggravated bodily injury. This type of assault usually is accompanied by the use of a weapon or by means likely to produce death or great bodily harm."

A major problem with this definition for aggravated assaults involving weapons is that it groups together assaults involving only threats or attempts to inflict "bodily harm" on a victim with those where the victim actually has been injured. With statistics based on the UCR definition of assault, it is not possible to isolate and examine those gun assaults we expect to be less subject to reporting unreliabilities.

Fortunately, the Boston Police Department's computerized crime statistics allow us to examine more refined categories of gun assaults than are available in the UCR data. Specifically, using BPD data, we can identify and independently examine gun assaults with battery and

*Uniform Crime Reporting Handbook, 1975.

gun assaults without battery. Under Massachusetts law, assault with battery indicates that some type of force has been used on the victim. In the case of a gun assault, this would mean that the victim had in some manner been struck with either a bullet or a gun. In contrast, an assault without battery simply means that an offender has attempted to injure or threaten to injure his victim but has not inflicted any physical harm.* Table 21 (below) presents Boston Police Department statistics on gun assaults with battery and without battery:

*See Nolan, Criminal Law, Vol. 32 Massachusetts Practice, §323 (West, 1976).

Table 21

Gun Assaults with Battery and without Battery in Boston for the Period 1969 to 1977

<u>Year</u>		<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1974-1976</u> <u>% Change</u>
Gun Assaults With Battery	Number	144	205	282	247	298	329	289	207	185	-37.1
	Annual % Change		+61.0	+37.6	-12.4	+20.6	+13.8	-12.2	-24.9	-10.6	
Gun Assaults Without Battery	Number	165	178	216	217	240	266	236	339	331	+27.4
	Annual % Change		+7.9	+21.3	+4	+10.6	+10.8	-10.3	+43.6	-2.4	
% Gun Assaults Without Battery of All Gun Assaults	%	53.4	46.5	43.4	46.8	44.6	44.7	45.0	62.1	64.1	
	Total #	(309)	(383)	(489)	(464)	(538)	(595)	(525)	(546)	(516)	

The top row of figures in Table 21 present the annual number of gun assaults with battery in Boston from 1969 through 1977. This is the category presently less subject to reporting unreliabilities than UCR gun assault statistics. Notably, while UCR Boston gun assault statistics (see Table 8) showed only a 11.7% decline between 1974 and 1976, BPD gun assaults with battery showed a 37.1% decline over this same period. Thus, the subcategory of gun assaults with battery showed a decrease in the two years following the introduction of the Bartley-Fox law more than three times the decrease exhibited by the UCR gun assault statistics, which subsume gun assaults both with and without battery under one rubric.

As we turn to the issue of the gun law's effect on gun assaults without battery (which are reported to the police), we see a rather sharp departure from the above findings. Quite the opposite from what we saw for gun assaults with battery, we now see that in the two years after the introduction of the law the number of gun assaults without battery actually increased by 27.4% (between 1974 and 1976).

These results clearly indicate that serious gun related assaults with injury have declined in Boston after the introduction of the new gun law. If we assume first that the likelihood of injury from a gun assault remains constant and second that the law deterred gun assaults with an injury to the same extent as those without, these data indicate that the actual incidence of both types of gun assaults has declined since the introduction of the Bartley-Fox law. We can also see, however, that citizens' reports of gun assaults which do not involve injury or force have increased after the introduction of the law. To the extent that this is a category of offenses subject to reporting discretion, it would appear that citizens are now more likely to report

gun assaults to the police.

Thus, while it appears that the gun law has had a substantial deterrent effect on gun assaults, it also appears that this effect was partially obscured by the gun law's effect on citizen crime reporting behavior.

There exists, of course, the possibility that the BPD refined assault statistics may themselves be subject to certain reporting inconsistencies. In particular, it would challenge the above interpretations if the gun law changed the way police classified gun assaults with and without battery. For instance, the police may have started to classify more gun assaults as not having battery after the gun law was introduced. A change of this sort in classification procedures could account for the divergent patterns we see in BPD statistics on gun assault with and without battery.

To check on the validity of the assumptions we made concerning BPD battery and non-battery gun assault data, we undertook an exploratory examination of police manual records of crime reports. We collected information from one-third of all police reports of gun assaults for the years 1974, 1975, and 1976. In examining these records, we drew data primarily from police descriptions of the circumstances surrounding gun assault incidents. These descriptions were generally available in the form of brief narratives that were contained in the police logs or reports. The form on which police made their reports changed between 1974 and 1975, but the narrative portion of the report appears to have remained substantively the same over the 1974 to 1976 period. From these narratives, we attempted to code items which appeared to be routinely reported by the police and which were descriptive of the

nature of the incident. Perhaps the most important information on gun assaults that was regularly available from these reports was data concerning the nature of injuries the victims received in these incidents.

Table 22 (below) presents results based on the coded information we obtained from police reports of gun assaults:

Table 22

Percent of Gun Assaults Receiving Medical Treatment in Boston for the Years 1974, 1975 and 1976

	<u>Year</u>		
	<u>1974</u>	<u>1975</u>	<u>1976</u>
	<u>%</u>	<u>%</u>	<u>%</u>
<u>Treatment</u>			
Hospitalized	40.8	36.4	22.5
Other Medical Treatment	6.0	8.0	5.5
No Medical Treatment Mentioned	53.2	55.7	72.0
Total Number*	(201)	(176)	(182)

*Based on 1/3 sample of manual record police reports in 1974, 1975 and 1976

This table presents information specifically on whether a victim required medical treatment as a result of a gun assault. We can assume that if medical treatment or hospitalization *were* required, the victim received some type of physical injury as a result of the assault.

In examining the top row of Table 22, we see that the proportion of gun assaults requiring no medical treatment rises from 53.2% to 72.0% between 1974 and 1976 in the sample of cases from BPD manual files. This parallels the pattern which appears in BPD computerized gun assault data where, as we saw in Table 21, the proportion of gun assaults without battery rises from 45% to 64% of all gun assaults in Boston between 1974 and 1976 (see the bottom row of Table 21). Thus, both the BPD computerized crime data and the manual record data indicate that the proportion (and the actual number) of less serious gun assaults increased after the gun law was introduced. We also see from Table 22 that the proportion of more serious gun assaults (as well as the number) declines over the 1974 to 1976 period, just as gun assaults with battery did in the BPD computerized data.

Information concerning the type of medical treatment gun assault victims received can also be used to test our assumptions regarding the difference between gun assaults with and without battery in BPD assault computerized crime data. Table 23 (below) presents information on the type of medical treatment that gun assault victims received separately for gun assaults with battery (Table 23, Part A) and for gun assaults without battery (Table 23, Part B) over the years 1974, 1975, and 1976:

Table 23

Percent of Gun Assaults with Battery and Without Battery Requiring Medical Treatment in Boston for the Years 1974, 1975 and 1976

<u>Treatment</u>	<u>a. With Battery</u>			<u>b. Without Battery</u>		
	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
	%	%	%	%	%	%
Hospitalized	69.4	58.6	56.5	5.6	7.8	1.8
Other Medical Treatment	8.1	11.1	11.6	3.3	3.9	1.8
No Medical Treatment Mentioned	22.5	30.3	31.9	91.1	88.3	96.5
Total Number*	(111)	(99)	(69)	(90)	(77)	(113)

*Based on 1/3 sample of manual record police reports in 1974, 1975 and 1976

Notice that the police reports we sampled made no mention of medical treatment^(s) being required in 91.1% (1974), 88.3% (1975), and 96.4% (1976) of the time for gun assaults without battery. In sharp contrast, these reports made no mention of medical treatment in only 22.5% (1974), 31.3% (1975), and 32.9% (1976) of the cases of gun assaults with battery. This strongly supports our assumption that the category of gun assaults with battery generally represents a far more serious event than gun assaults without battery, and hence tends to confirm our conclusion that the decline in gun assaults with battery we saw in Table 21 reflects a real decline in this type of behavior. What is more, a closer inspection of Table 23 suggests that even the category of gun assaults with battery may be underestimating the actual decline that occurred in actual gun assaults after the introduction of the Bartley-Fox law. Note that the proportion of cases where no mention of medical treatment was made rose from 22.5% of the gun assaults with battery we examined in 1974 to 31.9% in 1976. This might occur either because certain forms of gun assault with battery not requiring medical treatment are more likely to be reported by citizens or because police are more likely to classify such assaults without medical treatment as batteries after the Bartley-Fox law was implemented. However, either of these possibilities occurring after the gun law was introduced would mean that even the category of gun assaults with battery will underestimate the actual decline in gun assaults.

Boston gun assault with battery statistics do not, of course, directly address the issue of citizens' reporting of gun assaults to the police in other parts of Massachusetts. Although one might assume the law had a uniform effect on citizens' reporting behavior

throughout Massachusetts, we suspect that citizens may have been more likely to report gun assaults in non-Boston Massachusetts communities than in Boston prior to the implementation of the gun law. This would mean the introduction of the Bartley-Fox law ⁽⁴⁾ could have had less impact on citizens' reporting behavior in other communities in Massachusetts than in Boston.

We hypothesize that citizens in communities where gun assaults are a relatively infrequent event are more likely to report such an event to the police than in communities with relatively high levels of gun assaults (such as Boston).^{*} The logic behind this proposition is that in communities where crime is a relatively frequent event, citizens may become resigned or numbed to the occurrence of crime. Under such circumstances, citizens might be less likely to report the less serious types of gun assaults -- those without battery or medical treatment -- to the police.

What evidence is there to support our contention that citizens in non-Boston communities are more likely to report gun assaults to the police (especially prior to the Bartley-Fox law) than Boston's citizens? We must rely on inferences which can be drawn by comparing gun homicides and gun assault statistics across different communities. The validity of this analysis rests on two assumption. The first is simply that gun homicide statistics are an accurate and complete measure of the actual level of homicide. The second assumption is that gun assaults result in homicides at a fairly constant rate across communities. If these assumptions are correct, then we may use the percent of gun homicides of reported gun assaults as an indicator of

* For example, Boston's UCR gun assault rate in 1974 was 101.4 per 100,000 versus a rate of 15.2 per 100,000 for other communities in Massachusetts. See Tables 9 and 14.

underreporting gun assaults by citizens to the police across communities.

More specifically, to address this issue we examine the number of assault-precipitated gun homicides (excluding other felony related gun homicides and of course all non-gun homicides) as a percentage of the total pool of reported gun assaults (including assault-precipitated gun homicides as well as all other incidents reported as gun assaults).

Table 24 (below) presents the percentage that assault-precipitated gun homicides are of total reported gun assaults for Boston and other Massachusetts communities:

Table 24

Percent Gun Assaults Precipitated Homicides to Total Pool of Assaults in Boston and Non Boston Massachusetts for the years 1973-1975

	<u>Total Gun Assaults (gun assaults & gun assault homicides)</u>	<u>Gun Assault Homicides</u>	<u>% Total Gun Assaults Resulting in Gun Homicides (Death)</u>
Boston	1723	122	7.1
Non-Boston Massachusetts	1121	43	3.8

Note for the period 1973 to 1975 that 7.1% of reported total gun assaults in Boston were assault-precipitated gun homicides, whereas only 3.8% of reported total gun assaults in non-Boston Massachusetts were such gun homicides. Assuming that the proportion of gun assaults with battery to total gun assaults is the same for Boston and the rest of the state, this could mean gun assaults were almost twice as deadly in Boston as in non-Boston Massachusetts, or that citizens were simply less likely to report gun assaults in Boston over this period.

With respect to the former alternative, there are reasons to doubt that gun assaults are more deadly in Boston. Boston has better emergency hospital care than more other communities in Massachusetts, and hospitals in Boston are probably better set up to handle gun shot wounds than non-Boston hospitals if for no other reason than they see a lot more of these types of injuries. This would suggest that in Boston, gun assaults are less likely to become homicides. Furthermore, since our measure of assault-precipitated homicide excludes felony related homicides, Boston's relatively greater number of felony related homicides does not tend to inflate these statistics for Boston relative to the rest of Massachusetts.

A further test and refinement of the hypothesis that the introduction of the Bartley-Fox law has differentially impacted citizens' reporting in Boston and non-Boston Massachusetts will be achieved at a later date by comparing the ratio of assault-precipitated gun homicides to reported gun assaults before and after the implementation of the gun law. This will provide a measure of the relative change in citizens' reporting of gun assaults after the gun law was introduced for Boston and non-Boston Massachusetts communities.

F. Conclusions of the Assault Analysis.

The introduction of the Bartley-Fox gun law had an immediate

two-fold deterrent and displacement effect on armed assaults Massachusetts. First, the law substantially reduced the actual incidence of gun assaults even before its effective date in Massachusetts. At the same time, it also increased the likelihood of citizens' reporting less serious forms of gun assaults to the police, thereby tending to obscure the deterrent effect of the law on gun assaults. The effect on citizens' reporting, however, seems to have been primarily a Boston phenomenon.

Secondly, the law substantially increased non-gun assaults in Massachusetts. Although the law deterred gun related assaults, it did not induce offenders to stay away from assaultive situations. Indeed, there was a statistically significant increase throughout Massachusetts in non-gun armed assaults shortly after the Bartley-Fox law was introduced and within a couple of months of the first significant decrease in gun assaults. It would appear that while some offenders stopped carrying guns, they continued to become involved in assaultive situations but employed other types of weapons. These weapons may be purposeful substitutes for the guns that offenders previously used or they may be situationally-convenient weapons that are accessed when the assault situation arose.

G, Armed Robbery: Impact on Weapons and Targets.

Following the analysis of the Bartley-Fox law's impact on armed assaults, the armed robbery analysis will focus on whether the law has succeeded in reducing the incidence of armed robbery, whether such an effect is restricted to gun robberies, and whether reduction in gun robbery is offset by corresponding increases in robberies with other types of weapons. We shall also examine whether the weapons that offenders choose to use in robberies are related to the targets they select to rob. Here we are seeking to determine whether offenders who are deterred from using guns also stop robbing certain types of targets.

The analysis of armed robbery is organized into three parts. First, we examine the statewide impact of the gun law on gun and non-gun related armed robbery. Next, we examine the law's impact on regions within Massachusetts -- specifically, Boston versus all other communities in Massachusetts for which we have UCR crime statistics. Finally, we refine the robbery analysis using data collected from the BPD. In this final section, we address the question of the relationship between the weapons officers use and the targets they select to rob.

1. Massachusetts: Statewide Impact.

In this section, we examine changes in Massachusetts gun and non-gun robbery rates compared to those occurring in selected control jurisdictions. In the robbery analysis, unlike the assault analysis, we cannot employ the intervention point methodology due to UCR data limitations with regard to armed robbery. Specifically, the UCR program did not begin collecting information on gun and non-gun armed robberies until 1974. This provided us with only one year of pre-Bartley-Fox statistics on gun robbery which is not sufficient pre-intervention data to employ

the statistical methodologies we used in the assault analysis.

Tables 25 through 27 (below) present annual armed robbery statistics for Massachusetts and selected control groups:

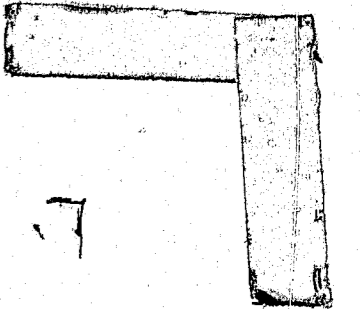


Table 25

Armed Robberies per 100,000 in Massachusetts and Regional Comparison Groups for the period 1967 to 1976

Regions	Annual Rates and % Change	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1974-1976 % Change
United States Without Massachusetts	Rate % Change	84.6	111.7 32.0	130.1 16.5	156.8 20.5	176.8 12.7	168.6 -4.6	169.6 .6	189.8 11.9	195.8 3.2	172.2 -12.0	- 9.3
North Central States	Rate % Change	85.0	97.5 14.7	120.6 23.7	146.8 21.7	150.6 2.6	146.1 -2.9	152.1 4.1	178.4 17.3	189.4 6.2	160.8 -15.1	- 9.9
Middle Atlantic States	Rate % Change	116.4	172.8 48.5	193.1 11.8	254.1 31.5	330.8 30.2	298.7 -9.7	274.7 -8.0	291.4 6.1	298.0 2.2	261.9 -12.1	-10.1
New England Without Massachusetts	Rate % Change	17.2	24.4 42.0	30.6 25.3	38.3 25.1	45.0 17.5	50.3 11.8	49.8 -1.0	54.9 10.4	66.8 21.7	60.3 -9.8	9.8
Counties Contiguous to Massachusetts	Rate % Change	22.6	31.3 38.4	35.8 14.6	44.1 23.0	47.7 8.3	48.8 2.3	51.7 5.8	56.4 9.1	74.2 31.6	61.9 -16.5	9.8
Massachusetts	Rate % Change	34.8	55.3 59.2	61.2 10.5	76.4 24.9	107.9 41.2	138.5 28.4	158.6 14.5	181.1 14.2	204.3 12.9	150.7 -26.2	-16.8

Table 26

Gun Robberies per 100,000 in Massachusetts and Regional Comparison Groups for the Period 1967 to 1976

<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Rate % Change								130.6	134.4 2.9	115.3 -14.2	-11.7
North Central States	Rate % Change								142.9	151.5 6.0	126.4 -16.5	-11.5
Middle Atlantic States	Rate % Change								146.2	147.3 .7	130.6 -11.3	-10.6
New England Without Massachusetts	Rate % Change								32.0	38.5 20.5	34.0 -11.9	6.2
Counties Contiguous to Massachusetts	Rate % Change								31.2	41.1 31.7	32.4 -21.3	3.7
Massachusetts	Rate % Change								105.0	105.0 -.0	68.2 -35.0	-35.1

Table 27

Non Gun Armed Robberies per 100,000 in Massachusetts and Regional Comparison Groups for the Period 1967 to 1976

<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Rate % Change								59.2	61.4 3.7	56.9 -7.3	- 3.9
North Central States	Rate % Change								35.5	37.9 6.8	34.3 -9.5	- 3.3
Middle Atlantic States	Rate % Change								145.3	150.7 3.7	131.3 -12.9	- 9.6
New England Without Massachusetts	Rate % Change								22.9	28.3 23.4	26.4 -6.9	14.9
Counties Contiguous to Massachusetts	Rate % Change								25.2	33.1 31.5	29.5 -10.7	17.4
Massachusetts	Rate % Change								76.0	99.3 30.7	82.5 -16.9	8.5

Table 24 presents annual armed robbery rates per 100,000 inhabitants; Table 25 presents annual gun robbery rates; and non-gun robbery rates appear in Table 26. Finally, Table 27 presents the percent that gun robberies represent of all armed robberies. In each of these tables, we compare crime trends in Massachusetts with those in New England states, excluding Massachusetts, Middle Atlantic states, North Central states, and the United States as a whole (excluding Massachusetts).

Table 24 presents data relating to the gun law's impact on the level of armed robbery in Massachusetts. It shows that Massachusetts armed robbery rates increased by 12.9% between 1974 and 1975. This increase was less than that experienced by the other New England states but more than exhibited by the other control jurisdictions. Between 1975 and 1976, however, Massachusetts showed a greater decline in armed robberies than any of its control jurisdictions. Indeed, the two-year reduction in armed robberies from 1974 to 1976 of 16.8% is greater than changes in any of the other comparison jurisdictions.

In Table 25, we examine whether the gun law has had a deterrent effect specifically on gun robbery. This table presents annual gun robbery rates for Massachusetts and its control jurisdictions for the years 1974 through 1976. Examination of Massachusetts' annual gun robbery rates shows that between 1974 and 1975 the level of gun robbery did not change in Massachusetts, while the gun robbery rate of the control jurisdictions showed very minor (0.7% for the Middle Atlantic states) to moderate (20.5% for other New England states) increases in gun robbery.

In the following year, however, Massachusetts showed a substantial decline in its gun robbery rates of 35.0% between 1975 and 1976. This decrease was more than twice as great as that shown by any of the control

jurisdictions (excluding the contiguous counties' control group). Finally, in looking at the two-year period (1974 to 1976) following the introduction of the Bartley-Fox law, we see that, overall, gun robberies declined by 35.1% in Massachusetts. Significantly, this decline was more than three times greater than any of the declines in gun robbery experienced by the control jurisdictions. (The other New England states actually showed an increase in gun robbery.) These results suggest that the gun law has had a somewhat delayed, but fairly major, deterrent effect on gun robbery in Massachusetts.

What about the Bartley-Fox law's impact on non-gun armed robbery? Table 26 presents the non-gun armed robbery statistics for Massachusetts and its control groups. Notice that Massachusetts shows a 30.7% increase in non-gun armed robbery between 1974 and 1975. This change in Massachusetts is fairly comparable to the increases shown by the other New England states (+23.4%) and the contiguous counties (+31.5%). On the other hand, Massachusetts' increase is four or more times greater than that experienced by the remaining control jurisdictions.

In contrast to this pattern, the following year, between 1975 and 1976, Massachusetts showed a greater decline in non-gun armed robbery than any of its selected control jurisdictions. These results suggest that Massachusetts may have experienced a temporary or short-lived displacement from gun to non-gun robberies that was not maintained in 1976.

The final table in the analysis of Massachusetts armed robbery, Table 27, presents the proportion that guns represent of all armed robberies. In examining this table, we see that the share guns represent of all armed robberies declined by 22% over the two-year period following the Bartley-Fox law's introduction. Significantly,

none of the other control group jurisdictions showed more than 5.6% decline.

H. Regions Within Massachusetts: Boston vs. Other Massachusetts Communities.

The previous section examined the impact of the Bartley-Fox law on gun and non-gun armed robbery throughout Massachusetts. In this section, we examine whether the law has had a differential impact in Boston and non-Boston Massachusetts. Our reasons for this particular geographic division are elaborated in the introductory paragraph to section III B. of the armed assault analysis,

1. Impact on Boston.

As in our analysis of Boston armed assaults, we will compare Boston armed robbery trends with those in selected control groups. Tables 28 through 31 (below) present armed robbery trends for Boston (the bottom row of these tables) and selected control jurisdictions:

Table 28

Percent Gun Robberies of Total Armed Robberies in Massachusetts and Regional Comparison Groups for the Period 1967 to 1976

<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Percent % Change								68.8	68.6 -.2	66.9 -.2	- 2.7
North Central States	Percent % Change								80.1	80.0 -.1	78.6 -1.7	- 1.8
Middle Atlantic States	Percent % Change								50.2	49.4 -1.5	49.9 .9	- .5
New England Without Massachusetts	Percent % Change								58.2	57.6 -1.0	56.3 -2.3	- 3.3
Counties Contiguous to Massachusetts	Percent % Change								55.4	55.4 .1	52.3 -5.7	- 5.6
Massachusetts	Percent % Change								58.0	51.4 -11.4	45.3 -11.9	-22.0

Table 29

Armed Robberies per 100,000 in Boston and Comparison Cities with 250,000 to 1,000,000 Inhabitants for the Period 1967 to 1976

<u>Cities 250,000 - 500,000</u>												
<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Rate % Change	115.9	151.9 31.1	164.1 8.0	204.7 24.2	220.7 8.3	227.2 2.9	241.9 6.4	268.4 11.0	277.4 3.3	242.5 -12.6	- 9.6
North Central States	Rate % Change	124.3	136.3 9.6	146.6 7.6	185.9 26.8	167.4 -10.0	172.1 2.8	192.4 11.8	254.0 32.0	248.1 -2.3	202.1 -18.5	-20.4
Middle Atlantic States	Rate % Change	141.1	242.6 71.9	234.1 -3.5	293.4 25.4	350.8 19.6	326.8 -6.8	319.4 -2.3	325.1 1.8	366.1 12.6	309.3 -15.5	- 4.9
<u>Cities 500,000 - 1,000,000</u>												
United States Without Massachusetts	Rate % Change	155.8	228.3 46.6	283.9 24.4	304.9 7.4	300.9 -1.3	269.3 -10.5	276.6 2.7	330.8 19.6	353.3 6.8	297.3 -15.8	-10.1
North Central States	Rate % Change	165.2	204.6 23.9	261.3 27.7	293.4 12.3	304.4 3.8	295.1 -3.1	292.8 -.8	384.5 31.3	473.1 23.0	384.0 -18.8	- 0.1
Massachusetts (Boston)	Rate % Change	110.0	197.4 79.6	222.3 12.6	274.7 23.6	395.6 44.0	522.7 32.1	603.0 15.4	683.1 13.3	780.1 14.2	574.2 -26.4	-15.9

Table 30

Gun Robberies per 100,000 in Boston and Comparison Cities with 250,000 to 1,000,000 Inhabitants for the Period
1967 to 1976

<u>Cities 250,000 - 500,000</u>												
<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Rate % Change								194.2	203.7 4.9	171.2 -16.0	-11.8
North Central States	Rate % Change								181.1	188.3 4.0	143.3 -23.9	-20.9
Middle Atlantic States	Rate % Change								179.7	211.1 17.5	169.9 -19.5	- 5.5
<u>Cities 500,000 - 1,000,000</u>												
United States Without Massachusetts	Rate % Change								249.9	268.1 7.3	219.7 -18.0	-12.1
North Central States	Rate % Change								300.9	374.0 24.3	301.1 -19.5	.1
Massachusetts (Boston)	Rate % Change								363.4	356.9 -1.8	234.4 -34.3	-35.5

Table 31

Non Gun Armed Robberies per 100,000 in Boston and Comparison Cities with 250,000 to 1,000,000 Inhabitants for the Period 1967 to 1976

		<u>Cities 250,000 - 500,000</u>										
<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Rate % Change								74.2	73.7 -.8	71.3 -3.2	- 3.9
North Central States	Rate % Change								73.0	59.8 -18.0	58.8 -1.7	-19.5
Middle Atlantic States	Rate % Change								145.4	155.0 6.7	139.4 -10.1	- 4.1
		<u>Cities 500,000 - 1,000,000</u>										
United States Without Massachusetts	Rate % Change								80.9	85.2 5.3	77.6 -8.9	- 4.1
North Central States	Rate % Change								83.6	99.1 18.5	82.9 -16.3	- 0.8
Massachusetts (Boston)	Rate % Change								319.7	423.2 32.4	339.9 -19.7	+ 6.3

As in the case of the armed assault analysis, we have selected as our control jurisdictions for Boston cities in the range of 250,000 to 500,000 inhabitants and cities in the range of 500,000 to 1,000,000 inhabitants for the United States, the North Central states, and the Middle Atlantic region.

Table 28 presents annual armed robbery trends for Boston and its control jurisdictions over the period 1967 to 1976. Examining the armed robbery rates for Boston, we see that Boston experienced a 14.2% increase in armed robbery between 1974 and 1975. This increase is quite similar to the rise in armed robberies that occurred in Boston in the two previous years. In addition, Boston's 1974 to 1975 rise in armed robbery is greater than that which occurred in four of its five control jurisdictions. These results indicate that the gun law had no noticeable deterrent effect on armed robbery during the first year of its implementation.

In the following year, 1976, Boston's armed robbery rate does decline (-26.4% between 1975 and 1976), and this decline is more than that shown by any of Boston's control jurisdictions, but not substantially greater than what occurs in at least two of the control groups between 1975 and 1976. Boston showed a 26.4% decrease in armed robberies versus decreases of 18.8% and 18.5% for North Central states of 250,000 to 500,000 inhabitants and North Central cities of 500,000 to 1,000,000 inhabitants. When the entire two-year post intervention period is examined, we find that Boston showed a 15.9% decline in armed robbery compared to changes of -9.6%, 20.4%, 4.9%, 10.1%, and -0.1% in the control jurisdictions. These results do not present any clearcut suggestion that the law may have deterred armed robberies in Boston. If there were any sure effect, it appears to

have been minor and also delayed until a year or so after the introduction of the gun law.

We now turn to the differential impact of the Bartley-Fox law on subclasses of armed robberies. Gun robbery statistics are presented in Table 30. Here we see that while Boston shows a minor decline in gun robberies between 1975 and 1976 (-1.87%), each of the control jurisdictions show ^(s) increases ranging from a low of 4.0% to a high of 24.3%. Between 1975 and 1976, Boston and each of its control jurisdictions show fairly substantial declines in gun robbery, but significantly, Boston's decrease is the largest. When the entire 1974 to 1976 period is examined, Boston shows a 35.5% decrease in gun robbery versus changes in the control jurisdictions ranging from no decline at all in North Central cities of 500,000 to 1,000,000 inhabitants to a 20.9% decrease in North Central cities of 250,000 to 500,000 inhabitants. Thus, it appears that in the two years following the introduction of the Bartley-Fox law, Boston experienced a greater relative decline in gun robbery than any of its control jurisdictions and that most of this relative decrease occurred between 1975 and 1976. This suggests that the introduction of the Bartley-Fox law induced some potential offenders not to commit robbery with a gun.

Table 31 presents non-gun armed robbery statistics for 1974 through 1976 for Boston and its control jurisdictions. Note that Boston experiences an increase (32.4%) in non-gun armed robbery between 1974 and 1975 and that this rise is almost twice that occurring in any of its control jurisdictions. In the following year (1975 to 1976), Boston shows the greatest decline in non-gun armed robbery. This pattern suggests that robbery offenders in Boston may have briefly switched from guns to other types of weapons.

Annual estimates of the percentage of all armed robberies that involve a gun are shown in Table 32 (below) for Boston and its control jurisdictions:

Table 32

Percent Gun Robberies of Total Armed Robberies in Boston and Comparison Cities with 250,000 to 1,000,000 Inhabitants for the Period 1967 to 1976

<u>Cities 250,000 - 500,000</u>												
<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Percent % Change								72.4	73.4 1.5	70.6 -3.9	- 2.4
North Central States	Percent % Change								71.3	75.9 6.5	70.9 -6.6	- .5
Middle Atlantic States	Percent % Change								55.3	57.7 4.3	54.9 -4.7	- .7
<u>Cities 500,000 - 1,000,000</u>												
United States Without Massachusetts	Percent % Change								75.5	75.9 .5	73.9 -2.6	- 2.2
North Central States	Percent % Change								78.2	79.0 1.0	78.4 -.8	.2
Massachusetts (Boston)	Percent % Change								53.2	45.8 -14.0	40.8 -10.8	-23.3

- 1.. See Footnote 1 Table
2. See Footnote 2 Table
3. See Footnote 3 Table

Examining the period immediately following the introduction of the Bartley-Fox law (1974 to 1975), we see that only Boston showed a decline in the percentage of guns used in armed robberies. In the following year (1975 to 1976), all groups showed a decline in the share guns were of armed robberies, but Boston experienced the greatest decline. This continuing decline in the proportion of guns used in armed robbery in Boston following the introduction of the Bartley-Fox law suggests that the law may have caused some offenders to switch from guns to other weapons when committing robbery. Why this may have occurred, given that the pre-existing penalties for armed robberies are far more severe than the penalty for a Bartley-Fox offense, needs further investigation. We shall pursue the issue further in the refinement of the Boston analysis of weapon and target choice.

2. Impact on Non-Boston Massachusetts Communities.

The analysis of the impact of the Bartley-Fox law on non-Boston Massachusetts will be based on UCR Return A robbery incidents data drawn from the same 97 Massachusetts communities (those which showed consistent reporting records throughout the 1967 to 1976 period) employed in the above analysis of armed assaults (see Section III B. 2.). Tables 33 through 36 (below) present annual armed robbery statistics for non-Boston Massachusetts communities and selected control jurisdictions:

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Table 33

Armed Robberies per 100,000 in Massachusetts Excluding Boston and Comparison Cities of Under 250,000 Inhabitants
for the Period 1967 to 1976

Regions	Annual Rates and % Change	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1974-1976 % Change
		United States Without Massachusetts	Rate % Change	5.8	38.8 8.4	45.6 17.7	56.1 23.0	66.4 18.4	72.2 8.7	78.0 8.0	91.8 17.8	98.4 7.2
North Central States	Rate % Change	5.2	38.0 7.8	46.2 31.7	58.1 25.8	66.2 13.9	68.4 3.3	73.3 7.0	84.1 14.8	94.4 12.2	74.0 -21.6	-12.0
Middle Atlantic States	Rate % Change	40.6	28.8 -28.9	30.9 7.3	40.6 31.2	56.4 38.9	61.7 9.4	61.4 - .5	68.1 11.0	71.4 4.8	61.2 -14.3	-10.2
New England States Without Massachusetts	Rate % Change	17.9	25.3 41.4	31.8 25.7	40.0 25.8	46.8 17.1	52.4 12.0	51.8 - 1.2	57.1 10.2	70.5 23.4	65.5 - 7.0	-14.7
Massachusetts	Rate % Change	17.3	23.4 34.9	24.6 5.3	29.8 21.3	41.5 39.1	50.8 22.4	58.4 14.9	68.5 17.3	75.5 10.3	56.1 -25.7	-18.1

Table 34

Gun Robberies per 100,000 in Massachusetts Excluding Boston and Comparison Cities of Under 250,000 Inhabitants
for the Period 1967 to 1976

<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Rate % Change								68.7	72.5 5.5	60.3 -16.8	-12.2
North Central States	Rate % Change								67.0	73.2 9.3	56.6 -22.7	-15.4
Middle Atlantic States	Rate % Change								41.7	43.2 3.7	38.0 -12.0	- 8.9
New England States Without Massachusetts	Rate % Change								33.3	40.6 21.9	36.8 - 9.3	10.5
Massachusetts	Rate % Change								47.1	48.7 3.3	31.1 -36.1	-34.0

Table 35

Non-Gun Armed Robberies per 100,000 in Massachusetts Excluding Boston and Comparison Cities of Under 250,000 Inhabitants
for the Period 1967 to 1976

<u>Regions</u>	<u>Annual Rates and % Change</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976 % Change</u>
United States Without Massachusetts	Rate % Change								23.1	25.9 12.3	23.5 - 9.4	1.7
North Central States	Rate % Change								17.1	21.2 23.5	17.4 -17.7	1.6
Middle Atlantic States	Rate % Change								26.4	28.1 6.5	23.2 -17.6	-12.2
New England States Without Massachusetts	Rate % Change								23.8	29.9 25.4	28.7 - 3.9	20.5
Massachusetts	Rate % Change								21.4	26.9 25.6	25.0 - 6.9	17.0

Table 36

Percent Gun Robberies of Total Armed Robberies in Massachusetts Excluding Boston and Comparison Cities of Under 250,000 Inhabitants for the Period 1967 to 1976

	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-1976</u> <u>% Change</u>
United States Without Massachusetts								74.8	73.7 -1.6	72.0 -2.3	- 3.9
North Central States								79.6	77.6 -2.6	76.5 -1.4	- 3.9
Middle Atlantic States								61.2	60.6 -1.0	62.1 2.5	1.5
New England Without Massachusetts								58.3	57.6 -1.2	56.2 -2.5	- 3.6
Massachusetts								68.8	64.4 -6.3	55.4 -14.0	-19.4

Also, as we did earlier in the armed assault analysis, we have selected for control jurisdictions communities (outside of Massachusetts) with populations of under 250,000 inhabitants for the United States, North East Central states, Middle Atlantic states, and New England states, excluding Massachusetts. These are the same communities originally drawn from our UCR Return A data base for the armed assault analysis.

Table 33 addresses the issue of the gun law's impact on armed robbery in non-Boston Massachusetts. Examination of Table 33 shows that between 1974 and 1975 non-Boston Massachusetts communities showed a 10.3% increase in armed robbery. This was less than the increase exhibited by two of the control jurisdictions but greater than that increase experienced by the other two groups. In the following year 1975 to 1976, however, non-Boston Massachusetts did show a larger decline in armed robbery than any of its control jurisdictions. Finally, when the two-year post-intervention period is examined, we see that non-Boston Massachusetts showed the greatest decline in gun robberies over the 1974 to 1976 period: -18.1% in non-Boston versus decreases of 8.8%, 12.0%, 10.2%, and 14.7% in the control jurisdictions. In these results, there is at least a hint of deterrent impact of the gun law on armed robberies in non-Boston Massachusetts.

We shall now examine the differential impact of the Bartley-Fox law on gun versus non-gun armed robbery in Massachusetts communities outside of Boston. Table 24 presents annual gun robbery statistics for non-Boston Massachusetts communities and the control jurisdictions, and Table 35 presents the non-gun armed robbery statistics.

Non-Boston Massachusetts communities show a pattern of change in gun robbery after implementation of the law somewhat similar to what

was observed in the previous Boston analyses (see Tables 30 and 33). In the year (1974 to 1975) following the introduction of the Bartley-Fox law, non-Boston Massachusetts communities showed a minor increase in gun robbery. This increase was obviously less than that which occurred in two of the control jurisdictions (3.3% for non-Boston Massachusetts versus 21.9% and 9.3%) and fairly comparable to the changes in the other two control groups (which showed increases of 3.7% and 5.5%). In the following year, between 1975 and 1976, non-Boston Massachusetts showed a greater decline in gun robberies than any of the control jurisdictions; -36.1% for non-Boston Massachusetts versus decreases of 16.8%, 22.7%, ^(12.0%) and 9.3% for the control jurisdictions. Finally, when the two-year period (1974 to 1976) following the Bartley-Fox law is considered, we observe that gun robberies in non-Boston Massachusetts have declined more than twice as much as gun robberies in any of the selected control jurisdictions. This is similar to what was found in the previous Boston analyses and certainly indicates that gun robbery has shown a relatively greater decline in Massachusetts (both in and out of Boston) in the two years since the Bartley-Fox law was introduced than has occurred in comparably selected communities elsewhere in the United States.

We will now examine the question of the gun law's impact on non-gun armed robberies in communities in Massachusetts outside of Boston. Table 35 presents annual non-gun armed robbery statistics. Similar to what was observed previously in the Boston analysis other communities in Massachusetts do show an increase in non-gun armed robbery following the implementation of the gun law. However, unlike the case of Boston, the increase non-Boston Massachusetts experienced in non-gun armed robberies is matched by two of its selected control jurisdictions.

In the next year (1975 to 1976), non-Boston Massachusetts showed a small decline in non-gun armed robbery. Overall, when the two-year period following the introduction of the Bartley-Fox law is examined, non-Boston Massachusetts exhibits an increase in armed robbery which is greater than all but one of the control jurisdictions (a 17.4% increase for non-Boston Massachusetts versus changes of 1.7%, 1.6%, -12.2%, and 20.5% in the control jurisdictions). Thus, in non-Boston Massachusetts communities, there is a suggestion of a temporary shift by offenders to other deadly weapons after the Bartley-Fox law was introduced. However, the changes in non-gun armed robbery between 1974 to 1976 (an increase in armed robbery followed by a decrease), which occurred in non-Boston Massachusetts communities, are also observed to a similar degree in two of the control jurisdictions (the North Central states and the New England states). This suggests that the changes that occurred in non-Boston Massachusetts following the implementation of the Bartley-Fox law, may simply reflect ongoing trends in crime which at least some other communities in the United States also experienced.

The proportion that gun robbery represents of all armed robbery is presented in Table 36. Between 1974 and 1975, non-Boston Massachusetts communities experienced a 6.3% drop in the percent that guns represent of all armed robbery, and in the following year they experienced a further decrease of 14.0%. Over the two-year period following the introduction of the Bartley-Fox law, non-Boston Massachusetts showed a 19.4% decrease in the proportion of guns used in armed robbery. Significantly, this decrease was five or more times greater than the decrease that occurred in the control jurisdictions.

In reviewing the results so far, it is interesting to note that

Boston and other communities in Massachusetts showed a decline in armed robbery following the implementation of the Bartley-Fox law. In both cases, however, these decreases did not appear substantially different from that which occurred in at least some of the selected control jurisdictions. With regard to gun robbery, both Boston and non-Boston Massachusetts communities showed substantial and almost comparable declines in gun robbery following the Bartley-Fox law. However, only in Boston do we observe a definite, if temporary, weapons displacement effect after the gun law was introduced.

An important question concerning the impact of the Bartley-Fox law on gun robberies throughout Massachusetts is why a major part of the impact appears to have occurred in the second year following the introduction of the gun law. It may be that robbery offenders found it more costly to give up gun carrying than other types of gun offenders who do not depend on guns to bring in money. Perhaps, it is also true that gun robbery offenders adopted a "wait and see" attitude on the gun law as to how it would be applied. Either of these explanations, although we presently lack empirical evidence to estimate them, would help account for a delayed effect of the gun law on gun robberies in Massachusetts.

Another important question is whether the gun law had a differential impact on different types of gun robbery. We might expect the law to have the greatest impact on robberies that were the least lucrative and perhaps robberies that required the least amount of experience to undertake. For instance, we might expect the law to have more effect on street gun robberies than robberies against commercial establishments. Following this reasoning, offenders who engaged in street robberies might have less to lose in giving up their guns than offenders who rob

commercial establishments or offenders who are less experienced may be less committed to robbery as a way of life and are more likely to stop using their guns. Fortunately, information on the types of targets offenders rob as well as the types of weapons they use is available from more refined robbery offense data of the BPD.

I. Refined Boston Analysis of Weapon and Target Choice.

The BPD's computerized crime incident files have information on the type of targets robbed as well as the type of weapons used from 1975 on. We have supplemented this data with information collected from police manual record crime reports for 1974. This gave us one year's worth of weapon and target armed robbery data prior to the Bartley-Fox law.

Tables 37 through 39 (below) present data on armed robbery, gun robbery, and non-gun robbery by location or target of the robbery for the years 1974 through 1977:

Table 37

Armed Robberies by Location in Boston for the Period 1974 to 1976

Location	Annual Number and % Change	Year			
		1974	1975	1976	1977
Street	Number	1946	2293	2059	2012
	% Change		+17.8%	-10.2%	- 2.3%
Residence	Number	351	540	287	275
	% Change		+53.8%	-46.9%	- 4.2%
Taxi Cab	Number	638	611	340	409
	% Change		- 4.2%	-44.4%	+20.3%
Commercial Establishment	Number	1028	1019	703	543
	% Change		- .9%	-31.0%	-22.8%
Miscellaneous	Number	252	312	125	72
	% Change		+23.8%	-59.9%	-42.4%

Table 38

Gun Robberies by Location in Boston for the Period 1974 to 1977

Location	Annual Number and % Change	Year			
		1974	1975	1976	1977
Street	Number	674	672	562	700
	% Change		-.2%	-16.4%	+24.6%
Residence	Number	144	193	97	120
	% Change		+34.0%	-49.7%	+23.7%
Taxi Cab	Number	390	302	178	218
	% Change		-22.6%	-41.0%	+22.5%
Commercial Establishment	Number	861	823	558	417
	% Change		-4.4%	-32.2%	-25.3%
Miscellaneous	Number	167	185	68	29
	% Change		+10.8%	-63.2%	-57.4%

Table 39

Non-Gun Robberies by Location in Boston for the Period 1974 to 1977

Location	Annual Number and % Change	Year			
		1974	1975	1976	1977
Street	Number	1272	1621	1497	1312
	% Change		+27.4%	-7.6%	-12.4%
Residence	Number	207	347	190	155
	% Change		+67.6%	-45.2%	-18.4%
Taxi Cab	Number	248	309	162	191
	% Change		+24.6%	-47.6%	-17.9%
Commercial Establishment	Number	167	196	145	126
	% Change		+17.4%	-26.0%	-13.1%
Miscellaneous	Number	85	127	57	43
	% Change		+49.4%	-55.1%	-24.6%

The annual number of street, residential, taxi cab, commercial establishment, and other miscellaneous armed robberies over this four-year period are shown in Table 37. In the first year after the Bartley-Fox law's introduction, armed robberies increased specifically in street, residential, and miscellaneous locations, but not among taxi cabs or commercial establishments. In the second year after the Bartley-Fox law, armed robberies decreased in all categories of locations. Considering the two principal locations in which armed robberies occur, the decrease was relatively slight for street robberies and relatively marked for commercial robberies. Notably, the decrease in armed robberies continues through 1977 for all categories of targets except taxi cabs. Again, the decline in commercial robberies was among the greatest, and the decline in street robberies continued to be among the least in the third year after the law's implementation.

Notably, the category of commercial robberies is the one in which guns most commonly appear as the weapon; guns were used in eight out of ten of these robberies over this four-year period. By contrast, street robberies is the category in which the use of guns is least common; they were used in about three of ten such robberies during these four years. Thus, the relatively greater decline in commercial as compared to street robberies after the Bartley-Fox law may reflect a generalized tendency of the law to reduce gun robberies wherever they occur. Because gun robberies are relatively most common against commercial establishments and relatively least common on the street, the law's impact may be most pronounced on commercial robberies and least so on street robberies.

Are gun robberies affected equally across all categories of targets or locations? Table 38 shows that in the first year after the

new law, gun robberies declined in the three largest categories, they increased only in residential and miscellaneous locations. Thus, Table 38 reveals no clear tendency for offenders who use guns by turning to less formidable targets, perhaps on the assumption that their chances of being apprehended and convicted and thus being subject to a Bartley-Fox charge are less in these kinds of robberies. Initially, at least the Bartley-Fox law did not cause robbers who continue to use guns to hit less risky and probably less lucrative targets.

What about the decision to stop using guns among robbers, in the year immediately after the law's introduction? We have seen evidence of a weapon^(s) displacement effect from gun to non-gun robberies in the year immediately after the new law in Table 31. Is there any indication that robbers who have stopped using guns have also turned to less risky targets? After all, without a gun, robbers may be less ready to face a storekeeper or cab driver who might have a gun. Table 39 shows non-gun armed robberies by location/target annually from 1974 through 1977. It reveals no particular tendency for non-gun armed robberies to accumulate in the street robbery category, although robberies of residencies and other miscellaneous targets to show substantial increases in non-gun armed robberies.

It would be typical for newcomers to start careers in robbery without guns and at least risky and least lucrative locations and targets. The fact that non-gun street robberies do not increase disproportionately suggests that the increase in non-gun armed robberies that does occur is not the result of an influx of newcomers and first offenders to the robbery business. Perhaps, instead, the across-the-boards increase in non-gun robberies reflects a tendency among robbers who give up gun use to stick with locations and targets they have previously robbed.

As we observed earlier (Table 30), the deterrent impact on the law was most pronounced in the second year after the law's introduction (between 1975 and 1976). Here, we examine how that deterrent effect was distributed over the various locations of gun robbery and whether any further evidence of displacement emerges. Table 38 makes it clear that gun robberies declined in all location/target categories between 1975 and 1976. Indeed, except for street robberies, all other categories dropped by a third or more (ranging from 32.3% to 63.2%). Here again, the data suggest the possibility of a target displacement effect among gun robberies. Although all categories of gun robbery shrank, the fact that street gun robberies shrank less than the others suggests that some of those who had previously robbed more difficult and risky targets may have shifted to the less problematic street robberies.

In a similar fashion, non-gun armed robberies drop off substantially between 1975 and 1976 in all categories of location but less so for street robberies (7.6%) than for the other categories of robberies which range in declines from 26.0% to 55.1%. We observed earlier (Table 31) the assault movement away from guns is no greater in Boston than in other comparison jurisdictions during this period. However, the fact that non-gun street robberies lag behind in this decline at least suggests that some who previously robbed other targets may have moved to the street or that the overall decline was felt less by street robbers who may be younger and newer to the robbery business. Without further data on the circumstances of these incidents and the characteristics of offenders either from victim reports or arrestee data, we cannot be sure which, if either, of these interpretations is correct.

Tables 37 through 39 permit us, for the first time, to examine the

effect of the Bartley-Fox law on robbery through 1977, *the* third year after the introduction of the new law. It is over this longer period that we might expect to see a tendency for the law's effects to be neutralized. Our examination of trends in all armed robberies over this longer period, as shown in Table 37, gave no indication of a return to earlier armed robbery levels, although it did indicate that further declines in armed robbery were relatively slight. When we turn specifically to gun robberies, as shown in Table 38, we see a contrasting picture. Between 1976 and 1977, there is an increase in gun robberies of greater than 20% in three categories -- street, residential, and taxi robberies -- in all but the commercial and miscellaneous categories. Evidently, by this time, guns are beginning to return to more common use, except in the forms of armed robbery in which they have been most common. Perhaps those who gave up gun use between 1975 and 1976 have changed their minds about the risks and/or costs of having a Bartley-Fox charge filed against them or about the wisdom of confronting potential victims without a gun.

In the third year after the introduction of the Bartley-Fox law, non-gun armed robberies continue to decline in all categories of locations and targets (Table 39). This is particularly significant because it indicates that the upturn in the use of hand guns in street, residential, and taxi robberies at this time is not part of an overall trend toward increasing armed robbery, but rather a return to the use of guns as opposed to other deadly weapons, in most categories of robbery. Since newcomers to the ranks of robbers, as we assumed above, would be more likely to show up in the non-gun robbery categories, this table tends to support the assumption that more experienced robbers have started switching back to guns after a period of trying other weapons.

The upturn in gun robberies in 1977 raises a number of important questions about the impact of the law and its implementation that should be followed up in further research. It is critical to see whether this tendency for guns to return in armed robbery will continue until the pre-Bartley-Fox level is again achieved or stabilized short of that tendency. The risks of robbery without a gun may cause some potential offenders to stay out of this activity altogether rather than face a conviction influenced by the "get tough" attitude of the Bartley-Fox law. This, in turn, may depend on the handling of cases by the police and in the courts, especially to the extent to which the Bartley-Fox law is adding to the sentences served by convicted gun robbers. If carrying violations are not being charged or sentences are being imposed concurrently for robbery and a Bartley-Fox violation, the law may have no real impact on the potential robber. Finally, to determine what impact the law is having on the movement of potential offenders in and out of the robbery business, and particularly the business of robbery with a gun, we need to examine the characteristics of those who commit robberies over time as revealed in data on those arrested and from those victimized as recorded in police records.

J. Conclusions of the Robbery Analysis.

Although information on the incidence of gun and non-gun robberies has been available only since 1974 -- one year prior to the introduction of the Bartley-Fox law -- examination of the available data leads us to conclude that the Bartley-Fox law has deterred gun robberies throughout Massachusetts. While data limitations precluded an intervention points analysis to identify the month in which gun robberies showed their first statistically significant decrease, examination of the tabular analysis suggests that the gun law had a moderate deterrent effect on gun

robberies in 1975 in Boston and to a lesser extent also possibly in non-Boston Massachusetts. In the following year, 1976, the apparent deterrent effect of the law was much more pronounced and appears to be of approximately equal magnitude in Boston and non-Boston Massachusetts.

In contrast to the assault analysis, the displacement effects of the Bartley-Fox law on armed robbery are less clearcut. Boston experienced an increase in non-gun armed robberies in 1975, the first year following the introduction of the Bartley-Fox law. In the following year, this initial increase in non-gun armed robberies appears to have diminished, but not entirely disappeared. In non-Boston Massachusetts, there was only a hint of a weapons displacement effect, and if it existed it was much smaller than that which occurred in Boston.

Finally, we may be observing by 1977 the beginning of a shift back to using guns in robberies at least for certain types of targets. In 1977, Boston experienced an increase for the first time in three years in street, taxi, and residential gun robberies. However, there was no such increase in commercial establishment gun robberies. As hypothesized, the continued downward trend in commercial establishment gun robberies may represent the results of target-hardening efforts (such as hiring guards or not keeping cash on hand) on the part of commercial establishments. This might also suggest that the failure to see any increase in commercial establishment gun robberies in 1977 may, in part, represent the fact that new offenders have not yet "graduated" to robbing the more difficult targets. However, to actually determine what impact the law is having on the movement of potential offenders in and out of the robbery business, and in particular, robbery with a gun, it will be necessary to examine the characteristics of those who commit robberies over time.

K. Criminal Homicide: Intent versus Happenstance.

To the extent that homicide is a function of an offender's premeditated, willful intention to kill his victim, we would have little reason to expect that the Bartley-Fox law would deter gun related homicides. The assumption is that an offender who is willing to risk the legal sanction for murder would also be willing to risk the sanction for a Bartley-Fox offense. On the other hand, if as Block (1977) proposed, homicides occur not primarily as a result of an offender's determination to kill but rather as something which sometimes happens during the course of other criminal activities (such as robbery or assaults), then the introduction of the gun law might be expected to have a derivative deterrent effect on gun homicides. That is, the gun law might reduce gun related homicides not by affecting potential offenders' decisions to kill, but by affecting their decisions about other criminal activities, including carrying a firearm without a license. We have seen that the introduction of the Bartley-Fox law prevented some potential offenders from becoming involved in assaults and robberies with a gun. As a result, this may indirectly have prevented some of them from killing with a gun. Of course, potential offenders who did stop carrying and using guns may have subsequently committed a crime involving murder with some other type of weapon. However, the extent to which a switch to weapons other than guns results in an increase in non-gun homicides depends in part on how deadly these alternative types of weapons prove to be.

The analysis of the impact of the Bartley-Fox law on homicides will examine the potential derivative effect of the law on both gun and non-gun homicide. In addition, since a majority of homicides result directly

from assaults on victims with no other apparent criminal motives (such as the intent to rob or rape), the analysis will further focus specifically on those gun and non-gun homicides which arise directly from assaults and from other types of crime. Due to data limitations, the homicide analysis will be restricted to the impact of the Bartley-Fox law on homicides in Boston.

The primary source of data for the analysis of homicide is the UCR's Supplementary Homicide Report (SHR). The SHR is a monthly report which collects information on the characteristics of each homicide that occurs within a given police agency's jurisdiction. This data allows us to independently examine the impact of the law on assault-precipitated homicides, as well as all gun and non-gun related homicides. Two data limitations currently restrict our use of SHR homicide statistics. First, police agencies only send SHR reports to the UCR program when one or more homicides has occurred within their jurisdictions in a given month. This means that it is not possible to determine whether smaller agencies (which often have no homicide in a given month) have experienced no homicides in their jurisdiction or have simply failed to report homicides that did occur. The trouble is that it is not possible to identify a subset of police agencies that have consistently reported SHR homicide statistics to the UCR program over the period under study. This is particularly important because a sizable number of agencies first began sending the SHR reports to the Uniform Crime Reporting program during the 1970's. If these agencies were not excluded from our data base, it would create the illusion that all types of homicides were on the increase.

Since we are not able to identify and select police agencies which consistently reported SHR data to the UCR program for communities with

less than 250,000 inhabitants, it is not possible at this time to conduct a statistical analysis for Massachusetts communities other than Boston. However, using SHR data, we can examine homicides in Boston and selected control jurisdictions for Boston. This is possible because for cities in Boston's population range, we can identify whether agencies have consistently reported SHR data to the UCR program. We can safely assume that cities in this population range would never have a series of months with no homicides. Therefore, we exclude from the analysis cities in this population range which show several consecutive months of no homicides on the assumption that this indicates they have failed to report their homicides to the UCR program.

A further problem is that for some cities that show consistent reporting records the number of homicides reported on the SHR form do not always correspond with the number of homicides the same agencies report on their Return A report. This difficulty could be overcome by selecting only those agencies whose Return A and SHR totals correspond. Given time and resource constraints, we were not able to take this step. However, for Boston at least, we were able to obtain from the BPD the copies of Boston's SHR reports that were sent to the UCR program. Our independent tabulations of these reports produced statistics which corresponded exactly to Boston's Return A homicide totals but differed in some years from the SHR data the UCR program provided to us. We believe that our independent tabulations of Boston SHR reports provide the best available estimates of the incidence of gun and non-gun homicides in Boston.

1. Impact in Boston.

We shall now examine the impact of the Bartley-Fox law on homicides in Boston. As in the robbery and assault analyses, we will compare

homicide trends for Boston with those in selected control jurisdictions. We have selected as our control group cities in the range of 250,000 to 1,000,000 inhabitants in the Middle Atlantic states, the North Central states, and all United States cities (except Boston).

The number of criminal homicides in Boston and its control jurisdictions over the period from 1971 through 1976 is shown in Table 40 (below):

Table 40

Criminal Homicides in Boston and Comparison Cities of 250,000 to 1,000,000 Inhabitants, 1971-1976

a. Annual Criminal Homicides

<u>Regions</u>	<u>Annual Number and % Change</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-76 % Change</u>
All United States Cities Except Boston	Number % Change	3970	4164 + 4.9	4273 + 2.6	4519 + 5.8	4440 - 1.7	3786 - 1.5	-16.2
North Central Cities	Number % Change	544	596 +9.6	580 -2.7	609 +5.0	613 +6.6	494 -1.9	-18.8
Middle Atlantic Cities	Number % Change	399	334 -1.5	352 +5.4	335 -4.8	311 -7.2	269 -1.4	-19.7
Boston	Number % Change	115	104 -9.5	135 +29.8	134 -.74	119 -11.1	82 -31.0	-38.8

b. Biannual Criminal Homicides

<u>Regions</u>	<u>Biannual Number and % Change</u>	<u>1971/72</u>	<u>1973/74</u>	<u>1975/76</u>
All United States Cities Except Boston	Number % Change	8134	8792 + 8.1	8226 - 6.4
North Central Cities	Number % Change	1140	1189 + 4.3	1107 - 6.9
Middle Atlantic Cities	Number % Change	673	687 + 2.1	580 -15.5
Boston	Number % Change	219	269 +22.8	201 -25.2

In Part A of the table, these figures are aggregated annually as in the earlier assault and robbery tabulations. In Part B of the table, the figures are grouped biannually to provide more stable indications of change before and after the implementation of the Bartley-Fox law. These latter statistics are less subject to the substantial fluctuations which characterize tabulations of relatively infrequent events such as criminal homicide. The additional stability of the biannual figures labeled seem to provide a more reliable picture of the gun law's impact on criminal homicide, especially as we move to even smaller numbers in subcategories of homicide later in this section.

In the year immediately after the Bartley-Fox law was introduced (between 1974 and 1975), Boston experienced a greater decline in homicides (-11.1%) than any of its comparison jurisdictions had (ranging from .03% to -7.8%). In the next year of the law's implementation (between 1975 and 1976), Boston again experienced a greater decline in homicides (3.0%) than any of the control jurisdictions had (ranging from -17.5% to -27.2%). Over a two-year period (between 1974 and 1975) in which large cities were experiencing a consistent decline in homicides of almost 20%, Boston showed a drop approaching 40%. Comparing homicides in the two years before and after Bartley-Fox (between 1973-1974 and 1975-1976), we find that homicides in Boston dropped roughly 25% as compared to 15% or less in the comparison jurisdictions. By these indications, then, the introduction of the Bartley-Fox law in Massachusetts had a deterrent effect on the incidence of homicides. Whether that deterrent effect was restricted to gun homicides and whether it was largely derivative from the law's impact on gun assaults remains to be seen.

Table 41 (below) presents gun homicide statistics for Boston and its control jurisdictions over the period 1971 to 1976 aggregated annually and biannually.

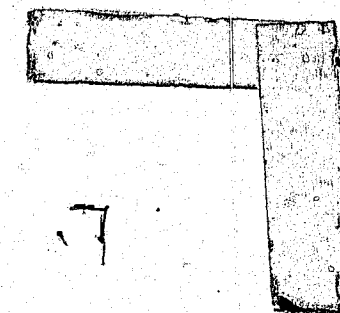


Table 41

Gun Homicides in Boston and Comparison Cities of 250,000 to 1,000,000 Inhabitants, 1971-1976

a. Annual Gun Homicides

<u>Regions</u>	<u>Annual Number and % Change</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-76 % Change</u>
All United States Cities Except Boston	Number % Change	2680	2828 + 5.5	2882 + 1.9	3140 8.9	2933 - 6.5	2417 -17.5	-23.0
North Central Cities	Number % Change	394	444 +12.6	438 -1.3	470 +7.3	427 -9.1	347 -18.7	-26.1
Middle Atlantic Cities	Number % Change	173	176 + 1.7	162 - 7.9	164 + 1.2	163 - 0.6	118 -27.6	-28.0
Boston	Number % Change	55	50 -9.0	81 +62.	70 +13.5	55 -21.4	31 -43.6	-55.7

b. Biannual Gun Homicides

<u>Regions</u>	<u>Biannual Number and % Change</u>	<u>1971/72</u>	<u>1975/76</u>	<u>1975/76</u>
All United States Cities Except Boston	Number % Change	5508	6022 + 9.3	5350 -11.1
North Central Cities	Number % Change	838	908 + 8.4	774 -14.7
Middle Atlantic Cities	Number % Change	349	326 - 6.5	281 -13.8
Boston	Number % Change	105	151 +43.8	86 -43.0

Examination of these figures indicates that gun homicides in Boston decreased by 21.4% between 1974 and 1975, twice the decline experienced in any of the control jurisdictions. In the following year between 1975 and 1976, there was a general decline in gun homicides, with Boston leading the group. Whereas gun homicides in the control jurisdiction showed declines ranging from -17.5% to -27.6%, Boston experienced a decline of -43.6%. Over the two-year period following the introduction of the Bartley-Fox law (1974 to 1976), Boston showed a decline of -55.7% in gun homicides, twice any of the control jurisdictions. Indeed, when we compare the two years prior to Bartley-Fox with the following two years (1973-1974 to 1975-1976), the decline in gun homicides in Boston (-43.0%) is virtually three times the decline for the closest comparison jurisdiction (-14.7% for cities in the North Central region).

The issue of the gun law's impact on non-gun homicides is addressed in Table 42 (below):

Table 42

Non-Gun Homicides in Boston and Comparison Cities of 250,000 to 1,000,000 Inhabitants, 1971-1976

a. Annual Non-Gun Homicides

<u>Regions</u>	<u>Annual Number and % Change</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-76 % Change</u>
All United States	Number	1290	1336	1391	1379	1507	1369	
Cities Except Boston	% Change		+ 3.6	+ 4.1	- 8.6	+ 9.3	- 9.2	- 0.7
North Central Cities	Number	150	152	142	139	186	147	
	% Change		+1.3	-6.6	-2.1	+3.4	-2.0	- 5.7
Middle Atlantic Cities	Number	166	158	190	171	148	151	
	% Change		-4.8	+2.0	-1.0	-1.3	+2.0	-11.6
Boston	Number	60	54	54	64	64	51	
	% Change		-1.0	0.0	+18.5	0.0	-20.3	-20.3

b. Biannual Non-Gun Homicides

<u>Regions</u>	<u>Biannual Number and % Change</u>	<u>1971/72</u>	<u>1973/74</u>	<u>1975/76</u>
All United States	Number	2626	2770	2876
Cities Except Boston	% Change		+ 5.4	- 3.8
North Central Cities	Number	302	281	333
	% Change		- 2.1	+18.5
Middle Atlantic Cities	Number	324	361	299
	% Change		+11.2	-17.1
Boston	Number	114	118	115
	% Change		+ 3.5	- 2.5

Boston's trend in non-gun homicides after the introduction of the Bartley-Fox law is reasonably comparable to those of the control jurisdictions. In the first year after the gun law became effective, there was no change in non-gun homicides in Boston; in the second year, there were fourteen fewer, a decline of 20.3%. The decline between 1975 and 1976 is greater in Boston than in the comparison cities, but because it is based on a relatively small number of cases (14/64), its reliability as reflecting a trend is doubtful. When we group the two years before and the two years after the law's implementation, we find that Boston's change in non-gun homicides (-2.5%) falls about midway between the extremes of the control jurisdictions (18.5% and -17.1%). There is definitely no evidence of a displacement effect with respect to non-gun homicides in Boston. Thus, examination of Tables 41 and 42 strongly suggests that the gun law had a derivative deterrent impact on gun homicides without a derivative displacement effect on non-gun homicides.

Table 43 (below) presents another view of the gun law's impact on homicides, the percent the gun homicides represent of all homicides annually and biannually, 1971-1976:

Table 43

Percent Gun Homicides of Total Criminal Homicides in Boston and Comparison Cities of 250,000 to 1,000,000 Inhabitants, 1971-1976

a. Annual Percent Gun of Total Homicides

<u>Regions</u>	<u>Annual Percent</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
All United States Cities Except Boston	Percent	67.5	67.9	67.4	69.5	66.1	63.8
North Central Cities	Percent	72.4	74.5	75.5	77.2	69.7	70.2
Middle Atlantic Cities	Percent	51.0	52.7	46.0	49.0	52.4	43.9
Boston	Percent	47.8	48.0	60.0	52.2	46.2	37.8

b. Biannual Percent Gun of Total Homicides

<u>Regions</u>	<u>Biannual Percent</u>	<u>1971/72</u>	<u>1973/74</u>	<u>1975/76</u>
All United States Cities Except Boston	Percent	67.7	68.4	65.0
North Central Cities	Percent	73.5	76.3	69.9
Middle Atlantic Cities	Percent	51.8	47.5	48.4
Boston	Percent	47.9	56.1	42.7

The table shows that the gun share of criminal^{*} homicides dropped six percentage points in Boston between 1974 and 1975 and fourteen percentage points in Boston between 1975 and 1976. The 1974 to 1975 decline is rivaled by cities in the North Central region, but otherwise the decline in gun homicides as a proportion of all homicides is most pronounced in Boston after 1974. The biannual figures in Part ^{*} of Table 43 make this point quite clear. They show a 14.4% decline in Boston between the two years before and the two years after Bartley-Fox, which is more than twice the next closest decline of 6.4%.

L. Refined Boston Analysis: Assault-Precipitated and Robbery Related Homicides.

Having established a substantial reduction in gun homicides after the introduction of the Bartley-Fox law, we are now ready to carry the analysis a step further by asking whether this effect derives from the law's impact on gun assaults, its impact on gun robberies or both. Thus, we will further explore the deterrent effect of the gun^{*} law by dividing gun homicides into two groups: "felony related homicides" which include all those cases in which the killing occurred in the course of another crime; and "assault-precipitated gun homicides" for which there is no evidence of an accompanying felony that the killing was the result of an assaultive situation. Tables 44 and 45 (below) present, respectively, assault-precipitated gun homicides and felony related gun homicides for Boston and its comparison cities over the period 1971 to 1976 with data grouped annually and biannually:

Table 44

Assault-Precipitated Gun Homicides in Boston and Comparison Cities of 250,000 to 1,000,000 Inhabitants, 1971-1976

a. Annual Assault-Precipitated Gun Homicides

<u>Regions</u>	<u>Annual Number and % Change</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-76 % Change</u>
All United States Cities Except Boston	Number % Change	2304	2390 + 3.7	2376 - 5.8	2586 + 8.8	2341 - 9.4	1948 -16.7	-24.6
North Central Cities	Number % Change	332	372 +12.0	354 - 4.8	402 +13.5	337 -16.1	273 -18.9	-32.0
Middle Atlantic Cities	Number % Change	140	140 0	138 - 1.4	137 - .72	136 - .72	95 -30.1	-30.6
Boston	Number % Change	51	45 -11.7	69 53.5	50 -27.5	43 -14.0	28 -34.8	-44.0

b. Biannual Assault-Precipitated Gun Homicides

<u>Regions</u>	<u>Biannual Number and % Change</u>	<u>1971/72</u>	<u>1973/74</u>	<u>1975/76</u>
All United States Cities Except Boston	Number % Change	4694	4962 + 5.7	4289 - 13.9
North Central Cities	Number % Change	704	756 + 7.4	607 -19.7
Middle Atlantic Cities	Number % Change	280	275 - 1.8	231 -16.0
Boston	Number % Change	96	119 +24.0	71 -40.3

Table 45

Felony-Related Gun Homicids in Boston and Comparison Cities of 250,000 to 1,000,000 Inhabitants, 1971-1976

a. Annual-Felony Related Gun Homicides

<u>Regions</u>	<u>Annual Number and % Change</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1974-76 % Change</u>
		All United States Cities Except Boston	Number % Change	376	438 +16.5	506 +15.5	554 + 9.5	592 + 6.2
North Central Cities	Number % Change	62	72 +16.1	84 +16.7	68 -19.0	90 +32.3	74 -17.8	+ 8.9
Middle Atlantic Cities	Number % Change	33	36 + 9.1	24 -33.3	27 -12.5	27 0.0	23 -14.8	-14.8
Boston	Number % Change ¹	4 --	5 --	12 --	20 +66.7	12 -40.0	3 -75.0	-85.0

b. Biannual Felony-Related Gun Homicides

<u>Regions</u>	<u>Biannual Number and % Change</u>	<u>1971/72</u>	<u>1973/74</u>	<u>1975/76</u>
		All United States Cities Except Boston	Number % Change	814
North Central Cities	Number % Change	134	152 + 13.4	167 + 9.8
Middle Atlantic Cities	Number % Change	69	51 - 26.1	50 - 2.0
Boston	Number ¹ % Change	9	32 --	15 -53.1

¹Percent change estimates have not been calculated for percents with base number lower than 10.

Looking first at the annual changes in Table 44, Part ~~X~~, we see that assault-precipitated gun homicides in Boston dropped off 14.0% between 1974 and 1975 and 34.8% between 1975 and 1976, for an overall 1974 to 1976 decline of 44.0%. The first year's decline is rivaled by cities in the North Central region; the second year's decline is rivaled by cities in the Middle Atlantic region, but the overall decline between 1974 and 1976 in Boston is unrivaled by the comparison cities (where the next greatest decline is 32.0%).

When we examine the biannual changes in Table 44, Part ~~Y~~, the decline in Boston's assault-precipitated gun homicides stands out more sharply in relief; it was more than twice that in any of the other groups of cities (40.3% in Boston and 19.7% in the closest comparison cities).

Roughly four out of five gun homicides are assault-precipitated as opposed to felony related. In view of the deterrence findings in Table 41 on all gun homicides, it is not too surprising, therefore, to find that the law has reduced assault-precipitated gun homicides. The extent of its effect on assault-precipitated gun homicides was the chief question. The situation is different for the remaining one out of five gun homicides which are felony related. Here, it is an open question whether the gun law has actually had a deterrent effect and one more difficult to answer because of the much smaller number of these crimes for analysis.

Although the numbers are small, the pattern is dramatic. Felony related gun homicides in Boston declined 40.0% between 1974 and 1975, 75% between 1975 and 1976, and 85.0% between 1974 and 1976. The comparison cities show no remotely similar pattern. When we examine the data grouped biannually, Boston's pre-to-post-Bartley-Fox decline

is 53.1%; the next greatest decline in the biannual data is 2.0% for the Middle Atlantic cities. The reduction in felony related gun homicides in Boston is clearly unique and unrivaled.

A closer examination of Table 45 reveals that felony related gun homicides reached a high point in the year immediately prior to the effective date of the Bartley-Fox law. More than a third of these *CRIMES* reported over the six years from 1971 through 1976 occurred in 1974. This raises the possibility that felony related gun homicides were "abnormally" high in 1974 and, therefore, that the post-Bartley-Fox reduction in these homicides is simply a return to "normal" levels, which cannot be legitimately discredited as an effect of the new law. Indeed, the conspicuously high level of felony related gun homicides in 1974 might actually have contributed to the framing and passage of the law itself. After all, felony related gun homicides more than tripled between 1971-1972 and 1973-1974.

If we look back to Table 44, we can detect a similar if less pronounced pattern. Here again the 1973-1974 period is relatively high in assault-precipitated gun homicides, up by 24.0% over the 1971-1972 period. In this instance, the conspicuously high level of such homicides occurred in 1973, when almost a quarter of those over the six-year period from 1971-1976 occurred. Certainly, this peaking of assault-precipitated gun homicides in 1973, like the peaking of the felony related gun homicides in 1974, could have contributed to a climate of public support for gun control legislation.

The problem from the viewpoint of our crime impact analysis is to determine whether the conspicuously high levels of gun homicides in 1973 and 1974 were abnormal departures from consistently lower levels of represented actual movements or trends toward consistently

higher levels of gun homicide in the community. Specifically, for the purposes of our analysis, if the 1973-1974 levels of gun homicide are abnormally high, then the reductions in the 1975-1976 levels are not a reflection of the gun law's effects but a statistically predictable return to normal levels (regression to the mean). If, on the other hand, the 1973-1974 levels of gun homicide reflect a basic shift to higher levels of such crime in the community that would tend to be sustained, the 1975-1976 reduction may be attributable to the deterrent impact of the Bartley-Fox law.

To help choose between these alternative assumptions, we present "kill rates" for gun assaults and for gun robberies in Table 46 (below):

Table 46

Kill Rates for Gun Assaults and Gun Robberies in Boston, 1971-1976

a. Assault-Precipitated Kill Rates

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
Rates	.153	.154	.188	.132	.130	.119	.123
Gun Assault-Precipitated Homicides	51	45	69	50	43	28	26
Gun Assaults (with battery)	282	247	298	329	289	207	185
Total of Assaults Plus Homicides	333	292	367	379	332	235	211

b. Robbery-Related Kill Rates

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
Rates	--	--	--	.0088	.0054	.0021	.0034
Gun Robbery-Related Homicides	4	4	11	20	12	3	5
Gun Robbery	--	--	--	2243	2204	1455	1485
Total Homicides Plus Robbery	--	--	--	2263	2216	1458	1490

These kill rates reflect the likelihood that a serious assault with battery will result in death and that a gun robbery will result in death. The data to compute these kill rates are available from 1971 through 1977 for gun assaults but only from 1974 through 1977 for gun robberies in Boston. Our assumption is that gun assaults and gun robberies will remain equally deadly, or likely to result in a homicide over time. To illustrate, a steady increase in gun assaults over time should produce a steady (proportional) increase in assault-precipitated gun homicides over time, or a constant kill rate (assault-precipitated gun homicides / gun assaults with battery + assault-precipitated gun homicides). Departures from a relatively constant kill rate would indicate abnormally high or low levels of assault-precipitated gun homicides. Changes in the level of assault-precipitated gun homicides which occur without a change in the kill rate may be regarded as secular trends or basic shifts in the levels of such homicides. The underlying assumption here, is of course that variations in assault-precipitated and robbery related gun homicides are derivative from variations in gun assaults and gun robberies, respectively. Kill rates might, of course, change over time as a result of changes in the characteristics of offenders committing gun assault or gun robberies, of the locations or targets they choose or of changes in the willingness of victims and witnesses to report such crimes. Lacking evidence of such changes except with respect to the reporting of gun assaults, we will assume a constant kill rate as a standard for distinguishing between normal and abnormal fluctuations in assault-precipitated and felony related gun homicides (except in the case of post-Bartley-Fox gun assaults where increased reporting of this offense after the introduction of the new law has occurred).

Looking first at the kill rates for gun robbery in Part B of

Table 46, we see that less than one in a hundred gun robberies end in death throughout the 1974-1977 period; this varies from a high of .0088 in 1974 to a low of .0021 in 1976. It is evident that the post-Bartley-Fox reductions in robbery related gun homicides outstripped the reductions in gun robbery to a degree that could hardly be attributed to the effects of the gun law, at least not without additional assumptions about the law's effects on robbery related gun homicides. Certainly, the low kill rate for gun robberies leaves a great deal of room for change variation without a very large aggregate of gun robberies

Turning to the kill rates for gun assaults in Part β of Table 46, we see that roughly 15 out of 100 gun assaults with battery end up as assault-precipitated gun homicides. Note that the kill rate for 1973, when the peak in assault-precipitated gun homicides occurs, is above the average for the pre-Bartley-Fox period, suggesting that the number of such homicides in this year was abnormally high. Note further, however, that the kill rate for the following year 1974, was below the pre-Bartley-Fox average, thus suggesting an abnormally low level of assault-precipitated gun homicides in 1974.*

This pattern led us to work with the homicide data aggregated at the biannual as well as the annual level in the tables of this section.

*The implication of this latter point is that ~~the~~ Appendix, the method we use to estimate the law's impact on the number of offenses prevented or promoted in the post-Bartley-Fox period will yield a conservative estimate. That is, if the number of assault-precipitated homicides in 1974 is abnormally low, reductions calculated from this level as a baseline will underestimate the number of lives saved by the Bartley-Fox law.

It also recommends the use of biannual data in estimating the number of such offenses the law has prevented. Observe that combining the number of assault-precipitated gun homicides in 1973 and 1974 yields an aggregate kill rate very near the level in the previous two years. In effect, the increase in assault-precipitated gun homicides between 1971-1972 and 1973-1974 of approximately 24% (Table 44, Part β) occurred with an essentially constant kill rate -- the condition we specified for assuming that changes between one year (or group of years) and the next are not abnormal. Thus, in the final subsection of the homicide analysis, we will also estimate the impact of the law on the number of assault-precipitated gun homicides with the data grouped biannually.

It should be noted that the post-Bartley-Fox kill rates for assault-precipitated gun homicides are slightly but consistently below the earlier levels. We take this as a reflection of the tendency (uncovered earlier in the assault analysis) for citizens to be more likely to report gun assaults to the police after the implementation of the Bartley-Fox law. This tendency to increase the reporting of gun assaults as a group is what led us to work with gun assaults with battery in forming the kill rates in Table 46. Although the assault with battery category is much less subject to reporting changes, there is evidence in the preceding analysis of an increased willingness of victims and witnesses to report this crime to the police after the law's implementation.

M. Conclusions of the Homicide Analysis.

We have taken the view in this analysis that homicide is essentially a derivative crime resulting from involvement in other forms of criminal behavior such as assaults and robberies. In sections III and IV above, we established that the Bartley-Fox law has reduced gun assault and gun

robbery. In this section (Table 44), we have shown that gun homicides dropped off more substantially in the two years after the Bartley-Fox law in Boston than they did in other comparison cities. Non-gun homicides did not show a change in Boston different from their patterns over time on other comparable cities. Thus, there is evidence of a deterrent effect on gun homicides, but no evidence of a displacement effect on non-gun homicides. Since guns are the target of the law and the most lethal of weapons, it should not be surprising to find that the derivative effect of the law on homicides is confined to gun homicides.

To carry the analysis a step further, we observed that reduction in gun homicides was present for both felony related and assault-precipitated gun homicides but that there were also indications that the pre-Bartley-Fox levels of these crimes may have been abnormally high. Drawing on the assumption that these forms of homicide are derivative from gun assaults and gun robberies, we calculated kill rates for the latter two categories of offenses which enable us to identify especially inflated or deflated levels of assault-precipitated and robbery related gun homicides. Our analysis of felony related gun homicides leads to the conclusion that the pre-Bartley-Fox level of these offenses was inflated, and, therefore, that lower post-Bartley-Fox levels of this crime cannot legitimately be attributed to the deterrent impact of the law.

N. Conclusion.

In the final section, we provide an overview of the findings from our analyses of armed assault, armed robbery, and criminal homicide, and we recommend directions for further research on the impact of the Bartley-Fox law. In the overview of findings, we summarize the chief results of the analyses in each of the three preceding sections. In our discussion of directions for further research, we present eight recommendations for refinement and extensions of the present study.

1. Overview of Findings.

In the preceding three sections of this analysis, we have examined the impact of the Bartley-Fox law on armed assault, armed robbery, and criminal homicide.

a. Armed assault. In the assault analysis, we concluded that introduction of the Bartley-Fox law had an immediate two-fold effect on armed assaults in Massachusetts. First, the law substantially reduced the actual incidence of gun assaults even before its effective date in Massachusetts. Second, the law substantially increased non-gun assaults in Massachusetts. Indeed, there was a statistically significant increase throughout the state in non-gun armed assaults shortly after the Bartley-Fox law went into effect and within a couple of months of the earlier statistically significant decrease in gun assaults. Thus, although the law discouraged gun related assaults, it encouraged non-gun armed assaults, perhaps because it did not keep offenders away from assaultive situations.

The introduction of the Bartley-Fox law also had the unanticipated effect of stretching the crime reporting behavior of citizens. Specifically, citizens were more likely to report less serious forms of gun assaults to the police after implementation of the gun law. This was

most pronounced in Boston, and it tended to obscure the magnitude of the law's deterrent effects. Importantly, we were able to control for this reporting bias in making our estimates of the deterrent effect of the law on gun assaults by using more refined BPD assault data. Significantly, these results suggest the UCR program should collect assault data in more refined categories than it presently does in order to provide more reliable estimates of the level and change in aggravated assaults.

b. Armed robbery. Our analysis indicates that the gun law had a moderate deterrent effect on gun robberies in 1975 in Boston and to a lesser extent also in non-Boston Massachusetts. In the following year, 1976, the estimated deterrent effect of the law was much more pronounced and was of approximately equal magnitude in Boston and non-Boston Massachusetts. The displacement effects of the Bartley-Fox law on non-gun armed robbery are less consistent and less pronounced than in the case of non-gun armed assaults. Since information on the incidence of gun and non-gun robberies has been available only since 1974, data limitations precluded an intervention point analysis similar to the ones conducted for gun and non-gun armed assaults.

In contrast to the assault findings we observed in Boston by 1977, the beginning of a shift back to using guns in robberies at least for certain types of targets -- specifically, in street, taxi, and residential gun robberies. This upturn in gun robberies points to the need for analysis over a longer potential impact period. It is critical to see whether this tendency for guns to return in armed robbery will continue until the pre-Bartley-Fox level is achieved or whether it stabilized short of that level.

The results obtained above raise some questions about the reliability of the estimated deterrence and displacement effects. The fact that the displacement effect exceeds the deterrent effect in Boston in 1975 suggests something more than simply a switch among offenders from guns to other weapons. Similarly, the substantial reversal a year later in the magnitude of deterrence and displacement effects again raises the possibility of exogenous influences or estimation problems. More specifically, these anomalies may reflect the influences of school desegregation in Boston or the implementation of the AFT CUE program or problems associated with the timing or phasing of changes in Boston and its control jurisdictions.

c. Criminal homicide. Due to data limitations, the analysis of criminal homicides was restricted to Boston and its control jurisdictions. The results of the analysis showed no evidence of a deterrent effect of the law on gun homicides, but no indication of displacement effects on non-gun homicides in Boston. Further refinements of the homicide analysis revealed that the deterrent effect of the law occurred principally among assault-precipitated gun homicides as opposed to felony related gun homicides. The latter type were too infrequent and erratic in occurrence to give reliable evidence of a deterrent effect.

In order to establish the *reliability* of the deterrent effect with respect to assault-precipitated gun homicides, kill rates were computed using gun assaults with battery as the base. On the assumption that gun assaults with battery will remain equally deadly over this period, the kill rates provide a check on abnormal fluctuations in the numbers of homicides that cannot reasonably be attributed to the systematic effects of a policy intervention such as the Bartley-Fox Law.

d. Interpretative note. This analysis reveals that the Bartley-Fox gun law has affected the character of violent crime in Massachusetts. We see substantial decreases in gun related assaults, robberies, and homicides, and conversely, more or less offsetting increases in non-gun armed assaults and robberies. This represents a shift from more serious to less serious forms of criminal activity since these crimes are more likely to result in injury and death when committed with guns. Indeed, gun assaults with battery and assault-precipitated gun homicides were among the offenses experiencing proportionally the most substantial reductions. Thus, the shift from gun to non-gun armed assault and robbery is a move toward less potentially harmful and lethal forms of crime.

What we do not know is how the Bartley-Fox law accomplished these effects. Thus, we do not know whether the threat of punishment provided for by the law or the actual imposition of punishment under the law was responsible for this changing pattern of crime. The relatively immediate changes in gun and non-gun assault rates suggest that it was the law's punishment potential that altered assaultive behavior. The more delayed reduction in gun robberies suggests that the actual implementation of the law in the courts may have been more important in altering robbery behavior.

Moreover, we have not reached the point of knowing whether it is changes in punishment imposed for committing assault or robbery with a gun or simply for carrying a gun without a license which is responsible for the altered crime pattern. This is, of course, critical for evaluating the relative advantages in terms of crime control of felony firearms laws which mandate additional punishment for crimes committed with a gun as compared to new felony firearms laws aimed at

the ownership, possession, and/or carrying of firearms, such as Bartley-Fox.

We do know from the analysis of court processing that carrying a firearm without a license was elevated by the Bartley-Fox law from a minor to a major crime in Massachusetts. Before the law, it was typically handled in the lower courts; after the law, such cases have typically been bound over or appealed to the superior courts. In the two-tier court system in Massachusetts, with trial de novo at the superior court level, this amounted to a distinct change in the status of the offense within the criminal justice system. This change of status was accomplished in part by the increased severity of the prescribed punishment and in part by the limits set on judicial discretion under the law.

What we cannot say at this point is that mandatory sentencing or a one-year^{*} minimum prison term are independently responsible for the observed changes in criminal behavior. First, we must establish the law's impact on the actual severity, certainty, and swiftness of punishments imposed, and then we must relate these variations in severity, certainty, and swiftness of punishment by court jurisdictions by jurisdictionally-specific changes in the patterns of crime. In other words, we do not know whether the observed effects are a result of the certainty and severity of punishment being imposed under the new law, the altered way in which the criminal justice system is handling such cases, or the impression the new law has had made upon the public apart from criminal justice processing changes.

We can address these questions by refining and extending the present analysis. The needed refinements will give us better estimates of the magnitude, timing, and duration of the law's effects. The needed

extension will enable us to examine these effects over longer periods of time, on different types of offenders, and in the various court jurisdictions which may have handled such cases differently. The refinements and extensions we recommend are described in more detail in the following and final section of this analysis.

2. Direction for Further Research.

In most research endeavors, there are findings that need further investigation, estimates that need refinement, and relevant questions that time and resources prevented researchers from answering or even addressing. This project is certainly no exception. Such shortcomings and limitations must be acknowledged, but they presently indicate that further research should be conducted. In this case, however, the strength of the present study's findings and the potential of such a law for controlling criminal violence make it important, indeed critical, in our view, to conduct further research on the impact of the Bartley-Fox law.

Below, we detail the steps that we believe should be undertaken to refine and extend the present study. Specifically, we recommend that the estimate we have obtained in the current study may be refined by: (1) use of dynamic time series statistical modeling techniques; (2) improved specification of control jurisdictions; (3) investigation of the predictably confounding impact of alternative policy intervention; and (4) further examination of the impact of citizen reporting biases. We further recommend that this research be extended by: (5) examining the effects of the gun law over a longer period of time; (6) separating the effects of legal sanctions actually imposed under the law from the effects of the accompanying publicity; (7) investigating offenders'

specific adaptations to the law; and (8) exploring the potential uses of National Crime Panel (NCP) victimization survey data for alternative estimates and further analyses of deterrence, displacement, and reporting effects.

a. Use of dynamic modeling techniques. Estimates of the gun law's effect should be refined through the application of dynamic intervention modeling techniques. To date, short-term intervention point techniques have established that significant shifts occurred following the introduction of publicity about the gun law. Previous research suggests that the initial deterrent effect of the law may be neutralized as information concerning the judicial processing of Bartley-Fox cases becomes known. With dynamic modeling techniques developed by Deutsch and Sims (1978), Pack (1977), and others, we will be able to estimate the nature and duration of the law's impact as well as the initial point of significant shift in crime rates. These techniques will allow us to identify the form of trends or over-time behavior of crime after the introduction of the Bartley-Fox law. The identification of the long-term pattern of post-intervention effects of the law is particularly important for making substantive understanding of how policy intervention affects criminal behavior. Importantly, these techniques will provide not only point estimates but also confidence intervals which indicate a range of statistically predictable estimates (at a given confidence level).

b. Improved specification of control jurisdictions. The selection of control jurisdictions for the present analysis was made in terms of geographical location and community size. While these two criteria provide control groups similar on a variety of cultural and socio-demographic characteristics (to Boston and non-Boston

Massachusetts), a more systematic selection of control jurisdictions is clearly possible and desirable. Control jurisdictions can be selected in terms of specific cross-sectional data (from the Census) and longitudinal characteristics (from the Department of Labor), as well as in terms of pre-intervention crime trends. The type of selection will identify control groups which more closely correspond to Boston and the rest of Massachusetts in terms of criteria which are thought to have an important effect on the level of crime and/or accurately predict future trends in crime.

The cross-sectional, socio-demographic data and characteristics of pre-policy intervention crime trends should be used to make initial selections of control jurisdictions. The longitudinal data (such as unemployment rates and income earnings which are available over time for many SMSA's) will be used when they are available to provide measures of socio-demographic trends in the control jurisdictions and in Boston and Massachusetts. These data can be compared for the post-intervention periods. Control jurisdictions which exhibit substantially different trends from those in the Boston or non-Boston areas can then be eliminated. This process of control group identification will yield specific selecting criteria that will be explicit, and therefore open to the review of other investigators.

c. Adjustment for alternative intervention effects.

Policy intervention effects can be obscured not only by ongoing socio-demographic trends which may independently affect the incidence of gun and non-gun related crime, but also by alternative policy intervention whose implementation has approximately coincided with the law or the period of its effect. Thus, a major policy intervention that may have independently affected the level of gun and non-gun criminal

violence in Boston is the court-ordered desegregation^{*} of Boston's public schools. Desegregation proceeded in two major phases in Boston. The first phase was implemented in September 1974, and the second phase was implemented a year later. These interventions may have increased racial tension in the city and also interracial assaults and robberies without guns, thereby spuriously inflating the displacement effects we have observed in Boston. With BPD manual record policy reports, it will be possible to identify desegregation related crimes.

Another policy intervention which may have independently affected the level of gun crimes in Boston and the rest of Massachusetts is the Alcohol, Tobacco, and Firearm Commission (ATF) CUE program. The CUE program, initiated in 1976, was specifically designed to reduce the illegal sale of firearms. Estimating the potentially confounding effects of this policy intervention can be achieved with the acquisition of information concerning the timing and magnitude of various aspects of the CUE program. Information on the CUE program staff increases, weapon buses, prosecutions, investigations, etc, can be obtained from the BDM Corporation's study of the CUE program in Boston, Chicago, and Washington. Additional indicators of the CUE program's direct impact on offenders can be derived from information on the characteristics of guns used in crimes. The age and value of guns used in crimes, for instance, has been used by previous investigators (Zimring, 1975) as a measure of weapon availability. It should also be noted that certain characteristics of guns such as barrel lengths (which is an indicator of weapon concealability) may provide additional information about the impact of the Bartley-Fox law on offenders' behavior. In Boston, the serial number of all guns confiscated in crimes can be obtained from the Ballistics Unit of the BPD. The information on the characteristics of the weapon used

by offenders in Boston for major crimes can be obtained by the ATF.

d. Further adjustments for possible reporting biases. Estimates of the gun law's effect should also be refined through further examination of the impact of biases and unreliabilities in reported crime statistics. For one thing, the above analysis of variation in assault-precipitated homicides relative to reported gun assaults in Boston versus non-Boston Massachusetts should be extended to obtain pre- and post-Bartley-Fox values of this indicator in both impact and control jurisdictions on the assumption that in the aggregate, this will reflect the relative likelihood of citizens' (over time and/or between jurisdictions) reporting gun assaults to the police. By extending the analysis to both pre- and post-Bartley-Fox periods, more precise estimates of the differential impact of the gun law on citizens' reporting in Boston and non-Boston Massachusetts can be obtained.

In addition to refining the analysis of biases in reported assault statistics, we should also investigate potential reporting biases in robbery statistics. This can be undertaken for Boston with refined BPD crime statistics, which, unlike the UCR's robbery statistics, differentiates between attempted and completed gun and non-gun armed robberies. Thus, as we did in the analysis of gun assaults, we can examine the question of whether the relative number of less serious gun related robberies reported to the police increased after the introduction of the gun law. If this occurred, it would tend to obscure deterrent effects of the law on gun robbery.

e. Extension of the impact period under analysis.

Beyond obtaining more accurate estimates of the gun law's impact, the present study should also be extended to examine the longer-term

impact of the Bartley-Fox law. Previous studies of policy interventions have tended to show a neutralized effect or the dissipation of intervention effects over time (Ross, 1976). In fact, in our refined robbery analysis for Boston, which could be extended through 1977, we observed a definite upturn in gun as opposed to non-gun armed robberies between 1976 and 1977 (Tables 38 and 39). This neutralization pattern has generally been interpreted as the result of compensatory movement among the sanctioning variables for the target offense, e.g., as the punishments for a given offense increase in accordance with a policy intervention, police become more reluctant to arrest or charge citizens with the offense. However, another possibility is that such a dissipation of intervention effects occurs quite independently of changes in sanctioning practices. It may be that the initial implementation of the law had the attendant publicity produce a period of cautious compliance until public attention and awareness fade.

f. Separation of intervention and deterrent effects.

We know from the evidence on court processing that the Bartley-Fox law has been implemented in different ways in different jurisdictions within the state. This research, however, does not establish whether the observed reduction in gun related crime rates is attributable to increased legal punishments; it may simply be a product of the policy intervention and people's beliefs and expectations about it, resulting perhaps from the attendant publicity. For instance, the significant reduction in gun assaults actually occurring before the effective date of the law represents an intervention effect independent of (prior to) actual changes in sanctioning practices. This illustrates how policy interventions may create the illusion of deterrent effects without actual changes in sanctioning levels. To address this issue, variations

in offense rates reflecting gun related armed offenses should be examined as a function of cross-sectional and over-time variations in certainty and severity of the sanctioning practices of the respective court jurisdictions, thus enabling us to separate deterrence from intervention effects.

g. Analysis of offender specific adaptations. The current research should be extended to study offender specific adaptations to the gun control law. Initial evidence already suggests that most potential gun offenders were not licensed to carry a gun, and that they did not become licensed in response to the law. Information on the types of offenders affected by the gun law and the patterns of adjustments offenders have made can be obtained from Parole and Probation Department data in Massachusetts. With a sample of offenders who committed gun related offenses prior to the Bartley-Fox law, we can track their subsequent history of offenses and determine which ones continued to use firearms, which ones have switched to other weapons, and which ones have kept out of further trouble. A group of offenders who committed gun and non-gun related felonies after Bartley-Fox should be examined for their prior criminal records -- specifically, for the existence of prior gun related crime. With this data, we can examine (at least for offenders with probation records) whether adaptations are specific to certain types of offenders and whether these changes represent permanent modifications in offenders' behavior.

h. Possible uses of national crime panel victimization survey data. Finally, it is well known that not all crimes are reported to the police by victims or witnesses. Among the forms of criminal behavior

we have examined here, assaultive behavior is the most subject to underreporting. Armed robberies are less likely to be unreported, although non-gun armed robberies go unreported in substantial numbers. Homicides are the least likely to be missed in official statistics, although they may occasionally be misclassified as suicides or missing persons. Since the findings of the above analyses are based on reported assaults, robberies, and homicides, they undoubtedly underrepresent the law's impact on the actual (reported as well as unreported) occurrence of criminal violence. With victimization survey data from the National Crime Panel (NCP) sampling points in Massachusetts, it may be possible to estimate the degree of underreporting of the offenses analyzed here and thus to adjust our impact estimates to reflect the actual incidence of crimes occurring before and after Bartley-Fox implementation.

A further point that should be investigated is the possible use of the NCP victimization data to independently evaluate the impact of the law on serious criminal behavior. In view of the restricted subsample of cases available from Massachusetts, this could probably be accomplished only for the aggregate before and after Bartley-Fox periods and perhaps only for aggregate categories of criminal behavior. However, now that we have identified categories of crime for which substantial deterrence and displacement effects have been established, it might be possible to obtain reliable estimates for composite crime categories from the victimization data by grouping the categories of offenses which show a common effect (e.g., for a composite deterrence estimate group, gun assaults and gun robberies; for a composite displacement estimate group, non-gun assaults and non-gun robberies). In this way, alternative impact estimates might be obtained quite apart from the UCR data and thus serve as an independent check on the results developed in the analysis.

Moreover, the NCP victimization data contain information on the reporting of crimes by their victims. Thus, in addition to comparing UCR and NCP estimates for similar categories to obtain evidence of reporting bias, it may be possible to analyze the characteristics of victims who report and their reasons for reporting to determine what aspects of the law may have stimulated citizens' reporting behavior. We have evidence of changes in reporting behavior at least with respect to gun assaults; this could provide us with an opportunity to gain a better understanding of how and why such changes came about.

The use of victimization survey data from the NCP has long been recommended for the evaluation of localized policy interventions (see the National Academy of Sciences report *Surveying Crime* pp. 49-62). The Bartley-Fox law and its impact in Massachusetts may provide us with such an opportunity. Potentially, these data may yield relatively unbiased estimates of the law's impact on criminal violence and explain changes in reporting behavior which is an important focus of the victimization survey. These possibilities also deserve further investigation for their value in demonstrating the applicability and utility of the NCP data for local policy intervention analyses.

APPENDIX A

In this Appendix, we develop tentative estimates of the numbers of each of the three categories of crime (assaults, armed robberies, and homicides) that the Bartley-Fox law either prevented or promoted. The tentative nature of this analysis stems from difficulty in identifying an appropriate control jurisdiction with which to compare the effect of Bartley-Fox in Boston and in the rest of the Commonwealth of Massachusetts. Throughout this Appendix, we use as a basis for comparing the change brought about by Bartley-Fox the average change for each of the years in question occurring in the control jurisdiction. We can illustrate the problem of identifying an appropriate control by reference to the discussion of the effect of Bartley-Fox on the rate of gun assaults in Boston (p.).

When we discussed the effect of Bartley-Fox on the gun assault rate in Boston, we compared the changes in the Boston rate to five different control jurisdictions: cities between 250,000 and 500,000 in the United States, excluding Massachusetts, in North Central states, as well as in the Middle Atlantic states; and also to cities between 500,000 and 1,000,000 in the United States, excluding Massachusetts, and in the North Central states. This information appears in Table 8. In order to estimate the effect of Bartley-Fox on gun assaults in Boston in terms of numbers, we compare in this Appendix the percentage change in Boston to the average percentage change in the five control jurisdictions.

A table depicting the percentage change for the average of the control groups, and for Boston, in the years from 1968 to 1974 -- the pre-Bartley-Fox period -- appears below:

% Change in Gun Assault Rate

	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Boston	+27.7%	- 1.3%	+11.4%	+31.6%	- 4.3%	+16.8%	+13.7%
Average of Control Jurisdic- tions	+34.1%	+21.6%	+ 3.4%	+ 9.4%	+ .1%	+ 4.2%	+ 9.2%

The differences in the percentage change in the average of the control groups compared to Boston for each of the years prior to Bartley-Fox raises the question of whether this is an appropriate control to use to determine Bartley-Fox's effect in 1975 and 1976. As we mentioned in the earlier discussion on directions for further research, a more systematic selection of control jurisdictions, based upon pre-intervention crime trends as well as other factors, is clearly possible and desirable. The analysis that follows is, therefore, a tentative and illustrative first step.

a. Armed Assault.

In this section, we develop tentative estimates of the numbers of gun and non-gun assaults prevented or promoted by the Bartley-Fox law. These estimates will be developed by comparing Boston and non-Boston Massachusetts' gun and non-gun assault trends (following the introduction of the Bartley-Fox law) with the corresponding experiences of the selected control jurisdictions. Specifically, the observed change in the control jurisdictions' assault statistics will be subtracted from the observed changes in Boston and Massachusetts statistics to provide a measure of the effect of the Bartley-Fox law which is independent of the ongoing trends reflected in the control jurisdictions.

Given the reporting problems with UCR Boston gun assault statistics uncovered above, it would be inappropriate to use these figures to estimate the impact of the Bartley-Fox law on gun assaults in Boston. However, with the more refined Boston Police Department data, gun assaults with battery can be used as the least biased indicator of the law's actual impact (on gun assaults) in Boston. According to these statistics, gun assaults with battery fell by 37.1% in the two

years following the introduction of the gun law.

To obtain an estimate of the independent effect of the Bartley-Fox law on gun assaults, the percentage change in Boston gun assaults with battery is compared to the average percentage change in gun assaults with and without battery in the control jurisdiction for the same period. The changes in all gun assaults (with and without battery) can be examined in the control jurisdictions because there is no reason to suspect that the Bartley-Fox law would have affected the reporting practices of citizens in these jurisdictions. Average percentage changes are computed between 1974 and 1975 and between 1974 and 1976 for the several control jurisdictions, divided by the number of such jurisdictions.

The control jurisdictions show an average annual increase in gun assaults in the two years following the introduction of the gun law of 7.0% and 0.4%, respectively. Subtracting these values from Boston's declines of 12.2% and 37.1% in gun assaults with battery yields an estimated 19.2% and 37.5% reductions in gun assaults, which are attributable to the introduction of the Bartley-Fox law.

To estimate the change in the absolute number of gun assaults attributable to the Bartley-Fox law, we use Boston's 1974 number of gun assaults with and without battery as the best available measure of the pre-Bartley-Fox level of gun assaults. The adjusted percentage decline from 1974 to 1976 in Boston gun assaults (controlling for the average gun assault trend occurring in the control jurisdictions) multiplied by the 1974 level of gun assaults in Boston (626) and added together yields a reduction of 355 gun assaults by 1976, attributable to the Bartley-Fox law.

Conservative biases are introduced into the above estimates in

two ways. First, estimates of the percentage decline in gun assaults that occurred in Boston (which was based on gun assault with battery) will be underestimated to the degree that citizens' likelihood of reporting such crimes to the police increased following the introduction of the Bartley-Fox law. Second, the estimates of the absolute decline in gun assaults will be underestimated to the degree that gun assaults are underreported in 1974 (e.g., if the actual level of gun assaults in 1974 were twice the reported level, estimates of the Bartley-Fox law's impact on gun assaults in Boston should be inflated by 100%).

Turning to the impact of the gun law on non-gun assaults in Boston, we observe that the average 1974-1975 and 1974-1976 changes in non-gun armed assaults experienced by the control jurisdictions were increases of 8.3% and 12.8%. When these are subtracted from Boston's corresponding 31.1% and 40.4% increases, we obtained estimated increases of 22.8% and 27.6% in Boston's non-gun armed assaults which may be attributable to the Bartley-Fox law. These percentages multiplied by Boston's 1974 level of non-gun armed assaults (1974) and added together yields an absolute increase of 907 non-gun armed assaults by 1976 attributable to Bartley-Fox.

Importantly, the displacement effects of the law on non-gun armed assaults in Boston appear to be more than twice as great as the deterrent effects of Bartley-Fox on gun assaults. Thus, as noted above, although introduction of the Bartley-Fox law has deterred gun related assaults, it has not kept potential offenders away from assaultive situations. Indeed, it would appear that when potential offenders find themselves in the assaultive circumstances without their guns, they are more likely to get involved in a fight, perhaps

because the consequences of an assault are seen as less serious if a gun is absent or because they can't control the situation as easily without a gun.

When the relative magnitude of the deterrent and displacement effects of the gun law on armed assaults are examined for non-Boston Massachusetts, we must rely on UCR statistics. However, since the law appears to have had little effect on citizens' reporting outside of Boston, this will pose no serious problem. Subtracting the average 1974-1975 and 1974-1976 changes in gun assaults experienced by the control jurisdictions, 4.5% and -2.5%, from the 18.9% and 30.4% declines experienced by non-Boston Massachusetts, yield estimated 23.4% and 27.9% reductions in non-Boston gun assaults, which may be attributed to the Bartley-Fox law, independent of ongoing socio-demographic crime trends occurring in the control jurisdictions. When the average percentage changes in non-gun armed assaults experienced by the control jurisdictions, 6.9% and 9.7% are subtracted from corresponding non-Boston Massachusetts increases of 16.4% and 17.1% between 1974 and 1976, we obtain estimated 9.5% and 7.4% increases in non-gun armed assaults which are attributable to the introduction of the gun law. These are consistently less than the 22.8% and 27.6% increases in Boston's non-gun armed assault rates.

To obtain estimates of the impact of the Bartley-Fox law on the level of gun and non-gun assaults in Massachusetts communities outside of Boston, we must first adjust for incomplete coverage. Specifically, the 98 communities in our non-Boston Massachusetts UCR data base accounted for 50.2% of the reported aggravated assaults (as estimated by the FBI) in all non-Boston Massachusetts in 1974. Thus, we adjust the absolute level of gun and non-gun assaults in our 98 non-Boston

communities (by a factor of 1.99) in order to obtain complete coverage estimates for non-Boston Massachusetts. We estimate that there were 833 reported gun assaults in non-Boston Massachusetts in 1974 and 3,190 non-gun armed assaults.

The effect of the Bartley-Fox law on the absolute number of gun and non-gun armed assaults can be obtained, as above, by multiplying the estimated 1974 levels of these crimes by their respective 1974-1976 percent changes adjusted for the average crime trends in the control jurisdictions. Thus, we estimate that the Bartley-Fox law produced a decrease of approximately 427 gun assaults in non-Boston Massachusetts by 1976 and a corresponding increase of approximately 539 in non-gun armed assaults. Interestingly, non-Boston Massachusetts' absolute deterrence and displacement effects are not too disparate, in contrast to Boston where the absolute increase in non-gun armed assaults is nearly twice the reduction in gun assaults. The figures we have used to develop these estimates are summarized for ease of reference in tabular format indirectly below:

Summary of Figures Used to Calculate Impact Estimates

	Boston		Non-Boston Massachusetts	
	Gun Assault	Non-Gun Armed Assault	Gun Assault	Non-Gun Armed Assault
1. Impact Area % Change 1974-75	-12.2	31.1	-18.9	16.4
2. Massachusetts % Change 1974-76	-37.1	40.4	-30.4	17.1
3. Control Group Average % Change 1974-75	7.0	8.3	4.5	6.9
4. Control Group Average % Change 1974-76	0.4	12.8	- 2.5	9.7
5. Impact Area % Change Minus the Control Group Average % Change 1974-75 (Row 1 - Row 3)	-19.2	22.8	-23.4	9.5
6. Impact Area % Change Minus the Control Group Average % Change 1975-76 (Row 2 - Row 4)	-37.5	27.6	-27.9	7.4
7. Impact Area No. of Crimes-1974 (UCR data base estimates)	626	1790	418	1600
8. Impact Area No. of Crimes Adjusted for Incomplete Coverage-1974	626	1790	833	3190
9. Estimated Change in the Number of Crimes Due to Bartley-Fox in 1975 (Row 5 X Row 8)	-120.2	408.1	-194.9	303.0
10. Estimated Change in the Number of Crimes Due to Bartley-Fox in 1976 (Row 6 X Row 8)	-234.8	499.4	-232.4	236.1
11. Total Estimated Change in the Number of Crimes Due to Bartley- Fox 1975-1976 (Row 9 + Row 10)	-355.0	907.5	-427.3	539.1

At this point, we are led to the conclusion that while the gun control law has deterred gun related assaults, it has not prevented offenders from becoming involved in assaultive situations and using alternative weapons. We estimate that throughout the entire state of Massachusetts, introduction of the Bartley-Fox law has resulted in a decrease of approximately 782 gun assaults by 1976 (this figure simply represents the sum on the Boston and non-Boston Massachusetts estimate). Conversely, we estimate that introduction of the gun law has led to a statewide increase of 1,447 non-gun armed assaults by 1976.

These estimates are necessarily appropriate and tentative. They can be improved substantially, we believe, by further refinements and extensions of the above analyses. Specifically, we believe that the above estimates should be refined by means of: (1) improved specification of control jurisdictions; (2) use of dynamic time series statistical modeling techniques; (3) further examination of the impact of citizen reporting biases; and (4) investigation of the predictably confounding impact of alternative policy intervention. This research should also be extended: (5) to examine the effects of the gun law over a longer period of time; (6) to identify the types of offenders most affected by the law; and (7) to determine the extent to which the legal sanctions imposed under the law as opposed to the accompanying publicity and public awareness are responsible for the observed deterrent effects of the law.

b. Armed Robbery.

We shall now present tentative estimates of members of the gun and non-gun armed robberies prevented or promoted by the Bartley-Fox law. As in the assault analysis, these estimates will be developed by comparing Boston and non-Boston Massachusetts gun and non-gun armed

robbery trends (following the introduction of the Bartley-Fox law) with the corresponding experience of the selected control jurisdictions. The figures we have used to obtain these estimates are summarized for ease of reference in tabular format at the end of this section.

To estimate the independent effects of the Bartley-Fox law on gun robberies and non-gun armed robberies in Boston and non-Boston Massachusetts, the percentage changes in these crimes for the impact jurisdictions (Boston and non-Boston Massachusetts) are compared to the average percentage change in the corresponding control jurisdictions. Following the same procedures employed in the assault analysis, the average percentage changes are computed between 1974 and 1975 and between 1974 and 1976 for the several control jurisdictions divided by the number of such jurisdictions.

For Boston, the control jurisdictions showed an average increase in gun robberies in the two years following the introduction of the gun law of 11.6% and -10.1% for the 1974 to 1975 change and the 1974 and 1976 change, respectively. Subtracting these control group average changes in gun robberies from the corresponding declines in gun robberies yields an estimated -13.4% and -25.4% reductions in gun robberies which are attributable to the introduction of the Bartley-Fox law.

To estimate the change in the absolute number of gun robberies attributable to the Bartley-Fox law, we multiply Boston's adjusted percentage declines from 1974 to 1975 and from 1974 to 1976 (which control for the average gun robbery trend occurring in the control jurisdictions) by the 1974 level of gun robberies in Boston (2,243). These calculations yield an estimated reduction of 300 gun robberies in Boston in 1975 and 569 in 1976 which are attributable to the

Bartley-Fox law. Added together, we obtain an estimated reduction of 870 in Boston gun robberies by 1976 due to the introduction of the Bartley-Fox law.

Turning to the impact of the gun law on non-gun armed robberies, we find that the control jurisdiction experienced average changes in non-gun armed robbery of 2.3% between 1974 and 1975 and -6.5% between 1974 and 1976. Subtracting these changes from Boston's corresponding 32.4% and 6.3% increases, we obtain estimated adjusted increases of 30.1% (1974 to 1975) and 12.8% (1974 to 1976) in Boston's non-gun armed robberies. When these percentages are multiplied by Boston's 1974 level of non-gun armed robberies, we obtain an estimated increase of approximately 594 non-gun robberies in 1975 over 1974 and 253 non-gun robberies in 1976 over 1974 attributable to the Bartley-Fox law. The above estimates of the gun law's impact on non-gun armed robbery initially seems to support the observation that the Bartley-Fox law has had an immediate, but primarily short-term, weapons displacement effect on armed robbery in Boston. However, comparison of these estimates with those just developed for gun robbery reveals some patterns of change in gun and non-gun armed robbery which appear to be contradictory if we interpret them solely as a function of the Bartley-Fox law's impact. Specifically, the estimated displacement effects of the gun law in 1975 are nearly twice the deterrent effects, whereas the deterrent effects are slightly more than twice the displacement effects in 1976.

When we examine deterrent and displacement effects of the Bartley-Fox law for non-Boston Massachusetts, we find evidence of a substantial deterrent effect on gun robberies but evidence of only minor displacement effects. Following the procedures used above (see the summary table

for specific calculations), we estimate that the gun law deterred 149 gun robberies in 1975 and 490 gun robberies in 1976 for a total reduction of 636 gun robberies in non-Boston Massachusetts through 1976. In contrast, we estimate that the Bartley-Fox law resulted in an estimated increase of only 227 non-gun robberies over the 1975-76 period.

The results we have obtained above raise some questions about the reliability of the estimated deterrent and displacement effects of the law on gun and non-gun robbery. In particular, the fact that the displacement effect exceeds the deterrent effect in Boston in 1975 suggests that something more is going on than simply a switch among offenders from guns to other weapons. The substantial reversal a year later in Boston in relative magnitude of deterrence and displacement effects raises the possibility that something more than the Bartley-Fox law has entered into the picture.

These anomalies might reflect the effects of other exogenous factors in addition to the Bartley-Fox law. Two candidates which overlap with the potential impact period of the gun law are public school desegregation in Boston and the Alcohol, Tobacco, and Firearms (ATF) Concentrated Urban Enforcement (CUE) program. The desegregation of Boston's public schools, as noted in Section III-D of the assault analysis, increased intergroup tensions in Boston in 1975 and may well have increased criminal violence, including armed robbery. This would tend to inflate our 1975 estimated displacement effect and to deflate our 1975 estimated deterrent effect in Boston. The CUE program initiated in July, 1976 was explicitly designed to halt the large-scale illicit sale of firearms. By restricting the availability of guns, this program might have reduced gun robberies in Boston and

perhaps as well in the rest of Massachusetts in 1976. This would cause us to overestimate the deterrent effect of the gun law on gun robberies. To the extent that these factors were at work, these effects should be independently estimated and removed from and displacement estimates.

Another possible explanation for these anomalies is that Boston and its control jurisdictions are out of phase with respect to changes in armed robbery. Thus, if all jurisdictions experienced the same charge (for example, a 20% reduction in both gun and non-gun robberies over a twelve-month period) but the trend got started a year earlier in the control jurisdictions than it did in Boston, subtracting the changes in the control jurisdictions from those in Boston would result in an overestimate of the displacement effect and an underestimate of the deterrent effect. A year later, when Boston would be declining and the control jurisdictions would have stabilized at the lower level, the reverse would be true: our estimates would underrepresent the displacement effect and overrepresent the deterrent effect.

Still another problem arises if the control jurisdictions are out of phase among themselves. Suppose again that all jurisdictions experience the same trends (e.e., a 20% reduction over a twelve-month interval) but that it occurred a year earlier in some, concurrently with Boston's in some, and a year later in some. This situation would also cause us to overestimate displacement and overestimate deterrence in the first year and vice versa in the second year, though to a lesser extent than the former phasing problem.

The data we have examined in the above analysis bear, to some extent, on these issues of phasing. Thus, Table 29, which presents the rates of armed robbery from 1967 through 1976 for Boston and five

control jurisdictions, shows a relatively uniform pattern of change in the control jurisdictions which appears to coincide with Boston's. Between 1973 and 1974, it shows increasing armed robbery rates in all groups of jurisdictions; between 1974 and 1975, it shows the increase continuing but less pronounced with two minor exceptions (in one case the latter increase is greater and in the other a slight downturn has set in); and then between 1975 and 1976, it shows a remarkably consistent downturn ranging from -12.6% to -18.8% for the five control jurisdictions as compared to -26.4% for Boston. The two exceptions to the pattern between 1974 and 1975 tend to offset one another, and the relatively consistent 1975-1976 control group changes suggest no gross phasing problems.

What the table does not show, however, is the possible variability of cities within the comparison groups which is to say the extent to which cities more like Boston in each of these groups might have displayed, for example, greater declines in armed robbery between 1975 and 1976. A further indication that this kind of refinement of control jurisdictions is called for can be seen by examining the long-term trends in Table 29. Note that in 1976 Boston's armed robbery rate was the lowest in the table but that by the mid-1970's this rate had risen to about twice the level of the rates in the comparison groups. This points to the need to identify a subgroup of comparison cities with a history of armed robbery that corresponds more closely to Boston's. In such a subgroup of cities, it would then be desirable to examine the movement of offense rates on a monthly basis in order to identify turning points and possibly adjust for phasing problems.

It should be noted that these phasing problems could be specific either to gun or non-gun robberies, further complicating the nature

of the biases that may be introduced into our estimates. In this regard, Table 30 shows that for gun robberies in Boston, the 1975-1976 downturn is remarkably uniform for the control jurisdictions, ranging from -16.0% through -23.9% for the five control groups as opposed to -34.4% for Boston. This lends support to our deterrence estimates of the law's effect on gun robberies.

We have data only from 1974 on gun and non-gun robberies, thus limiting our ability to identify truly comparable cities in terms of their histories of these specific varieties of armed robbery. However, among cities like Boston in their histories of armed robbery since 1967, it should be possible to identify a subgroup which is like Boston in levels and trends of gun and/or non-gun robberies from 1976 on.

c. Homicides.

In the case of assault-precipitated gun homicide, we established that the 1974 level of this offense may be abnormally low but that the 1973-1974 level was consistent with prior levels in terms of kill rates. We have decided, therefore, in this Appendix to present two alternative estimates of the gun law's effect on assault-precipitated gun homicides: the first based on annual homicide data following the procedure used in the assault and robbery analysis, and the second based on homicide data aggregated biannually and following similar procedures.

Boston experienced reductions in assault-precipitated gun homicide of 14.0% and 44.0% between 1974 and 1975 and between 1974 and 1976, respectively. The corresponding changes in comparison cities were 08.7% and -29.1%, leaving as Boston's adjusted reductions for these two years -5.3% and -14.9%. Multiplying these two percentage changes by Boston's 1974 assault-precipitated gun homicides (50) yields estimated reductions of 2.7 homicides in 1975 and 7.4 homicides in 1976 for a total reduction of 10.1 homicides in Boston by 1976 which can be attributed to the introduction of the Bartley-Fox law.

The suggestion that the 1974 number of assault-precipitated gun homicides may be abnormally low has prompted us to derive an alternative estimate of the law's impact based on the number of such homicides occurring in 1973 and 1974 combined. Boston's percentage change between this pre-Bartley-Fox period and the two years after Bartley-Fox, 1975-1976, was -40.3%. The average percentage change of the control cities was -16.5%, yielding an adjusted change for Boston of -23.8%. This percentage reduction applied to the 1974-1974 number of such homicides (119) yields an estimated reduction of 28.3 assault-precipitated gun homicides in Boston by 1976 which can be attributable

to the effects of the Bartley-Fox law.

Further refinements and extensions of the homicide analysis should be conducted to improve our estimates of the law's impact on criminal homicide. As noted in the case of robbery estimates, averaging and phasing changes in the control jurisdictions may be responsible for misleading estimates of the changes to be expected in Boston. Although it was not possible in the robbery analysis because of missing data prior to 1974, intervention point analysis of the type conducted with the armed assault data should also be carried out with the homicide data to help establish a significant departure from previous levels of homicide in Boston. Dynamic modeling techniques can help to improve our estimates of the law's effects on homicides by minimizing the role of change fluctuations in our estimation procedure.

In this connection, it will be especially important to extend the period under analysis. The infrequency of these crimes, and thus the relatively small numbers of cases for statistical analysis, strongly recommends extending the post-Bartley-Fox impact period.

Obviously, as mentioned earlier, it would be desirable to carry the analysis forward for non-Boston Massachusetts and to validate the homicide data by comparing the SHR reports with the Schedule A reports for potential control jurisdictions. Until these extensions and refinements can be completed, we would regard the homicide estimates as more tentative than those established in the assault and robbery analysis. An additional refinement that should be incorporated into the homicide analysis is the examination of cases on an individual basis to isolate multiple offender and multiple victim incidents which may tend to inflate the homicide figures for a given year. Thus, for example, after observing the exceptionally high level of assault-

precipitated homicides in 1973, we reviewed these cases that year from the SHR data and discovered that one offense involved the killing of six members of a family by one offender. This will tend to introduce chance fluctuations and to inflate estimated kill rates.

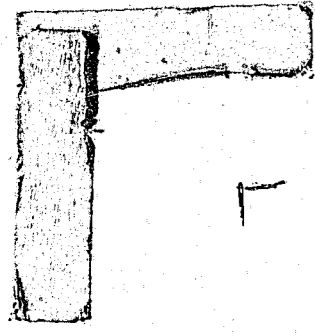
Summary of Figures Used to Calculate Impact Estimate

a. Annual Assault Precipitated Gun Homicide Impact Estimates

1. Boston % Change, 1974-1975	-14.0
2. Boston % Change, 1974-1976	-44.0
3. Control Group Average % Change, 1974-1975	- 8.7
4. Control Group Average % Change, 1974-1976	-29.1
5. Boston % Change Minus the Control Group Average % Change, 1974-1975 (Row 1 - Row 3)	- 5.3
6. Boston % Change Minus the Control Group Average % Change, 1974 1976 (Row 2 - Row 4)	-14.9
7. Boston Number of Homicides, 1974	50
8. Estimated Change in the Number of Homicides Due to Bartley-Fox in 1975 (Row 5 x Row 8)	- 2.7
9. Estimated Change in the Number of Homicides Due to Bartley-Fox in 1976 (Row 6 x Row 8)	- 7.4
10. Total Estimated Change in the Number of Homicides Due to Bartley-Fox in 1976 (Row 6 x Row 8)	-10.1

b. Biannual Assault Precipitated Gun Homicide Impact Estimates

1. Boston % Change, 1973/1974 - 1975/1976	-40.3
2. Control Group Average % Change, 1973/1974 - 1975/1976	-16.5
3. Boston % Change, 1973/1974 - 1975/1976 Minus the Control Group % Change, 1973/1974 - 1975/1976 (Row 1 - Row 2)	-23.8
4. Boston Number of Homicides, 1973/1974	119
5. Total Estimated Change in the Number of Homicides Due to Bartley-Fox, 1973/1974 - 1975/1976	-28.3



SECTION THREE: ANALYSIS OF BARTLEY-FOX'S EFFECT
ON THE CRIMINAL JUSTICE SYSTEM

Chapter 4: Decision to Arrest and Charge,

A. Introduction,

The Massachusetts criminal justice system, like any other, is not a monolithic structure. It depends upon several independent agencies to deal with the individuals who come into contact with the state's criminal laws. The system, like a pipeline, passes individuals through from beginning to end. The process passes these individuals through different stages: from the time the police investigate a possible crime and make a decision to arrest through the choice of which charge to bring against the defendant, and eventually to trial, conviction, and sentence. Each stage provides an exit point where an individual may escape the pipeline's flow. A different authority has primary control over each of these various exit points.

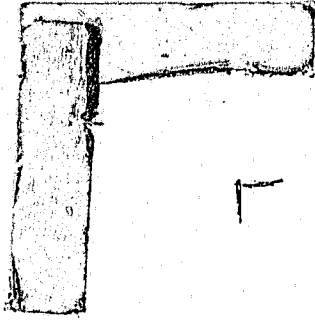
Every agency in the system exercises varying degrees of influence over the decisions at each step in the process. Some have greater control over the early stages, and others at the conclusion. Each agency has its own priorities, its own problems, and its own view of the system. But, typically, in order for any one person to receive the punishment provided by a particular criminal statute, each of the agents within the system must agree to pass the individual on to the next stage. As the individual continues through the steps in the process, each agency must make the judgment that an appropriate end result for this person is conviction and punishment.

Some of these judgments become highly visible (the verdict in a criminal trial, for example), and some rarely come to anyone's attention (a police officer's decision not to make an arrest). Some authorities make their judgments within a highly structured context,

with detailed guidelines (such as a judge's ruling on a motion to dismiss a case for lack of a speedy trial), while others make them with little instruction on how to choose from among several available options (such as a judge's decision on which sentence to impose).

The Bartley-Fox law focused upon only one small portion of the system, imposing its mandate at the end point of the process and addressing only one decisionmaker. Bartley-Fox directed itself to the state's judges and only to their sentencing decisions. It made automatic a particular minimum sentence for any defendant whom a court convicted of illegally carrying a firearm. By confining its focus to judges' sentencing decisions, Bartley-Fox addressed the smallest agency in the criminal justice system; for example, judges number less by far than police or prosecutors. Not only did the law address a small group, but it directed its attention toward a particular, highly visible judgment. Judges announced sentences in open as a matter of public record.

As the vehicle by which the legislature could get across the message that the criminal justice system meant to "get tough" on gun crime defendants, the Bartley-Fox law has an appropriate focus. Legislatures, press, and public easily identify and monitor those subject to its command -- the judges. The statute speaks simply, and its application appears easy. The statute, however, deals only with the conclusion of the process. It does not require a "get tough" attitude for any of the other decisions a judge must make which bear directly on whether a particular defendant will ever arrive at the sentencing stage. For example, the statute does not remove from the judge the power to make decisions which affect whether the defendant will ever suffer conviction; decisions such as ruling on



CONTINUED

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whether the policeman made a legal arrest or the prosecutor introduced sufficiently persuasive evidence.

Nor does the statute touch any of the other points of decision in the criminal justice system which also can affect whether a judge will ever apply mandatory minimum sentence.

Bartley-Fox leaves untouched the wide range of decisions police officers must make in order to invoke the criminal process in the first place. Police officers may actively choose to seek out gun carrying violations, or they may decide to become involved only when they cannot avoid the situation. Even when police officers become involved, they may react in ways other than making an arrest, to potential violations of the gun carrying law. When a police officer decides not to arrest an individual, he shields that individual from the risk of a one-year jail sentence just as effectively as if the sentencing judge explicitly ignored the mandate of the Bartley-Fox statute. Even if a police officer arrests for conduct which involved a firearm, the appropriate authorities must still decide whether to charge the person with a violation of the Bartley-Fox statute, with its mandatory minimum one-year in jail, or under another statute with a wider range of sentencing options.

The purpose of this chapter is to examine in closer detail two major decisions in the criminal justice system that determine how many individuals will run the risk of a one-year sentence under the Bartley-Fox law: the decision to make an arrest for illegally carrying a firearm; and once an arrest has been made, the decision to charge the defendant with illegal carrying. Unless decisions both to arrest and to charge for illegal carrying occur, the mandatory minimum sentence provision of Bartley-Fox can have no effect.

By enacting Bartley-Fox, the Massachusetts legislature made the end result of the criminal justice process for those convicted of illegally carrying a firearm considerably more harsh than formerly. Since every part of the system knits tightly with the whole, in order to assess the effect of the law one must examine not only sentencing but also the other stages in the system. How did other decisionmakers than sentencing judges (for example, the police) react to Bartley-Fox? Did the mandatory sentence at the pipeline's terminal affect intermediate decisionmaking in sending individuals along to the next stage?

In summary, we conclude that a consistent pattern of response to the imposition of Bartley-Fox emerged in both the area of arrest and charging decisions. In the law's first year, 1975, there was a more frequent use of the carrying statute, both in some situations and in charging, than in 1974. This trend reversed itself in the law's second year, 1976, when the application of the Bartley-Fox law fell to below the 1974 level. This phenomenon is evident in areas of the law's application where a considerable degree of ambiguity existed. The law's scope was unclear in certain situations, and it is in those situations where arrests first rose and then fell. Similarly, uncertainty existed in the entire charging decision, where the same pattern emerged. We offer as a possible explanation the possibility that the publicity and public attention surrounding Bartley-Fox in its first year lead decisionmakers to resolve their doubts about the application of the law in favor of its enforcement. This public attention subsided in the second year, and so did the use of the Bartley-Fox statute.

We next, briefly, examine the data from which we drew this conclusion. A more detailed description of the data sources for this

chapter appears in Appendix B.

B. Data Sources.

The analysis of the effect that the Bartley-Fox law had on the criminal justice system rested upon essentially three different sources of data: interviews, police department records, and court records. We gathered data from three cities in Massachusetts: Boston, Springfield, and Worcester. Boston became the major data source because it has a larger population than the other two cities and also because it had more available data.

1. Interviews.

We used two different types of interviews. A general interview concerning the operation of Bartley-Fox in the criminal justice system and amore specific one focusing on individual decisions. We interviewed over 300 participants in the process throughout the Commonwealth, including defense attorneys, prosecutors, judges, and inmates in Houses of Correction.

We did not select these participants in a random manner, but rather relied upon those to whom we had access. We do not, therefore, rely upon the interview sample to provide a statistically accurate picture of the group they represent. Rather, we offer the interview data as suggestive of possible general trends and also to shed light on specific decisions in the criminal justice system. In the first aspect, the interviewees provided information about their experience and attitudes about the Bartley-Fox law. in response to an open-ended questionnaire which our staff administered.

The other type of interview focused on specificity. It aimed at discovering more about how authorities make particular decisions in the criminal justice system. We conducted two such specific types of interviews. The first was designed to provide further information about how authorities made the charging decision in Boston courts,

The second type of specific interview we conducted addressed defense attorneys who represented certain defendants in cases included in the 1976 Boston court records we examined.

2. Court Records.

We collected information about cases that originated in a given six-month period -- From April 1 to September 30 -- in the year prior to the implementation of Bartley-Fox, 1974, and the two years subsequent. Project staff identified these cases by going through the docket books of all the Boston district courts, the Worcester district court, and the Springfield district court for the six-month period. We obtained information for every offense during that time period which involved a firearm -- whether the crime was a Bartley Fox violation or some other offense. This information came either from the original court papers themselves or from the docket books of the different courts. For every defendant whose case was included in the court data sample we obtained, project staff also gathered information from the probation departments of the various courts about the defendants' backgrounds. We obtained information about defendants' race, age, sex, prior court history, and occupation. We followed up these cases which went on to the Superior Court and also obtained information about their resolution in the Superior Court.

3. Police Department Records.

Project staff gathered

(BPD)
 data from Boston Police Department records for 1974 through 1976* concerning every incident ^(in which) an officer made an arrest where the most serious charge was a gun control offense (either possession or carrying);** and every incident where a firearm was obtained by a police officer in a situation where no arrest took place.

We must note that our data sample is limited in the sense that it includes only those arrests that the BPD coded as gun arrests. We do not include cases in which the arresting officer put down a different offense on the incident report, as would happen if he were

* As originally enacted, the Bartley-Fox law was due to go into effect on January 1, 1975. Prior to that date, the statute's sponsors felt that the public education effort to warn people of the new harsh sentencing provision had not been as widely effective as was hoped. Thus, a move began to postpone the effectiveness of the law until April 1, 1975. This postponement did not become law until January 28, 1975, but it operated retroactively so that the old law remained in effect from December 31, 1974 to March 31, 1975. This led to some deal of confusion in the first three months of 1975. During this time, in addition to the retroactive postponement, an extensive publicity campaign was concentrated in the media. For these reasons, the first three months of 1975 are, for the purposes of this portion of the project, treated as part of the post-Bartley-Fox period. Because this part of the study is examining the law's impact on the informal criminal justice decisionmaking process, the interim "educational" period of January through March probably has greater similarity to the actual post-Bartley-Fox period than the actual pre-Bartley-Fox period. Any finer partition of a time series was deemed to be unwieldy. Any error resulting from the inclusion of January through March 1975 in the post-Bartley-Fox period will probably be reflected as an underestimation of Bartley-Fox provoked trends, while 1976 data should be unaffected.

** The project relied upon the BPD's coding of the offense in the incident report for which the officer made the arrest. The BPD code does not distinguish between carrying and possession. Thus, our discussion of carrying arrests include some instances where the arrest was for possession. However, as the Charging Decision Section discusses: (1) police are unclear about the difference between the legal definitions of carrying and possession; and (2) the great majority of Boston gun control arrests result in carrying complaints. Thus, for the purposes of the arrest decision study, it is sufficient to know that a carrying arrest constitutes a police decision not to preserve the suspect from the risk of a Bartley-Fox sentence.

sloppy and made an error in filing out his records or if the defendant were also involved in a more serious crime and the officer coded the report under that category. Thus, the number of arrests per year does not correspond to the total number of gun cases filed in the courts.*

The analysis that follows is put forward with the reservation that is called for by drawing conclusions from a set of data that includes only arrests where the gun control crime was the most serious charge. While we have no information from police department records about cases where the defendant's arrest was not only for a gun control offense but also for another more serious charge, the effect of the Bartley-Fox law would most likely be evident in the type of cases for which we do have information. If police officers are refusing to make otherwise appropriate arrests because of the imposition of a mandatory one-year jail sentence, the behavior would be most evident with respect to people who have committed no other crime. The same would be true if the law had the effect of instigating arrests that would not have otherwise occurred.

* The number of arrest incidents and the number of court cases involving carrying as the most serious charge appears below. The court figures come from our six-month samples in each year, and to aid in comparing these with the full year arrest figures, we also present the percentage change from one year to the next:

	1974	1975	1976
BPD arrest incidents	(218)	(186)	(168)
% change		-14.7%	- 9.7%
Boston District Court carrying cases in six-month sample	(219)	(162)	(107)
% change		-26.0%	-34.0%

C. Police Response to Bartley-Fox: Arrest.

1. Introduction.

The police control the entry of individuals into the criminal justice pipeline. An individual officer's decision to exercise his power to arrest or not is the first major step in the process which we will examine.

The fact that Bartley-Fox changed the penalty for illegal firearm carrying to at least one year in jail could have affected the police in a number of ways. They may not have changed their behavior at all -- arresting those whom they would have arrested before the law changed and choosing not to arrest in the same circumstances as before. The law's passage may have caused the police to become more active, seeking more frequently to make arrests for illegal firearm carrying now that the potential penalty would have a much greater effect. Or the law might have made police more

cautious in using their arrest power, since the consequence of conviction upon the individual is much more harsh. None of these possibilities is mutually exclusive -- all may have occurred with different police officers or under different circumstances. We will examine the data we have about police conduct in order to determine if it changed at all in response to Bartley-Fox, and when it is feasible, we will offer possible explanations for the results we have found.

In the discussion that follows, we first describe the different possible police responses to a gun law violation and explain why we have restricted our analysis to only two of the possibilities. We then discuss when and under what circumstances police officers seize firearms but make no arrest. We analyze under what circumstances this

action occurs and attempt to explain what affect the passage of Bartley-Fox had on this type of conduct. We next discuss whether the passage of Bartley-Fox had an effect of instigating active police investigation of illegal gun carrying. The last topic we cover is the effect of the suspect's race on a police officer's decision to arrest.

2. Categories of Police Response.

Police behavior in response to a possible gun law violation may fall into any one of several categories. The options available to a police officer are:

- 1) Not to intervene at all; or
- 2) To intervene and:
 - a) neither seize the firearm nor make an arrest,
 - b) seize the firearm but make no arrest,
 - c) arrest.

Where a police officer decides not to intervene, he makes no official record, and we have no data source. Therefore, we have no direct evidence if Bartley-Fox resulted in police deciding to ignore conduct which could potentially lead to a carrying arrest. We do have an indication from interviews with police officers that Bartley-Fox has had some effect on their decision to go ahead and take an action that could lead to the discovery of a firearm. In particular, we asked police officers from Boston and Worcester if Bartley-Fox has made any difference in their decision whether or not to frisk an individual whom they have stopped on the street for a field interrogation. This type of incident may arise when a police officer stops someone on the street to inquire about suspicious conduct. The questions may relate to the person's own activities or those of others. Of the 79 officers who responded to this question, 89% (70 officers) stated that they were -- after Bartley-Fox -- more

selective about whom they frisk because they didn't want to involve otherwise innocent people.

The second option -- intervene but neither arrest nor seize the firearm -- can arise in either of two contexts: Where the carrying is either legal or not. In the first context, the individual is lawfully carrying the firearm. Here, the police have no authority either to seize the firearm or make an arrest. The passage of Bartley-Fox was not likely to affect this type of response, since before and after its passage the police had no authority to take any action beyond the initial encounter. Nor do such encounters turn up in the police incident reports upon which we based our analysis. Police officers are unlikely to write an official report when they come across legal activity unrelated to any crime.

The second type of situation where the police may intervene but neither seize the weapon nor make an arrest would be when the individual does not have on his person the license or Firearms I.D. card necessary to authorize carrying the gun. The written reports on which we relied to analyze police behavior do not reflect any of this type of conduct. Ordinarily, detailed written accounts such as an incident report, are not filled out when the officer makes no arrest and seizes no property. * Moreover if this type of conduct does occur, any accurate written report would be a permanent record that the police officer involved not only declined to arrest someone who violated the law but permitted an illegal firearm to remain at large. The possibility exists, therefore, that to the extent the conduct does go on, it remains unreported.

* An officer may fill out a brief report on the results of a field interrogation, but these records do not contain any detail, nor did we examine them.

Our general interviews with police officers tried to determine if police do in fact ever encounter illegal gun carrying but make no arrest or seizure. We asked the officers what type of action they took if they found a person carrying a gun who claimed to have a license but did not have it on him. In this type of situation, the gun carrying is not clearly legal or illegal. The answers to the query, which was a semi-open-ended question, are categorized below:

If you have ever found a person carrying a gun who claimed to have a license but didn't have it on him, what did you do?

-- released suspect	23%	(14)
-- arrested and charged with carrying	35%	(21)
-- arrested and charged with possession	5%	(3)
-- seized gun and released carrier	8%	(5)
-- seized gun, released carrier, returned gun when license was produced	28%	(17)
	100%	(60)

In 77% of the cases, the police officer took some action with respect to the gun. In the remaining 23%, the responses indicated merely that the officer released the suspect. There was no mention of what they did with the firearm, and the interviewer did not follow up to determine if the officers would permit the suspects to retain the weapons.

However, we believe it is a reasonable assumption that the type of police response to illegal carrying which would not involve seizing the gun is extremely rare. Based upon our informal conversations with police officers, we have concluded that the police view carrying a firearm as a very serious source of potential danger. It

* The statute provides that when an authorized gun carrier does not have his license in his possession, a police officer may confiscate the weapon until he produces the license. M.G.L. Ch. 140 §129 C.

is not consistent with that point of view to allow a firearm to remain in circulation when the owner has no legal right to carry it.

We will therefore focus our attention on the last two categories of police response to a potential carrying violation. When do police seize the firearm but make no arrest, and when do they go ahead and arrest? We will try to determine if the passage of the Bartley-Fox law had an effect on police decisions whether or not to arrest under various circumstances.

3. Analysis of Decision Not to Arrest.

In order to answer this question, we have relied upon the Boston police records concerning cases where an arrest was made and where an officer obtained a firearm without an arrest.

When a police officer obtains a firearm without an arrest, he turns the weapon in to ballistics and fills out an incident report. The narrative portion of the incident report indicates the circumstances surrounding how the police obtained the firearm. From these narratives, we classified such incidents into four different categories:

- 1) Firearms Found by Law Enforcement Officials. These are circumstances where Boston police or private police officers or security guards find a gun, but the report does not identify anyone connected with the weapon;
- 2) Firearms Found by Citizens. These are circumstances where an identified citizen turns in a firearm which he or she has found;
- 3) Firearms Voluntarily Surrendered by Citizens. These are circumstances where an identified citizen surrenders his/her firearm in order not to be in violation of the law;
- 4) Firearms Seized from Individuals. These are circumstances where a police officer seized a firearm from an identifiable

c) individual.*

The total numbers of guns obtained without an arrest in each category are presented in Table 1 (below);

*We constructed this category by combining the following codes which relate to the narrative in the police reports describing the circumstances of how the police obtained the firearm:

- wife threatens husband;
- husband threatens wife;
- police receive radio call re:
 - drunk with gun;
 - shots fired;
 - family trouble;
 - threatened person;
 - disturbance;
- on sight no firearm identification:
 - police observe man with gun;
 - police see gun being shot;
 - disturbance;
- association search warrant:
 - continuing investigation;
 - breaking and entering;
 - larceny
 - robbery.

TABLE 1
GUNS OBTAINED WITHOUT AN ARREST
 - By Circumstance of Encounter By Year -

	1974	1975	1976
Found by Law Enforcement	(3) 7%	(20) 11%	(29) 17%
Found by Citizen	(8) 18%	(25) 14%	(36) 22%
Turn-in	(13) 30%	(81) 46%	(50) 30%
Seized from Individuals	(15) 34%	(21) 12%	(33) 20%
No Information	(5) 11%	(31) 17%	(18) 11%
TOTAL	(44) 100%	(178) 100%	(166) 100%

(From Boston Police Department records)

Although after the imposition in 1975 of the Bartley-Fox law the numbers of guns obtained quadrupled, we cannot attribute the increase entirely to changes in police conduct. The most obvious reason is that the bulk of the increase in guns obtained each year comes from those which citizens voluntarily turn in to the police -- either by surrendering their own weapons or by handing in those which they find. The numbers of guns in these two categories increased after the imposition of Bartley-Fox, indicating a clear citizen response to the law. People were much more likely to relinquish firearms to the police voluntarily when the consequence of illegally carrying them presented a risk of a one-year jail sentence.

The effect of the law on police conduct must come in the two remaining categories, rather than the two categories which indicate voluntary citizen action. The police become more than merely passive recipients only when they report that they have found the gun themselves, or when they seize it from an individual.

In these two circumstances, the reports may indicate that police are declining to exercise their arrest power and merely removing the illegal firearm from general circulation. We will examine this possibility for each of the two categories of firearms obtained without an arrest where a citizen did not turn the gun in to the police.

The number of firearms found by law enforcement officers increased from three in 1974 to 20 in 1975 to 29 in 1976. One possible explanation is that with the passage of Bartley-Fox owners of illegal guns abandoned them with greater frequency than before, just as they voluntarily turned them in more often after the mandatory one-year

minimum sentence went into effect. The other possible explanation is that police who report having found a firearm actually seized it from an individual without making an arrest.

An example of how this possibility may come about is the following incident, which two private police officers related to a project staff member. The officers responded to a call that a man was running down the street with a gun. Upon arrival on the scene, they found the man, who was carrying a derringer pistol. He was a new resident in the community, having just arrived in Massachusetts within the past week or so. His apartment had been the subject of an attempted break-in, which occurred while the man was at home. He grabbed his pistol and ran outside to chase and try to apprehend the would-be burglar. His chase was interrupted by the police. Upon a brief investigation, the two police officers confirmed the man's story. At this point they were joined by two Boston police officers who also believed the man's story. Rather than make a decision among the four of them, the officers called in a Boston police sergeant, who decided to seize the firearm and let the man go with a stern lecture. The officers stated that they reported the seizure as a "found weapon."

When an incident like this occurs, it suggests that in some circumstances, the mandatory minimum sentence which Bartley-Fox attached to illegal firearm carrying did affect the decision of the police whether to make an arrest or not. The officers involved misreported the incident, and therefore we would not have discovered it in our analysis of the police records. We do not know what proportion incidents like this represent of the total number of reports which state that a law enforcement official found the firearm. Rather

than examining this third category of guns obtained by police without an arrest on the basis of speculation, we will concentrate on the last category of guns obtained without an arrest in order to make a judgment about how the passage of Bartley-Fox affected the police decision simply to seize the weapon and release the suspect.

The last category involves situations where the incident report reveals that there was an individual involved who had a connection with the firearm the police officer seized. We will examine these incidents to see if they occurred more frequently after the passage of Bartley-Fox and also to determine if we can provide an answer to the question of whether these incidents indicate that police are declining to make what would otherwise be valid arrests.

Within this category, the overall number of guns seized without an arrest was fifteen in 1974. When Bartley-Fox went into effect in 1975, the number rose to twenty-one and rose again in 1976 to thirty-three. Whatever this rise may mean, the gross numbers are small, indeed. This not only makes whatever conclusions we may draw more tentative, but also indicates that the phenomenon is a relatively infrequent one.

Even given the small numbers, we will try to determine if this increase in firearms seized without an arrest indicates that the police do in fact decline to make valid carrying arrests after Bartley-Fox.

However, if we are trying to determine whether these numbers indicate an increase in a certain type of police behavior after Bartley-Fox, it is necessary to put the number of guns seized without an arrest each year into context of the number of opportunities that the police encountered which presented them with this option. We have already discussed the various responses a police officer may make to a situation

involving a gun-carrying violation. We concluded that we are able only to focus upon two of them: seizures without arrests and arrests. Therefore, it is appropriate to compare the incidence of guns seized without arrest to the total number of arrest ^{incidents} each year.* The number of incidents in each year when a gun control arrest (carrying or possession) was made appears in Table 2 (below):

* Responses other than these ~~two~~ are either unlikely (permitting an illegal gun carrier to go free and keep his weapon) or unavailable to us (misreport a gun taken from an individual as one found).

TABLE 2

Gun Control
Total Gun Control Arrest Incidents Per Year

1974	1975	1976
218	186	168

(From Boston Police Department records)

We can use the total number of arrests each year as an indication of the level of opportunities the police have to seize a gun but make no arrest.

Table 3 (below) shows that the proportion of gun seizures without an arrest increases each year from 6.4% in 1974 to 10.1% in 1975 to 16.4% in 1976:

TABLE 3

PROPORTION OF GUN SEIZURES WITHOUT ARREST/OVERALL GUN INCIDENTS

	1974	1975	1976
Gun Control Arrest Incidents	(218) 93.6%	(186) 89.9%	(168) 83.4%
Gun Seizure Without Arrest	(15) 6.4%	(21) 10.1%	(33) 16.4%
TOTAL	(233) 100%	(207) 100%	(201) 100%

(From Boston Police Department records)

The probability of the decline in the proportion of arrests occurring by chance is less than one in 100.*

The mere fact that the incidence of non-arrest gun seizures increased after Bartley-Fox does not, by itself, indicate that the law influenced police to refrain deliberately from making carrying arrests when the circumstances clearly allowed them to do so. In order to make any judgment about what role the passage of Bartley-Fox may have played in the increase of non-arrest gun seizures, we must examine more closely the circumstances in which these incidents occur.

The most significant circumstance which can shed light on a police decision to seize the firearm but make no arrest is the location of the incident. This factor is significant because a great deal of confusion existed during the first few years of the Bartley-Fox law concerning whether the law's prohibition extended to conduct within one's home or place of business. Our general interviews with police officers contained questions about their understanding of the scope of the law. The results of the questions dealing with this aspect of Bartley-Fox, shown in Table 4 (below), demonstrate a sharp split about whether the location of the gun incident made a difference:

*The probability was calculated by applying to the data presented in Table 3, a chi square test of significance

TABLE 4

Q. Does Bartley-Fox apply to guns found in the home of the owner?	
Yes	(38) 49%
No	(39) 51%
Total	(77) 100%

Q. Does Bartley-Fox apply in the owner's place of business?	
Yes	(48) 59%
No	(30) 37%
Don't know	(3) 4%
Total	(81) 100%

(From general interviews with Boston and Worcester Police Officers)

The question of whether the Bartley-Fox law applied in one's home or place of business remained open until 1978, when the Massachusetts Supreme Judicial Court ruled that it did not.*

From the information in the Boston Police Department records, we labeled the location of each incident for which we could find appropriate information according to the following four categories:

1) Possessor's residence;

2) Other person's residence:

-- this included the residence of the incident's victim, or witness;

3) Other indoor locations:

-- this included bars, places of entertainment, stores or any other indoor area;

4) Outdoor locations.

Table 5 (below) gives the breakdown of both gun arrests and non-arrest gun seizures by location for each of the three years we examined:

*Comm. v. Seay, 1978 Mass. Adv. Shts. 2992 (Dec. 4, 1978).

TABLE 5

Location of Arrest Incidents and Seizures, No Arrest Incidents by Year

	1974		1975		1976	
	arrest	seize/n.a.	arrest	seize/n.a.	arrest	seize/n.a.
Possessor's Residence	(12) 6.7%	(8) 53.3%	(18) 10.5%	(6) 30.0%	(16) 10.6%	(21) 65.6%
Other Person's Residence	(1) .6%	(0) 0%	(5) 2.9%	(3) 15.0%	(2) 1.3%	(1) 3.1%
Other Indoor Location	(26) 14.4%	(4) 26.6%	(35) 20.3%	(4) 20.0%	(26) 17.2%	(9) 28.1%
Outdoor Location	(141) 78.3%	(3) 20.0%	(114) 66.3%	(7) 35.0%	(107) 70.9%	(1) 3.1%
TOTAL	(180) 100%	(15) 100%	(172) 100%	(20) 100%	(151) 100%	(32) 99.9%
No Information on Location	(38)	(0)	(14)	(1)	(17)	(1)

(From Boston Police Department records)

The location category of "other person's residence" contains very few incidents. Also, for both this category and the category of "other indoor locations," it is unclear whether the element of uncertainty applied. For these two reasons, all the ensuing discussion about location will collapse these two categories.

In each year, most of the arrests occur outdoors, and most of the seizures occur indoors. See Table 6 (below):

TABLE 6

Location of Arrest Incidents and Seizures, No Arrest Incidents by Year

	1974		1975		1976	
	arrest	seize/n.a.	arrest	seize/n.a.	arrest	seize/n.a.
Possessor's Residence	(12) 7%	(8) 53%	(18) 11%	(6) 30%	(16) 11%	(21) 66%
Other-indoor, Residence	(27) 15%	(4) 27%	(40) 23%	(7) 35%	(28) 18%	(10) 31%
Outdoor	(141) 78%	(3) 20%	(114) 66%	(7) 35%	(107) 71%	(1) 3%
TOTAL	(180) 100%	(15) 100%	(172) 100%	(20) 100%	(151) 100%	(32) 100%
	$\chi^2 = 38.01$ $p < .001$		$\chi^2 = 17.29$ $p < .001$		$\chi^2 = 61.91$ $p < .001$	

(From Boston Police Department records)

For each year, the correlation between location and whether an arrest or a seizure occurred is high. The probabilities of such a correlation in any of the three years occurring by chance is much less than 1 in 1,000.

What significance there is in the location of the incident as it relates to the effect of Bartley-Fox is clearer if we look at the data in a different format. Examining the incidence of seizures without arrest within each location, both before and after Bartley-Fox, can shed light on whether the law may have played a role in how frequently police chose merely to seize the firearm. Table 7 (below) presents this information;

TABLE 7

Proportion of Arrest Incidents to Total Incidents in Each Location, by Year

A. Possessor's Residence

	1974	1975	1976	
Arrest	(12) 60%	(18) 75%	(16) 43%	$x^2 = 6.091$ $p < .05$
Seize without arrest	(8) 40%	(6) 25%	(21) 57%	
Total	(20) 100%	(24) 100%	(37) 100%	

B. Others' Residence and Other Indoor Places

	1974	1975	1976	
Arrest	(27) 87%	(40) 85%	(28) 74%	$x^2 = 2.59$ $p < .30$
Seize without arrest	(4) 13%	(7) 15%	(10) 26%	
Total	(31) 100%	(47) 100%	(38) 100%	

C. Outdoor

	1974	1975	1976	
Arrest	(141) 98%	(114) 94%	(107) 99%	$x^2 = 5.22$ $p < .10$
Seize without arrest	(3) 2%	(7) 6%	(1) 1%	
Total	(144) 100%	(121) 100%	(108) 100%	

Of the four location categories, the only one where we know there existed uncertainty about the law's application is when the incident occurred in the possessor's home. We can see these incidents separately in Table 7 A. above. We also know that the ambiguity about the law's application did not play a part when the incident occurred outdoors. We can also see these situations separately in Table 7 C. above. In the two remaining categories, there may have been some uncertainty.

In outdoor situations where location clearly presents no uncertainty about the law's application, there is very little difference in the occurrence of decisions not to arrest before or after Bartley-Fox. The pattern of this data in Table 7 C. is of borderline statistical significance but is suggestive. Very little change occurs from before Bartley-Fox.

When, on the other hand, location does present an ambiguity in the law's scope -- in the possessor's residence -- we see in Table 7 A. that there is a particular trend to the change. Here the statistical significance is somewhat stronger, though still borderline. But, the trend revealed here is repeated in the data on the decision whether to charge an arrested suspect with carrying or with possession. What we see is that in the first year of the law's operation, there appeared an indication of vigorous application of the Bartley-Fox statute. In Bartley-Fox's first year, when police officers were faced with a situation where it was unclear whether the law applied to conduct inside the suspect's own home. They resolved doubts in favor of making an arrest. The proportion of arrests increased from 60% to 75%. They preserved the option of the application of the mandatory minimum sentence. After the first year, however, we see that the decision to arrest plays an even smaller role than it did before Bartley-Fox went into effect. It declined from 75% to 43%.

In the last location category shown in Table 7 B., the trend is clearly not statistically significant. In this category, we cannot determine whether the police faced the ambiguity concerning location and scope of the law or not.

We have seen that the only area where police arrest behavior has changed in a statistically significant manner is in some indoor situations. These represent only a small portion of the contexts in which a police officer might encounter an individual with a firearm. And, even in this small number of circumstances, the police are reacting in a situation which presented a degree of uncertainty about the law's application. Based upon this data, we find no support for the proposition that the police are nullifying in the street what the Legislature intended to accomplish in the court. Rather, the data show that the non-arrest response occurs predominantly in situations where it was unclear that the Bartley-Fox law applied in the first place.

Looking at the police decision to arrest or merely to seize the firearm from the perspective of the location of the incident provides one explanation for why the proportion of gun seizures increased after the passage of Bartley-Fox. In the years following Bartley-Fox, the total number of gun incidents in which the police had to make a decision whether to arrest the person or merely to seize the firearm declined; however, as Table 8 (below) shows, the number of such incidents that occurred within the possessor's residence increased. Incidents inside the home went from 10% in 1974 to 13% in 1975 to 20% in 1976.

TABLE 8
LOCATION OF ALL GUN INCIDENTS
(Arrests plus Seizures)
by Year

	1974	1975	1976
Possessor's Residence	(20) 10%	(24) 13%	(37) 20%
Other Residence/Other Indoor	(31) 16%	(47) 24%	(38) 21%
Outdoors	(144) 74%	(121) 63%	(108) 59%
TOTAL	(195) 100%	(192) 100%	(183) 100%
No Location on Information	(38)	(15)	(18)
$\chi^2 = 14.2$ $p < .01$			

(From Boston Police Department records)

Thus, police officers in 1975 and 1976 more frequently encountered the very situation where the law's application was unclear. And therefore we find proportionately more responses where they chose not to apply the law and seized the gun rather than make an arrest.

This still leaves the question of why police encountered gun incidents -- both arrests and seizures -- more frequently in the possessor's home after Bartley-Fox went into effect. In order to explore this question, we must set out the types of situations where a police officer may enter an individual's home. The police have only limited authority to enter private premises such as a residence. In general, police must either be invited to enter; request entrance and then obtain consent to enter; act under the authorization of a warrant; or act in response to an emergency situation. Of these four, the police initiate the entry in all but the first category.

The police records do not indicate in which of these categories the incident falls. They do indicate, however, who reported the incident to the police in the first place. The identity of the reporter allows us to draw some conclusions about whether the police were called into the possessor's residence by someone who had the authority to permit them to enter.

Table 9 (below) breaks down the total number of gun incidents (both arrests and seizures) each year by the identity of the person reporting the incident:

TABLE 9

All Gun Incidents (Arrests and Seizures) Within Offender's Home
Identity of Person Reporting Incident

	1974	1975	1976
Family of Possessor or Possessor Himself	(8) 47%	(7) 32%	(16) 47%
Friend of Possessor	(3) 18%	(2) 9%	(5) 15%
Citizen	(3) 18%	(6) 27%	(6) 18%
Law Enforcement	(3) 18%	(7) 32%	(7) 21%
Total	(17) 101%	(22) 100%	(34) 100%

We can see, as already discussed, that the total number of incidents increased. However, the pattern of who reports the incidents shows no significant change. There is no shift showing that people who would presumably have authority to invite police to enter -- the possessor, his family, and friends -- constitute a larger proportion after Bartley-Fox went into effect than before. Nor does there appear a trend indicating that police-initiated entries increased. Thus, from the data available, we are unable to account for the increase in reported incidents occurring in the possessor's home.

4. Effect of Bartley-Fox on Police Conduct Actively Seeking Out Illegal Gun Carrying.

The passage of a mandatory minimum one-year jail sentence for illegal carrying gave police officers' decisions to arrest for this crime a more severe potential consequence. Gun carrying arrests after Bartley-Fox presented police with an option that had a higher potential of removing the offender from the community than before. We tried to examine the circumstances of gun carrying arrests before and after Bartley-Fox to determine if police were more often actively seeking out illegal gun crime after the law went into effect.

When a police officer has a reasonable suspicion that a person is, was, or might be involved in a crime, the officer may stop the person and ask questions designed to shed more light on the matter. This is called a field interrogation. If the officer suspects that the person stopped is armed, he may conduct a frisk to uncover any weapons. If Bartley-Fox had an effect in instigating police conduct, we would expect to see such stop and frisk actively increase.

We asked the police officers whom we interviewed whether Bartley-Fox made any difference in their decision of whom to stop for a field interrogation. The overwhelming majority of officers said that it did not:

Has Bartley-Fox made any difference to your decision about when to stop for a field interrogation?

- Yes 3% (2)
- No 96% (77)
- No opinion 1% (1)

The officers did feel, however, that Bartley-Fox made them more selective about whom they frisked:

When you conduct a field interrogation, has Bartley-Fox made any difference in your decision of whether or not to frisk the person you have stopped?

- Yes, more inclined to frisk because finding gun gives more power over suspect 5% (4)
 - Yes, more inclined to frisk because gun carriers are made more desperate by Bartley-Fox 1% (1)
 - Yes, feel safer 5% (4)
 - Yes, more selective about whom to frisk because I don't wish to involve otherwise innocent persons 89% (70)
 - No 0% (0)
- 100% (79)

We also asked other participants in the criminal justice process whether they felt that Bartley-Fox instigated police activity which sought out gun carrying. See Table 10. The results of this portion of the interviews show that a majority of the inmates feel police use Bartley-Fox in this manner, while 40% of the prosecutors, 28% of the defense attorneys, and 7% of the judges shared that opinion.

TABLE 10

Criminal Justice Participants' Impression Concerning Bartley-Fox Enforcement and Police Stop and Frisk Practices

I. To your knowledge are police officers intentionally using their stop and frisk powers for the purpose of generating Bartley-Fox convictions rather than for the purpose of merely conducting field interrogations?

- A. Yes, very often.
- B. Yes, sometimes.
- C. Yes, rarely.
- D. No, never or almost never.
- E. Don't know.
- F. Police don't understand Bartley-Fox well enough to manipulate it.
- G. Other response.

	Defense Attorneys	Prosecutors	Judges	Inmates	Totals
A.	(6) 8%	(0) -	(0) -	(23) 29%	(29) 15%
B.	(12) 15%	(4) 40%	(1) 7%	(31) 39%	(48) 26%
C.	(4) 5%	(0) -	(0) -	(3) 4%	(7) 4%
D.	(40) 50%	(4) 40%	(10) 67%	(10) 13%	(64) 34%
E.	(16) 20%	(2) 20%	(3) 20%	(13) 16%	(34) 18%
F.	(0) -	(0) -	(1) 7%	(0) -	(1) 2%
G.	(2) 3%	(0) -	(0) -	(0) -	(2) 1%
Totals	(80) 100%	(10) 100%	(15) 101%	(80) 101%	(185) 100%

II. If yes, who are their usual targets?

- A. Only selected persons suspected of serious criminal involvement.
- B. Virtually anyone an officer wishes to put out of circulation or harrass.
- C. Persons whom an officer wishes to employ as an informant.
- D. Blacks.
- E. Youths.
- F. Known drug users.
- G. Ex-offenders out on parole or with a suspended sentence.
- H. Poor.
- I. Hispanic, Puerto Rican.
- J. Strangers
- K. A through G.

	Defense Attorneys	Prosecutors	Judges	Inmates	Totals
A.	(9) 38%	(2) 50%	(0) -	(8) 15%	(19) 22%
B.	(4) 17%	(2) 50%	(0) -	(9) 16%	(15) 18%
C.	(0) -	(0) -	(1) 100%	(2) 3%	(3) 4%
D.	(7) 29%	(0) -	(0) -	(12) 22%	(19) 22%
E.	(4) 17%	(0) -	(0) -	(4) 8%	(8) 9%
F.	(0) -	(0) -	(0) -	(7) 13%	(7) 8%
G.	(0) -	(0) -	(0) -	(6) 11%	(6) 7%
H.	(0) -	(0) -	(0) -	(2) 3%	(2) 2%
I.	(0) -	(0) -	(0) -	(4) 8%	(4) 5%
J.	(0) -	(0) -	(0) -	(1) 1%	(1) 1%
K.	(0) -	(0) -	(0) -	(1) 1%	(1) 1%
Totals	(24) 101%	(4) 100%	(1) 100%	(56) 101%	(85) 99%

(From several interviews)

In addition to relying on interview data to reveal if police responded to Bartley-Fox by becoming more aggressive in seeking out illegal gun carrying, we also examined the Boston Police Department records on gun carrying arrests in 1974-1976 to determine the circumstances of each incident. In the Boston Police Department records for 1974-1976, we obtained the narrative description of the circumstances of the arrest from either the journal entry or the incident report. Of the total number of arrests in each year, we were unable to obtain information about the underlying circumstances in every case. In particular, coverage in 1974 was poorer (74%) than the two consecutive years (1975 - 80%; 1976 - 82%), due to the less specific recordkeeping procedure used at that time. The information in the narratives, however, provided no clear-cut indication of whether the arrest resulted from a police initiative or from a police response to an ambiguous situation or from a police response which clearly called for some type of action.

For example, the circumstances of each police arrest for which we had sufficient information were coded into various categories. Of the 47 categories, only two (police observed suspicious behavior; on sight suspicious behavior other) provided any basis for a judgment that they represent active police intervention. And even with these categories, the sparseness of detail in the narrative portion of the police records leaves room for doubt about the situation. Moreover, the numbers of incidents in these two categories are exceedingly small: 8 in 1974, 7 in 1975; and 11 in 1976. Any analysis of the degree to which police actively seek out illegal gun carrying must await a more detailed data source.

5. Effect of Race on Decision to Arrest.

One of the fears surrounding the enactment of the Bartley-Fox law was that the creation of a one-year mandatory minimum sentence would provide an opportunity for idiscriminatory enforcement.* Police officers might use the law, for example, in a different manner when they dealt with non-white suspects than with whites.

The police records which we examined provide no statistically significant correlation between the race of the suspect and whether the police chose to make an arrest or simply decided to seize the firearm. The breakdown of arrests and non-arrest seizures by race, for each year, appears in Table // (below):

* See Beha, Gun Control -- Mandatory Sentencing, 57 B.U L. Rev. 96, 108 n. 45 (1977).

TABLE 11

Race of Suspect Involved in Arrest and Seizure Incidents, by Year

	1974		
	White	Non-white	
arrest	(64) 97%	(107) 95%	$\chi^2 = 1.60$ $p < .2$
seizure	(2) 3%	(6) 5%	
TOTAL	(66) 100%	(113) 100%	

	1975		
	White	Non-white	
arrest	(71) 96%	(112) 93%	$\chi^2 = .923$ $p < .3$
seizure	(3) 4%	(9) 7%	
TOTAL	(74) 100%	(121) 100%	

	1976		
	White	Non-white	
arrest	(80) 88%	(78) 85%	$\chi^2 = .390$ $p < .5$
seizure	(11) 12%	(14) 15%	
TOTAL	(91) 100%	(92) 100%	

(From Boston Police Department records)

These data, if anything, show that within each year a slightly higher proportion of whites are subject to arrest than non-whites -- quite the opposite of the racial prejudice hypothesis.

Since the location of the incident has a great deal to do with whether the police arrest or not, we examined those incidents occurring in the possessor's home to see if the race of the suspect made a difference in that particular circumstance. The total numbers of such incidents each year is small. Therefore, presenting the information broken down by the race of the suspect (shown in Table 12 below) makes difficult any degree of certainty about the significance of the results:

TABLE 12

Proportion of Arrest Incidents Within Possessors' Residences, by Race of Suspect

	1974		
	White	Non-White	
Arrest	(2) 100%	(7) 70%	$x^2 = .8$ $p < .5$
Seize	(0)	(3) 30%	
Total	(2)	(10)	
	1975		
	White	Non-White	
Arrest	(6) 86%	(12) 70%	$x^2 = .09$ $p < .99$
Seize	(1) 14%	(3) 30%	
Total	(7)	(15)	
	1976		
	White	Non-White	
Arrest	(6) 40%	(9) 45%	$x^2 = .09$ $p < .99$
Seize	(9) 60%	(11) 55%	
Total	(15)	(20)	

(From Boston Police Department records)

However, Table 12 does not contradict the conclusion we drew when we examined Table 11. The race of those suspects whom the police encountered in their homes did not affect the decision to arrest or not. In fact, in each year, a slightly higher percentage of whites was arrested than non-whites.

Focusing simply on those arrested confirms that the advent of Bartley-Fox did not result in an increasing proportion of arrests directed at non-whites. Table 13 (below) presents the data that are available on the race of those whom the police did arrest:

TABLE 13

RACE OF ARRESSTEE BY YEAR

	1974	1975	1976
White	(64) 37%	(71) 39%	(80) 51%
Non-white	(107) 63%	(112) 61%	(78) 49%
TOTAL	(171) 100%	(183) 100%	(158) 100%
No Information on Race	(47)	(3)	(10)
$\chi^2 = 7.06$ $p < .05$			

(From Boston Police Department records)

We must note that the information in Table 13 is of borderline statistical significance. Moreover, there are a considerable number of cases in 1974 for which we have no information on the race of the person arrested.* While the conclusions which we can draw from this information are limited, they also present no support for a hypothesis that Bartley-Fox would adversely affect non-whites. If anything, the data show that after Bartley-Fox, whites constituted a larger share of those arrested for gun carrying than before.

It is possible, however, that after Bartley-Fox, whites reduced their level of illegal gun carrying to a greater extent than non-whites and that if we could control the data in Table 13 for the level of illegal gun carrying of each racial group, a pattern of disparate treatment would emerge. We have no direct measure of the level of illegal gun carrying for each separate race. However, the information available in police records on firearms that citizens voluntarily surrendered or reported finding gives some indication that Bartley-Fox may have had a greater deterrent effect on white than on non-whites. Table 14 (below) shows that after Bartley-Fox went into effect whites increased the level at which they turned in firearms by a greater rate than did non-whites.

*The BPD changed its recordkeeping system from 1974 to 1975, going from recording information in a journal to filling out detailed incident reports. These incident reports explicitly ask for the race of the arrestee. Journal entries were completely narrative in format and were less uniform in presenting certain types of information from one case to another.

TABLE 14

FIREARMS SURRENDERED BY OWNER OR TURNED IN
WHEN FOUND BY CITIZEN, RACE

	1974	1975	1976
Whites	(6) 50%	(66) 86%	(42) 81%
Non-whites	(6) 50%	(11) 14%	(10) 19%
TOTAL	(12) 100%	(77) 100%	(52) 100%
No Information On Race	(9)	(29)	(34)
$\chi^2 = 8.51$ $p < .2$			

(From Boston Police Department records)

Of course, a greater increase of gun turn-ins by whites than non-whites may indicate things other than a different level of deterrent effect of the law. Non-whites may chose to abandon their firearms rather than go to the police, for example.

There is some support in the interviews we conducted, however, for the hypothesis that Bartley-Fox had a greater deterrent effect on whites than non-whites. We conducted general interviews concerning several areas relating to Bartley-Fox with 60 inmates of the Suffolk County House of Correction. In general, whites were more aware of the Bartley-Fox law than non-whites. This information appears in Table 15 (below):

TABLE 15

Q: Are you aware of the Bartley-Fox Law?

All Inmates

	<u>White</u>	<u>Non-White</u>
Yes, aware prior to incarceration	(20) 87%	(22) 59%
Yes, but not aware prior to incarceration	(3) 13%	(10) 27%
Unaware	(0) -	(5) 14%
Total	(23) 100%	(37) 100%

(From general interviews with inmates of Suffolk County House of Correction)

This difference is apparent even when those serving time for a Bartley-Fox violation are compared by race, as can be seen in Table 16 (below):

TABLE 16 Q: Are you aware of the Bartley-Fox law? Bartley-Fox Inmates		
	White	Non-White
Yes, aware prior	(9) 100%	(10) 67%
Yes, but not aware prior	(0) -	(2) 13%
Unaware	(0) -	(3) 20%
Total	(9) 100%	(15) 100%

(From general interviews with inmates of Suffolk County House of Correction)

Although we hesitate to base conclusions about the general population from a survey of inmates, if non-whites are not as cognizant of Bartley-Fox as whites, it is possible that the law would deter them to a lesser extent.

In addition to the race of the suspects that the police encountered, we also tried to determine if their age or sex made any difference in the decision to arrest. We found no independent significance for either of these two characteristics.

D. The Charging Decision.

1. Introduction.

Once a police officer makes an arrest, the next decision in the criminal justice system is the charging decision. If the police arrest a defendant who illegally carries a firearm, the defendant conceivably may face either a carrying or a possession charge. In legal terms, possession is a lesser included offense of carrying. Whenever someone violates the law against carrying, he also violates the law against possession. That's because carrying, in simple terms, is possession plus movement. Since the conduct which both laws prohibit is so similar, it is open to the charging authorities to avoid the rigidity of a mandatory minimum sentence for carrying, by bringing a possession charge where a Bartley-Fox charge would otherwise be appropriate. By the choice of a possession complaint rather than one for carrying, the decision to charge can shield someone from the risks of a mandatory one-year sentence.

In this section, we first discuss the general operation of the criminal courts in Massachusetts and then explain who in the criminal justice system in each of the three cities we examined makes the decision about which charge to bring. Following, we discuss the manner by which we examine the charging decision and then proceed

to determine how the imposition of the Bartley-Fox law has affected the charge which is brought. Last, we discuss whether race has played a factor in the charging decision.

2. Massachusetts Criminal courts.

In order to understand the significance of a decision to bring a charging complaint or a possession complaint, one must have some background about how the criminal courts of Massachusetts work. After a police officer makes an arrest, Massachusetts law requires him to go to court and obtain a criminal complaint as soon as possible. The entry level court which grants complaints is the District Court. In Boston, there are District Courts in Roxbury, Dorchester, Brighton, West Roxbury, East Boston, Charlestown, and South Boston. In addition, the Boston Municipal Court is also a district court. Both Worcester and Springfield have one district court serving the city.

Massachusetts has a two-tiered trial court system, with the District Courts as the first and Superior Courts as the second tier. The District Courts may hold trials and sentence defendants facing misdemeanor and minor felony charges. We will refer to these types of charges as District Court charges. Examples of crimes which may involve a firearm that are within the District Court's power to hold a trial are carrying, possession, and assault with a dangerous weapon. Other types of these District Court charges range from possession of narcotics to larceny to disturbing the peace.

The most severe sentence the District Court can impose is two and one-half years in jail, and for many crimes that it tries, the maximum is less. Carrying a firearm without a license is the only District Court crime which carries a mandatory minimum jail sentence. In fact, jail sentences are relatively rare in the District Courts.

*Comm. v. Dubois, 353 Mass. 223 (1967).

For the more serious felonies not within the District Court's power to try, only the Superior Court may hold a trial. These are Superior Court charges, such as murder, assault with intent to murder, or assault and battery with a dangerous weapon. While the District Courts may not hold a trial for these crimes, they still have a limited role to play. After making an arrest for a Superior Court crime, a police officer would still go to a District Court to obtain a complaint. The resulting District Court proceeding would not be a trial. Rather, the Court would hold a probable cause hearing -- a preliminary hearing whose purpose is to determine if there is sufficient admissible evidence to show there is probable cause to believe the defendant has committed the crime. If the District Court finds probable cause, it sends the case on toward an eventual trial in the Superior Court.

3. Who Makes the Charging Decision?

a. Boston. The formal process for obtaining a criminal complaint consists of a hearing before a District Court clerk, except in the Boston Municipal Court (BMC), where pursuant to its court rules, only judges issue complaints. Usually the persons present are the arresting officer(s) seeking the complaint and a court clerk. The clerk or judge issues a complaint on the basis of a written request for a complaint which presents a cryptic statement of facts. During the sample period, Suffolk County prosecutors did not engage in screening cases prior to applying for a complaint. That is, there was no formalized process where the prosecutor and the arresting officers conferred to assess the strength of the evidence and the appropriate charges. Accordingly, the clerk or judge and the arresting officers were the only formal participants in the charging decision.

Informally, the arresting officers from the time of arrest until the clerk or judge authorizes a complaint, has several opportunities to confer with others. The usual steps from arrest to initial court appearance are: booking the arrestee in the police station; transporting the defendant to the court; filling out a Request for a Complaint; complaint hearing; and then the arraignment. Persons available for input into the charging decision include booking sergeants in the district station when the arrestee is first in custody; fellow officers present in the station during the booking; supervisors of cases; and assistant court clerks prior to the complaint hearing. The supervisors of cases are police officers stationed in the District Court House primarily for the purpose of managing police officer court appearances. *Their* role is not as a legal consultant, but physical location as well as his extended experience in and out of the courthouse make *them* a likely informal source of assistance for the arresting officer. Court clerks are also physically available for consultation during the filling out and typing up (by clerk's office personnel) of the Request for a Complaint. The police officers whom we interviewed indicated that neither court clerks nor prosecutors decline to issue or try to alter a carrying complaint requested by the arresting officer. Of 79 officers, 96% said clerks never decline to issue a carrying complaint. Of 69 officers, 94% said prosecutors never modify a carrying complaint.

In order to determine the points at which charging decisions occur, we examined all available written documentation: booking sheets, requests for complaints, and the complaints themselves. Booking sheets indicated that the arresting officers in approximately 80% of all gun control cases (incidents where either carrying or

possession was the most serious crime) described the arrest as one for possession and only 20% as carrying. By the time complaints issued, this ratio had reversed. One reason for this has been already discussed in the section discussing the Boston Police Department records upon which we based the arrest analysis. The booking sheets which we examined reported only those incidents where the arresting officer coded the offense as a gun control crime. If he coded it under another crime, such as assault, then we would not have examined it. Even in these incidents, though, the defendant may have ended up in court with a carrying complaint. Still, the booking sheets were not an accurate reflection of what charge the officers did file in court.

What happened in the hours between booking and the complaint hearing appeared pivotal. Our initial interviews did not shed any light on this question. Thus, we undertook a supplemental round of interviews. We spoke with five judges: eight former and present assistant district attorneys (ADA's); supervisors of cases in the BMC, Rosbury District Court, and Dorchester District Court; desk sergeants of Districts 1, 2, 4, and 11 (the police districts that service the three listed District Courts); Roxbury and Dorchester assistant clerks; and five experienced police officers currently serving in educational capacities within the BPD.

A strong consensus among interviewees established that while it is the complaint hearing magistrate's (clerk or judge) decision, rarely does the magistrate deny the officer's request. This data appears in Table 17 (below) where the only departure from a clear agreement on that position is among Springfield (not Boston) ADA's:

TABLE 17

**Criminal Justice Practitioners' Responses Concerning
District Court Clerks' Role in Application of
the Carrying/Possession Distinction**

I. To your knowledge, do clerks ever decline to issue a police officer a complaint on a charge of carrying?										
	Defense Attorneys		Prosecutors			Judges	Police	Totals		
			Boston	Suffolk Superior	Springfield					
A. Yes, frequently.	(0)	-	(0)	-	(3)	43%	(0)	-	(3)	2%
B. Yes, sometimes.	(2)	3%	(5)	38%	(2)	29%	(1)	11%	(1)	1%
C. Yes, but rarely.	(5)	7%	(2)	15%	(0)	-	(1)	11%	(2)	2%
D. No, never.	(52)	75%	(6)	46%	(2)	29%	(6)	67%	(76)	96%
E. Don't know.	(10)	15%	(0)	-	(4)	50%	(1)	11%	(0)	-
Totals	(69)	100%	(13)	99%	(8)	100%	(9)	100%	(79)	99%
II. If yes, why?										
					Prosecutors		Judges		Totals	
A. They wish to reserve Bartley-Fox for "true" criminals.					(1)	7%	(0)	-	(1)	7%
B. The facts do not support a Bartley-Fox charge.					(8)	62%	(1)	100%	(9)	64%
C. Bartley-Fox is difficult to prove.					(1)	8%	(0)	-	(1)	7%
D. Bartley-Fox is not needed because of other serious charges involved.					(1)	8%	(0)	-	(1)	7%
E. Other: Reaction from pressured (Springfield) judges.					(1)	8%	(0)	-	(1)	7%
F. No opinion.					(1)	8%	(0)	-	(1)	7%
Totals					(13)	101%	(1)	100%	(14)	99%

(From interviews)

Thus, the real decision that changed so many possession charges to carrying charges occurred sometime before the complaint hearing.

Most interviewees did not believe that the preponderance of possession charges in the booking sheets represented an effort to preserve the opportunity to avoid a mandatory minimum sentence. Several alternative explanations emerged. There were those who thought that police officers simply did not know the difference between carrying and possession.

We have an indication of the level of police officers' understanding of the Bartley-Fox law from our interviews with them see Table 18 (below):

TABLE 18

Q: What is your understanding of the meaning of Bartley-Fox?

A. Carrying without license means one year in jail	79%	(42)
B. Carrying or possession without a license means one year in jail	19%	(10)
C. No opinion	2%	(1)
	100%	(53)

Q: Does Bartley-Fox apply to rifles and shotguns?

A. Yes, if no license, even if F.I.D. card held	16%	(12)
B. Yes, if no F.I.D. card	40%	(30)
C. No	45%	(34)
	100%	(76)

Q: Does Bartley-Fox apply to guns found in the home of the owner?

A. Yes	49%	(38)
B. No	51%	(39)
	100%	(77)

(con't)

TABLE 18 (con't)

Q: What is the difference between carrying and possession?

A. Possession has no mandatory minimum sentence	14%	(11)
B. Carrying can't occur in home or place of business	9%	(7)
C. Possession can't occur outside home or place of business	5%	(4)
D. Carrying is possession plus movement	29%	(23)
E. No difference	12%	(10)
F. Don't know	31%	(25)
	100%	(90)

Q: Is there any special Department training concerning Bartley-Fox?

A. Yes	27%	(21)
B. No	65%	(50)
C. Don't know	8%	(6)
	100%	(77)

(From interviews with Boston and Worcester Police officers)

For example, 19% of those questioned thought that the one-year mandatory minimum applied to possession as well as carrying. Forty-five percent improperly thought the Bartley-Fox did not apply to rifles and shotguns. Fifty-one percent felt that the law did not apply to guns found in the owner's home, while the other 49% felt that it did. Perhaps most revealing is the fact that when asked outright what the difference was between carrying and possession, 12% of the officers said there was no difference, and 31% said that they did not know. This disparity in police officers' understanding of the law is perhaps due in part to the fact that only 27% of the officers told us that they had received some special Department training concerning the Bartley-Fox law.

Because of this confusion, when the arresting officer entered "possession" as the charge in the Arrest Booking Sheet, it may have been a reflection of what he really thought the violation was, however incorrect. Alternately, it may have been merely a guess based on the realization that he did not know, in fact, what the correct charge should be but knew that possession was the less serious charge. The preponderance of possession charges would thus indicate a preference to incorrectly undercharge rather than incorrectly overcharge.

The others, who believed that this "charging switch" was not an example of a conscious choice to preserve the option of a less serious charge, felt that "possession" was entered on the Arrest Booking Sheet merely as a matter of convenience, realizing that the

Arrest Booking Sheet was not dispositive.*

While it appears that booking sheet entries do not constitute a carefully considered decision, it is not uniformly clear who decides which charge to request and on what grounds. Booking sergeants, supervisors of cases, and court clerks were all resolute in their assertions that the charge request is the arresting officer's decision. In light of Center staff's acquaintance with general police practices, we conclude that while particular processes differ with every district station and with each shift within a station, difficult charging decisions are informal and collective.

The evidence is not strong, but our conclusion remains that the most important figure in the initial charging decision in Boston during the sample period is the arresting officer with the assistance of any and all police officers or court clerks whom he may happen to consult.

b. Worcester and Springfield district courts. Very little data are available in the nature of the Worcester decisionmaking process. Worcester District Court judges were unable to grant any of the project staff's numerous requests for interviews. The Worcester District Attorney was unwilling to grant permission to interview any of his assistants. Defense attorneys and police officers are the only source of information on the charging process.

*Only one interviewee felt that the charging switch was a purposeful exercise of discretion on behalf of an arrestee who was perceived as having certain sympathy factors. The interviewee expressly mentioned the following sympathy factors: Age, health, family situation, and lack of criminality. He viewed, with some accuracy, the distinction between possession and carrying as a difference of degree not kind. He saw carrying as "possession plus"; therefore, those who were guilty of carrying a gun were also guilty of possessing the gun. Hence, the officer was "not really misrepresenting the charge."

We only interviewed 14 Worcester police officers. Of these, 79% said that clerks never decline to issue a carrying complaint, and 93% said prosecutors never modify them. Sixty-four percent have had no Department training concerning the law, and 38% showed an inadequate understanding of the difference between carrying and possession. Too few defense attorneys participated to add any additional light on the subject.

Springfield District Court is the sole district court in which a systematic adaptation clearly appears, which had the effect of avoiding the intent of the Bartley-Fox law. Interviews with personnel in the clerk's office, Hampden County ADA's, and the Springfield District Court justice who bears much of the criminal docket caseload uncovered no reluctance to admit that they very often consciously used possession as a substitute for carrying as an initial charge. The possession statute authorizes a sentence of one year in the House of Correction, but does not require it. This conventional flexibility preserves the judge's sentencing options. If upon conviction, the presentence report indicates that the defendant's record warrants a jail sentence, the judge can (and does) impose a one-year commitment to the House of Correction. If the defendant appears to be one of those sympathetic figures who is a hapless "victim" of mandatory minimum sentencing, the judge will not commit the defendant. Indeed, Springfield District Court data show that upon passage of the Bartley-Fox law, carrying charges in 1975 nearly disappeared from the Springfield District Court docket and never required pre-Bartley-Fox prominence.

4. Methodology.

As we discussed previously, we examined District Court records in each city for a six-month period in 1974, 1975, and 1976.

In order to analyze this data to focus upon the charging decision, we have categorized each case by the type of charge which the defendant faced. We looked at all of the charges brought against an individual as a single case. We compared those cases where the defendant faced a carrying charge alone or with other District Court charges; and those where the defendant faced a possession charge alone or with other District Court charges. We refer to these as simple carrying or simple possession cases. It is in these instances where the possibility of a mandatory minimum sentence of one-year in one category but not in the other would make a significant difference. Excluded from the comparison are cases where either the carrying or the possession charge accompanies a Superior Court offense. As we explained, examples of these more serious offenses would be murder, armed robbery, assault and battery with a dangerous weapon, or assault with intent to murder. Whether one of these charges accompanies a complaint having a one-year mandatory minimum sentence or not would make little difference, since the Superior Court charge itself carries such a heavy penalty and is ordinarily punished by a jail term longer than one year in any event.*

The difference to a defendant between carrying and possession when either is accompanied by nothing more serious than another District Court charge is great. Possession does not have a mandatory

* Superior Court felonies, by statute, typically permit a judge to sentence a defendant only to state prison. A state prison term may not be less than 2-½ years. M.G.L. Ch. 279, §24.

minimum sentence. For a defendant facing a Superior Court crime, whether he also faces a carrying as opposed to possession charge, means much less. Therefore, we will not include these cases in the comparison for the purpose of trying to determine if the charging practices have changed in response to Bartley-Fox.*

To sum up, we will look at two categories of cases to decide if Bartley-Fox had an effect on the decision to charge either carrying or possession:

- (1) cases where the authorities charge the defendant with possession alone or possession together with one or more District Court crimes; and
- (2) cases where the authorities charge the defendant with carrying alone or carrying together with one or more District Court crimes.

Before we begin to examine the data which show the number of carrying cases and possession cases for each year, we have to address one other methodological point.

Since we are interested in any change in the pattern of carrying and possession complaints as a result of the Bartley-Fox law, we have to deal with the question of whether a change in the numbers or proportion of carrying and possession complaints is in fact due to a change in charging policy or is the result of a change in citizen behavior. To illustrate with an extreme example: if after Bartley-

* Possession of a sawed-off shotgun and possession of a machine gun are both Superior Court crimes; they are not within the trial jurisdiction of the District Courts. However, both are subject to Bartley-Fox's mandatory minimum one-year sentence. We have treated these crimes as simply Superior Court offenses rather than either carrying or possession. The reason for this is that even prior to Bartley-Fox, police, prosecutors, and judges viewed possession of a machine gun or sawed-off shotgun as a major crime with heavy prison sentences common. The imposition of a mandatory minimum one-year sentence would have little effect on how police officers treated defendants arrested for these violations.

Fox, carrying charges completely disappeared and possession complaints tripled, we would still have to decide whether police drastically changed their charging policy or the law was so effective in deterring people that police never arrested anyone for carrying.

This question assumes that the underlying conduct prohibited by the statute remained the same. Bartley-Fox, though, not only changed the penalty for carrying, but it also redefined the prohibited activity to some extent. In particular, prior to 1975, the carrying offense prohibited only carrying handguns. Firearms can be either handguns, such as revolvers and pistols, or long guns, such as rifles and shotguns. At the District Court level, the statute allowed as a maximum sentence for carrying, a jail term of not greater than 2½ years; and for possession, not more than one year. Before Bartley-Fox, neither offense had a mandatory minimum sentence. For example, a person carrying a rifle down the street in 1974 could be charged only under the possession provision of the statute and be punished by not more than one year in jail. The same conduct in 1975 could be charged under the carrying part of the statute, and be not only subject to a maximum of 2½ years but also to the mandatory minimum sentence of Bartley-Fox.

If the police were aware of the difference between carrying and possession and if they always brought the accurate charge -- assuming no change whatsoever in citizen conduct -- then the advent of Bartley-Fox would bring about an increase in the use of carrying charges and a decrease in possession charges caused by the shift of cases where a long gun was not just merely possessed but also carried.

The data we had from the 1974 court sample did not indicate whether a particular possession charge involved the type of conduct with a rifle or shotgun which would have violated the Bartley-Fox law

if it had occurred when the law went into effect. In order to estimate the magnitude by which pre-Bartley-Fox carrying charges may be understated when we compare it with post-Bartley-Fox cases, we looked at post-Bartley-Fox carrying charges to see what kind of role long guns played. Our court data from 1975 and 1976 indicate whether the Bartley-Fox carrying charge involved a long gun or a handgun. In 1975, out of a total of 198 carrying complaints, only 12 involved a long gun (about 6%). In 1976, only 8 carrying complaints out of a total of 151 involved a long gun (about 5%). The figures are close enough to indicate that it is a relatively constant phenomenon. We assumed, therefore, that the same proportion of long gun carrying went on in 1974 as had occurred in 1975 and 1976. When we compare the actual number of carrying cases in 1974 with those in 1975 and 1976, we will also indicate our estimate of the effect of the change in the law's scope.*

Having addressed the problem of the different scope of the carrying prohibition in 1974 and in the following years, we can now discuss how we answer the question of whether a change in the proportion of carrying charges is due to a change in charging policy or a change in citizen conduct.

One possible measure of whether the charging authorities no longer used a carrying charge after Bartley-Fox went into effect might be the number of simple carrying cases in each year's court sample.

* In making this estimate, we assumed that the proportion of long gun carrying in 1974 equaled 5.5% of total gun carrying. We arrived at the 5.5% figure by averaging the figures for 1975 and 1976.

This information appears below:

	1974	1975	1976
Number of simple carrying cases	(219)	(162)	(114)

Certainly, after Bartley Fox there was a decline in the number of carrying cases. But, as we have mentioned, this is not an indication that the authorities chose to forego the use of a carrying complaint. It may simply be a reflection of the fact that the police have made fewer carrying arrests. Thus, the numbers themselves do not indicate whether the reduction in carrying complaints is due to a change in charging policy or, on the other hand, a change in police arrest or citizen gun carrying conduct.

Instead of using the number of simple carrying cases, the analytical tool we used to see if the charging policy did in fact change is what we call the c/gc ratio. This is the percentage of simple carrying cases in the number of total gun control cases. Gun control cases are simple carrying cases plus simple possession cases. Thus, if prior to Bartley-Fox the c/gc ratio was 90%, it meant that there were nine carrying cases to every one possession case.

The format in which we present the data about the c/gc ratio appears in the example below:

$$\frac{40}{100} = 90\%$$

The actual numbers appear in the parenthesis. In this example, the ratio of 90% would refer to a sample where 45 cases were simple carrying cases and 5 cases were for simple possession, out of a total of 50

cases. We use this format throughout. As an aid for easier interpretation of this format, a more traditional tabular presentation of the data in the example appears below, so that one might compare the two:

	c/gc	
simple carrying cases	90%	(45)
simple possession cases	<u>10%</u>	<u>(5)</u>
total	100%	(50)

The c/gc ratios for the District Courts in the City of Boston for the three years of our study appear below:

<u>1974</u>	<u>1975</u>	<u>1976</u>
$\frac{219}{283} = 77.4\%$	$\frac{162}{185} = 87.6\%$	$\frac{114}{159} = 71.6\%$

The ratio in Boston shows a pattern of change. But, as we mentioned a change in the ratio itself does not necessarily mean that a change in charging policy is the sole cause. If the ratio has changed, it may indicate (if we assume for purposes of discussion that the ratio fell):

- 1) Authorities changed their charging policy so that cases formerly charged as carrying are now charged as possession;
- 2) Citizen conduct has changed so that citizens have curtailed their carrying activity to a much greater extent than they have cut back on their illegal possession of firearms; or
- 3) Some combination of the two.

As we saw, there has been a change in the c/gc ratio after Bartley-Fox. We have not been able to apportion whatever change in

the c/gc ratio exists between these two possible causes. We have, though, been able to shed some light on whether the change in the c/gc ratio that we will discuss in the next section is due entirely to citizen conduct or is in some part of other due to a change in police charging decisions. From a comparison of specific courts in the City of Boston, from the direction of the change in the first year of Bartley-Fox, and from our interview data, we conclude that police charging policy has had an effect in changing the c/gc ratio, *as seen in Table 19 (below):*

TABLE 19

What is the difference between carrying and possession?

- A. Possession has no mandatory minimum sentence.
- B. Carrying can't occur in home or business.
- C. Possession can't occur outside home or business.
- D. Carrying is possession plus movement.
- E. Other: Carrying is physical control on the person as opposed to constructive possession.
- F. Other: Penalty is the same.
- G. Other: Did not understand the question.
- H. Other: miscellaneous.

Defense Attorneys	Prosecutors	Judges	Totals
A. (7) 8%	(3) 13%	(0) -	(10) 8%
B. (12) 13%	(2) 9%	(0) -	(14) 11%
C. (1) 1%	(0) -	(0) -	(1) 1%
D. (27) 28%	(10) 43%	(7) 77%	(44) 35%
E. (39) 41%	(8) 35%	(0) -	(47) 38%
F. (1) 1%	(0) -	(0) -	(1) 1%
G. (4) 5%	(0) -	(0) -	(4) 3%
H. (2) 3%	(0) -	(2) 22%	(4) 3%
Totals (93) 100%	(23) 100%	(9) 99%	(125) 100%

(From general interviews)

The first indication we have that the change in the c/gc ratio is due in part to a change in charging policy comes from comparing the ratio in individual Boston courts where the charging decisions were made on different bases. As we discussed, the general practice in Boston courts is for the arresting police officer to make the charging decision with little or no independent review of judicial input. The one exception to this practice comes

in the Boston Municipal Court, where both before and after Bartley-Fox judges themselves decided what complaint should issue on a given set of facts. If police charging policy is a factor, one would expect that charging patterns would change more drastically in the courts where the police control which charge is brought and would change less drastically in the court where judges make the decision. That is exactly what happened.

If we compare the c/gc ratio for the Boston Municipal Court and the rest of the courts in Boston before and after Bartley-Fox, we see:

	1974	1975	1976
Boston Municipal Court	$\left(\frac{77}{89}\right) = 87\%$	$\left(\frac{44}{49}\right) = 90\%$	$\left(\frac{45}{48}\right) = 94\%$
Other Boston Courts	$\left(\frac{142}{194}\right) = 73\%$	$\left(\frac{118}{136}\right) = 87\%$	$\left(\frac{69}{111}\right) = 62\%$

There is relatively little change in the Boston Municipal Court, particularly since we can assume that the ratio for 1974 is understated by about 5.5%. In the other courts where judges did not control the charges, there is significant change in the type of charges brought.

The second indication we have that police charging policy had some effect on the change in the c/gc ratio was the direction of the change in the first year of Bartley-Fox. If citizen conduct were the only factor present, then it is reasonable to assume that the c/gc ratio would have gone down. If the ratio goes down because of citizen conduct, it means that gun carrying activity is curtailed more than possession activity. Since Bartley-Fox applied only to carrying, one would expect that if citizen conduct were affected by the law, then it would be carrying itself that was affected to a greater degree than possession itself. What the data show, however, as we saw, is that in the first year of Bartley-Fox, the c/gc ratio went up. If citizen conduct were the only factor involved, then the rise in the ratio would mean that Bartley-Fox had a greater effect in deterring illegal possession than illegal carrying. We see no basis for making that assumption.

Third, our interview indicates the likelihood that the public had an unclear concept of whether a carrying offense and a possession offense were distinct. If the difference between the two is blurred, then it is more reasonable to assume that whatever deterrent effect the Bartley-Fox law had worked at about the same rate with respect to illegal carrying as it did with respect to illegal possession.

The confusion over the two types of conduct began with the general publicity surrounding the implementation of the Bartley-Fox

law. We saw it expressed when we interviewed inmates at the Suffolk County (Boston), Worcester, and Springfield Houses of Correction. Of the 82 inmates we interviewed, none indicated they were aware of a distinction between carrying and possession when they were asked an open-ended question about the meaning of the Bartley-Fox law. Even the 85 defense attorneys whom we interviewed in the three cities showed a great deal of confusion when asked the difference between the carrying and the possession offenses. See Table 19. As an example of the difficulty in keeping these two offenses separate, project staff reported a conversation between a defendant charged with possession and his defense attorney, in which both parties assumed the charge carried with it a one-year mandatory minimum sentence. And we have already discussed the fact that the police had a poor understanding of the difference between the two.

Thus, we will assume throughout the following discussion that at least part of the change in the post-Bartley-Fox pattern of carrying and possession charges is due to police policy charges.

5. Changes in Charging Policy.

We will examine each of the three cities in our study separately to see how they reacted to Bartley-Fox in terms of their charging policy.

a. Boston. The three biggest courts in Boston are the Boston Municipal Court, Roxbury District Court, and Dorchester District Court. The Boston Municipal Court's territorial jurisdiction includes the downtown commercial area, and affluent as well as much less affluent, urban residential areas. Roxbury is largely black and poor. Dorchester is racially and economically mixed and is largely working class. The remaining five courts individually have a much smaller criminal caseload and serve largely white residential, working class and middle class neighborhoods. The Police Department

has divided up the cities into Districts, and with some minor overlapping, particular Districts feed into particular courts.

Looking at how the c/gc ratio changed city-wide, Table 20 (below) shows a pattern of a rise in the first year of the law's operation and then a decline:

TABLE 20

Proportion of Simple Carrying Cases of Total Gun Control Cases in Boston, by Year

	1974	1975	1976
Carrying	(219) 77.4%	(162) 87.6%	(114) 71.1%
Possession	(64) 22.6%	(23) 12.4%	(45) 28.9%
Total Gun Control	(283) 100%	(185) 100%	(159) 100%

$$x^2 = 13.64$$

$$p < .01$$

(From District Court samples)

This information appears in tabular format to make more clear the use of a chi square test of significance with this data.

The pattern of change in individual courts other than the BMC, also shows a rise followed by a decline. This information appears in Table 21 (below):

TABLE 21

C/GC Ratio in Boston City-Wide, and in Individual Courts, by Year

	1974	1975	1976
Boston	$\left(\frac{219}{283}\right)^* = 77.4\%$	$\left(\frac{162}{185}\right) = 87.6\%$	$\left(\frac{114}{159}\right) = 71.1\%$
Boston Municipal Court	$\left(\frac{77}{89}\right) = 86.5$	$\left(\frac{44}{49}\right) = 89.8\%$	$\left(\frac{45}{43}\right) = 93.8\%$
Roxbury	$\left(\frac{71}{92}\right) = 77.2\%$	$\left(\frac{63}{73}\right) = 86.3\%$	$\left(\frac{23}{42}\right) = 54.8\%$
Dorchester	$\left(\frac{30}{51}\right) = 58.8\%$	$\left(\frac{21}{26}\right) = 80.8\%$	$\left(\frac{16}{29}\right) = 55.2\%$
Charlestown South Boston East Boston West Roxbury Brighton	$\left(\frac{40}{50}\right) = 80\%$	$\left(\frac{34}{37}\right) = 91.9\%$	$\left(\frac{30}{40}\right) = 75\%$

* Includes one case where court is unknown.

(From District Court samples)

For reasons stated earlier, we have concluded that the increase in c/gc after Bartley-Fox is -- at least in part -- due to changes in police charging policy. Even if the charging policy is the cause, however, the question remains: in what way did the policy change? For example, the explanation for the increased use of carrying charges compared to possession charges in the law's first year may be:

- 1) Before Bartley-Fox, police had no particular reason to seek out those who illegally carried firearms, but after Bartley-Fox, police more actively sought out such conduct and therefore made proportionately more carrying arrests which resulted in more carrying charges;
- 2) Prior to Bartley-Fox, the police accurately brought a carrying charge when the facts warranted and accurately brought a possession charge when the facts warranted. After Bartley-Fox, though, the police began to bring carrying charges when the facts would otherwise indicate only possession;
- 3) Before Bartley-Fox, police who encountered an illegal carrying situation would sometimes deal with the conduct without making a carrying arrest. After Bartley-Fox, police, perhaps because they felt the statute required a carrying charge to be brought whenever possible, would overlook illegal gun carrying much less often;
- 4) Both prior to and after Bartley-Fox, the police were often faced with uncertainty concerning whether to charge carrying or possession. After Bartley-Fox, police resolved this ambiguity in favor of a carrying charge to a much greater extent than before, perhaps because they felt that the spirit of the new law required the application of the mandatory minimum provision whenever possible.

These various explanations will be discussed in order, in light of other information we have about the criminal justice system.

We examined Explanation 1 in further detail in the section dealing with the decision to arrest. This explanation does not presuppose different levels of citizen response to Bartley-Fox, with respect to carrying and possession. It does suppose, though, that Bartley-Fox may have goaded the police to seek out carrying offenses with more vigor than they did before. The data discussed in the section on arrest indicates that we have no support for a conclusion that after Bartley-Fox the police more actively seek out gun carrying activity.

Support for Explanation 2 would be apparent in the data on how courts have handled Bartley-Fox and possession cases. If the increase in Bartley-Fox cases was due to police mislabeling possession cases as carrying cases, then the proportion of carrying defendants in District Court whose cases were dismissed or who were found not guilty should increase. As the chapter which discusses how the courts have treated Bartley-Fox cases makes clear, this has not happened.*

Explanation 3 has as its underlying assumption that police will consider Bartley-Fox a mandatory charging statute, as well as a mandatory sentencing statute. There is some indication, however, that this is not so. In particular, 43% of the police officers we interviewed stated that they had, in the past, in fact arrested people for whom a carrying charge would have been proper but chose not to bring one. See Table 22. The reason that the police officers gave for this conduct was that the person arrested was a "good citizen": A storekeeper, child, or wife driving her husband's

* See Chapter V.

car which had a gun in it.

The initial interviews with police, defense attorneys, prosecutors, and judges indicate that they are all pretty much in agreement that arresting officers treat the carrying/possession distinction as flexible (as shown in Table 22). Only 32% overall said that police do not seek possession complaints when they could have obtained a carrying complaint. The division of opinion among police officers is suggestive. Unlike other interviewees whose responses were divided relatively evenly among several different responses, police responses strongly concentrated on the polar opposite positions, "Yes. Very often" and "No. Never" or "Almost never." A given officer's response may have been more related to his candidness than to his perception of actual practices.

TABLE 22

Q: If you arrest a person in a situation in which you think that you could have charged carrying, have you ever chosen not to?

-- Yes, sometimes	15%	(10)
-- Yes, rarely	28%	(19)
-- No, never	57%	(39)
	100%	(68)

(From general interviews with Boston and Worcester Police officers)

According to those we interviewed, the factors that enter into an officer's charging decision appear to bear less on the fact of whether a violation of the law is clear than on its equities. The response most frequently picked by all groups of interviewees (shown in Table 23 below) all bear on defendant characteristics:

TABLE 23

I. To your knowledge, do police officers seek complaints for possession when the facts could have supported carrying?

(To Police: Is it your understanding that situations can arise in which either possession or carrying can be charged?)

- A. Yes, very often.
- B. Yes, sometimes
- C. Yes, but rarely.
- D. No, never or almost never.
- E. Police do not understand differences between carrying and possession.
- F. Don't know.

	Defense Attorneys	Prosecutors	Judges	Police	Total
A.	(9) 11%	(1) 6%	(0) -	(25) 37%	(35) 20%
B.	(29) 36%	(4) 25%	(4) 18%	(5) 7%	(40) 23%
C.	(4) 5%	(0) -	(4) 36%	(0) -	(8) 4%
D.	(14) 18%	(6) 38%	(3) 27%	(32) 48%	(55) 32%
E.	(6) 8%	(3) 19%	(0) -	(0) -	(9) 5%
F.	(18) 23%	(2) 13%	(2) 18%	(5) 7%	(27) 16%
Totals	(80) 101%	(16) 101%	(11) 99%	(67) 99%	(174) 100%

II. If yes, how do police officers decide whether to charge possession or carrying?

- A. Depends on whether he is on the street or in other public place or whether he is at home or business.
- B. Depends on whether he appears to have a legitimate need for a gun (for example, a cabbie).
- C. Depends on whether he also appeared to be involved at some time (past or present) in other serious criminal activity.
- D. Depends on whether he also appeared to be involved at some time (past or present) in other criminal activity (not limited to serious criminal activity).
- E. Depends on whether police know suspect as a "bad actor" or "wise guy".
- F. Depends on whether police know suspect as a good citizen.
- G. Consider all of the above factors.
- H. Officers' subjective sympathies.
- I. Depends on whether defendant is licensed.
- J. Don't know.

	Defense Attorneys	Judges	Police	Total
A.	- 0%	(1) 17%	(6) 26%	(7) 9%
B.	(3) 6%	(0) -	(3) 13%	(6) 7%
C.	(5) 8%	(0) -	(2) 9%	(7) 9%
D.	(0) -	(0) -	(0) -	(0) -
E.	(13) 25%	(2) 33%	(0) -	(15) 18%
F.	(13) 25%	(1) 17%	(8) 35%	(22) 27%
G.	(15) 29%	(0) -	(4) 17%	(19) 23%
H.	(3) 6%	(0) -	(0) -	(3) 4%
I.	(1) 2%	(0) -	(0) -	(1) 1%
J.	(0) -	(2) 33%	(0) -	(2) 2%
Totals	(53) 101%	(6) 100%	(23) 100%	(82) 100%

(From general interviews)

This leaves Explanation 4. In effect, because of the heightened awareness about the carrying offense, officers resolve ambiguity in favor of a Bartley-Fox charge. The ambiguity inherent in the choice between a carrying and a possession charge appears in the interviews with police officers, who showed a great deal of confusion about the difference between the two, not the least of which concerned the question of whether Bartley-Fox applied to activities within someone's home or business.*

This explanation finds support in the situation prior to Bartley-Fox with no mandatory minimum sentence, it is reasonable to assume criminal justice participants attached no great importance to the decision to bring a carrying complaint or a possession complaint. Although carrying provided for a higher maximum penalty, in practice, they both presented the same degree of seriousness to the defendant. With the distinction a meaningless one from the point of view of the prosecution, authorities may have taken little care to label the offense accurately. An alert defense attorney would have raised the question of a carrying case which was properly one for possession, if not for the practical effect on the defendant than for the sake of asserting all the defendant's rights. On the other hand, if a possession charge should have been for carrying, the defendant would not raise the issue, and most likely the prosecution would not care. After Bartley-Fox, the prosecution would care, and the c/gc ratio would increase. This rise in the ratio is exactly what the data show.

Given this explanation for the rise in the c/gc ratio in the first year of Bartley-Fox, then, how can we explain the drop in the

* See Table 4. This question was not settled until the Fall of 1978, when the Massachusetts Supreme Judicial Court ruled it did not. See Comm. v. Seay, 78 Mass. Adv. Shts. 2992 (1978).

the ratio in the second year to below the original level? None of the data that we have on the impact of the law on crime suggest that the deterrent effect of the law on citizen conduct did not appear until 1976. Quite the opposite, in fact, was true. The kind of crime associated with gun carrying, such as assaults, decreased more in 1975 than 1976. Thus, we consider it unlikely that the drop in the c/gc ratio from 1975 to 1976 is due in large part to increased citizen compliance with the law in its second year of operation.

One other possibility, though, is that all the publicity surrounding the implementation of the law in 1975 made the police, who decided which charge to bring, very cautious in terms of how they presented cases which they brought into court. Most police decisions are characterized by their low visibility. The decision about which charge to bring, though, is a somewhat more visible one. In the first year of Bartley-Fox, police may have responded to the public attention by charging carrying rather than possession whenever they were in doubt. Within a year's time, the full flush of the new law's passage faded, and so did the force of public attention on police to resolve doubts in favor of a Bartley-Fox charge. The c/gc ratio, therefore, fell after its initial rise. This is the same pattern that we saw in the area of police arrest decisions.

We examined in closer detail the phenomenon of the c/gc ratio falling in 1976. We did this by interviewing as many of the defense

* See Chapter III.

attorneys that we could find who were involved in a gun crime case. In 1976 where the defendant was not charged with a Bartley-Fox complaint. In 1976, there were 45 cases where the defendant was charged with possession. We were not able to speak with all of the defense attorneys, but of the ones with whom we did speak who represented 24% of the total number of cases (11), we learned enough about the facts of the case to make it clear that under a reasonable standard of when a carrying charge would have been proper, there were five cases where a Bartley-Fox charge could have been brought. Clearly, someplace in the charging process, defendants are saved from the risk of the one-year mandatory sentence.

The pattern of a rise in the use of the carrying charge in the first year of Bartley-Fox followed by a decline the next year, is also evident in another area of charging behavior than the c/gc ratio. When we look at how often a charge of assault with a dangerous weapon is accompanied by a Bartley-Fox complaint, the same pattern occurs, as shown in Table 24 (below), although not to a statistically significant degree:

TABLE 24

Proportion of Boston cases with both Carrying Charge and an Assault with a Dangerous Weapon Charge, of the Total cases with an Assault with a Dangerous Weapon Charge

Boston			
	1974	1976	1976
Total Assaults with a Dangerous Weapon	(110)	(75)	(76)
Assault with a Dangerous Weapon plus Carrying	(30)* = 23%	(27) = 36%	(18) = 24%

$$x^2 = 4.6$$

$$p < .10$$

* Includes 5 sawed-off shot guns

(From Boston District Court sample)

Assault with a dangerous weapon is a District Court offense which prohibits the threatening use of a dangerous weapon, which includes a firearm. It does not cover conduct where the victim is actually injured. It is, therefore, a relatively minor type of crime against the person which involves a firearm. Those who decide what charges to bring against such defendants have to face the question of whether to include a Bartley-Fox complaint along with the carrying charge, if a gun is involved. Since Assault with a Dangerous Weapon is not otherwise a very serious matter, the addition of a Bartley-Fox charge will have a significant impact upon the defendant.

Table 4 sets out the total number of cases in a year's sample where an Assault with a Dangerous Weapon was one of the charges. Since our sample was confined to cases where a firearm was involved, a carrying charge was a potential in some of these. In 1974, there were 110 such cases, five of which included a charge of possession of a sawed-off shotgun. This offense was also made subject to a one-year mandatory minimum sentence by Bartley-Fox, and thus we have included it for the purpose of looking at how often a Bartley-Fox charge accompanied Assault with a Dangerous Weapon.

In 1974, Assault with a Dangerous Weapon cases included a carrying complaint (or sawed-off shotgun) 23% of the time; this rose to 36% in 1975 and fell to 24% in 1976 -- much the same pattern as when we compared carrying and possession cases.

This phenomenon is missing when we look at a charge which unlike assault with a dangerous weapon, presents a more serious crime. Armed robbery with a firearm is a major gun crime in terms of its serious nature. The decision about whether a defendant who committed an armed robbery should also face a Bartley-Fox violation, is not likely to be made on the basis of whether the one-year mandatory minimum

is uncalled for with the particular defendant involved. Indeed, when we asked attorneys who represented armed robbery defendants in our 1976 court sample why no Bartley-Fox charge was also included five of them gave as an answer that the armed robbery itself is a serious enough matter so that a Bartley-Fox charge would be superfluous.

Table 25 (below) shows that over the three years, the proportion of armed robbery cases that included a carrying charge (or a sawed-off shotgun charge) remained almost constant:

TABLE 25

Proportion of Boston cases with both a Carrying Charge and an Armed Robbery Charge, of the Total cases with an Armed Robbery Charge

Boston			
	<u>1974</u>	<u>1975</u>	<u>1976</u>
Total Armed Robbery	(123)	(133)	(91)
Armed Robbery & Carry	(19*) = 15%	(19) = 14%	(15) = 16%

*includes three sawed-off shotguns

(From Boston District Court samples)

Only when we examine cases of assault and battery with a dangerous weapon, where the victim was injured with the firearm, do we see a steady increase in the use of an accompanying carrying complaint. Table 26 (below), however, shows the statistical correlation between the year and the use of a carrying complaint as even less significant than with assault with a deadly weapon:

TABLE 26

Proportion of Boston Cases with both Carrying Charges and Assault with a Deadly Weapon charge, of the total of cases with an Assault and Battery with a Deadly Weapon Charge

	<u>1974</u>	<u>1975</u>	<u>1976</u>
Total Assault & Battery with a Dangerous Weapon	(93)	(68)	(63)
Assault & Battery with a Dangerous Weapon and Carrying	(19) = 20%	(18) = 27%	(21) = 33%
$\chi^2 = 3.3$ $p < .2$			

(From Boston District Court samples)

b. Springfield and Worcester district courts. The pattern of charges in Springfield after the imposition of Bartley-Fox differs from Boston (see Table 27 below):

TABLE 27
C/CG Ratio in Springfield

<u>1974</u>	<u>1975</u>	<u>1976</u>
$\left(\frac{27}{48}\right) = 56\%$	$\left(\frac{4}{15}\right) = 27\%$	$\left(\frac{7}{20}\right) = 35\%$

$$\chi^2 = 5.329$$

$$p < .10$$

(From Springfield District Court samples)

Rather than an increase in the c/gc ratio in 1975, Springfield shows a decrease. While the differences between the three years are not statistically significant, they are suggestive of an emphasis away from the carrying offense. This trend was made evident by those judges and prosecutors with whom we spoke in Springfield. As we have already discussed, they explicitly chose to file possession complaints in cases where a carrying complaint would otherwise be appropriate in order to preserve a wider range of sentencing options. Even if a Bartley-Fox complaint were filed, the Springfield district court would on occasion reduce it to a possession charge. In the 1976 court sample from Springfield, of the total of 13 cases where a Bartley-Fox complaint was filed -- either alone, with a Superior Court offense; or with possession or some other District Court crime -- the charge was reduced to possession in four cases, almost one-third. We conclude that the imposition of the Bartley-Fox law had an effect on the charging decisions of the Springfield criminal justice system, and that they reacted in a way to avoid the law's limiting of their sentencing discretion.

The data from the court sample in Worcester also show a difference in Boston (see Table 28 below):

CONTINUED

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TABLE 28
C/CG Ratio in Worcester

<u>1974</u>	<u>1975</u>	<u>1976</u>
$\left(\frac{13}{20}\right) = 65\%$	$\left(\frac{9}{21}\right) = 43\%$	$\left(\frac{11}{14}\right) = 79\%$

$$\chi^2 = 4.79$$

$$p < .10$$

(From Worcester District Court samples)

While the change in the ratios among the three years is likewise not statistically significant, it does show a decrease in carrying complaints in the first year of the Bartley-Fox law. Unfortunately, because of the refusal of Worcester judges and prosecutors to allow us to interview them, as was previously stated, we can shed no further light on these statistics.

6. Effect of the Defendant's Race on the Charging Decision.

During the public debate over the Bartley-Fox law black leaders claimed that because of racial prejudice among criminal justice officials, the effect of the law would unjustly fall upon the black community. We have already discussed whether race made any difference in the data we have on a police officer's decision to arrest a suspect for a gun carrying offense or not, and we have seen that it did not. In the arrest area, if anything, white fared slightly worse.

Once a defendant has been arrested, his/her race may influence the decision whether to bring a carrying charge or a possession charge. Table 29 (below) presents the c/gc ratio for each year for whites and non-whites:

TABLE 29

C/GC Ratio, in Boston City-Wide and in Individual Courts, by
Year and Race of Defendant

	Whites			Non-Whites		
	1974	1975	1976	1974	1975	1976
Boston	$\left(\frac{40}{54}\right) = 74\%$	$\left(\frac{45}{47}\right) = 96\%$	$\left(\frac{27}{32}\right) = 84\%$	$\left(\frac{85}{106}\right) = 83\%$	$\left(\frac{80}{95}\right) = 84\%$	$\left(\frac{32}{51}\right) = 63\%$
Boston Municipal Court	$\left(\frac{18}{24}\right) = 75\%$	$\left(\frac{20}{21}\right) = 95\%$	$\left(\frac{14}{14}\right) = 100\%$	$\left(\frac{24}{27}\right) = 89\%$	$\left(\frac{20}{24}\right) = 83\%$	$\left(\frac{8}{10}\right) = 80\%$
Roxbury	$\left(\frac{5}{6}\right) = 83\%$	$\left(\frac{11}{12}\right) = 92\%$	$\left(\frac{1}{1}\right) = 100\%$	$\left(\frac{37}{41}\right) = 90\%$	$\left(\frac{41}{48}\right) = 85\%$	$\left(\frac{17}{31}\right) = 55\%$
Dorchester	$\left(\frac{8}{11}\right) = 73\%$	$\left(\frac{4}{4}\right) = 100\%$	$\left(\frac{3}{4}\right) = 75\%$	$\left(\frac{17}{28}\right) = 60\%$	$\left(\frac{14}{17}\right) = 82\%$	$\left(\frac{6}{9}\right) = 67\%$
Five Remaining Courts	$\left(\frac{9}{13}\right) = 69\%$	$\left(\frac{10}{10}\right) = 100\%$	$\left(\frac{10}{13}\right) = 77\%$	$\left(\frac{10}{10}\right) = 100\%$	$\left(\frac{5}{6}\right) = 83\%$	$\left(\frac{1}{1}\right) = 100\%$

(From Boston District Court samples)

Separating defendants into these two categories was done by obtaining information about each case in our District Court sample from the probation department of the individual District Courts. We relied upon the probation records' categorization of a defendant as white, and combined Blacks, Spanish, and others into the non-white category. We must preface our substantive discussion of the effect of race on the charging decision with the caveat that we do not have information about the race of all of the defendants in our case sample. Coverage in some courts is better than others, as is coverage in some years. A comparison of Tables 29 and 21 reveals where we fall short of a complete data set for the defendants' race. Since we have no way of determining the racial makeup of the missing cases, the discussion that follows is put forward with all of the reservations that are called for when drawing conclusions from an incomplete set of data.

Table 29, as one can see, compared the c/gc ratio per year for whites and non-whites. The percentages are provided for the courts citywide, as well as for individual courts. In 1974, before Bartley-Fox, whites were less often charged with carrying than non-whites -- 74% - 83%. This difference, though, is not statistically significant ($x^2 = 1.79, p < .2$)

In the first two years of Bartley-Fox, however, whites more often faced carrying charges than non-whites. The differences were statistically significant (96% - 84% in 1975 -- $x^2 = 3.92, p < .05$; 84% to 63% in 1976 -- $x^2 = 4.57, p < .05$).

While the difference in the rate at which whites and non-whites were charged with carrying and not possession in both 1975 and 1976 were statistically significant, we have concluded that the effect is one attributed to the overall charging practice in two particular

courts rather than to the effect of the defendant's race.

Including all the courts in the comparison between races, there is a statistically significant difference of whites having a higher c/gc.* This effect, though is skewed by the large proportion of non-white defendants in Roxbury and Dorchester District Courts and by the way in which those courts treated all defendants with respect to the charging decision.

In 1975, in the entire city, there were 95 cases involving non-whites, of which 65 came from Roxbury and Dorchester. In Roxbury, for example, 48 of the 60 cases in 1975 involved non-whites. If we exclude these two courts and then compare the c/gc ratio of the two racial groups, the difference between them disappears (see Table 30 below):

* In 1975, the difference in c/gc between whites and non-whites is 96% to 84%; in 1976, it is 84% to 63%.

TABLE 30

1975 C/GC, by Race City of Boston Excluding Roxbury and Roxbury District Courts		
	Whites	Non-Whites
1975 c/gc	$\left(\frac{30}{35}\right) = 86\%$	$\left(\frac{25}{20}\right) = 83\%$

(From Boston District Court samples)

Moreover, if we look at how whites and non-whites are charged in Roxbury and in Dorchester, we find there is no statistically significant difference.

Similarly in 1976, in Roxbury, all but one of the 32 cases in the sample by race were non-white. If we exclude Roxbury District Court from the 1976 samples and compare the rest of the city, the difference between whites and non-whites is no longer statistically significant.* And if we also exclude Dorchester, where 9 out of 13 cases involved non-whites, the difference becomes minimal. Without Dorchester and Roxbury courts, the 1976 c/gc ratio for whites and non-whites appears in Table 31 (below):

TABLE 31

1976 C/GC, by Race		
City of Boston		
Excluding Roxbury and Roxbury District Courts		
	Whites	Non-Whites
1976 c/gc	$\frac{30}{35} = 86\%$	$\frac{25}{20} = 83\%$

$$\chi^2 = .088$$

$$p = .08$$

(From Boston District Court samples)

The court data certainly do not support the conclusion that blacks were treated more harshly in the charging decision stage of the Bartley-Fox process than were whites. The apparent disparate treatment of whites is in reality a factor of the charging policies of two particular courts where almost all of the defendants are non-white. Without these courts, there is no statistical difference on the basis of race, nor is there such a difference when we examine each of these courts individually.

In neither Worcester nor Springfield is there a statistically significant difference in the c/gc ratio between whites and non-whites for any of the three years of the study. The facial breakdown of the c/gc ratio in the two cities appears in Table 32 (below):

*Without Roxbury, the c/gc ratios for whites and non-whites are:

Whites:

$$\left(\frac{26}{31}\right) = 84\%$$

Non-Whites:

$$\left(\frac{15}{20}\right) = 75\%$$

$$\chi^2 = .64$$

$$p < .5$$

TABLE 32

C/GC by Race, in Springfield and Worcester

	Whites			Non-Whites		
	1974	1975	1976	1974	1975	1976
Springfield	$\left(\frac{10}{17}\right) = 59\%$	$\left(\frac{2}{9}\right) = 22\%$	$\left(\frac{2}{6}\right) = 33\%$	$\left(\frac{12}{19}\right) = 63\%$	$\left(\frac{2}{4}\right) = 50\%$	$\left(\frac{2}{7}\right) = 29\%$
Worcester	$\left(\frac{6}{9}\right) = 67\%$	$\left(\frac{3}{12}\right) = 25\%$	$\left(\frac{6}{7}\right) = 86\%$	$\left(\frac{1}{5}\right) = 20\%$	$\left(\frac{1}{5}\right) = 33\%$	$\left(\frac{4}{6}\right) = 67\%$

(From Worcester and Springfield District Court samples)

In addition to the race of the defendant, we also examined whether the charging decision was independent of the defendant's age, prior record, and type of employment. We found no independent significance for any of these characteristics: young or old defendants, blue collar v. white collar v. unemployed; or those with a prior record v. those without.

7. Conclusion.

The mandatory provision of the Bartley-Fox law brought about a change in the sentencing stage of the criminal justice system. However, the efficacy of its intended reform depended in part upon how people made decisions at points in the process that came long before the defendant ever reached sentencing. The first stage upon which the success of Bartley-Fox depended was one that the police controlled. Would they continue to make arrests for illegal gun carrying once a minimum one-year jail sentence became law?

The pattern of police behavior in making gun carrying arrests after Bartley-Fox went into effect was affected by several elements. The first was the inherent ambiguity in the law itself. It was unclear whether the law applied to people who carried firearms in their own homes or business. The second was the lack of a uniform understanding of the law by police officers. There was a great deal of confusion over what the law actually meant.

Where the police encountered a firearm in a situation that did not present any ambiguity about the law's application, there was no change after Bartley-Fox in the incidence of arrests compared to the non-arrest alternative (simply seize the firearm) available to them. On the other hand, in the relatively infrequent situations where the law's application was unclear, the first year of Bartley-Fox saw an increased use of arrests.

As far as written police department records show, police officers have continued to arrest individuals for a crime that has a mandatory minimum sentence of one year. And, in the circumstances of Massachusetts' experiment with the Bartley-Fox law, when a great deal of public attention is focused on the particular type of crime, the police will favor making an arrest in an ambiguous situation. However, our analysis is limited by our reliance on official records. Some instances may exist where police officers' reactions in the law's first year were to decline to make carrying arrests because of the mandatory sentence, and not to make accurate reports.

The trend of an increased arrest rate which we found in the law's first year did not continue. In 1976, the arrest rate in those areas where the law was ambiguous (indoors) fell to below the 1974 level. Taking into account both this fact and the fact that the 1976 arrest rate in the area where the application of the law was clear (outdoors) remained the same, leads us to a conclusion about police officers' behavior. This data indicates that policemen respond to changes such as a mandatory sentence in subtle ways -- in the manner by which they interpret the gray areas of the law. We saw an increased use of the law in its first year, followed by a decline. Our data showed no reason for this pattern, and we have put forward as one explanation the heightened public attention in the law's first year. Further investigation into the arrest rate for succeeding years, as well as more intensive attempts to account for the reasons for the change in the rate, would be valuable in shedding more light on our tentative explanation.

Our conclusion about the police response to Bartley-Fox and

their behavior in making arrests is bolstered by the fact that the arrest changed in 1975 and 1976, were mirrored to some extent by the pattern of using a Bartley-Fox charge in those courts where the police controlled the charging process. This police conduct concerning increased use of an arrest response in indoor locations in 1975 was similar to the increased use of a carrying charge as opposed to a possession charge in Boston Courts other than the one where judges determine the proper offense. And the decline in the rate of arrest in indoor locations in 1976 mirrored the decline in the use of carrying rather than possession charges.

To the extent that we identified ambiguity in the law's scope as a factor in the change in arrest rates, the same element of ambiguity influenced police officers in making their charging decisions. Police officers were confused about the legal distinction between carrying and possession and by and large received no training on how to implement the new law.

Our conclusions that the change in the use of a carrying charge rather than a possession charge was due in part to a change in police behavior and not in citizen conduct, rested not only on the similar pattern shown in the arrest rate. The same pattern appeared as well in the proportion of cases where a carrying complaint accompanied a charge of assault with a dangerous weapon -- a relatively minor crime where the addition of a Bartley-Fox charge would have made a significant difference to the defendant. Moreover, the pattern of a rise and then a fall was absent in areas where the police did not control the decision -- such as in the Boston Municipal Court -- or where the decision about the use of the Bartley-Fox law meant relatively little to a defendant -- such as those who also faced an armed robbery complaint.

From our interviews with defense attorneys, we know that for some 1976 Boston cases, defendants who could have been the subject of a valid carrying complaint were charged with possession. In Springfield, we also found out that possession defendants could have validly been charged with carrying. But, unlike Boston, Springfield provided an explicit answer from the charging officials themselves as to why this was so. They deliberately eschewed the use of a carrying charge in order to preserve the sentencing flexibility of which Bartley-Fox deprived them.

The implications of the way that Massachusetts' criminal justice officials have reacted to the Commonwealth's new mandatory minimum sentence law in the area of the arrest and charging decisions are several. First is the importance of training, and making explicit policy. The wide variation in police officers' understanding of the law and the lack of any departmental training meant that uniform application was left to informal processes that are more difficult to monitor. The fact that the police responded one way in the law's first year and quite the opposite in the law's second, was not the result of anyone's considered judgment. Rather, it seems a reaction to factors which did not appear explicitly in the statute and for which we have only been able to provide a tentative explanation.

The second implication is the importance of focusing upon stages in the process prior to sentencing. One example was in the general concern surrounding the implementation of the Bartley-Fox law that the minority community would be treated in an unfair way. This was not the case, either in the decision to arrest or the decision to charge. However, while race was not the determinative factor, there was a change to some degree in police behavior about whom to arrest and

charge with a carrying offense. This suggests that particular defendants benefited from discretion on an individual basis.

Certainly the fact that someone was arrested in Springfield rather than Boston had a great deal to do with whether they faced the risk of a year in jail.

We saw that variation in charging over the years is a product of leaving the decision in the hands of the police. When judges rather than police control the process, individual courts remained relatively stable in their charging policy. But again, comparing the Springfield District Court with the Boston Municipal Court leads to the conclusion that judges in different communities will not respond in the same way, though they may be consistent with themselves over time.

If a mandatory sentencing law is designed to foster uniformly harsh treatment of law breakers, then other points in the criminal justice process must receive attention as well. The Bartley-Fox statute did not address them.

APPENDIX B

Data Sources for Arrest and Charging Discussion.

a. Interviews.

We conducted a general interview with criminal justice participants throughout the Commonwealth. The numbers of each type of interview are as follows:

Boston

Police	81
Prosecutors	20
Defense Counsel	66
Judges (District Court)	8
Inmates	60
"Street Counselor"	10

Springfield

Police	0
Prosecutors	9
Judges (District Court)	1
Inmates	10

Worcester

Police	14
Prosecutors	0
Judges (District Court)	2
Inmates	13

Superior Court Justices

5

Non-Boston Defense Counsel

18

We concentrated on police, inmates, and defense counsel. Police

received special attention because their conduct has the least visibility and, arguable, becomes the most pivotal. We also questioned defense counsel because we expected to find them both articulate and relatively close observers of all steps of criminal justice processing. Although Bartley-Fox could be perceived to serve a reprimand to the judiciary, we did not interview judges in the same numbers as police, inmates, and defense counsel. Much of what we wished to learn about judicial decisionmaking lay in the court records open for our inspection.

We selected the interviewees in a non-random manner, so that we cannot put forward the results of the interviews as representative. We interviewed police officers who were available in the courthouses where we sent our staff and who were willing to talk. We did not receive permission to interview Springfield police officers. We chose defense attorneys whom we identified from the 1976 District Court sample as having defended someone charged with a Bartley-Fox violation. We contacted these attorneys by telephone and arranged interviews for those who were willing. We attempted to interview every inmate at the three Houses of Correction who were serving sentences either for a Bartley-Fox violation or another crime involving a firearm. As for the prosecutors, we spoke with those that were available in the courthouse and were willing to talk, or those that officials in the District Attorney's Offices identified to us as knowledgeable about Bartley-Fox. We did not receive permission to interview prosecutors in Worcester. We chose judges on the basis of their accessibility and willingness. In addition, we attempted to speak with judges of varying political views.

We used a "semi-open-ended" interview format in that the interviewer (usually a law student acquainted with either criminal justice or criminal procedural law) worked from an interview schedule tailored to the role of the interviewee. The semi-open-ended format, we thought, balanced the needs for comparability and ease of recording with the need for flexibility in accommodating unanticipated responses. The questions and unanticipated alternative answers rested on legal and criminal justice literature search, the drafter's background in local criminal justice process, and preliminary interviews with practitioners. Basically, the same questionnaire was addressed all interviewees in the hope of capturing differing perspectives concerning the same phenomena. We had our interviewees ask questions in a conversational manner and encouraged without requiring adherence to the written questions. The interviewer recorded the response by checking one of the several anticipated responses appearing in the interview schedule. If the interviewer doubted whether the response matched any of the anticipated choices, he wrote out the answer for a later judgment by senior staff as to whether it constituted one of the anticipated responses. If the interviewee's answer did not fit any of the anticipated responses, the interviewer then explicitly raised it. Analysis of the interview results make no distinction between spontaneous and suggested responses. A copy of the general interview format for defense attorneys appears at the end of this Appendix.

We also undertook a series of specific interviews aimed at discovering more about how authorities' particular decisions in the criminal justice system were made. We conducted two types

of specific interviews. The first aimed to provide further information about how authorities made charging decisions in Boston courts. We wanted to know who decides which charge to bring once an arrested defendant is taken to court. In these interviews, open-ended questions concerning this decision were asked of five judges, eight former and present assistant district attorneys, police supervisors in the three busiest Boston courts, desk sergeants in four Boston police stations, and five experienced police officers currently serving in educational capacities within the Boston Police Department.

The second type of specific interview we conducted addressed defense attorneys who represented certain defendants in cases included in the 1976 Boston court records we examined. In particular, we wanted to know why defendants were charged with crimes involving a firearm, but not with a violation of the Bartley-Fox law. Whenever we identified such a case in the court records we examined, we tried to contact the defendant's attorney and ask him/her this question. Of the 264 cases where the question was relevant, we were able to obtain 63 responses (24%). We also tried to contact the defendants' attorneys who represented defendants in 1976 cases where the defendant was charged with a Bartley-Fox violation, but they either had their cases dismissed or were acquitted. Of the 58 cases where this question was relevant, we obtained 22 responses (38%). For both of these questions, we gathered the information by law student telephone interviews which simply identified our interest and put the question in open-ended terms.

b. Court Data Collection.

The data collection phase of the project began as a followup

of a study conducted in 1975 by James Beha of Harvard University. The Harvard study's sample period was six months, April 1 to September 30 of 1974 (pre-Bartley-Fox) and 1975 (after the law was enacted). Our study sampled the same six-month period in 1976 in Boston District Courts, as well as the full 18-month period in the Worcester and Springfield District Courts.

Our sample consisted of the eight Boston District Courts,

1. Boston Municipal Court (BMC)
2. East Boston
3. South Boston
4. West Roxbury
5. Roxbury
6. Dorchester
7. Brighton
8. Charlestown

the district courts in Worcester and Springfield, and the Superior courts in each jurisdiction.

c. Methodology.

It was the purpose of our study to follow all "gun related cases" originating in these district courts through to their conclusion.

The first stage in our data collection effort was to contact the Chief Justice for each of the ten district courts and the superior courts in order to obtain permission to access the court docket.

* Beha, "And NOBODY Can Get You Out" The Impact of a Mandatory Prison Sentence for the Illegal Carrying of a Firearm on the Use of Firearms and on the Administration of Criminal Justice in Boston, Harvard University (1976).

** Cases in which a firearm was either the instrument of force or the direct cause of charges being brought (i.e., carrying or possession).

book and case papers. It was equally important to contact the Clerk of Courts for each district court to gain their support. Since the court files are under their jurisdiction, it was essential that the Court Clerks offered their assistance. In each court, permission was granted.

In each district court, the initial step of our survey consisted of reviewing the docket book for our sample period. This bound volume contains the names of all defendants who are arraigned in each district court.

Our research assistants began by locating all cases that could involve a firearm. Since the docket book did not specify the particular weapon used, it was necessary to list all docket numbers of offenses that we determined might involve a gun. These offenses included:

1. Murder (any lesser related offenses such as assault with intent to murder, manslaughter, etc. were also included)
2. Armed Robbery
3. Assault and Battery by means of a Dangerous Weapon
4. Assault with a Dangerous Weapon
5. Mayhem
6. Unlawful Carrying of a Firearm
7. Unlawful Possession of a Firearm

From the docket sheets, we then processed the second set of court information -- the individual case papers.

The central means of recording trial information are on case papers. The clerk lists all actions taken at each court date on

*The degree of cooperation offered by the clerks varied greatly from court to court and from jurisdiction to jurisdiction depending on court volume, amount of available work space, and workload.

**Except Charlestown District Court.

a particular offense together with all other relevant case information, they are filed separately from the docket books. We then located the appropriate case papers for the cases identified as potential gun cases in the docket book.

Our research assistants determined from the case papers whether a firearm was involved in the commission of the offense. This was accomplished by reading the complaint which specified the instrument of force in the case. Only those cases that involved a firearm were followed up further.

The next stage of our district court data collection effort was to code from the case papers the pertinent information:

1. Name
2. Offense
3. Bail
4. Attorney
5. Judge
6. Verdict
7. Disposition/sentence
8. Whether the defendant appealed his/her conviction
9. Whether there were any motions presented
10. Whether there was a habeas issued for a defendant who is incarcerated
11. Date of arrest, arraignment, and disposition
12. Number of continuances

*The request for complaint, the complaint, the police officer's report, attorney appearances, slips, and any motions cited in the case.

**In several courts, we received permission by the Court Clerks to work in the back room where the case papers were filed. This allowed us to check through the papers more easily. In other courts it was stipulated that we work from the outer desk.

This information was collected for all the gun offenses, but in those cases where more than one offense arose from a single incident (i.e., armed robbery and a motor vehicle offense), we collected information on all the offenses whether or not they were gun offenses in the case. This procedure was carried out in each of the 10 district courts, and the actual data collection lasted several months.

At this point of the data collection, we had determined our sample of cases. The next step was to obtain social background and prior criminal history of these individuals.

Since the Probation Department was also under separate jurisdictions, it was necessary to contact the Chief Probation Officer for each court in order to obtain their permission to access their files. Also, the project obtained clearance from the Massachusetts Criminal History's Systems Board, a necessity in Massachusetts in order to have access to individual probation files. Since all defendants convicted in the District Court are subject to a presentence investigation by the Probation Department, it was possible to acquire information on a great many cases. However, the thoroughness of a given file varied according to the particular probation officer making the report.

After permission was granted, our research assistants checked

* All courts allowed us access except the West Roxbury Probation Department, who refused our request to review their files.

through files available on each defendant. Information obtained included:

1. Age
2. Sex
3. Race
4. Marital status
5. Number of children
6. Occupation
7. Salary
8. Other means of support (welfare, unemployment, V.A., Social Security)
9. Detailed prior criminal history

At this point, we began to review all the coding sheets compiled in the District Court in order to determine all those cases that had proceeded to the Superior Court. At the time of our study, there was a substantial backlog of cases in the Boston Superior Court which effectively delayed case processing, a problem cited by Beha in his report. It was not unusual that a case in the Superior Court would be delayed for nearly a year. Therefore since the majority of our cases had not been processed through the court, it was not possible to obtain the necessary information at that time. Since Harvard was not able to followup but a handful of cases in Superior Court, it was decided to followup their sample in Boston Superior Court.

* Cases that were guilty and appealed; or bound over to Superior Court because probable cause was found or because jurisdiction was declined; or cases dismissed because an indictment was returned prior to the probable cause hearing.

** It should be noted at this time that the Harvard study did not take into account as many variables as the one we undertook. They were not concerned with information such as (1) attorney, (2) motions, etc. Later in our data collection, it was felt that the Harvard study should be supplemented in order to provide a comparable data base.

The Superior Court was similar to the District Court in that information was compiled on docket books and case papers. The docket numbers for each case did not correspond between the upper the lower courts however, which made it necessary initially to check through the Central Card Catalog (an alphabetical listing of all defendants in Superior Court) in order to locate the Superior Court docket number of the corresponding Superior Court cases. *

We then located the appropriate case paper corresponding to the docket number. We soon realized, however, that obtaining these papers was a cumbersome problem since we were not permitted to work behind the central counter. ** After reviewing the docket books, we determined that they provided as much information as the case papers, and they were available in bound volumes. The information that we needed was similar to that compiled at the district court level, and a coding sheet was developed. We collected certain judicial processing variables in addition to those cited above, for District Court. These included: (1) a more detailed delineation of the motion filed in a case; (2) any change in bail status from District Court; (3) jury; and (4) plea. In this way, we were able to complete our data collection.

d. Boston Police Department Records.

The Boston Police Department provided us with a computer printout

* In Suffolk Superior Court (Boston), the card catalog was publicly accessible at the time of our work and presented a problem because some cases identified as proceeding to Superior Court from the District Court were not listed in the card file and thus, we were not able to identify and collect information on these cases in Boston Superior Court.

** Suffolk Superior Court because of its volume and recordkeeping system, proved to be a problem in several areas of our data collection efforts, for example, we were only allowed to see case papers in groups of 10 and only when an assistant clerk was available to pull them for us also because of the volume of work in Suffolk Superior Court we were only allowed to work there from 2 p.m. until 3:30 p.m.

listing for 1974, 1975, and 1976, every incident in which an officer seized a firearm without an arrest or made an arrest which the Department coded as a gun control arrest. Gun control arrests were those where the most serious crime was either possession or carrying a firearm.

Each incident listed on the computer printout referred to a handwritten report which the arresting officer filled out. In 1974, these reports consisted of entries in a police journal. In 1975, the Boston Police Department substituted incident reports for journal entries. The incident report was more detailed than the journal format.

Project staff went to those journal entries or written incident reports which we could locate. From these, we collected information about the date, time, and location of the incident; the age, sex and race of the suspect; the type of weapon; the identify of the person reporting the incident to the police; and the circumstances in which the police encountered the firearm.

NAME OF ATTORNEY _____

INTERVIEWER _____

DATE OF INTERVIEW _____

MAY WE USE ATTORNEY'S NAME _____

Background Concerning Interviewee's Bartley-Fox Responsibilities

1. What percentage of your work is criminal?
- A. 75% - 100%
 - B. 50% - 74%
 - C. 25% - 49%
 - D. under 25%
2. How many total cases have you handled where the defendant was charged with a Bartley-Fox violation? _____
- How many within the last six months? _____
- How many were Bartley-Fox cases with no other charges? _____
3. Do you spend more or less time working on a Bartley-Fox case than you do with other cases of similar complexity; for example, a case involving a possession of a dangerous instrument charge?
- A. More
 - B. Less
 - C. No difference

Work load

Interviewee's Impressions of Bartley-Fox Public Policy Purposes

4. One of the stated purposes of Bartley-Fox is to reduce gun carrying. In your opinion, is it having that effect?
- A. Yes with respect to both honest citizens and intentional criminals
 - B. Yes with respect to honest citizens but not intentional criminals
 - C. No
 - D. Don't know
5. A concomitant purpose is to reduce gun crime. In your opinion, has it done so?
- A. Yes with respect to both otherwise honest citizens as well as intentional criminals
 - B. Yes with respect to honest citizens but not intentional criminals
 - C. No
 - D. Don't know
6. Bartley-Fox is also reputed to have the broader purpose of persuading judges and others in the criminal justice system that it is time to "get tough" with violent crime. In your opinion, has it done so?
- A. Yes
 - B. No
 - C. Don't know

Public Policy

Interviewee's General Impressions of B-F Effect on Criminal Justice Processing

7. Does it take a significantly longer time to dispose of a Bartley-Fox case than a case of similar complexity, e.g., ABDW or possession of a dangerous weapon? (Hereinafter, all "B-F cases" are those in which either the only or the most serious charge is carrying a firearm without a license or other B-F offense.)
- A. Much longer
 - B. Longer
 - C. No longer

8. If so, is this an appropriate use of the court's time?
- A. Yes
 - B. No

9. Would you please relate some factual situations of recent "pure" B-F cases which you regard as typical or interesting for any other reason?
- A. Defendant discovered in the act of calculated crime involving the use of a gun, e.g., armed robbery.
 - B. Defendant was discovered in the act of a passionate crime involving the use of a gun, e.g., a tavern, neighborhood or domestic dispute.
 - C. Defendant was stopped for investigation and frisked by a police officer.
 - D. Gun discovered in automobile stopped for traffic violations.
 - 1. Reckless action or worse
 - 2. Petty violations
 - E. There is usually an eyewitness placing the gun in the hand of the defendant.
 - F. E. is false
 - G. The eyewitness described in E. is usually a police officer.
 - H. G. is false
 - I. The defendant is observed by the eyewitness carrying the gun outside the home or place of business.
 - J. I. is false

Time/fact sits

10. What are some typical or recent factual situations involving B-F and other more serious charges?
- A. Defendant discovered in the act of calculated crime involving the use of a gun, e.g., armed robbery.
 - B. Defendant was discovered in the act of a passionate crime involving the use of a gun, e.g., a tavern, neighborhood or domestic dispute.
 - C. Defendant was stopped for investigation and frisked by a police officer.
 - D. There is usually an eyewitness placing the gun in the hand of the defendant.
 - E. D. is false
 - F. The eyewitness described in D. is usually a police officer.
 - G. F. is false
 - H. The defendant is observed by the eyewitness carrying the gun outside the home or place of business.
 - I. H. is false.

11. In your experience, is the typical B-F defendant any different than a typical defendant of a similarly serious criminal charge?
- A. Yes
 - B. No
 - C. No Opinion

12. Describe the former.
- A. Black
 - B. White
 - C. Non-English speaking
 - D. Male
 - E. Female
 - F. Young
 - G. Employed
 - H. Unemployed
 - I. Supports family
 - J. Dependant in a 2 parent family
 - K. Dependant and no more than one parent
 - L. Prior criminal record
 - M. No prior criminal record
 - N. Middle class
 - O. Lower class
 - P. Poverty level income
 - Q. Boston native
 - R. Transient

Fact sits/ defendants

13. What defense strategies have you employed with the greatest success?
- Constantly allude to B-F and hope the jury knows of mandatory minimum sentence.
 - Attack credibility of prosecution witness testimony.
 - Suppress the evidence
 - Argue that defendant was in possession of gun but not carrying as required.
 - Argue that defendant's background does not justify conviction where sentence could be harsh.
 - Argue that defendant was unaware of the existence of B-F.
 - Require expert testimony.

14. At what stage of the proceedings is the Bartley-Fox case most likely to be disposed?

- Arraignment
- Plea negotiations
- Probable cause hearing
- Suppression hearing
- Trial
- Other

15. Do judges devote an extraordinary amount of attention to requests and motions made by defense counsel in a B-F case?

- Yes, very often
- Yes, sometimes
- Yes, rarely
- No, never or almost never
- No opinion

16. Are there specific judges before whom you would prefer to appear in a B-F case?

- Yes
- No
- No opinion

17. Why?

- Judge is fair
- Judge imposes strict evidentiary requirements
- Judge likely to grant suppression motion
- Judge tilts toward defense in B-F cases.
- Judge tilts toward defense where defendant has little or no criminal record
- Judge resents B-F law

18. Can you name these judges? (To the interviewer: use your judgement.)

Interviewee's Impressions of Specific Steps or Elements of Criminal Justice Processing

19. Is the type and amount of bail that is set in a carrying case different than in other similar cases (i.e., crimes involving violence or use of a deadly weapon)?

- Generally higher
- Generally lower
- No difference
- Other

20. Why?

- Judges less sympathetic to Bartley-Fox defendants
- Judges more sympathetic to Bartley-Fox defendants
- Judges believe Bartley-Fox defendants more likely to default
- Judges believe Bartley-Fox defendants no more likely to default

21. Do you place more requests for discovery in a B-F case than in another case of similar complexity?
- A. Yes
 - B. No
 - C. No opinion
22. Is the prosecution more or less cooperative with your requests for discovery in a Bartley-Fox case than in other similar cases?
- A. Prosecution is more cooperative
 - B. Prosecution is less cooperative
 - C. No difference
 - D. Prosecution always cooperative
 - E. Prosecution never cooperative
 - F. Depends on the ADA
 - G. Depends on the DA
23. Are judges more or less likely to grant a discovery request in a B-F case than in another of similar complexity?
- A. Yes
 - B. No
 - C. No opinion
24. To what extent do you engage in plea bargaining with a B-F case?
- A. Extensive negotiations with prosecutor
 - B. Very little time spent
 - C. Varies with the particular case
 - D. Other

25. Do you find the plea negotiations with the prosecutor tougher in B-F cases than in other similar types of cases?
- A. Depends on the particular case
 - B. Prosecutors are reluctant to negotiate
 - C. Prosecutors are lenient
 - D. Other
26. When a defendant pleads guilty in a case in which a Bartley-Fox charge was filed, is the judge's examination of the defendant's understanding of the bargain any more intensive?
- A. Yes
 - B. No
 - C. No opinion
27. Is the judge's inquiry into the factual basis for defendant's guilty plea any more intense?
- A. Yes
 - B. No
 - C. No opinion
28. Are Bartley-Fox cases any more complex than other cases of similar seriousness, e.g., an aggravated assault, robbery, or B&E?
- A. Yes
 - B. No
 - C. No opinion

29. In a case where B-F charge is accompanied by a similarly serious charge, e.g., ABDW do the judge's factual findings in bench trial or his instructions to the jury in a jury trial, rely more heavily on one charge or the other?

- A. Yes, greater weight given to the accompanying charge
- B. Yes, greater weight given to the Bartley-Fox charge
- C. Depends on case
- D. No
- E. No opinion

30. Can you speculate on what factors the judge relies in making this decision?

- A. A Bartley-Fox conviction assures a deserved jail sentence
- B. A Bartley-Fox conviction allows insufficient sentencing flexibility
- C. Carrying poses fewer proof problems
- D. Carrying poses greater proof problems
- E. Juries, aware of B-F sentencing, are hostile to carrying cases
- F. Juries are hostile to people who carry guns
- G. Carrying, in conjunction with other charge helps assure a conviction on either charge (specify why)

31. In a Bartley-Fox case do you prefer jury or non jury trials?

- A. Jury
- B. Non jury
- C. No opinion

32. Why?

- A. Judge can be fairer
- B. Judge can be more efficient
- C. Jurors overly hostile to Bartley-Fox defendant
- D. Jurors overly hostile to Bartley-Fox sentence
- E. No opinion

33. In your opinion are juries aware of B-F's mandatory minimum sentencing provision?

- A. Yes, even before the trial
- B. Yes, defense counsel eventually gets that across
- C. Usually, no
- D. No opinion

34. From where did the jurors obtain this information?

- A. Publicity concerning the law
- B. From earlier trials while in the jury pool
- C. During the immediate B-F trial

35. Do you believe knowledge of the sentence is a factor in their verdicts?

- A. Yes, it makes conviction of defendants with no more serious accompanying charges more difficult
- B. Yes, it makes conviction of all defendants more difficult
- C. Yes, it makes conviction of persons with accompanying serious charges easier
- D. Yes, it makes conviction of persons with a criminal record easier, regardless of other charges
- E. No

36. If you have ever had a B-F trial in which the jury was informed of B-F's mandatory minimum sentence, what was the remedy?

- A. Mistrial
- B. Instructions to the jury
- C. None

37. If none, why?

38. To your knowledge, are police officers intentionally using their stop and frisk powers for the purpose of generating B-F convictions rather than for the purpose of merely conducting field interrogations?
- A. Yes, very often
 - B. Yes, sometime
 - C. Yes, rarely
 - D. No, never or almost never
 - E. Don't know
 - F. Police don't understand B-F well enough to manipulate it
39. If yes, who are their usual targets?
- A. Only selected persons suspected of serious criminal involvement
 - B. Virtually anyone an officer wishes to put out of circulation or harass
 - C. Persons whom an officer wishes to employ as an informant
 - D. Blacks
 - E. Youths
 - F. Other
40. To your knowledge, do police officers ever simply seize guns and decline to bring charges?
- A. Yes, very often
 - B. Yes, sometimes
 - C. Yes, but rarely
 - D. No, never or almost never
 - E. Don't know
41. To your knowledge, do police officers seek complaints for possession when the facts could have supported carrying?
- A. Yes, very often
 - B. Yes, sometimes
 - C. Yes, but rarely
 - D. N., never or almost never
 - E. Police don't understand difference between carrying and possession
 - F. Don't know

42. If yes to 41, how do police officers decide whether to charge possession or carrying?
- A. Depends on whether he is on the street or in other public place or whether he is at home or business
 - B. Depends on whether he appears to have a legitimate need for a gun (for example, a cabbie)
 - C. Depends on whether he also appeared to be involved at some time (past or present) in other serious criminal activity
 - D. Depends on whether he also appeared to be involved at some time (past or present) in other criminal activity (not limited to serious criminal activity)
 - E. Depends on whether police know suspect as a "bad actor" or "wise guy"
 - F. Depends on whether police know suspect as a good citizen
43. In a Bartley-Fox case has a prosecutor ever sought to
- | | | |
|------------------------------|-----------|----------|
| A. Nolle prosequere | Yes _____ | No _____ |
| B. Request dismissal, or | Yes _____ | No _____ |
| C. Seek reduction of charges | Yes _____ | No _____ |
44. If so, why?
- A. Evidence did not support charge
 - B. Defendant's record did not warrant B-F sentence
 - C. Both
 - D. Other (specify)
45. To your knowledge, do prosecutors in the district courts amend carrying or possession complaints brought by police officers?
- A. Yes
 - B. No
 - C. No opinion

46. If so, why?
- Facts inappropriate to charge
 - Defendant's record not appropriate to charge
47. Do prosecutors appear to prosecute B-F to its fullest?
- Yes
 - No, they will reduce carrying to possession
 - No, they will drop carrying charges in favor of more serious charges
 - No, they will drop carrying charges in favor of less serious charges
48. Concerning 47, B., C., D., how often?
- Often
 - Sometimes
 - Rarely
 - Once or twice
49. If no to question 47, do you know why prosecutors do not prosecute carrying to its fullest?
- B-F hurts otherwise innocent people
 - B-F is difficult to prove
 - B-F is not needed because of other serious charges involved
50. To your knowledge, do clerks ever decline to issue to a police officer a complaint on a charge of carrying?
- Yes, frequently
 - Yes, sometimes
 - Yes, but rarely
 - No never

prosecutors/clerks

51. If yes to 50, why?
- They wish to reserve B-F charges for "true" criminals
 - The facts do not support a B-F charge
 - B-F is difficult to prove
 - No opinion

Questions Concerning Unsettled or Misunderstood Issues Related to the B-F Law

52. Does Bartley-Fox apply to guns found in the home of the owner?
- Yes
 - No
53. In anyone's home?
- Yes
 - No
54. In a place of business?
- Yes
 - No
55. Only in the owner's place of business?
- Yes
 - No
56. What is the difference between carrying and possession?
- Possession has no mandatory minimum sentence
 - Carrying can't occur in home or business
 - Possession can't occur outside home or business
 - Carrying is possession plus movement
 - Other

the law

57. Would the law support a carrying conviction of an unlicensed non-owner, passenger of a car if a gun is found in the trunk?
- A. Only if there is direct evidence that he knew the gun was in the trunk.
 - B. Knowledge of the gun in the trunk can be inferred from the circumstances
 - C. Yes, (Knowledge of the gun is not an element of the offense)
 - D. No

58. Would a jury convict in a Bartley-Fox case of similar facts?
- A. Probably no, because juries are aware of the mandatory minimum sentence and will convict only if the defendant is caught "red handed," i.e., if a reliable witness (e.g., police officer) sees the gun in the defendant's hand.
 - B. Probably no, unless the jury has reason to believe the defendant was engaged in other criminal activity or has a criminal record.
 - C. Yes

59. If a firearm is not immediately capable of firing, say a firing pin is missing, is it a firearm within the meaning of Bartley-Fox?
- A. Yes
 - B. No
 - C. no opinion

60. Do judges require expert testimony to establish that a gun is a firearm?
- A. Police officer's experience qualifies him as expert
 - B. Testimony by any competent witness that gun discharged and projectile fired is sufficient
 - C. Require a ballistics expert
 - D. No opinion

61. If yes to C of 60, when is such expert testimony required?
- A. Always
 - B. When facts raise reasonable doubt as to whether gun is capable of firing
 - C. Where defendant is not a "true criminal"

62. In general, what do you think of Bartley-Fox?

63. Can you suggest the names of any other defense attorneys who would be interested in being interviewed?

Name _____

Address _____

Tel: _____

SECTION FOUR: IMPACT ON COURTS

A. Introduction.

This chapter will look at how the court system has reacted to the Bartley-Fox law. Just as the arrest and charging stages in the process present decisions about whether a defendant eventually will receive the mandatory minimum sentence or not, the trial and the judicial proceedings that come before it offer the same possibility. The Bartley-Fox law limited judges' discretion at the sentencing stage, but from the time a Bartley-Fox case enters a court's docket to the time that a defendant is found guilty or not guilty, there are many opportunities to avoid the minimum one year in jail for those charged as gun carriers. Cases can be dismissed, charges reduced, or defendants found not guilty -- all having the result of avoiding the one year in jail.

Judges, unhappy with the straight jacket Bartley-Fox imposes on them, can evaluate testimony with an extremely sensitive ear bent on resolving all factual doubts in favor of the defendant in order to avoid the sentencing dilemma, by handing down a not guilty verdict. One example that a member of the project observed involved a defendant who was arrested carrying a derringer which he alleged he carried merely for self-protection. With little in the evidence to offer a defense which the law recognizes, the judge still acquitted the defendant.

Judges can also be unusually receptive to legal challenges to a Bartley-Fox case and dismiss the charges on grounds that are otherwise somewhat tenuous. Project staff interviewed one defense attorney who represented a Bartley-Fox defendant who was visiting from out of state. The attorney raised as a ground to dismiss the case a constitutional challenge to the law on the basis that it

gave inadequate notice of the carrying prohibition to non-residents. Although the merits of such an argument are not strong and although this particular judge is not noted for being receptive to such constitutional challenges, the judge agreed with the defendant and dismissed the case.

We will also look at the reactions of prosecutors to Bartley-Fox. If a prosecutor agrees to reduce a carrying charge to a possession charge, he can prevent the defendant from facing an inevitable one year in jail. We interviewed one defense attorney whose client originally faced a Bartley-Fox charge. The defendant was a recent Army veteran who shortly after his arrest put himself into a Veterans Administration hospital for an alcohol problem related to his Vietnam War experience. The prosecutor agreed to reduce the Bartley-Fox charge to possession, an action which the defense attorney attributed to sympathy rather than to any weakness in the prosecution's case.

Aside from looking at the behavior of judges and prosecutors, we will also see if juries react differently to a gun carrying charge after the advent of Bartley-Fox. With all the publicity surrounding the law, there is a strong possibility that at least one of the 12 jurors will know that a guilty verdict means one year in jail. Project staff observed a Bartley-Fox jury trial where there were three citizen eye witnesses who testified that the defendant carried a firearm. The defendant himself did not take the stand but presented several character witnesses: his priest, scout leader, and a neighbor. The defense attorney hinted broadly in his final argument about the seriousness of a guilty verdict. The jury acquitted.

The last focus of our attention is the conduct of the defendants themselves. Do they fight harder in the legal arena when facing a carrying charge because of the stiff sentence? Do they default -- refuse to appear -- at a greater rate after Bartley-Fox because they stand to lose more if they are convicted? We will also examine whether the race of the defendant plays a role in the way in which the court system treats them.

In answering how all of these participants in the criminal justice process reacted to Bartley-Fox, we will first briefly describe the data sources upon which we rely. Next, to provide a context within which the discussion will take place, there is a summary of the criminal court process in the Commonwealth of Massachusetts. The actual analysis begins with an overview of the system which traces through all the carrying complaints which entered the system on through to their conclusion. Then we will discuss separately the behavior of the District Courts in each jurisdiction and last the Superior Courts. In each section, the discussion will concern the Boston courts almost exclusively. This is due to the far greater number of cases in Boston and the fact that we have more information about each case in the Boston sample.

B Data Sources.

We have already described the District Court case samples upon which this discussion relies. In brief, a District Court case sample for the period of April to September was collected for 1974, 1975, and 1976. The sample included all cases where there was a charge involving a firearm. In compiling a complete picture of how the courts reacted to Bartley-Fox, it was necessary to follow up those District Court cases which went on to the Superior Court. Thus, we have traced on to their conclusion in the Superior Court all the cases that originated in each of the three years and that left the District Court stage.

In addition to the court samples, we also relied upon interviews with participants in the criminal justice system in the various cities which we have examined. We also described these interviews earlier.

C. Massachusetts Court System.

In order to discuss how the Massachusetts courts have reacted to the Bartley-Fox law, we first have to set out a summary of the structure of the criminal process in the Commonwealth of Massachusetts.

There are two levels of trial courts in Massachusetts, the District Courts and the Superior Court. In general, the District Court may hold trials only for less serious crimes: misdemeanors and minor felonies. The most serious felonies may only be tried in Superior Court. The District Court has a role to play even with these offenses, though, by holding a preliminary hearing to determine if there is probable cause to continue the case on to Superior Court for trial.

Cases enter District Court with the filing of a complaint. A complaint may be issued either before the defendant is arrested or shortly thereafter. If the complaint is for a crime within the District Court's jurisdiction, the matter is held for trial. Trials in the District Court are conducted in front of a judge alone without any jury.

The district court level of the de novo system is relatively informal. The absence of a jury, the lack of any appellate review for errors of law, and the fact that the proceedings are not recorded at all contribute to this atmosphere. These factors, plus the large number of cases, make proceedings at the District Court level less visible than those in the Superior Court.

After the trial in District Court, the judge may, of course, find the defendant not guilty. He may also choose to avoid giving the defendant a formal conviction. The judge can do this either by filing the case, which suspends it indefinitely, or by continuing

it without a finding for a period of time -- usually six months -- and then by dismissing it. This continuance without a finding is functionally equivalent to a conviction -- it carries the connotation that the defendant was guilty but received a lenient disposition from the court. It is quite different than simply dismissing a case outright. The latter may occur because of some legal challenge to the proceedings or because the prosecution is unable or unwilling to go ahead. The final option of the trial judge after a trial is, obviously, to find the defendant guilty.

If the defendant is convicted, he may appeal his case for what is known as a trial de novo. The trial de novo takes place in the Superior Court, where all the factual and legal issues are decided anew and where the defendant may choose to have a jury if he wishes. Even if a defendant has appealed, he may choose not to go ahead with the trial de novo proceedings by withdrawing his appeal. In this event, his case returns to the District Court, where in most cases the original sentence is reimposed. A defendant may withdraw his appeal anytime before the Superior Court takes substantive action on his case. If the defendant does not withdraw his appeal, he may choose to plead guilty in the Superior Court, leaving the Superior Court judge to decide only upon his sentence. Or the defendant may go ahead and have a trial de novo. Whether the defendant pleads guilty or is convicted again in the trial de novo stage, he may receive any sentence which the original District Court judge could have imposed, which may be greater than the sentence the defendant actually received in the District Court stage. After the trial de novo, the only appeal is on the record and limited to questions of law.

Thus far, the description has referred only to those misdemeanors and minor felony cases where the district court is empowered to hold a trial. In the serious felony cases where the Superior Court alone has trial jurisdiction, the District Court complaint process is the same. Either before an arrest or shortly thereafter, a complaint would be issued. The District Court proceeding, though, is limited to determining if there is probable cause to believe that the defendant committed the crime. If not, the case is dismissed. If the District Court judge finds that probable cause exists, the case is "bound over."

Binding a case over means that it is sent on to the next stage in the process; in this event it would mean sending the case to the grand jury. When a grand jury gets a case which has been bound over from a district court, it holds its own hearing (although the defendant is not present nor his attorney permitted to participate as a rule). If the grand jury also finds probable cause, it issues an indictment. The indictment serves the same purpose for serious felonies in Superior Court that the complaint serves for less serious crimes in District Court. It is the charging document.

The grand jury need not issue an indictment on every case sent to it by the District Courts. It may refuse to indict the defendant at all, by returning a "no bill." Or, it may indict the defendant for a different crime than the one on which the District Court Judge found probable cause. The grand jury may also indict a defendant who has not had a probable cause hearing at all. On rare occasions, the case may begin entirely with the grand jury. More common is the situation where a defendant is arrested for a serious felony and a probable cause hearing is scheduled in District Court. Because the District Attorney may want to speed up the

process and also because he may want to avoid providing the defendant with a preview of the prosecution's case, an indictment will be sought in order to avoid a probable cause hearing. Upon the return of the indictment, the case would be dismissed in the District Court.

Although the District Court has the power to try all the misdemeanors and less serious felonies (including Bartley-Fox complaints), the court may decline jurisdiction in a particular case and choose to treat the matter as a probable cause hearing. The most typical instance where this occurs is when a defendant is charged with a serious felony and also with a crime within the District Court's jurisdiction. Rather than hold a trial for one charge and send the other on to the next stage after a probable cause hearing, the District Court Judge would typically hold a probable cause hearing for both -- treating them as a package. When a District Court Judge declines jurisdiction in a minor felony case which he or she could otherwise have tried, the implication for the defendant is two-fold. Aside from not having a chance at a trial in the District Court, a defendant whose minor felony case is bound over for trial in the Superior Court faces a greater maximum sentence than would be in effect if the District Court retained jurisdiction of the case. In the situation of a defendant charged with a violation of the Bartley-Fox law, if the District Court Judge were to hold a trial, the most severe sentence the defendant could receive is two and one-half years in the house of correction. This is because the sentencing power of District Court judges is subject to a two and one-half year maximum for any one crime. If the

District Court Judge declines jurisdiction and sends the case on to Superior Court, however, the Superior Court Judge may sentence the defendant up to five years in ^(prison). While the mandatory minimum one-year sentence for a Bartley-Fox case applies to both District and Superior Courts, the upper limit of the sentence is higher if the case is treated in the District Court on a probable cause basis rather than as a trial.

D. Overview of the System.

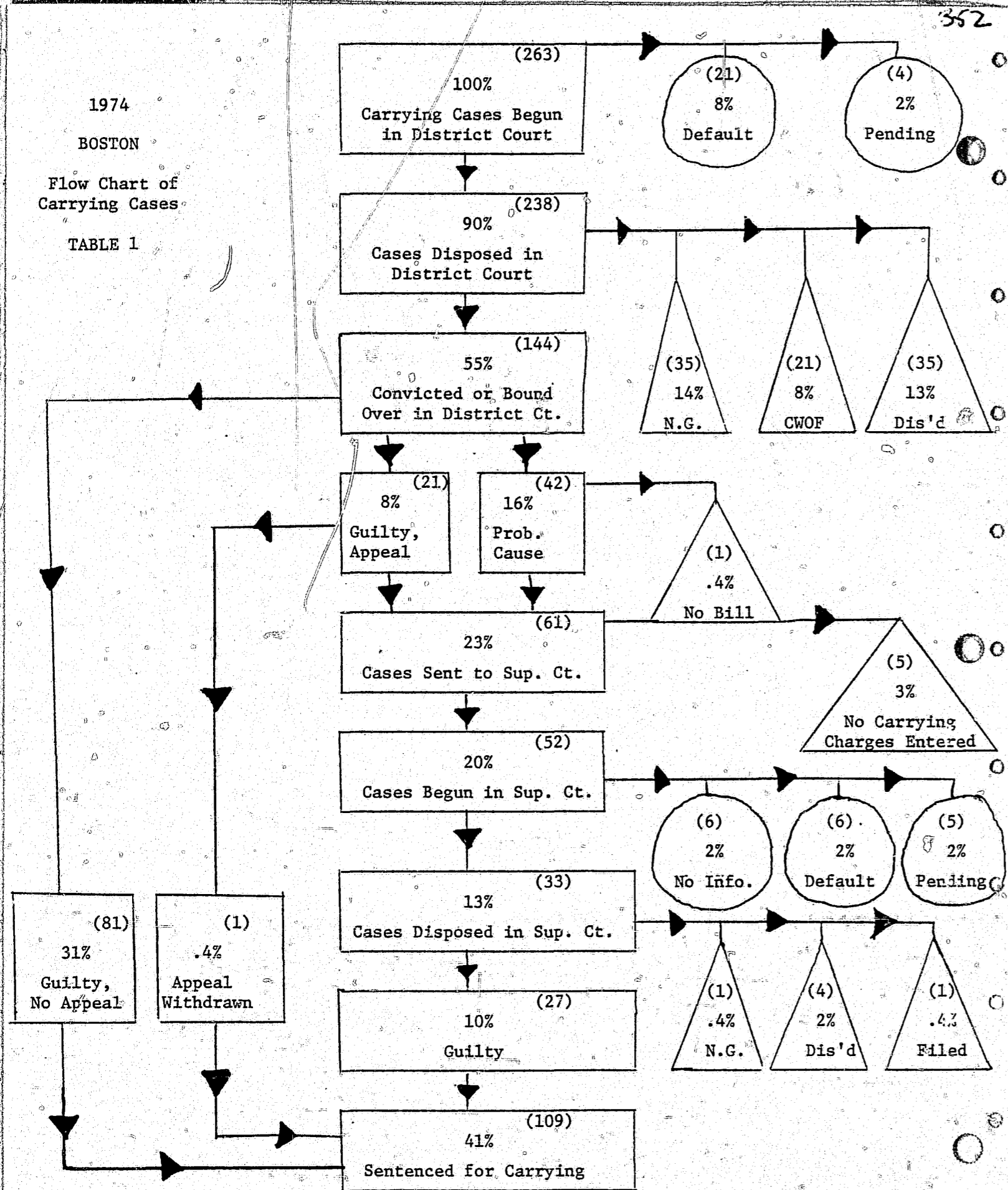
L. Boston.

Examining an overview of the system will provide an answer to the question about the effect of Bartley-Fox that is posed the law's most salient feature: the mandatory minimum sentence. Has the law had an effect on the proportion of gun carrying defendants who actually go to jail? In order to answer this question, we will look at both the rate of conviction of carrying defendants and the sentences that they receive.

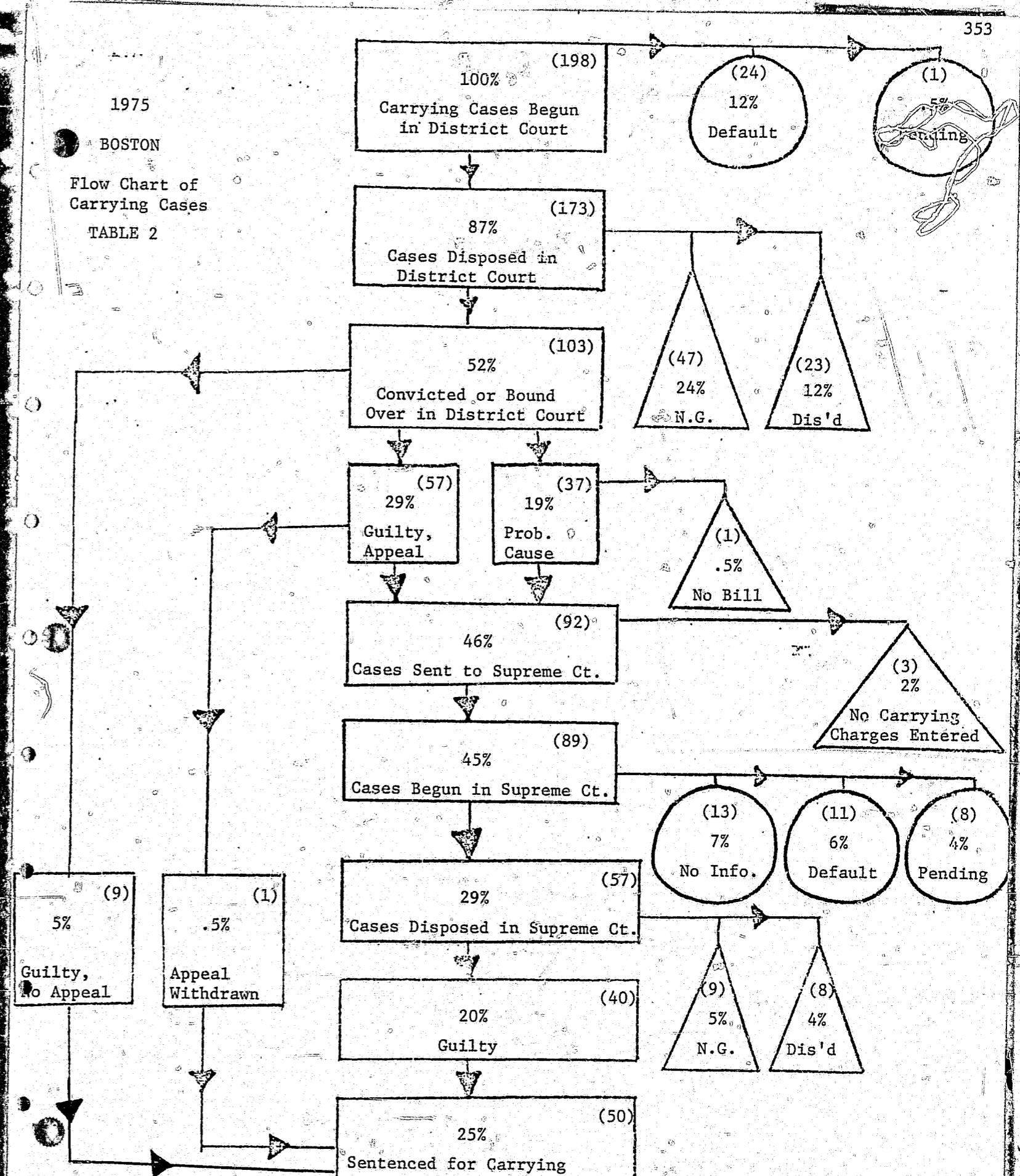
There is a second major area of inquiry about the effect of the law and the court system. That area examines how the courts have changed their pattern of dealing with defendants short of convicting them, and how defendants have changed their behavior in asserting their procedural rights throughout the process. We will examine these two questions in the subsequent sections, which discuss the District Courts and the Superior Courts individually.

A flow chart of the progress of the carrying cases in our 1974, 1975, and 1976 court samples for the City of Boston appears in Tables /, 2, and 3 (below):

1974
BOSTON
Flow Chart of
Carrying Cases
TABLE 1



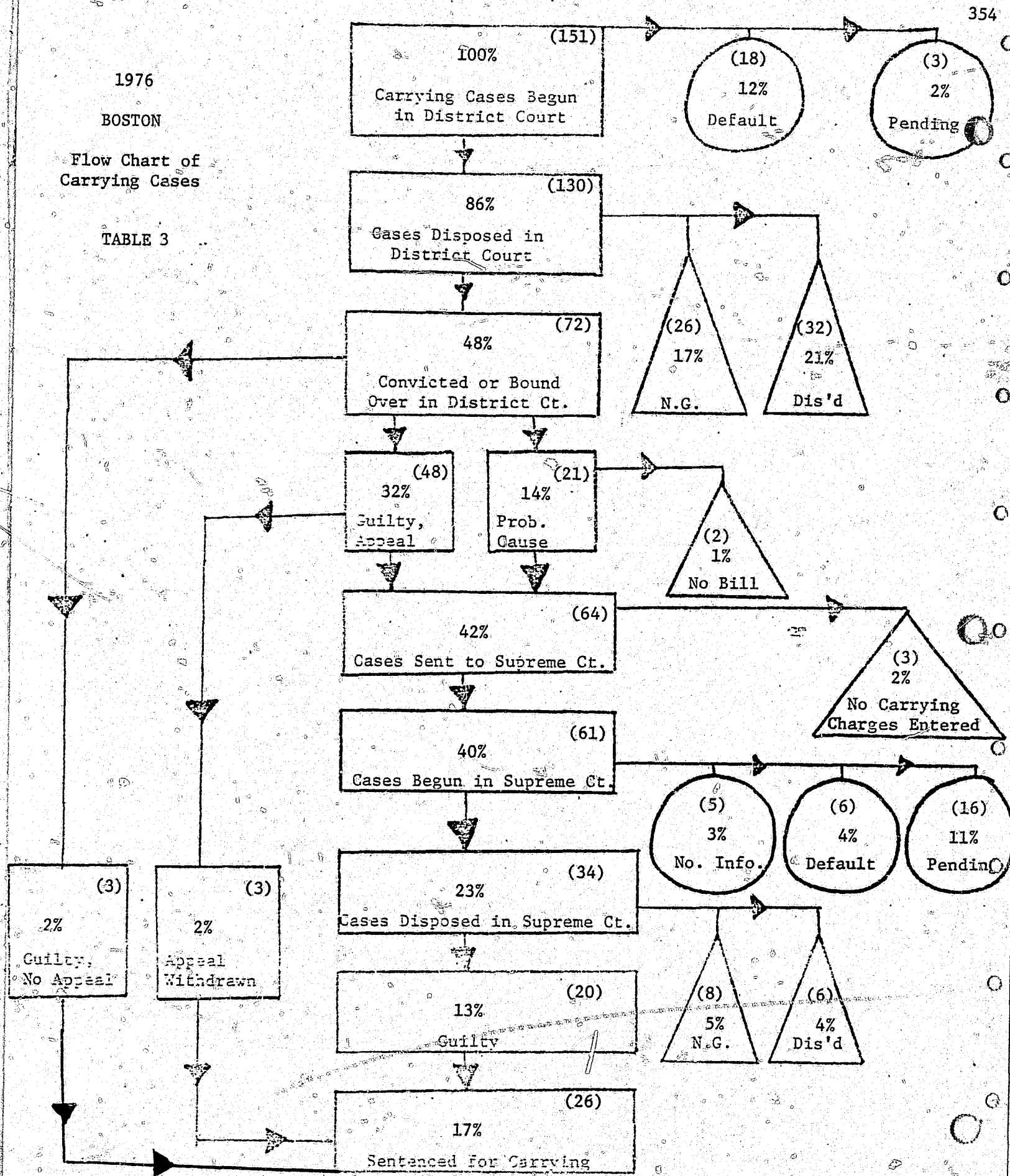
1975
BOSTON
Flow Chart of
Carrying Cases
TABLE 2



1976
BOSTON

Flow Chart of
Carrying Cases

TABLE 3



At each step in the process, the actual number of cases appears as well as a percentage comparing the cases at a particular stage to the total number of cases that began the journey through the criminal justice system. At the start of each flow chart, representing 100% of our sample per year, are the total number of cases entered in the courts with a gun carrying charge. In the 1974 sample, there were 263 carrying cases; in 1975, the number was 198; and in 1976, the number declined to 151. The decline in the number of carrying cases in the courts each year is not surprising, given the fact that as we discussed earlier the number of arrests also declined,* and the number of gun

*The decline in court cases is not proportional to the decline in the arrests that were the subject of the discussion in Chapter IV:

	1974	1975	1976
Arrests	218	186	108
% Change		-14.7%	-41.9%
Court cases	263	198	151
% Change		-24.7%	-23.7%

In each year the number of court cases is more than the number of arrests, although the court sample is only for six months and the arrest data is for the full year. These two differences are a reflection of the Boston Police Department recordkeeping practice. The arrest data was provided by the Boston Police Department from the individual reports made out by the officers involved in each case. If an arrest were made for an assault with a gun, the Department would code the incident as an assault not as a gun charge, even though the defendant might have ended up being charged with a Bartley-Fox complaint. Another reason why the two figures do not correspond is that some of the BPD incidents which are reflected in the arrest figures may have involved more than one defendant. Thus, the arrest figures are not an accurate reflection of the number of carrying cases filed in court.

assaults declined as well, as discussed in Ch. III.

The answer to the question of how the Bartley-Fox law affected the proportion of defendants who were convicted and who received a jail sentence is presented in Table 4 below:

TABLE 4

Boston Carrying Cases: Percentage Disposed, Convicted, Jailed

	1974	1975	1976
Total Number of Carrying Cases Begun in Court Process	(263) 100%	(198) 100%	(151) 100%
Cases Not Disposed in Court System (Defaults; Pending; No Incarceration or Disposition)	(37) 14.1%	(49) 24.7%	(43) 28.5%
Cases Disposed by Criminal Justice System	(226) 100%	(149) 100%	(108) 100%
Defendants Receiving a Conviction for Carrying	(110) 48.6%	(42) 28.2%	(23) 21.3%
Defendants Receiving a Jail Sentence for Carrying	(25) 11.1%	(42) 28.2%	(23) 21.3%

In each year, we compare the number of defendants who were convicted of gun carrying to the number of defendants whose cases reached a final resolution in the system. Thus, we excluded cases where the defendant defaulted and therefore the case reached no conclusion where the case was still pending, and where we have no information on the final disposition of the case. In the 1974 sample, 48.6% of the defendants were convicted. In the first two years of the law's operation, that figure fell to 28.2% and then to 22.2%. The likelihood of this decrease occurring by chance is less than 1 in 10,000. Thus, one effect of the law's prohibiting anything other than a jail sentence is a reduction in the proportion of defendants who are convicted at all. We will explore in the section on the behavior of the Superior Court how this reduction came about. At this point, however, we can draw some conclusions about the effect of removing all but jail sentences on the system.

This effect is clearer if we see the types of sentences that were handed out prior to the imposition of a mandatory minimum sentence. Table 5 below provides some detail about the type of sentences that gun carrying defendants received each year:

TABLE 5

Boston Carrying Cases, Type of Sentence

	1974	1975	1976
Total Defendants Convicted for Illegal Gun Carrying	110	42	23
Defendants Receiving a Jail Sentence	(25) 11.1%	(42) 100%	(23) 100%
Defendants Receiving a Fine or Court Costs/Filed	(19) 17%	--	--
Defendants Receiving Probation and Suspended Sentence	(60) 54%	--	--
Sentence Unknown	(6) 5%	--	--

In 1974, 60 defendants -- over $\frac{1}{2}$ of those who were convicted -- received a suspended sentence and probation. Twenty-five defendants received a jail sentence. Referring back to Table 4, we can see that in 1974 the 25 defendants who went to jail represented about 11% of the total number of cases reaching a final resolution. The 60 defendants on probation would represent about 25% of the total.

If we use 1974 as a guide, approximately 25% of all gun carrying defendants would receive a suspended sentence if no mandatory minimum jail term were in effect. Removing the option of a suspended sentence leaves two possibilities: these defendants must either go to jail, or remain free of any criminal sanction for gun carrying. Comparing 1974 to 1975 in Table 4, we can see that neither of these two possibilities was the sole response of the system. The proportion of defendants going to jail did increase, but the increase was not equivalent to the 25% who otherwise might have received a suspended sentence. Some defendants who could have remained under the supervision of the court while on probation received no sentence whatsoever. This loss of flexibility is one cost of a mandatory minimum sentencing provision.

While Bartley-Fox removed one sentencing option from the courts, it did have the effect of increasing the likelihood that another sentencing option -- jail -- would be imposed. Not only do we see in Table 5 that the law confined judges to issuing only jail sentences. But we see in Table 4 that a higher proportion of defendants went to jail after the law went into effect than before. Of the total number of cases reaching a final resolution, 11.5% resulted in a jail sentence in the 1974 sample; 28.2% in 1975; and 21.3 in 1976. The law thus met

one of its objectives, which was to increase the risk of a jail sentence for someone arrested for illegal gun carrying.

However, in order to make a real assessment of the risk of jail that a gun carrying charge presents to a defendant, we have to refine the analysis of the impact of Bartley-Fox. To a defendant, the real impact of the Bartley-Fox law is not in whether he receives a jail sentence after a carrying conviction, but whether that sentence turns out to have any significant impact on how long he has to remain in jail. The significance of this distinction is apparent by considering a defendant who is convicted of armed robbery and also of a violation of the Bartley-Fox law. The defendant may receive a one-year jail sentence for the Bartley-Fox violation, but he may also receive a 10-15 year jail sentence for armed robbery to be served concurrently. The one-year sentence would have no practical effect. The same would be true if the defendant were already serving a sentence on an unrelated matter and his Bartley-Fox sentence were to be served concurrently with his current term. The Bartley-Fox law, which prohibited continuing cases without a finding, filing them, or suspending the sentence, failed to prohibit making the one-year mandatory minimum sentence run concurrently with a separate longer term of imprisonment.

In each case where the defendant received a jail sentence, we attempted to determine if the carrying sentence would have a practical effect on the amount of time that the defendant would have to spend in jail. If the court records indicated that the carrying sentence was to be concurrently served with another longer sentence, then we concluded that the carrying charge was of little practical consequence. Table 6 (below) shows how often the court papers indicated this to be the case:

TABLE 6

Boston Carrying Cases, Proportion of Jail Sentences which may have had a Practical Effect, to Total Jail Sentences

	<u>1974</u>	<u>1975</u>	<u>1976</u>
Total Jail Sentences	(25) 100%	(42) 100%	(23) 100%
Carrying Sentence Concurrent to Longer Sentence	(9) 36%	(14) 33%	(3) 13%
Carrying Sentence which may have had a Practical Effect	(16) 64%	(28) 69%	(20) 87%

We must note that the absence of such an indication on the court papers does not mean that the carrying sentence definitely had a practical impact on the defendant. According to Massachusetts law, if the judge isn't explicit on the question, then the sentence the defendant receives will run concurrent with any other sentence he is then serving. Thus, these figures probably understate the proportion of cases where the carrying sentence is of no practical significance.

If we remove those cases where the carrying jail sentence is concurrent to a longer sentence, from the total number of jail sentences, we will have a more refined measure of the practical risk of jail that a carrying arrest will present to a defendant. Table 7 (below) compares these cases to the total number of cases reaching a final resolution in the court system each year:

TABLE 7

Boston Carrying Cases, Proportion of Cases where Jail Sentence may have had a Practical Effect, to Total Cases Disposed

	<u>1974</u>	<u>1975</u>	<u>1976</u>
Total Cases Disposed	226	149	108
Jail Sentences where Carrying Sentence may have had a Practical Effect	(16) 7.1%	(28) 18.8%	(20) 18.5%

Thus, in terms of practical consequences, the Bartley-Fox law more than doubled the risk that a defendant arrested for gun carrying would end up spending time in jail because of the gun charge. However, while the proportion of such cases is about 1 in 5, the total number is not very large. For our six-month samples, there were only 28 such cases in 1975, and 20 in 1976.

Moreover, some of these would probably have gone to jail even if there were no mandatory minimum sentence. One way to make a rough estimate of the marginal impact of the Bartley-Fox law in increasing the number of jail sentences for illegal gun carrying which have a practical effect, is to look at just those defendants whose jail sentence is one year. If a defendant received a sentence of more than one year, the impact of Bartley-Fox is far less evident.

A defendant sentenced to more than one year in jail is being treated harsher than the mandatory minimum sentence would require, and therefore raises the possibility that he would have received a jail sentence even if the mandatory minimum provision were not law. Table 8 (below) breaks down the jail sentences each year that Bartley-Fox was in effect:

TABLE 8

Boston Carrying Cases, Type of Jail Sentence

	<u>1975</u>	<u>1976</u>
Total Number of Jail Sentences	(42)	(23)
Concurrent with Longer Sentence	(14)	(3)
Longer than 1 Year	(6)	(1)
1 Year, Consecutive	(2)	(2)
1 Year	(18)	(11)
Length Unknown	(2)	(6)

Of the total number of jail sentences, we excluded those concurrent to a larger term, those more than one year, and those made consecutive to another jail sentence. The first category excluded removes cases where the carrying sentence was of no practical significance. The last two categories exclude cases where the mandatory minimum provision of the law is unlikely to have been a but for cause of the jail sentence, since the defendant received a more harsh sentence than even the mandatory minimum would require. What is left are cases where we don't have information about the sentence and cases where the defendant received only one year in jail. Even if we add the two together so as not to underestimate the effect of the law, we find only 20 cases in the 1975 case sample and 17 cases in the 1976 sample where the defendant may have gone to jail only because the Bartley-Fox law was in effect. Extrapolating over a full year, the change in sentencing brought about by Bartley-Fox affected about 40 people each year in the City of Boston, a particularly small number when we compare it to the effect in reducing gun-related crime which the law brought about.

2. Worcester and Springfield.

Flow charts for Worcester and Springfield for each of the three years of this study appear in Tables 9, 10, 11, 12, 13, and 14 (below):

TABLE 9

Flow Chart of Carrying Cases

WORCESTER
1974

368

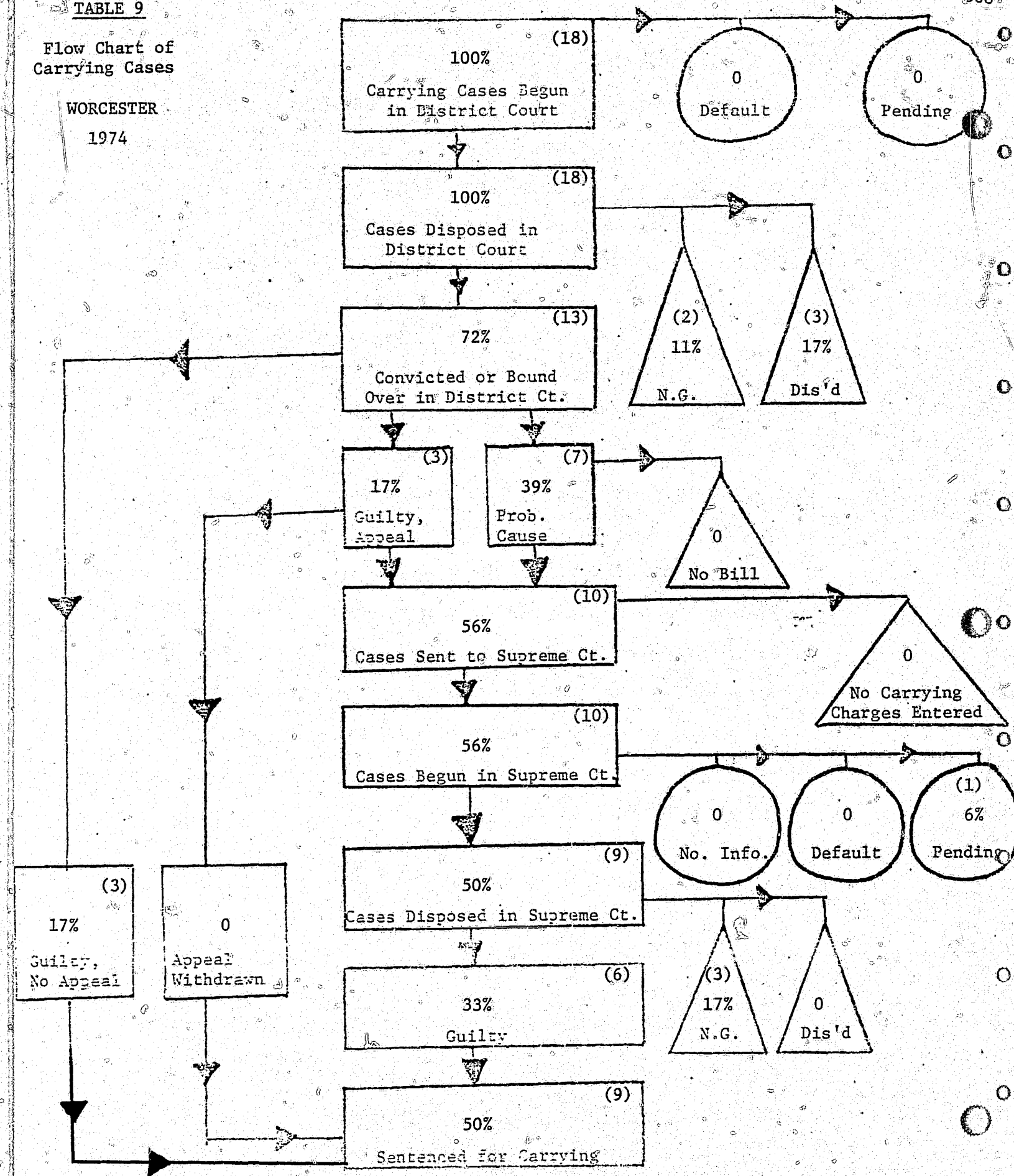


TABLE 10

Flow Chart of Carrying Cases

WORCESTER
1975

369

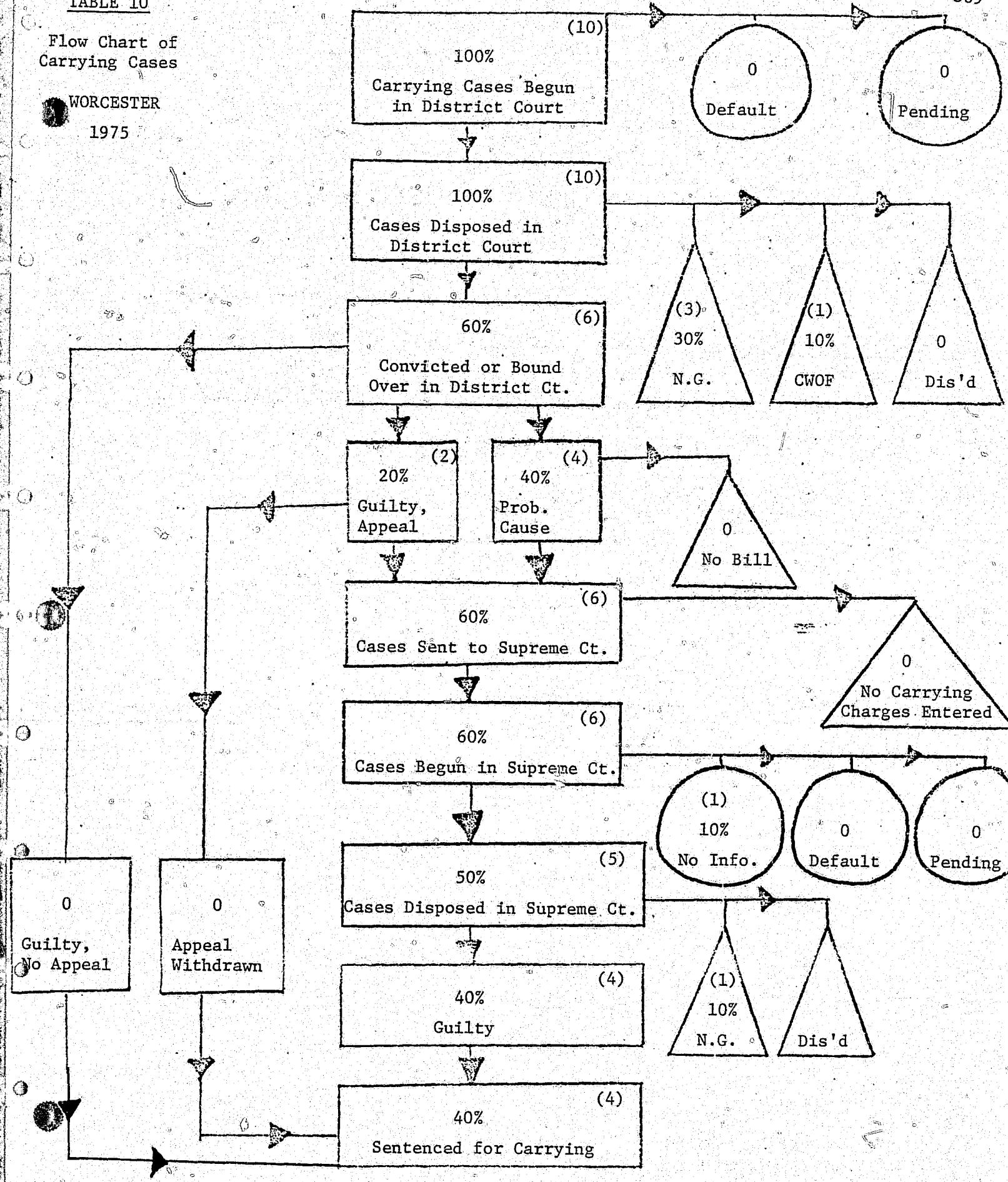


TABLE 11

Flow Chart of Carrying Cases

WORCESTER
1976

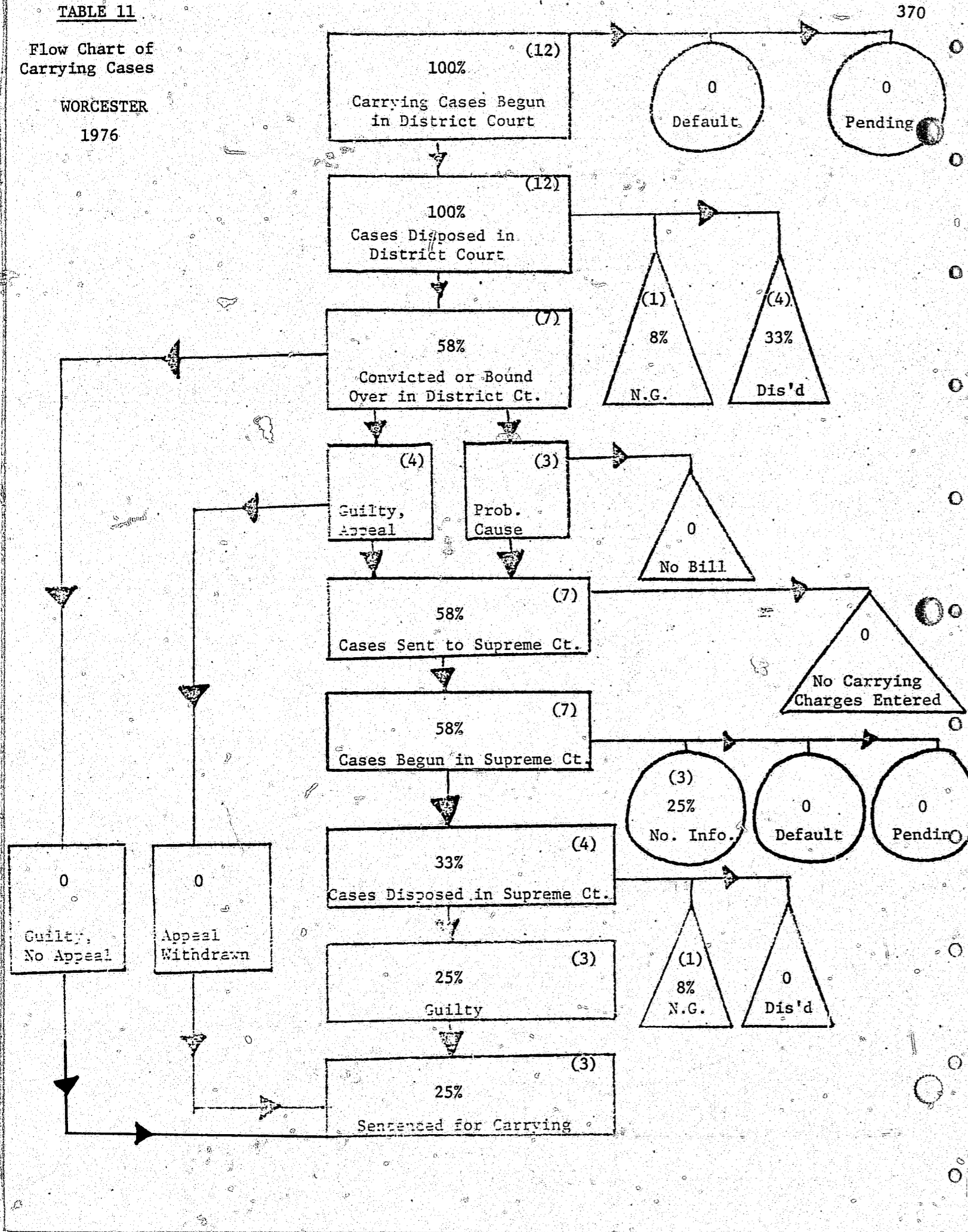


TABLE 12

Flow Chart of Carrying Cases

SPRINGFIELD
1974

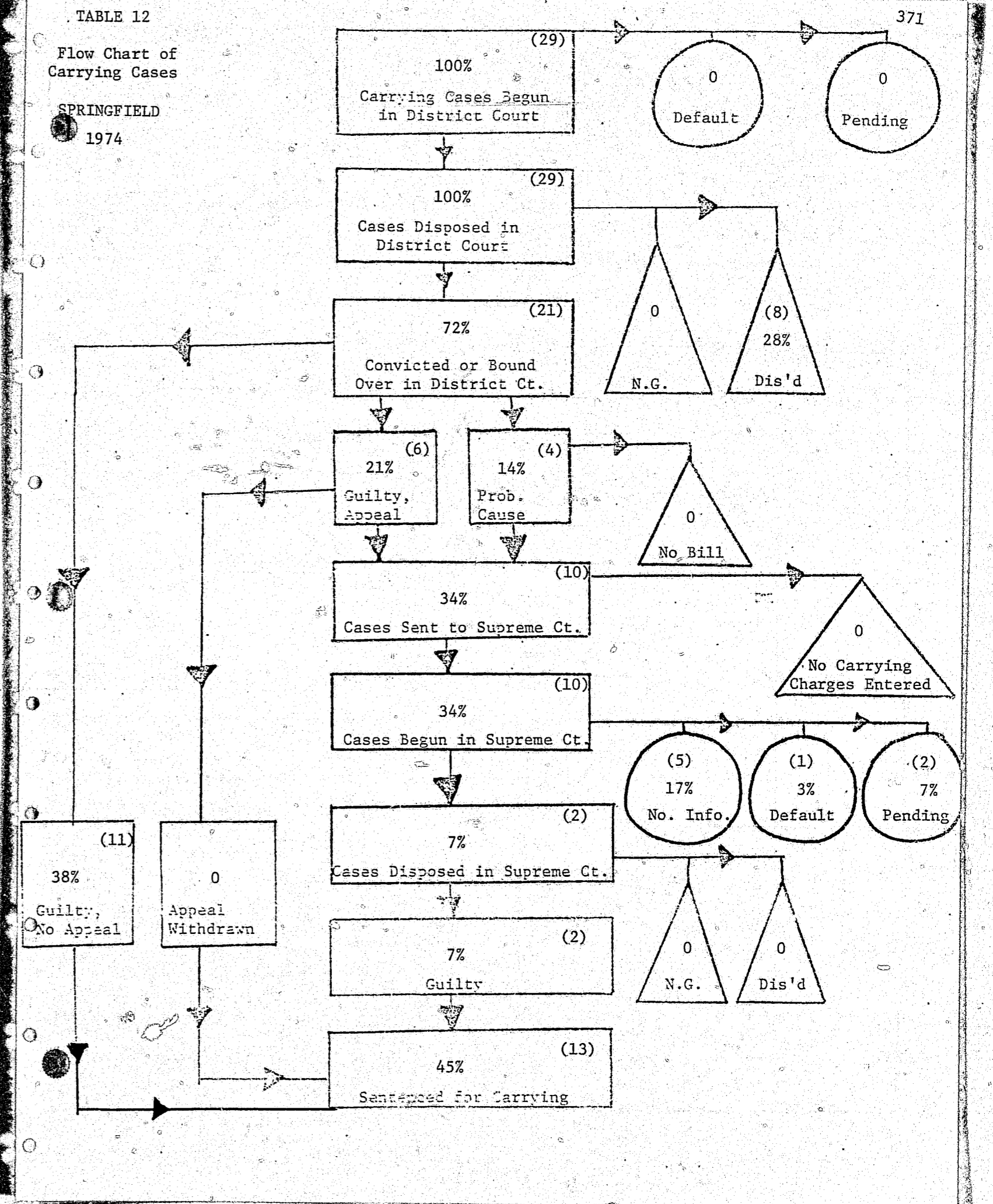


TABLE 13

Flow Chart of Carrying Cases

SPRINGFIELD
1975

372

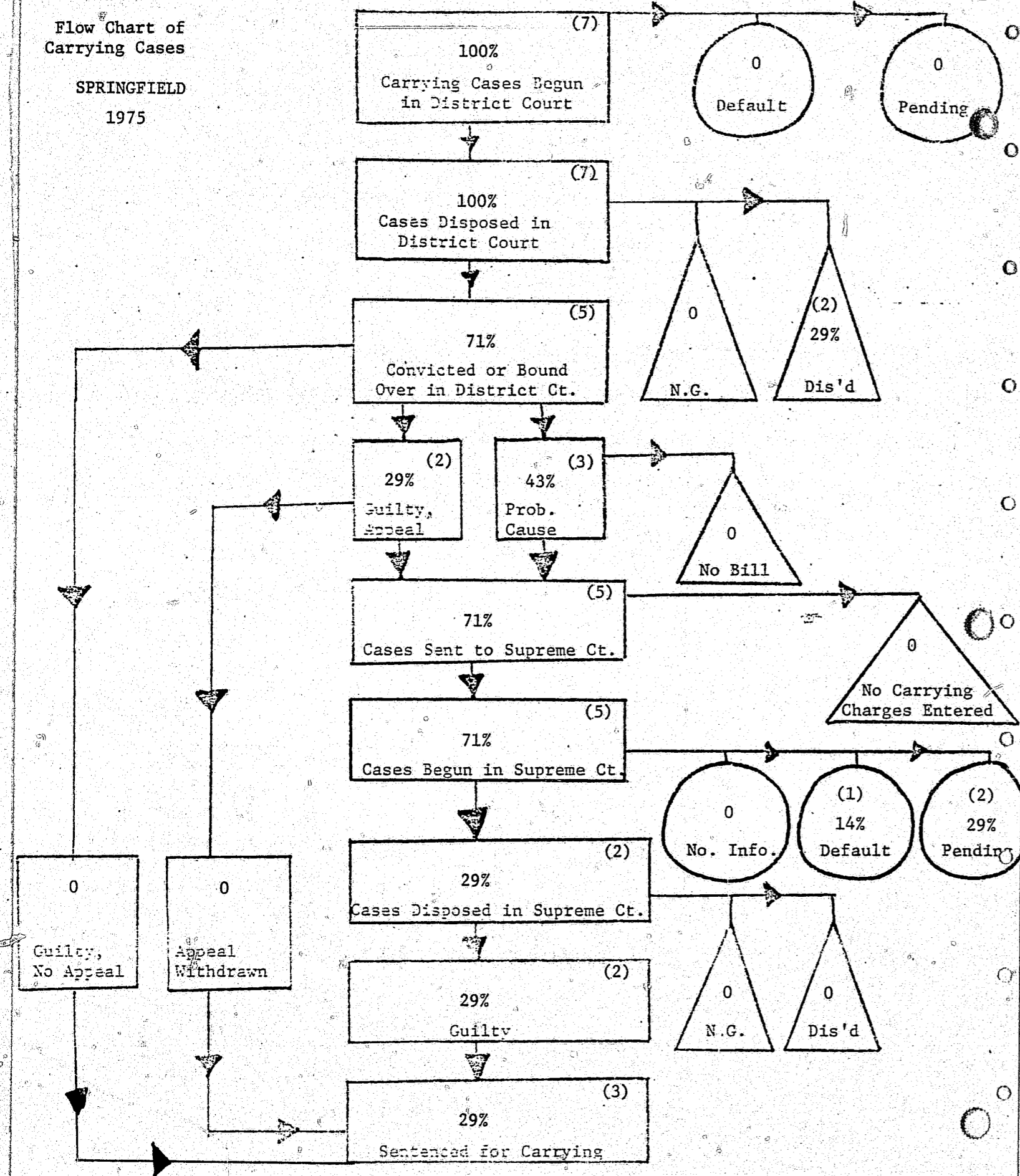
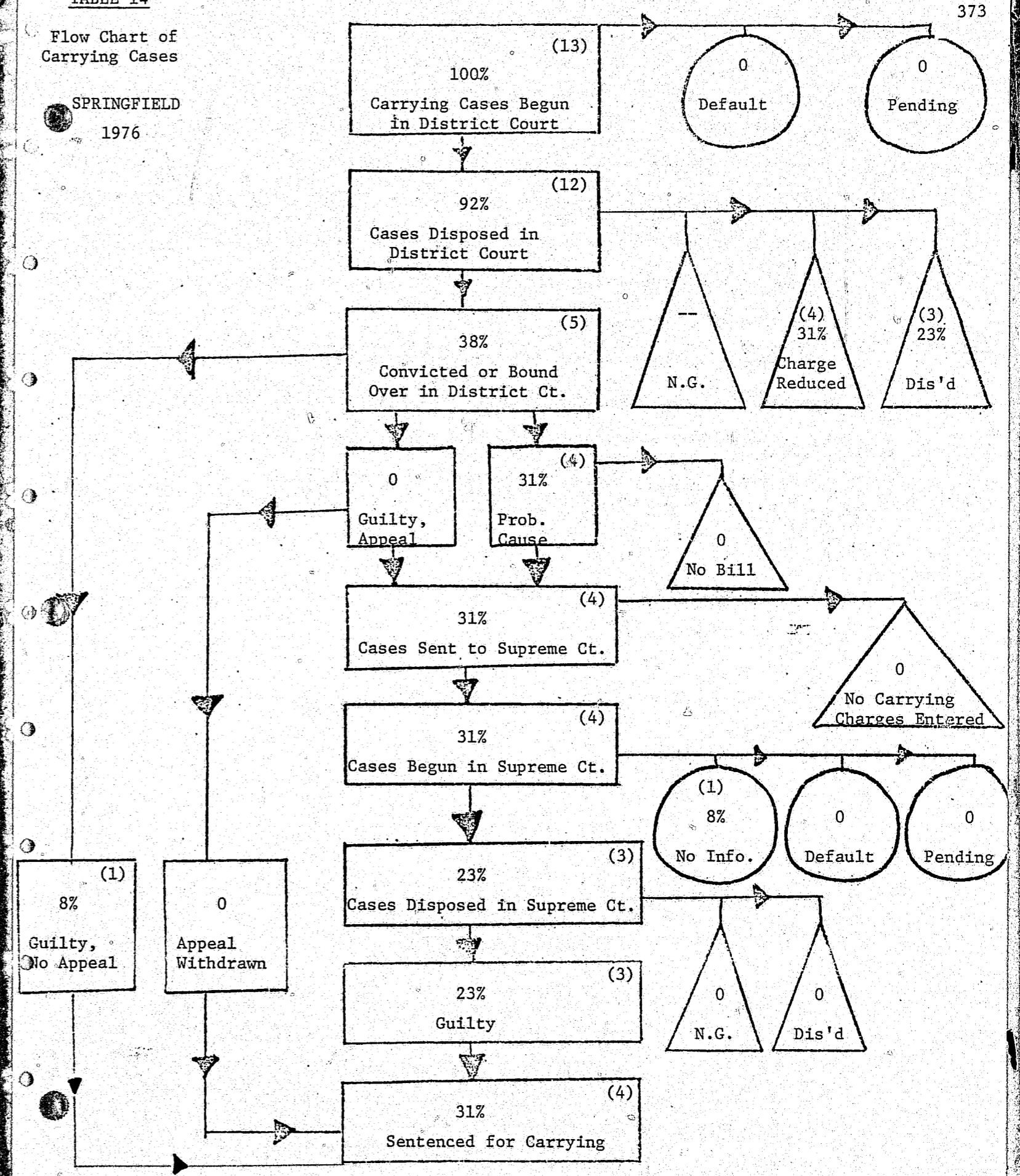


TABLE 14

Flow Chart of Carrying Cases

SPRINGFIELD
1976

373



The total number of cases in each year is small, ranging from 29 to only 7. This makes the type of detailed analysis of the process which we discussed for Boston, not possible. It is of interest, though, to see the same trends repeated in these two cities: after Bartley-Fox went into effect, the proportion of cases receiving a Bartley-Fox sentence declined.

Having examined the implications of the Bartley-Fox law in terms of the proportion of defendants who receive a jail sentence, we will now address the question of how the different levels of the court system have responded to handling Bartley-Fox cases.

E. District Courts.

1. Boston.

The first question that we will look at is how the District Courts in Boston have disposed of carrying cases. Tables 15, 16, and 17 (below) present the disposition of the lead charge in the different types of cases in our court samples for each of the three years:

For the purpose of this analysis, cases in the District Court sample were categorized on the basis of the lead charge. A case consists of all the charges against an individual which were combined into a single prosecution. If the case had only one charge, that was the lead charge. If there were multiple charges, then the lead charge was determined by the following priorities:

- 1) a carrying charge;
- 2) a possession charge;
- 3) a sawed-off shotgun charge.

If a case had any one of these, then that charge became the lead charge. If more than one of these charges were present, the higher priority charge was the lead charge. In all other cases, the lead charge was the crime with the most severe penalty.

Since the District Courts often treat a carrying case in one manner if it is accompanied by a Superior Court offense and in another manner if it is not, we separated cases with a carrying lead charge into two categories. One was cases where a carrying charge was accompanied by a serious felony offense triable only in the Superior Court. The other was where a carrying charge was alone or accompanied by some other minor felony or misdemeanor; in other words, only another District Court offense. We refer to this last category as simple carrying cases. In some of the discussions, when it is appropriate, we separate out from the simple carrying cases those where the carrying charge is accompanied by a possession charge.

In both the category of simple carrying cases and carrying cases accompanied by a Superior Court offense, carrying is the lead charge; therefore, the Table gives only the disposition of the carrying offense. But it is useful to separate out the different categories for two reasons. One, as we have already mentioned, if

a carrying complaint is accompanied by a Superior Court offense, it will more likely be treated on the basis of a probable cause hearing than would otherwise be the case.* And it is easier for a prosecutor to establish probable cause than it is for him to prove the defendant guilty beyond a reasonable doubt.

The second reason to separate the types of carrying cases is that a carrying defendant who is also charged with a serious felony -- such as armed robbery -- will present a far less sympathetic picture to a judge than one who is charged simply with carrying or with some other District Court offense. Thus, one would assume that the pattern of disposition of the carrying charge would be more favorable to those defendants who do not also face a serious felony.**

Tables 15, 16, and 17 present the dispositions of the lead charges of the different categories of District Court cases for each year. Those cases where the district court proceeding was dismissed because the grand jury returned an indictment are included in the "bound over" category. Otherwise, the disposition categories are self explanatory.

*Evidence of this can be seen from each of the Tables. In 1974, Table 15 shows that carrying cases accompanied by a Superior Court charge were bound over 52% of the time, while when not a part of a package including a Superior Court offense, they were bound over only 9% of the time. This pattern is repeated in 1975 (61% v. 9%) and 1976 (29% v. 8%).

**Comparing carrying cases ^(accompanied) by a superior court crime in Table 15 ^(below) with carrying cases not so accompanied in Table 16 there is a statistically significant difference only in 1975 ($\chi^2 = 6.362$; $p < .02$), the first year of Bartley-Fox, when carrying cases with a serious felony resulted in a disposition favorable to the defendant only 21% of the time compared to 39% of the time for simple carrying cases.

1974 Boston District Court Case Sample, Disposition of Lead Charge

	Bartley-Fox Alone	Possession	Bartley-Fox & Serious Felony	Possession & Serious Felony	Serious Felony	Shotgun	Misdemeanor & Minor Felony	Row Total
Dismissed	(24) 12.8%	(14) 21.9%	(7) 15.9%	(1) 20.0%	(65) 35.1%	(4) 19.0%	(38) 51.4%	157 25.7%
Not Guilty	(33) 15.1%	(8) 12.5%	(5) 11.4%	(1) 20.0%	(12) 6.5%	(2) 9.5%	(12) 16.2%	73 11.9%
Guilty, Appeal	(19) 8.7%	(3) 4.7%	(2) 4.5%	(1) 20.0%	(0) 0%	(0) 0%	(0) 0%	25 4.1%
Guilty, No Appeal	(77) 35.2%	(23) 25.9%	(4) 9.1%	(2) 40.0%	(5) 2.7%	(0) 0%	(12) 16.2%	123 20.1%
Continued Without a Finding - Filed	(18) 8.2%	(3) 4.7%	(3) 6.8%	(0) 0%	(0) 0%	(0) 0%	(4) 5.4%	28 4.6%
Bound Over	(19) 8.7%	(7) 10.9%	(23) 52.3%	(0) 0%	(94) 50.8%	(14) 66.7%	(4) 5.4%	161 26.3%
Default	(21) 9.6%	(4) 6.3%	(0) 0%	(0) 0%	(8) 4.3%	(1) 4.8%	(4) 5.4%	38 6.2%
Pending	(4) 1.8%	(2) 3.1%	(0) 0%	(0) 0%	(1) .5%	(0) 0%	(0) 0%	7 1.1%
Column Total	219 35.8%	64 10.5%	44 7.2%	5 .8%	185 30.2%	21 3.4%	74 12.1%	612 100.0%

TABLE 16

1975 Boston District Court Case Sample, Disposition of Lead Charge

	Bartley-Fox Alone	Possession	Bartley-Fox & Serious Felony	Possession & Serious Felony	Serious Felony	Shotgun	Misdemeanor & Minor Felony	Row Total
Dismissed	(20) 12.3%	(5) 21.7%	(3) 8.3%	(1) 33.3%	(72) 40.4%	(5) 27.8%	(26) 57.8%	132 28.4%
Not Guilty	(43) 26.5%	(4) 17.4%	(4) 11.1%	(0) 0%	(3) 1.7%	(3) 16.7%	(6) 13.3%	63 13.5%
Guilty, Appeal	(55) 34.0%	(6) 26.1%	(2) 5.6%	(0) 0%	(0) 0%	(0) 0%	(5) 11.1%	68 14.6%
Guilty, No Appeal	(7) 4.3%	(3) 13.0%	(2) 5.6%	(1) 33.3%	(3) 1.7%	(0) 0%	(1) 2.2%	17 3.7%
Continued Without a Finding - Filed	(0) 0%	(0) 0%	(0) 0%	(0) 0%	(0) 0%	(0) 0%	(1) 2.2%	1 .2%
Bound Over	(15) 9.3%	(3) 13.0%	(22) 61.1%	(1) 33.3%	(94) 52.8%	(7) 38.9%	(2) 4.4%	144 31.0%
Default	(21) 13.0%	(2) 8.7%	(3) 8.3%	(0) 0%	(4) 2.2%	(1) 5.6%	(1) 2.2%	32 6.9%
Pending	(1) .6%	(0) 0%	(0) 0%	(0) 0%	(2) 1.1%	(2) 1.1%	(3) 6.7%	8 1.7%
Column Total	162 34.8%	23 4.9%	36 7.7%	3 .6%	178 38.3%	18 3.9%	45 9.7%	465 100.0%

TABLE 17

1976 Boston District Court Case Sample, Disposition of Lead Charge

	Misdemeanor & Minor Felony	Simple Carrying	Simple Possession	Carrying & Possession	Carrying & Serious Felony	Possession & Serious Felony	Serious Felony	Shotgun Charge	Row Total
Dismissed	(26) 44.1%	(17) 15.9%	(7) 15.6%	(3) 42.9%	(12) 32.4%	(0) 0%	(54) 38.6%	(6) 33.3%	125 30.0%
Not Guilty	(7) 11.9%	(23) 21.5%	(12) 26.7%	(1) 14.3%	(2) 5.4%	(0) 0%	(7) 5.0%	(2) 11.1%	54 13.0%
Guilty, Appeal	(2) 3.4%	(38) 35.5%	(5) 11.1%	(2) 28.6%	(8) 21.6%	(0) 0%	(0) 0%	(5) 27.8%	60 14.4%
Guilty, No Appeal	(7) 11.9%	(2) 1.9%	(13) 28.9%	(0) 0%	(1) 2.7%	(0) 0%	(11) 7.9%	(0) 0%	34 8.2%
Continued Without a Finding - Filed	(1) 1.7%	(0) 0%	(0) 0%	(0) 0%	(0) 0%	(0) 0%	(3) 2.1%	(0) 0%	4 1.0%
Default	(1) 1.7%	(16) 15.0%	(2) 4.4%	(0) 0%	(2) 5.4%	(1) 33.3%	(5) 3.6%	(0) 0%	27 6.5%
Bound Over	(7) 9%	(9) 8.4%	(5) 11.1%	(1) 14.3%	(11) 29.7%	(2) 66.7%	(45) 32.1%	(5) 27.8%	85 20.4%
Pending	(8) 13.6%	(2) 1.9%	(1) 2.2%	(0) 0%	(1) 2.7%	(0) 0%	(15) 10.7%	(0) 0%	27 6.5%
Column Total	59 14.2%	107 25.7%	45 10.8%	7 1.7%	37 8.9%	3 .7%	140 33.7%	18 4.3%	416 100.0%

The first effect of Bartley-Fox that we can see comes at the beginning of the process, in the increase in the proportion of cases that never reached a conclusion in the District Court because the defendant defaulted. Aggregating both simple carrying and carrying cases plus a serious felony before Bartley-Fox, the default rate was 8%, and in each of the two years afterward it was 12%. An increased default rate is not surprising considering the heightened possibility of a jail sentence once the Bartley-Fox law went into effect.

At the end of this process in District Court is the proportion of carrying defendants who receive an unfavorable disposition.

Rather than discussion the behavior of the District Courts using the format of the first three Tables, the analysis of the pattern of District Court dispositions appears in a different format in Tables 18 and 19. These Tables present only two categories of the disposition of the lead charge: those favoring the defendant -- dismissals, acquittals, filing, and continuing the case without a finding -- and those favoring the prosecution -- convictions, both appealed for a trial de novo and those not appealed, and cases bound over to the grand jury.

The Tables thus deal with only those cases disposed of in the District Court. Looking at Table 18, we see that over the three years the District Courts have treated simple carrying cases just about the same both before Bartley-Fox and afterward. The proportion of dispositions favoring the defendants went from 41% in 1974 to 45% in 1975 to 40% in 1976. There is no statistically significant difference in the proportion of cases favoring the defendant. The introduction of the Bartley-Fox law did not cause the District Courts city-wide to avoid the one-year mandatory minimum sentence by terminating

Boston District Court Sample, Disposition of Case Category as Pro-Defendant or Pro-Prosecution

	MISDEMEANOR & MINOR FELONY			CARRYING			POSSESSION BOSTON DISTRICT COURT		
	1974	1975	1976	1974	1975	1976	1974	1975	1976
Dismissed Not Guilty Continued Without a Finding/Filed	(54) 7%	(33) 80%	(34) 68%	(79) 41%	(63) 45%	(44) 46%	(25) 43%	(9) 43%	(19) 45%
Guilty, No Appeal Guilty, Appeal Bound Over	(16) 23%	(8) 20%	(16) 32%	(45) 59%	(77) 55%	(52) 54%	(33) 57%	(12) 57%	(23) 55%
Total	(70)	(41)	(50)	(194)	(140)	(96)	(58)	(21)	(42)

TABLE 19

Boston District Court Sample, Disposition of Case Category as Pro-Defendant or Pro-Prosecution

	CARRYING & SERIOUS FELONY			SERIOUS FELONY			SAWED-OFF SHOTGUN		
	1974	1975	1976	1974	1975	1976	1974	1975	1976
Dismissed Not Guilty Continued Without a Finding-Filed	(15) 34%	(7) 21%	(14) 41%	(77) 44%	(75) 44%	(64) 53%	(6) 30%	(8) 53%	(8) 44%
Guilty, No Appeal Guilty, Appeal Bound Over	(29) 66%	(26) 79%	(20) 59%	(99) 56%	(97) 56%	(56) 47%	(14) 70%	(7) 47%	(10) 56%
TOTAL	(44)	(33)	(34)	(176)	(172)	(120)	(20)	(15)	(18)

carrying cases in favor of the defendant. Referring again to Table 18, we see that the District Courts ruled for the defendant in carrying cases -- where after 1974 a mandatory minimum sentence applied -- in almost the same proportion each year as in possession cases, which had no mandatory minimum sentence. Both of these types of cases show a pattern of disposition for the defendant that resembles serious felony cases more than cases where the lead charge is simply some other District Court offense involving a firearm.

While the District Courts city-wide did not show any change in the aggregate, there was a change in the method they used to dispose of cases, as well as a change in individual courts' behavior. First, as to the method of disposing of cases, the Bartley-Fox law expressly prohibited continuing a case without a finding or placing it on file. Table 20 (below) presents the disposition of cases that the court disposed of from each year's samples, excluding those cases where the defendant defaulted and cases that are still pending:

TABLE 20

Boston District Courts: Disposition of Simple Carrying Cases

	1974	1975	1976*
Dismissed	(28) 14%	(20) 14%	(20) 21%
Not Guilty	(33) 17%	(43) 31%	(24) 25%
Continued Without a Finding Filed	(18) 9%	-- 0	-- 0
Guilty, No Appeal	(77) 40%	(7) 5%	(2) 2%
Guilty, Appeal	(19) 10%	(55) 39%	(40) 42%
Bound Over	(19) 10%	(15) 11%	(10) 10%
TOTAL	(194)	(140)	(96)

* Includes cases where defendant was charged with carrying and possession.

We can see that after Bartley-Fox went into effect, the District Courts no longer disposed of cases in favor of the defendant by continuing or filing them. Rather, the proportion of not guilty verdicts increased. Dispositions not favorable to the defendant also showed a change. While the proportion of cases treated as a probable cause matter and bound over to the grand jury remained constant, once the mandatory minimum one-year jail sentence went into effect, the proportion of defendants found guilty who appealed for a trial de novo increased. This result is not at all surprising, since a defendant who receives a jail sentence after his District Court trial has a great deal of incentive to relitigate the question of his guilt or innocence in a de novo trial. Even if a defendant gains nothing more than a delay of the inevitable jail sentence, the imposition of Bartley-Fox meant that defendants who did not clear the first hurdle in the District Court availed themselves to a much greater degree of the judicial system's procedural protections by demanding a de novo trial.

Although the proportion of de novo appeals increased, the numbers were not overwhelming. There were 19 appeals in 1974, 55 in 1975, and 40 in 1976. Extrapolating from our six-month sample to a full year, we estimate at most an increase of about 70 cases annually were added to the Superior Court caseload in Boston because of Bartley-Fox. At least for this type of crime and this level of mandatory minimum sentence, the effect of the law would overburden the court system.

The second type of change which the aggregate figures of Tables 18 and 19 mask is the effect of Bartley-Fox in the individual courts. Table 21 (below) shows the proportion of dispositions in each year favoring the defendant, in both simple carrying cases and simple possession cases for individual courts:

TABLE 21

Percentage of Disposed Cases Favoring the Defendant in Boston City-Wide and in Individual Courts

	1974		1975		1976	
	Simple Carry	Simple Possession	Simple Carry	Simple Possession	Simple Carry	Simple Possession
Boston:	$\left(\frac{79}{191}\right) = 41\%$	$\left(\frac{25}{58}\right) = 43\%$	$\left(\frac{63}{140}\right) = 45\%$	$\left(\frac{9}{21}\right) = 43\%$	$\left(\frac{44^*}{86}\right) = 45\%$	$\left(\frac{19}{42}\right) = 45\%$
BMC:	$\left(\frac{19}{63}\right) = 30\%$	$\left(\frac{4}{12}\right) = 33\%$	$\left(\frac{18}{37}\right) = 49\%$	$\left(\frac{2}{4}\right) = 50\%$	$\left(\frac{15}{36}\right) = 41\%$	$\left(\frac{1}{3}\right) = 33\%$
Roxbury:	$\left(\frac{20}{65}\right) = 31\%$	$\left(\frac{8}{18}\right) = 44\%$	$\left(\frac{27}{55}\right) = 49\%$	$\left(\frac{2}{9}\right) = 22\%$	$\left(\frac{9}{20}\right) = 45\%$	$\left(\frac{10}{15}\right) = 67\%$
Dorchester:	$\left(\frac{20}{28}\right) = 71\%$	$\left(\frac{6}{18}\right) = 33\%$	$\left(\frac{8}{18}\right) = 44\%$	$\left(\frac{3}{5}\right) = 60\%$	$\left(\frac{6}{13}\right) = 46\%$	$\left(\frac{6}{13}\right) = 46\%$
Other:	$\left(\frac{20}{27}\right) = 74\%$	$\left(\frac{7}{10}\right) = 70\%$	$\left(\frac{12}{30}\right) = 40\%$	$\left(\frac{2}{3}\right) = 67\%$	$\left(\frac{16}{27}\right) = 55\%$	$\left(\frac{2}{9}\right) = 22\%$

*Includes 7 cases of carrying plus possession

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The percentages shown in the Table indicate the proportion of -carrying cases where the court ruled in favor of the defendant. The figures in parenthesis show the actual numbers of the cases involved, with the numerator showing the number favoring the defendant and the denominator the total number of disposed cases. The figures appear for all the courts aggregated, for each of the three largest courts, and for the five smallest courts together as a group.

While the aggregate figure remained relatively constant, in the year prior to the imposition of Bartley-Fox, there was a great deal of difference in the degree to which individual courts ruled in favor of the defendant in carrying cases. In 1974, the range was from 30% in the Boston Municipal Court and 31% in Roxbury, to 74% in the five smallest courts and 71% in Dorchester. This margin of about 40% indicates that a defendant stood to gain or lose a great deal by virtue of the court in which he was prosecuted. By and large, each court is served by separate districts of the Boston Police Department, and each has its own set of judges. Courthouse subcultures may vary a great deal from one court to another, and Table 21 demonstrates that this difference was manifest in the way that they treated carrying cases.

In the first year of Bartley-Fox, 1975, the degree of disparity among the courts shrunk. The margin from top to bottom went from 44% in 1974 to 9% in 1975 and rose only to 14% in 1976. In 1974, the variation in the way each court handled carrying cases led to a statistically significant difference -- such that the chance that it occurred at random was less than one in 10,000. In neither 1975 nor 1976 was there a statistically significant difference at all in the pattern of how the various courts handled carrying cases.

After the mandatory minimum sentence went into effect and after attention was focused upon how the courts would treat carrying cases, there emerged a more uniform pattern in handling them. Courts that were pro-defendant became less so, as did courts that were pro-prosecution.

As an explanation for this reaction, we looked at courts that became more pro-prosecution separately from those that became pro-defense. In 1974, with unfettered sentencing discretion, it was easier for a court to hand down guilty verdicts in marginal cases and temper them with an insignificant sentence. After Bartley-Fox went into effect, the two courts which displayed a pro-prosecution pattern, the Boston Municipal Court and Roxbury, would have had to deliver more verdicts favorable to the defendant or face sending a large number of people to jail in marginal cases. Both courts adapted to Bartley-Fox by becoming less prone to conviction, as Table 21 shows.

In Dorchester and the five smallest courts, 1975 showed them becoming more prone to conviction than in 1974. The possible explanations for this reaction are less apparent. One possibility is, as we have hypothesized in the area of the arrest and charging decision,

that the courts' reactions may have been a result of increased attention on how judges handle carrying cases in the law's first year of operation. With Bartley-Fox focusing attention on these cases, judges may have become more vigorous enforcers of the carrying law. Although in the areas of arrest and charging we saw that the pattern of enforcement went up in the law's first year and down in the second, there is no statistically significant decline in the courts' enforcement pattern in 1976. Perhaps this is due to the fact that unlike arrest and charging, judicial conduct is highly visible and therefore more sensitive to perceived public attention.

Although the numbers of possession cases in each court are small, it is significant to note that no similar pattern of convergence from lenient courts to strict courts emerges when comparing 1974 and 1975. Possession, of course, was not subject to any mandatory minimum sentence.

We have some indication beyond just the pattern of dispositions in individual courts that suggests there is a degree of judicial reaction to Bartley-Fox in terms of how District Court Judges dispose of carrying cases. Support for the conclusion that at the level of individual courts there has been a change in response to the Bartley-Fox law comes as well from our interviews with defense counsel in cases from the 1976 court sample who represented Bartley-Fox defendants receiving a favorable disposition. Of the 58 such cases (see Tables 18 and 19), we spoke with attorneys in 22 of them (38%).

They were asked how to explain the dismissal or acquittal of their client, as the case may be. Their responses appear below:

(i) couldn't connect firearm to defendant	4.5% (1)
(ii) mistaken identify	9% (2)
(iii) no firearm found on defendant	22.7% (5)
(iv) firearm not able to fire	9% (2)
(v) valid motion to suppress granted	9% (2)
(vi) prosecution's witness didn't appear	13.6% (3)
(vii) defendant had valid license	4.5% (1)
(viii) no direct (eyewitness) evidence that defendant carries firearm (though circumstantial evidence did exist)	4.5% (1)
(ix) firearm couldn't be fired, but needed only minor adjustment	9% (2)
(x) district attorney sympathized with defendant	4.5% (1)
(xi) judge sympathized with defendant	4.5% (1)
(xii) insufficient notice to non-resident	4.5% (1)
	99.3% (22)

Of the reasons given for the court's disposition, several indicate a strong likelihood that the mandatory minimum sentence played a role. In the two cases where the reason was sympathy, the facts of the case clearly supported a conclusion that the defendant was guilty. In the two other cases, the firearm needed only a minor adjustment to make it operable -- a circumstance that Massachusetts caselaw holds to bring someone who carries such a weapon within the scope of the Bartley-Fox law. In an additional case, there was sufficient circumstantial evidence to support an inference beyond a reasonable doubt that the defendant carried a

firearm, though no eye witness could so testify. In the last case, a judge not noted for his receptivity to constitutional arguments accepted what is at best a tenuous challenge to the statute. In all, these six cases represent about 27% of the total. While the sample was only 22 cases and while it offers no support for a conclusion that there is any pattern of judges' evading the law, this brief survey does establish that in some cases the mandatory minimum sentence affects how a judge rules on legal questions prior to the sentencing stage.

Our general interviews with police, defense attorneys, prosecutors, and judges all revealed that a commonly-shared perception is that there are some judges who are prone to favor the defendant in Bartley-Fox cases:

BOSTON DEFENSE ATTORNEYS

Are there specific judges before whom you would prefer to appear in a Bartley-Fox case?

Yes	75%	(55)
No	21%	(15)
No Opinion	4%	(3)
	100%	(73)

Why?

Judge is fair	31%	(21)
Judge strict on evidentiary requirements	6%	(4)
Judge favors suppression motions	4%	(3)
Judge tilts toward defendant in Bartley-Fox	15%	(10)
Judge tilts toward defendant with no record	16%	(11)
Judge resents Bartley-Fox	26%	(17)
Other	1%	(1)

JUDGES

Do defense attorneys make efforts to have Bartley-Fox cases heard before you in Bartley-Fox cases?

Yes	9%	(1)
No	83%	(10)
Avoid Me	9%	(1)
Don't Know	-	-
	101%	(12)

BOSTON ADA'S

Do you find judges more favorable to defendants' cases in suppression hearings where the defendant has been charged with a Bartley-Fox violation?

Yes, easier to get evidence suppressed	43%	(9)
Judges not influenced	43%	(9)
Other -- depends on judge	14%	(3)
	100%	(21)

BOSTON AND WORCESTER POLICE OFFICERS

Do you feel that judges apply Bartley-Fox to its fullest extent?

A. Yes	39%	(30)
B. No, they will try to give otherwise innocent people the benefit of the doubt	17%	(13)
C. No, they will sometimes flout the Bartley-Fox law	25%	(19)
D. B and C	6%	(5)
E. Depends on the judge	13%	(10)
	100%	(77)

2. Worcester and Springfield.

The numbers of carrying cases in Worcester and Springfield are so small that any discussion of how the courts have changed in their pattern of disposition of cases must be discounted by the sparsity of the sample. One noteworthy feature about the response of the criminal justice system in Springfield, in light of their admitted avoidance of the use of Bartley-Fox at the charging stage, is how the court treated the Bartley-Fox cases in the 1976 sample. Table 22 (below) shows the disposition of all the Bartley-Fox cases -- whether accompanied by a serious felony or not:

TABLE 22

<u>SPRINGFIELD: 1976 BARTLEY-FOX CASES</u>		
Dismissed.....	25%	(3)
Not Guilty.....	0	--
Guilty, Appeal.....	0	--
Guilty, No Appeal.....	9%	(1)
Probably Cause Bound Over.....	33%	(4)
Reduced Charge.....	33%	(4)
	100%	(12)

The last disposition listed -- reduced charge -- represents those cases where a Bartley-Fox complaint was entered in the District Court but was reduced to a possession charge. This action represents an opportunity to avoid the imposition of a mandatory one-year minimum sentence. Reducing the carrying charge to possession was evident in 1/3 of the Bartley-Fox cases in the 1976 Springfield sample.

Table 23 (below) presents the data on how often the courts in Springfield and Worcester ruled in favor of the defendant in each year's carrying cases:

TABLE 23

Disposition of Simple Carrying Cases in Worcester and Springfield,
Proportion Favoring the Defendant

	WORCESTER			SPRINGFIELD		
	1974	1975	1976	1974	1975	1976
Dismissed Not Guilty Continued Without a Finding/Filed Charge Reduced	(5) 38%	(4) 44%	(4) 36%	(8) 30%	(2) 50%	(6) 67%
Guilty, Appeal Guilty, No Appeal Probably Cause Bound Over	(8) 62%	(5) 56%	(7) 64%	(19) 70%	(2) 50%	(3) 33%
TOTAL	(13)	(9)	(11)	(27)	(4)	(9)

Both cities showed an increase of those dispositions favoring the defendant after the law went into effect, but those numbers are too small to permit any meaningful analysis.

F. Superior Court.

1. Introduction.*

We have seen from our discussion of how the District Courts treated gun carrying cases that the advent of the Bartley-Fox law brought about no significant shift in the proportion of cases where the defendant was either convicted in the first level or sent on for trial in the second. As we discussed in the overview section, though, there was a significant decrease in the total number of defendants who were convicted at the conclusion of both District Courts and Superior Court processes. Clearly, the explanation lies in the second stage of Massachusetts' trial system.

This shift away from convictions can be seen in Table 24 (below):

*Only the Boston Court sample presented a sufficient number of Superior Court cases to enable any sort of analysis. Thus, this section has no mention of the Superior Courts in Worcester and Springfield.

TABLE 24

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Disposition of Carrying Cases After District Court Process

	1974	1975	1976
Total Number of Cases	(263) 100%	(198) 100%	(151) 100%
Cases Not Proceeding Toward Conviction	(121) 45%	(95) 48%	(79) 52%
Cases Leaving District Court Process	(144) 100%	(103) 100%	(72) 100%
- Cases Missing	(6) 43%	(5) 5%	(4) 6%
- Cases Not Disposed (Default & Pending)	(6) 4%	(21) 20%	(20) 28%
Cases Disposed After District Court	(132) 100%	(77) 100%	(48) 100%
Guilty, No Appeal & Appeal Withdrawn	(82) 62%	(10) 13%	(6) 13%
No Carrying Case in Supreme Court	(11) 8%	(6) 8%	(3) 6%
Dismissed/Filed	(10) 8%	(15) 19%	(10) 21%
Not Guilty	(1) 1%	(9) 12%	(10) 21%
Guilty	(28) 21%	(32) 42%	(17) 35%
- Plea of Guilty	(18) 13%	(24) 31%	(10) 21%
- Guilty, Trial	(10) 8%	(8) 11%	(7) 14%
Guilty, Reduced Charge	(0) 0%	(5) 6%	(2) 4%

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This Table shows how carrying cases were disposed by the court system in Boston, other than by washing out at the District Court stage. In each year, the total number of cases is reduced by those which never leave the District Court as either a conviction or a case bound over to the grand jury. The proportion of such cases changes from 45% in 1974 to 52% in 1976, but the change is not significant. From the total of the cases that are left, we are concerned only with those for which a final resolution was reached. Thus, we have excluded pending cases; those where the defendant defaulted and the case was never resolved; and those where we have no information. What is left is a picture of how carrying cases proceeded on from the District Court (where there was no significant change brought about by Bartley-Fox) to either a sentence, or to their ultimate conclusion in the Superior Court level.

The biggest difference between 1974 and the subsequent years is the large decline in the proportion of these cases where the District Court sentence ended the matter: cases where the defendant did not appeal or withdrew his appeal. This category went from 62% before Bartley-Fox to 13% in 1975 and 1976. Clearly, increasing the stakes by a mandatory minimum sentence provoked defendants to utilize more of the procedural protections built into the system by taking their case as far as it would go -- in this event, to the Superior Court.

After Bartley-Fox, a larger proportion of cases was concluded in the Superior Court. And of those, there was a difference in how the carrying defendants were treated. Table X (below) shows the total number of cases which were either appealed or bound over each year, and those cases which did not reach a final resolution in Superior Court:

TABLE 25

Disposition of Carrying Cases in Boston's Superior Court

	1974	1975	1976
Total Appeals and PCBO	(63)	(94)	(69)
- Defaults in Superior Court	(6)	(12)	(6)
- Appeals W/D	(1)	(1)	(3)
- Pending	-	(9)	(14)
- No Info	(6)	(5)	(4)
Cases Disposed in Superior Court	(50) 100%	(67) 100%	(42) 100%
No Carrying Indictments	(11) 22%	(6) 9%	(3) 7%
Total Carry Cases Disposed in Superior Court	(39) 100%	(61) 100%	(39) 100%
- Dis/Filed	(10) 26%	(15) 25%	(10) 26%
- WG	(1) 3%	(9) 15%	(10) 26%
- G	(28) 71%	(32) 52%	(17) 44%
- G reduced charge		(5) 8%	(2) 4%

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Of the remainder, a proportion never presented any carrying charge at all in Superior Court. In these instances, the grand jury heard the case and the court records reflect that only charges other than carrying were the subject of the indictments against the defendant.

Of the carrying cases which the superior court did dispose, there are several areas where Bartley-Fox made a difference, and one -- cases dismissed or filed -- where there was no change. The major area of difference is in the proportion of cases where the defendant was actually found guilty. Seventy-one percent of the Superior Court cases before Bartley-Fox ended up with a conviction; that figure fell to 52% in 1975; 44% in 1976. The decline was a statistically significant difference. As the proportion of guilty verdicts decreased, there was a corresponding rise in the proportion of not guilty verdicts and dispositions where the defendant pled guilty to a reduced charge. We will explore each of these areas in further detail, starting with the category that remained the same -- dismissals.

2. Dismissals.

The proportion of superior court cases which ended up being dismissed did not change after Bartley-Fox. It was 26% in 1974, 25% in 1975, and 26% in 1976. This type of disposition can be one escape valve for prosecutors and judges who did not want to place a defendant in jeopardy of a one-year jail sentence, since the Bartley-Fox law did not prohibit the dismissal of gun carrying cases. If we look at Table 26 (below), we see the reasons for the dismissal of cases in each of the three years:

* Chi sq. = 6.58; $p < .05$.

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TABLE 26

Boston Superior Court Carrying Cases

Reasons for Dismissal

	1974	1975	1976
Defendent plead guilty to other charges, no jail committment	--	1	2
Defendent plead guilty to other charges, jail committment	1	4	--
Successful legal challenge by defendent	--	2	2
Motion of committment, no reason apparent	2	1	3
Defendent died	2	1	2
Defendent not competent to stand trial	--	1	--
Reason unknown	5	5	1
	10	15	10

For the cases arising after the law's passage, there are a small number of cases where there is the possibility that the one-year mandatory minimum jail sentence played a role. For example, where the defendant pled guilty to another charge and was not sentenced to jail after his plea, the dismissal of the Bartley-Fox charge probably played an integral role in the plea negotiation. Even where the dismissal was accompanied by a plea of guilty to other charges that resulted in a jail sentence, the defendant still may benefit by not facing a Bartley-Fox conviction. The reason is that he may be eligible for parole earlier; even if not, he may participate more widely in prison release programs than if he had to serve a Bartley-Fox sentence. However, although some gun carrying cases may be dismissed with an eye toward avoiding the one-year jail term, the level at which dismissals of gun carrying cases took place remained just about the same after Bartley-Fox as before.

3. Reduced Charges.

One type of disposition of carrying cases that did increase after Bartley-Fox, though, is allowing the defendant to plead guilty to the crime of possession, rather *than* to carrying. An indictment or complaint charging a defendant with a crime, as a matter of Massachusetts law, is also sufficient to charge the defendant with any lesser included offense. Possession of a firearm is a lesser included offense. In 1974, there were no carrying charges reduced to possession at all. In 1975, 5 cases were convictions of a reduced charge, of which 4 were pleas of guilty.

In 1976, there were 2 convictions of a reduced charge, of which one was a plea. In the two years after Bartley-Fox, of the 5 defendants who pleaded guilty to the reduced charge of possession,

3 received a suspended sentence. These were all defendants who had been tried in the district courts, convicted, sentenced to one year in jail, and appealed. In the two remaining cases, the defendant was sentenced to jail on the possession charge, but to a considerably less severe jail term than the one year mandated by Bartley-Fox. In these 5 cases, then, as in a few of the cases which were dismissed, the court system has reacted in a sense to avoid Bartley-Fox. It disposed of gun carrying cases in ways other than a trial, in a manner which would not be necessary if it weren't for the mandatory minimum sentence.

Our interviews with Boston area defense attorneys, prosecutors, and judges evoked a response from a majority of them that prosecutors do take into account in deciding to reduce carrying charges or dismiss a case, the fact that the defendant's record did not warrant one year in jail.

For what reason do prosecutors, in your experience, nolle prosequere, dismiss, or seek a reduction of charges in a Bartley-Fox case?

	Boston Defense Attorneys		Judges		Boston Prosecutors	
Evidence didn't support charge	(6)	77%	(2)	40%	(5)	45%
Defendant's record didn't warrant Bartley-Fox situation	(10)	37%	(3)	60%	(3)	27%
Both	(9)	33%	-		(2)	18%
Other	(2)	7%	-		(1)	9%
	(27)	99%	(5)	100%	(11)	99%

4. Guilty Pleas and Plea Bargaining.

As we have discussed, the proportion of guilty verdicts in Superior Court decreased after the Bartley-Fox law went into effect. This decrease was due in part to the advent of guilty pleas to reduced charges. It was also due to a decrease in the proportion of trial verdicts that convicted the defendant of the carrying charge.

Table 21 (below) presents a detailed picture of the mechanism by which the Superior Court disposed of the carrying cases before it in each year's sample:

TABLE 27

Breakdown of Boston Superior Court Carrying Dispositions

	1974	1975	1976
Total Cases	(39) 100%	(61) 100%	(39) 100%
Dismissed	(10) 26%	(15) 25%	(10) 26%
Trial	(11) 28%	(18) 30%	(17) 44%
- Trial, Not Guilty	(1) 3%	(9) 16%	(10) 26%
- Trial, Guilty Reduced Charge	(0) 0%	(1) 2%	(1) 3%
- Trial, Guilty	(10) 26%	(8) 12%	(6) 15%
Plead Guilty to Reduced Charge	(0) 0%	(4) 7%	(1) 3%
Plead Guilty	(18) 46%	(24) 39%	(10) 26%
- Carrying Sentence Concurrent to Longer Sentence	(2) 5%	(13) 21%	(3) 8%
- Carrying Sentence, Non-Jail	(9) 23%	(0) 0%	(0) 0%
- Carrying Sentence, Jail	(7) 18%	(11) 18%	(7) 11%
Guilty, Unknown if Plead at Trial	-- --	-- --	(1) 3%

There is a small increase in the proportion of cases going to trial after Bartley-Fox (28% in 1974; 30% in 1975; 45% in 1976), but a much larger increase in the proportion of trial verdicts which are favorable to the defendant (2% in 1974 ; 18% in 1975; 28% in 1976). Also accounting for the trend, there is as we have said, a rise in guilty pleas to reduced charges; and as well, a slight decline in the proportion of cases in which the defendant pleads guilty to a carrying charge.

Table 27 also provides a breakdown of the guilty pleas, indicating those where the defendant received a carrying sentence that was concurrent to a longer sentence on another charge. As we discussed in the overview section, in such cases the carrying sentence is of no real practical effect.

The category of guilty pleas in carrying cases where there was no practical effect on the defendant and the category of guilty pleas to a reduced charge, are two indicators of the extent of influence that Bartley-Fox had on plea bargaining. Both indicate situations where the defendant chose to forego a trial and in return for his admission of guilt received a favorable sentence on what was originally a carrying complaint. A third indicator of plea bargaining is where

*The participation and agreement of both the prosecutor and the judge is necessary when the defendant pleads to a reduced charge. When the defendant pleads guilty to the original carrying complaint but receives a favorable sentence, the prosecution may not have recommended the result. However, given the normal workings of plea bargaining, it is very likely that the prosecutor did agree to the judge's eventual sentence as part of the deal. While not all of the cases in this category may indicate a plea bargain, their total number is an indication of the frequency of plea bargaining which results in favorable results for the defendant on the carrying charges.

the carrying charge is dismissed, but the defendant pleads guilty to other charges. In all the other guilty plea situations, it doesn't appear that the defendant received any advantage for not going to trial.

In the 1974 sample, 31% of the total cases appear to have been disposed of as a result of a plea bargain. In 5% (2 cases) the defendant pled guilty to a carrying charge and received a sentence concurrent with a longer sentence on another charge. In 23% (9 cases) the defendant pled guilty to carrying but received no jail sentence at all. In 3% (1 case) the defendant pled guilty to other charges and the carrying charge was dismissed.

In cases from the 1975 sample, after Bartley-Fox, 36% of the total cases appear to have been disposed of by a plea bargain. In 7% (4 cases) the plea was to a reduced charge. In 21% (13 cases) the defendant's sentence on the carrying complaint had no practical significance. In 8% (5 cases) the carrying charge was dismissed after the defendant pled to other charges. In the 1976 sample, 15% of the total cases appeared to be the result of a plea bargain (3% -- 1 case -- as a plea to a reduced charge; 8% -- 3 cases -- a plea of guilty with no practical carrying sentence; 4% -- 2 cases -- were dismissals plus a guilty plea to other charges).

Thus, the proportion of cases disposed of by a guilty plea, where the defendant received some type of favorable disposition on the carrying charge, increased in 1975, the first year of Bartley-Fox and fell in 1976. The pattern of change was not a statistically significant one.* However, the change in proportion of cases disposed

* $\chi^2 = 5.013$; $p < .10$.

of by a plea bargain -- from 31% in 1974 to 36% in 1975 to 15% in 1976 -- is interesting for two reasons. First, Bartley-Fox removed much of the conventional flexibility available in plea bargaining by banning suspended sentences. Even so, in the 1975 sample, plea bargaining increased though not in a statistically significant manner.* Second, the trend did not continue. The proportion of guilty pleas overall in the 1976 sample fell. Although the decline from the 1975 cases was not statistically significant,** it did indicate a shift away from negotiated settlements, and as we will discuss in the next section, toward trials. This diminished use of plea bargaining is what we would have expected based upon our interviews with Boston area defense attorneys.

A substantial proportion of those who were asked the extent that they engage in plea bargaining in Bartley-Fox cases, answered they spent little time, or that plea bargaining was not allowed at all. And Boston prosecutors also reflected the view that the statute precluded plea bargaining, though they acknowledged that if Bartley-Fox were one of several charges, they would plea bargain with the defendant.

* $\chi^2 = .32$; $p < .7$.

** Chi Sq. = 2.57; $p < .2$.

BOSTON AREA DEFENSE ATTORNEYS

To what extent do you engage in plea bargaining with a Bartley-Fox case?

Extensive negotiations with prosecutors	27%	(18)
Very little time spent	36%	(24)
Varies with particular case	18%	(12)
Other (mostly responses that plea bargaining not allowed)	<u>19%</u>	<u>(13)</u>
	100%	(67)

Do you find the plea negotiations with the prosecutors tougher in Bartley-Fox cases than in other similar types of cases?

Depends on particular case	29%	(16)
Prosecutors are reluctant to negotiate	33%	(18)
Prosecutors are lenient	0%	(0)
No	13%	(7)
Negotiations precluded by law	14%	(8)
Other	<u>11%</u>	<u>(6)</u>
	100%	(55)

BOSTON ADA'S

Do you engage in plea bargaining if the defendant is charged solely with a Bartley-Fox violation?

No, office policy discourages it	14%	(3)
No, statute precludes	67%	(14)
Yes, if case is exceptional	<u>19%</u>	<u>(4)</u>
	100%	(21)

If Bartley-Fox is one of several charges against the defendant, does that alter your plea bargaining practice?

Yes	44%	(7)
No difference	<u>56%</u>	<u>(9)</u>
	100%	(16)

5. Trials.

The proportion of cases going to trial after Bartley-Fox hardly increased in the law's first year, going from 28% in 1974 to 30% in 1975. It rose in 1976 to 46%. Even with the rise in the proportion of cases going to trial, the numbers were small. In the 1974 sample, there were 11 trials; in 1975, there were 18; and in 1976, 17.

Because the total number of cases in the Superior Court after Bartley-Fox were not significantly greater than before, the trend toward more trials did not overburden the system.

A much clearer trend, however, existed with respect to the results of the trials. In the 1974 cases, 91% of the defendants who went to trial (10 of 11) were convicted of carrying. This fell to 44% (8 of 18) for 1975; and 35% (6 of 17) for 1976. This decrease was statistically significant.*

Two possibilities can account for this phenomenon. The first is that the cases going to trial are more marginal than before Bartley-Fox went into effect. A defendant who faced a weak prosecution case in 1974 may well have been satisfied to accept a minimal sentence in the District Court, such as a fine. This possibility no longer existed in 1975, and weak prosecution cases that left the District Court ended up as acquittals after a Superior Court trial. One example of this type of case occurred in a trial which project staff observed in the District Court. The defendant was charged with a Bartley-Fox violation, and the prosecution's evidence consisted of the testimony of a police officer who saw the defendant from half a block away making a throwing gesture into an empty yard. When the officer checked the yard a few

* $\chi^2 = 9.15; p < .01.$

minutes later, he found a revolver. The defendant was convicted in the District Court and received a one-year sentence. Conversation with the defense attorney and the defendant made it clear that any sentence short of a jail commitment would have been acceptable. The defendant, though, appealed for a trial de novo. In the Superior Court, a jury acquitted the defendant.

The other possibility is that the Superior Court jury, or a judge in a trial without a jury, evaluated the prosecution's testimony with a bent toward acquitting defendants of a Bartley-Fox charge because of the influence of the one-year mandatory minimum sentence.

Tables *28 A and B* (below) present a breakdown of the cases which went to trial each year, showing whether it was before a judge or a jury and what the verdict was before each:

TABLE 28

Boston Superior Court Carrying Cases: Proportion of Jury Trials and Results of Trials

A)	1974		1975		1976	
Jury	(7)	64%	(10)	56%	(7)	41%
Non-Jury	(4)	36%	(8)	44%	(10)	59%
Total	(11)	100%	(18)	100%	(17)	100%

B)	1974		1975		1976	
	Jury	Non-Jury	Jury	Non-Jury	Jury	Non-Jury
Not Guilty Guilty, Re- duced Sentence	(1) 14%	(0) 0	(5) 50%	(5) 63%	(5) 71%	(6) 60%
Guilty	(6) 86%	(4) 100%	(5) 50%	(3) 47%	(2) 29%	(4) 40%
Total	(7)	(4)	(10)	(8)	(7)	(10)

Our interviews with defense attorneys indicated a much stronger preference for juries than the court records bear out. Seventy-three percent of the ^{Boston} defense attorneys interviewed said they preferred a jury in a Bartley-Fox case.

In a Bartley-Fox case, do you prefer a jury or non-jury trial?

Jury	73%	(53)
Non-jury	8%	(6)
No opinion	13%	(9)
Depends on facts	7%	(5)
	<u>101%</u>	<u>(73)</u>

The actual practice, however, showed a decline in the proportion of trials in which the defendant requested a jury: 64% of the trials for 1974 cases were without a jury; 56% for 1975; and 41% for 1976.

Although no trend toward an increasing use of juries appeared, jury verdicts after Bartley-Fox favored the defendant more often than in 1974 (14% not guilty for 1974; 50% for 1975; 71% for 1976). While this increase in acquittals is due in part to more weak prosecution cases being tried in Superior Court, it may also be a factor of the mandatory minimum sentence. Defense attorneys, prosecutors, and judges

* It is interesting to note that of the 6 cases in the 1974 sample which went to a jury trial, four of the trials occurred prior to the effective date of Bartley-Fox, and two occurred afterward. A jury ordinarily would not be sophisticated enough to realize that a crime occurring prior to April 1, 1975, even though tried afterward, would not be subject to the mandatory sentence. Of these two trials, one was a conviction and the other an acquittal. The 4 trials prior to the law's imposition were all convictions.

all felt that juries were aware of and influenced by the sentencing provision of Bartley-Fox.

In your opinion, are juries aware of Bartley-Fox's mandatory minimum sentence provision?

	Boston Defense Attorneys		Judges		Boston Prosecutors	
	%	(n)	%	(n)	%	(n)
A. Yes, even before trial	88%	(56)	85%	(11)	90%	(19)
B. Yes, defendant carrying usually gets that across	3%	(2)	-	(0)	-	(0)
C. Usually no	2%	(1)	15%	(2)	-	(0)
D. No opinion	6%	(1)	-	-	10%	(2)
E. Other	2%	(1)	-	-	-	-
	100%	(64)	100%	(13)	100%	(21)

Do you believe knowledge of the sentence is a factor in their verdicts?

	Boston Defense Attorneys		Judges		Boston Prosecutors	
	%	(n)	%	(n)	%	(n)
A. Yes, makes conviction harder	65%	(42)	73%	(8)	55%	(11)
B. Yes, makes conviction easier	3%	(2)	-	(0)	-	(0)
C. No	9%	(6)	27%	(3)	20%	(4)
D. No opinion	9%	(6)	-	(0)	25%	(5)
E. Other	14%	(9)	-	(0)	-	(0)
	100%	(65)	100%	(11)	100%	(20)

G. Conclusion.

The Massachusetts court system has adapted to the Bartley-Fox law in different ways. Officials in Springfield found they could preserve their sentencing discretion while still leaving open the possibility of a jail sentence, by foregoing the use of carrying charges and substituting possession charges. In Boston, we saw that District Court Judges in individual courts moved from either the extreme of favoring the defendant or the prosecution, toward a middle ground. After the law went into effect, District Court dispositions favored the defendant slightly less than one-half of the time. And overall, there were fewer convictions for illegal gun carrying and more defendants taking their cases as far as the legal system would allow.

Evaluating the success of the Bartley-Fox law in terms of its effect on the court system depends on exactly how the objectives of the law are defined. Certainly, the risk to a defendant charged with carrying a firearm of going to jail has increased. Not only do a higher proportion of defendants go to jail, but more than twice the proportion serve sentences that have a practical effect on how long the defendant will stay behind bars. On the other hand, a much smaller proportion of the defendants charged with illegally carrying a firearm are actually convicted, with the result the the total number of those subject to some criminal sanction has decreased. In particular, courts can no longer place defendants on probation and thus supervise and monitor their future conduct. About one-quarter of all gun carrying defendants before Bartley-Fox ended up on probation. After the mandatory sentence went into effect, some who would have been in this category went to jail, but some went free altogether. Even focusing solely on those who went to jail after Bartley-Fox

provides a contradictory message. There were defendants who did end up serving time who would not have done so without the new law, but in the entire City of Boston, they numbered at most only around 40 cases each year.

Whether this behavior on the part of the courts succeeds in getting across a "get tough" attitude about the judicial response to gun crime depends on whether people focus on the number each year who go to jail because of the Bartley-Fox law, or the number who don't. On the whole, the defense attorneys, judges, and prosecutors we interviewed felt that Bartley-Fox was not successful in persuading the decisionmakers in the criminal justice system to "get tough" with violent crime.

Bartley-Fox is reputed to have the broader purpose of persuading judges and others in the criminal justice system that it is time to "get tough" with violent crime. In your opinion, has it done so?

	Boston Defense Attorneys		Judges		Boston Prosecutors	
Yes	3%	(2)	20%	(3)	24%	(5)
No	93%	(56)	60%	(9)	71%	(15)
Don't know	3%	(2)	20%	(3)	5%	(1)
	99%	(60)	100%	(15)	100%	(21)

Perhaps the perception of the judges and prosecutors -- who are the criminal justice decisionmakers -- of the success of Bartley-Fox is colored by the fact that one effect (and an intended effect at that) was to reduce their discretion. Not surprisingly, half of them felt that the law interfered with their ability to obtain fair and effective sentencing.

Does the one-year mandatory minimum sentence interfere with your efforts to set (seek) a fair and effective sentence?

	Judges		Boston Prosecutors	
Yes	53%	(8)	50%	(10)
No	40%	(6)	50%	(10)
No opinion	7%	(1)	-	-
	100%	(15)	100%	(20)

Of those judges and prosecutors who felt the law did interfere, about half felt the deterrent value of the statute did not outweigh its detriment to their ability to obtain a particular sentence.

Does the deterrent value of the statute outweigh the detriment of limiting your ability to set a flexible sentence?

	Judges		Prosecutors	
Yes	40%	(4)	50%	(5)
No	60%	(6)	50%	(5)
	100%	(10)	100%	(10)

Perhaps the best illustration of the problems that the statute creates for judges was the case of Gary Franklin. Franklin is a black man who lived in a housing development in predominantly white East Boston. In August 1975, in a time of high racial tension, police officers arrived at the housing project to investigate a shooting. Franklin fit the description of the attacker and he was arrested. He was charged, among other things, with a Bartley-Fox violation. His case was tried before a Superior Court Judge widely reputed to be the toughest judge on the bench. At his trial, Franklin raised a significant constitutional issue. As a defense to the Bartley-Fox

charge, he alleged that as a black he was singled out for discriminatory prosecution. He offered proof that on numerous occasions whites had brandished guns with the knowledge of the police but had never been arrested. The area of law was a difficult one, since there were no Massachusetts precedents for his guidance.*

According to the judge's interpretation of the law -- which was later overturned on appeal** -- Franklin had not met the requirement to show unconstitutional discriminatory prosecution. When the jury convicted the defendant of the Bartley-Fox charge, the judge sentenced him to one year in jail. Particularly significant was a statement the trial judge made, referring to the racial situation brought out at trial:

"That whole situation, it seems to me, is utterly repugnant to our ideas of a free society under the law. If there were a way in which I could place these cases on file or suspend them, I would do so."
(Emphasis added)***

The Franklin case represents the drawbacks of a mandatory minimum sentence. Lenient sentences are not always the product of lenient judges. They may sometimes represent the only way that even a tough judge can do substantial justice in a particular situation. Confining the discussion simply to Gary Franklin's case would make it difficult to argue for the merits of a one-year jail sentence. A mandatory scheme as the trial judge recognized, will not always be a perfect fit in each individual case. But even a mandatory sentence scheme need not be entirely inflexible in practice. There is evidence, for example, that under Bartley-Fox the system has its ways of dealing with individuals who may be guilty but who should not go to jail.

*Comm. v. Franklin, 385 N.E.2d 230, n. 3 (1978).

**Id.

***Ibid.

We saw that in Boston's Superior Court plea bargaining -- where the defendant received a benefit in return for an admissions of guilt -- still went on after Bartley-Fox was in effect. Carrying cases were dismissed, or reduced to possession, to allow defendants to end up with a suspended sentence that would not have been possible with a Bartley-Fox conviction. This behavior may represent a healthy safety valve in a system that would otherwise be too inflexible. On the other hand, any change in the criminal justice system which drives discretion underground leaves itself vulnerable to the possibility that access to the avenues of discretion will not be equal for all defendants. When sentencing decisions are made in open court, the factors which are taken into account will be more visible than when the decision is made by an agreement to reduce a charge or dismiss it. Although plea bargaining would still exist if there were no mandatory sentencing, its drawbacks are magnified when mandatory sentencing curtails the normal avenue for flexibility.

Since plea bargaining opportunities for discretion come at points in the system other than the sentencing stage, they were not explicitly prohibited by Bartley-Fox. Thus, their continued use after the law went into effect does not lend itself to a simple assessment one way or the other about whether the law has been fully successful. In the one clearcut area of changes in the system Bartley-Fox brought about -- sentencing -- there has been almost widespread compliance. The judges, to whom the law was addressed, uniformly sentence defendants convicted of a Bartley-Fox violation, to at least one year in jail.

As a mandatory sentencing law, then, Bartley-Fox has been successful. But the public image of the law has been to some extent that Bartley-Fox represents an inevitable jail sentence, not just a mandatory one. As we have seen, dismissals and reduced charges as

part of plea bargains belie the image of inevitability. And even when carrying cases go to trial, the conviction rate after Bartley-Fox has fallen due to both the possibility of an element of reluctance to convict and the fact that weaker prosecution cases are appearing as Superior Court trial sessions.

The pressure that the law has placed on the criminal justice system has not been overwhelming. Escape valves still exist to syphon off egregious miscarriages of justice. The fact that the incentive for defendants to fight to the conclusion does not fall on a greater number of people than the courts can handle. A significant number of Bartley-Fox defendants are charged with far more serious crimes, and the one-year mandatory minimum sentence presents no real practical detriment to them. The lesson of Massachusetts' accommodation to a mandatory minimum sentence must, therefore, take into account these factors.

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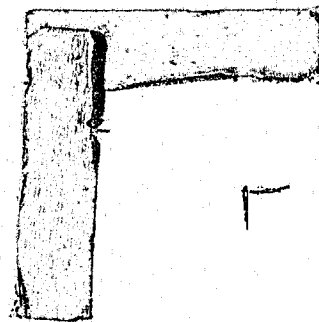
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