The Effect of Compstat on Interjurisdictional Public Budgeting: A Retrospective Comparative Analysis of Crime-Rate Spillover on Neighboring New Jersey and New York Municipalities

by

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ABSTRACT OF THE DISSERTATION

The Effect of Compstat on Interjurisdictional Public Budgeting: A Retrospective Comparative Analysis of Crime-Rate Spillover on Neighboring New Jersey and New York Municipalities

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Public budgeting is a core issue within the public administration field. Public administrators have to make difficult budgeting choices with limited public resources. How public funds are allocated is a central focus of both elected and appointed public administrators regardless of the size or make-up of a municipality. Municipalities struggle to meet the demands of their constituents and provide necessary services within a framework of limited resources and political pressure.

Law enforcement is one aspect of public budgets that is both necessary and expensive. Programs that increase the efficiency and effectiveness of law enforcement services are important factors within given budgetary constraints. Compstat is one such program that was developed and implemented by the New York City Police Department in 1994. This study uses crime rates, public budgets, demographic variables and public grants to examine whether the success that Compstat had in reducing crime rates in New York City caused spillover effects onto neighboring New Jersey and New York comparison cities. The primary focus being the budgetary effects on the comparison cities from 1991 (pre-Compstat) to 1997 (post-Compstat).

This study is a comparative analysis of: budget data, Uniformed Crime Reporting (UCR) crime-rate statistics, demographic statistics from United States Census and Community Oriented Policing Services (COPS) grant funding. New York City was

compared to four cities in Westchester County, New York (Mount Vernon, New Rochelle, White Plains and Yonkers) and four cities in New Jersey (Elizabeth, Hoboken, Jersey City and Newark).

The comparative analysis revealed that while the New York comparison cities experienced crime rate declines from 1991 to 1997, they did not experience unusual budget increases. The New Jersey comparison cities crime rates fell but remained higher than the New York comparison cities and New York City. The main finding was that the New Jersey comparison cities experienced substantial upticks in their total police budgets from 1994 to 1997. Regressions and correlations were performed on relevant data that upheld the null hypothesis that Compstat in New York City had not effect on UCR crime rates in the New Jersey and New York comparison cities. The dissertation concludes that the comparative analysis produced mixed results, especially in New Jersey, where police performance lacked commensurate budget accountability.

Dedication

For my wife Mary Theresa and our daughters Cailin, Braelee and Saige.

Table of Contents

Chapter 1: Introduction

Public budgeting is a core issue within the public administration field. It is imperative that public administrators in all jurisdictions and sizes understand the financial constraints imposed by various components that make up their budgets. A major aspect/feature of a majority of a municipality, county, state or federal budget is law enforcement. Law enforcement encompasses not just the police or investigative bodies, but also corrections, parole, district attorneys, and their counterparts or surrogates. Law enforcement is a major requirement in our civil society that needs to be properly accounted for in the budgeting process. While political issues play a significant role in government funding, public revenues in the form of taxes and other fiscal sources create a limited monetary resource that has to be divided among many budget areas.

Chapter 2: Public Budgeting

A. Budgeting: An Introduction

Commonly, law enforcement officials are asked by stakeholders to do more with a lot less resources. One indicator is the many years taken to agree on law enforcement contracts in large jurisdictions, such as New York City and Los Angeles. These demands place a burden on both law enforcement agencies and the governments they serve, as well as the officers on beat and the citizens they serve.

Many factors influence law enforcement budgeting. The largest component lies in the salaries and benefit obligations of the police department. Other costs include new and replacement equipment, working operational facilities and civilian and uniformed support staff. Keeping within budget often necessitates difficult choices that can lead to lower staffing levels that ultimately affects the safety of the police personnel and their stakeholders.

Law enforcement agencies employ many strategies to combat crime. Ultimately, successful strategies are impacted by crime rates. Movements in crime rates can affect public budgets, especially if crime increases and public revenue decreases. Sometimes, these contradictory factors create a no-win situation in which governments are put in an unenviable position of facing diminished revenues while dealing with demands for increased police budgets to combat growth rates in crime.

The strategies law enforcement agencies employ to combat crime and minimize crime rates have met with various degrees of success and failure. The major purpose of

this paper is to examine how specific anti-crime strategies affect crime rates and, in turn, public budgets among municipalities. In particular to determine whether these coping strategies from one jurisdiction are having adverse effects on a neighboring municipality's police budget due to any negative externalities.

Many support programs have aided police agencies in their efforts to control crime. Community policing, for one, has its roots in the "cop on the beat" concept that pre-dates motorized patrolling. Traditionally, it is the utilization of police budgets to provide the best allocation of personnel deployment and maximum resource use that is the principal goal of police administrators. Recently, the "broken windows" theory, or quality control measures, and related theories of law enforcement have helped put an emphasis on removing the underlying physical causes of crime. In effect, the concept of police working proactively in the pursuit of preventing crime and taking away environmental opportunity to commit crime have been positive steps in lessening crime rates. The development of the Compstat (Computer Statistics) program by the New York City Police Department in 1994 was a key strategic law enforcement innovation. The program calls for crime mapping, precinct accountability, resource allocation adjustments, judicious manpower deployment, and the eventual decentralization of command. Underlying these strategies is the willingness to adopt advances in computer technology that allow the Compstat program to identify and track crime patterns statistically, thereby, making precinct captains and borough commanders responsible for their sectors.

The concept of crime spillover or displacement has been a topic in law enforcement for many years. The general notion holds that if crime is suppressed in one

area, it will spillover, move, or be displaced, into other geographical areas. This view is opportunistic. That is, if an opportunity to commit crime is removed, criminals will shift their unlawful activity elsewhere. In theory, this transfer can cause new crime areas to appear, which often increases police budgets and the need to develop tactics to combat the spillover in crime. In public policy terms, the phenomenon would be called an "unintended consequence" or an "externality." The results could be positive or negative

Specifically, the overall purpose of this study examines the Compstat program in New York City as it relates to crime spillover or displacement in crime rates among neighboring cities located in nearby northern New Jersey, and Westchester County, New York. The dependent variable links a common research question concerning public administration in the form of budgeting outcomes. A research integration of this material - which the literature leaves largely unexamined - will provide a basis for further studies.

Budgeting is an important part of fully functioning government. The study of public administration devotes considerable attention to how this facet of government impacts the allocation of limited resources to support the actual functioning of a municipality. Lee and Johnson (1998) summarize the situation in that: "public budgeting involves the selection of ends and the selection of means to reach those ends…public budgeting systems work by channeling various types of information about societal conditions and about the values that guide resource allocation decision making" (p. 1). Analogously, determining whether the spillover of crime as an externality - broadly defined as either a positive or negative unintended consequence - occurs from one jurisdiction to another could have an adverse effect on a neighboring municipality's budget, thereby, becoming an important issue in allocating public resources. The

following discussion outlines the major issues relating to budget-making and externalities without specific references to the study time frame of the mid-1990s. The latter will appear when the examples of municipalities neighboring New York City are introduced.

Technically, budgeting externalities defy the ordinary non-excludability of public services. If: "government service consist of those from which individuals cannot be excluded, but for which benefits, or costs, extend beyond those involved in the immediate service provisions…[then] economists label the benefits [or costs] that spill over to the rest of society externalities" (Lee and Johnson, 1998, p. 5). Spillover costs: "refer[s] to the uncompensated damages that parties to a transaction inflict on others, usually innocent third parties…costs that are not in the [a] budget that government incidentally inflicts upon the citizenry in the course of its activities…these spillovers include the costs of complying with regulations, taxes, and intergovernmental mandates, and all the myriad inconveniences that government imposes on its citizens and clients" (Stanbury and Thompson, 1995, p. 421). Problems of spillovers are that they: "are of a different character [from ordinary budgeting] entirely because the costs of externalities are often very unevenly distributed" (Howell-Moroney, 2008, p. 103). Criminal justice expenditures may be affected if a positive outcome from one community causes a negative spillover into another, thus leading to calls for an increase in police budgets to combat such a negative externality of higher crime rates.

B. Public Budgeting Concepts

V. O. Key, Jr. summed up the budgeting process as: "the budget-maker never has enough revenue to meet the requests of all spending agencies, and he must decide (subject, of course, to subsequent legislative action) how scarce means shall be allocated to alternative uses. The completed budgetary document…represents a judgment upon how scarce means should be allocated to bring the maximum return in social utility" (Key, 1940, p. 110). This passage is still relevant in today's budgetary world, asking the prevailing question of allocating scarce resources to satisfy constituents, especially in terms of public safety. The allocation of public funding on one department can limit the effectiveness and efficiency of another public department. How officials involved in the budgetary process divide the budget funds never ceases to be an important topic, whether it is for schools or police departments, the concept of scarcity and limited resources remains at the forefront of public budgeting.

Another aspect of public budgeting that expands the concept of decision making can be found in how a budget decision can not only effect the present but also the future. Verne B. Lewis exclaimed that: "Budgetary decisions have to be based not only on relative needs as they are today but also on forecasts of what the needs will be tomorrow, next year, or in the next decade" (1952, p. 192). This is especially relevant in the public sector when budgetary funds are allocated to programs such as Compstat. Public officials must look at a programs long term viability to determine whether investments will yield long term societal good, such as lower crime-rates with the implementation of Compstat.

Allen Shick, is his 1966 article “The Road to PPB: The Stages of Budget Reform” states that: “Program budgeting (PPB) is planning-oriented; its main goal is to rationalize policy making by providing (1) data on the costs and benefits of alternative ways of attaining proposed public objectives, and (2) output measurements to facilitate the effective attainment of chosen objectives” (p. 268). The use of data to drive the allocation of public funds is a concept that allows public administrators to plan on meeting their objectives with limited resources.

Policy analysis was described by Aaron Wildavsky as a process that: “aims at providing information that contributes to making an agency politically and socially relevant…is not concerned with projecting the status quo, but with tracing out the consequences of innovative ideas, it is a variant of planning. Complementing the agency’s decision process, policy analysis is a tool of social change” (1969, p. 320). Wildavsky developed Planning Programming Budgeting Systems (PPBS) that: “discredits policy analysis. To collect vast amounts of random data is hardly a serious analysis of public policy” (1969, p. 327). This theory rests more upon giving top policy makers additional input into the budgetary process by narrowing the scope of the budgetary issues.

The concept of performance-based budgeting takes the PPB and PPBS concepts and incorporates performance measurement into the budgeting process. In their book Performance Measurement: Building Theory, Improving Practice, Patria de Lancer Julnes and Marc Holzer discuss how the United States Government Accounting Office (GAO) examined “results-oriented budgeting” as having several themes: “[1] Performance informs budget formulation and implementation, [2] Agencies must have

the capacity to produce reliable budget estimates that relate performance, budget, spending, and workforce information in a credible and useful manner, and [3] An agency should continuously improve its programs and operations and seek approaches to maximize limited resources" (2008, p. 47). The authors confer that: "the GAO recommended that agency management should use information about program effectiveness and efficiency, such as program evaluations or benchmarking studies, to challenge existing operating procedures and methods of program delivery and to identify alternatives that may accomplish agency goals more efficiently and effectively" (2008, p. 48). The concept of results-oriented budgeting is important when discussing police programs such as Compstat. Municipal governments must measure a program efficiency and effectiveness against the costs of implementing and sustaining a new program.

A "budgeting for outcomes" concept was developed by Barnett and Atteberry in 2007 that asserts: "determining how much revenue will be available and what results matter most to citizens; deciding how much to spend to achieve each result and how best to deliver the results that citizens expect" (Julnes and Holzer, 2007, p. 51). This budgeting concept relies on long-term planning stability and clear goal definition. Unfortunately, politics are involved in budgeting processes and it is difficult to maintain long-term planning and goals with the volatility of election cycles and shifting public expectations with limited public resources.

Each of these budgeting theories are applicable concepts for modern pubic administrators. For police administrators, the budgeting process is an important tool for crafting an efficient and effective police force. Initiating new programs, such as Compstat, involves additional funding. The allocation of limited public resources is

difficult for administrators, especially when constituents demand lower crime rates and safer neighborhoods. Balancing needs and wants within the framework of scarce resources is the challenge faced by public administrators, making proper planning and resource allocation a top priority.

C. Budgeting Externalities – Tiebout's Theory

Crime rates are certainly not the only possible public budgeting externality. In general, the way in which municipalities deal with their budgets can have an effect on the willingness of people to reside in or move from a community. The transparency [disclosure] of public education can be an important factor in a person's decision to stay in or to leave a community. Taxes play a major role in many people's decision to live in a particular community.

The seminal work, *A Pure Theory of Local Expenditures*, by Charles Tiebout in 1956 suggests that citizens: "vote with their feet." According to Tiebout: "in terms of a satisfactory theory of public finance, it would be desirable (1) to force the voter to reveal his preference; (2) to be able to satisfy them in the same sense that a private goods market does; and (3) to tax him accordingly. The question arises whether there is any set of social institutions by which this goal can be approximated" (p. 418). Tiebout postulated that people will: "find the community that provides their optimal bundle of taxes and public goods" (Banzhaf and Walsh, 2008, p. 843). While discussing Tiebout's theory Michael Howell-Moroney (2008) recently state that: "when faced with a variety of communities from which to choose, consumers do seem to live in areas that most closely

approximate their demand for services" (p. 98). Related tests of Tiebout's theory have been done throughout the ensuing years and have reached similar conclusions.

Banzhaff and Walsh's study in 2008 is representative. They use: "a theoretical model that predicts relative increases in population density for neighborhoods that experience an exogenous marginal improvement in public goods…for discrete improvements, the model predicts increased relative population density in 'most' cases and relative increases in mean neighborhood income for 'large' improvements" (pp. 843-844). The authors' findings conclude that: "our results are consistent with the hypothesis generated from a simple Tiebout model and affirm Tiebout's hypothesis that households do "vote with their feet" in response to local public goods. They also are consistent with recent findings on the potential gentrification effects of exogenous improvements in local amenities" (p. 862). As a recent example, low-income residents in New York City are objecting to Mayor William DeBlasio's plan to gentrify their neighborhoods.

While Tiebout's theory seems to be the standard approach to public budgeting, a few deficiencies with the theory have been noted. One such deficiency is the lack of social equity in the equation. According to Michael Howell-Moroney:

> Distinguishing between service and spillover problems is important for a number of reasons. First, these classes of problems pose different normative challenges for the practice of local government administration. Service problems present questions that largely center on concerns of efficiency and economy, involving fewer entanglements with first-order social equity concerns such as class-and-race-based segregation. Spillover problems, while tangentially concerned with efficiency, are more squarely problems of equity. These normative challengers from different quarters often place us on the horns of the age-old dilemmas post by trade-off between efficiency and equity. Second, just as the normative challenges are different, so, too, are these different classes of problems often amenable to drastically different institutional and policy approaches (2008, p. 99).

These social equity concerns have merit and could undermine the validity of Tiebout's theory.

Howell-Moroney further holds that in order for the theory to work in Social Welfare: "there must be no spillover effects from municipality to municipality…the harms and benefits that accrue to citizens in a given locale should not appreciably affect outcomes in other areas…if people are not paying the 'true' costs associated with a particular institutional arrangement, we have a problem of price distortion, also known as an uncompensated externality" (p. 100). In effect, Tiebout's theory could be extrapolated to determine the influence crime rates have on people's choice of where to live. If citizens "vote with their feet" does this extend to how crime rates in a community affects where people chose to live? Given that budgets are limited, does an increase in crime cause a negative spillover in expanded police budget allocations at the expense of other budget items that may be desirable to current and potential residents? These questions affect how a community that budgets to confront increases in crime could result from spillovers of successful crime prevention in a neighboring community.

D. Budgeting Externalities – Tax burdens

Taxes also have consequences for municipalities. In the current climate of fiscal restraint since 2008's financial troubles, federal, state and local tax situations continue to have adverse effects on citizen choices of where to live. Housing foreclosures have approached Depression-like conditions (Streissguth, 2013, p. 1). New York State, for example, has dealt with these realities for many years as taxpayers and businesses have

left the high taxes imposed by the state and local governments and moved to places with lower tax rates. The negative spillover of higher taxes can lead to an exodus of taxpayers who chose to live in states that provide financial incentives, such as lower taxes. As Baicker (2005) asserts: the tax spillover among states can cause localities to reduce services: "if businesses or wealthy taxpayers will move out of the jurisdiction [as a] response or if net program recipients will move in," (Baicker, 2005, pp. 529-530) thus, losing taxpayers and businesses while leaving behind additional tax burdens.

The burdens of federal and state income tax systems themselves can be costly. The costs to taxpayer and municipal entities detract from the financial well-being of both systems. Stanbury and Thompson (1995) suggest that: "government spillover costs are wasteful only when they are unnecessary or excessive – that is, when total costs, including all compliance costs, exceed the benefits produced by the spillover-creating activity" (p. 421). The current issue of the Affordable Healthcare Act has caused many to live with certain doubts about their financial commitments (Seib, 2013, p. 2). For example, some (lower tax) states are refraining from participating in this program because they anticipate future unreimbursed liabilities. Business hiring, even after the ebbing of the 2008 recession, has not been as robust due to these uncertainties, especially in what constitutes full-time employment. Such unforeseen conditions of the Affordable Healthcare Act can be seen as creating negative externalities that affect public budgeting as well as taxpayer choice on living locations. These current issues are not unlike the possibility of Compstat creating negative externalities for neighboring communities after it was implemented in 1994.

E. Budgeting externalities – Public Education

School taxes are another area of concern when dealing with public budgets. Hence, school budgets face steady amounts of public scrutiny. Many parents choose to live in districts with higher-rated schools, even if they have to pay higher taxes, this prevails in Westchester County, New York. In turn, due to higher school taxes, citizens might then look for municipal budgets to be efficient as an offset. This compliance situation puts an additional strain on public administrators when completing their budgets.

The consequences of a downturn in the economy can lead to a drop in local tax revenue. If a school district: "becomes less desirable, wealthier households will exercise their exit option, and a greater concentration of low-income households may result" (Howell-Moroney, 2008, p. 101). This negative externality can cause spillover of people leaving poorer-performing school districts and moving to better graded school districts in other communities. In this case: "voters will decide how much education they desire [for their children] by comparing the marginal benefits of education with their marginal tax prices" (King, 2007, p. 451). A most common example of this type of competition is referenced as: "beggar thy neighbor," whereby, one jurisdiction offers tax incentives to lure a business away from a neighboring one, even from a distant location. This undercutting results in unemployment in the "losing" jurisdiction. In the U.S., this tactic has been especially employed in attracting new businesses, notably, in competing for foreign car manufacturing plants.

There are obvious positive and negative externalities from public education. A positive spillover occurs when a student receives an education that theoretically results in getting a job and paying taxes. To achieve a positive externality in this regard: "spending on public education is determined in a political framework in which voters have demands for the output derived from education" (King, 2007, p. 450). On the negative side: "spillover benefits create problems for markets only when a person is not fully compensated for the generation of these spillover benefits" (King, 2007, p. 448). Crime rates are similar to this phenomenon when a community spends funds on police budgets with the expectation of lowering crime rates, but do not gain the respective declines.

Therefore, spillovers even occur between budget items appear when a municipality's policy objectives conflict. An example would be: "spillover that arises if expenditures from an education budget impacts on the provision of law and order...the social rate of return to education differs from the private rate of return to education because there are externalities…individuals are more likely to find employment when they are educated and the likelihood of crime is lower if individuals are employed" (Abbott, 2012, p. 921). This line of reasoning, of course, is speculative, but illustrates the effect spillover can have between budget items. The impact of externalities, in sum, assumes an operational rational actor who weighs costs and benefits.

F. Budgeting with Limited Resources

The phrase “do more with less” permeates discussion in the public sector, especially in regards to budgeting. Resources are scarce when compared to the needs of citizens and municipal leaders. The public sector lacks private sector profit motive and instead provides services that yield public goods and externalities. (Lee and Johnson, 1998, pp. 3-5). Profit is replaced by alternate revenue sources such as taxes and fees, leading to limited resources for meeting constituent demand for services.

Donald Axelrod posits that: “Budgeting is the nerve center of government. It is a decision-making system for allocating funds and tapping resources in order to achieve governmental priorities and objectives efficiently, economically, and effectively” (1995, p. 1). He further states that budget: “decisions influence what proportions of national resources go to the public and private sectors, public priorities, the goals and objectives…and other claims that various groups in society make on the public purse. As a result, the budget reflects the aspirations, values, social and economic policies and services of government” (p. 1). Public budgeting is therefore tied into more than just plowing the roads and providing police and fire services, it is a part of government that funds our public psyche.

Axelrod continues: “Budgeting has therefore become one of the chief political decision-making systems…virtually every decision entails budgeting considerations. Overshadowing policymaking is the umbrella of fiscal constraints. The key questions are “What shall we do?” and “Can we afford it?” They are inseparable.” This is the crux of

municipal policy makers and executors, be it a mayor-council or city manager form of government. Public decision makers have to strike a balance between fiscal restraint and political pressure.

Lee and Johnson describe public budgeting systems as: "the selection of ends and the selection of means to reach those ends." (1998, pg. 1). They further state that: "Public budgeting systems work by channeling various types of information about societal conditions and about the values that guide resource allocation decision making." (1998, p. 1). Public budgeting systems therefore have to balance the needs of society with the reality of limited resources.

The decision making process of municipal leaders involves the above factors, especially in regards to the political nature of the budgeting process. Lee and Johnson identify three types of decision making: [1] Rational Decision Making, [2] Incrementalism, and [3] Limited Rationality. The authors describe rational decision making as: "First, all of an organization's or a society's goals must be ranked according to priority. Second, all possible alternatives are identified. The costs of each alternative are compared with anticipated benefits. Judgments are made as to which alternative comes closest to satisfying the relevant needs or desires. The alternative with the highest payoff and/or cost is chosen" (1998, p. 18). This type of decision making makes sense, yet it does not account for politics or priority, both of which are not always rational.

The next concept of decision making is incrementalism that: "involves a conflict of interests and a corresponding clash of information, resulting in the accommodation of diverse partisan interests through bargaining. "Real" decision making is presumed to

begin as issues are raised by significant interest groups that request or demand changes from the existing state…decisions represent a consensus on policy reached through a political, power-oriented bargaining process." (Lee and Johnson, 1998, p.19). Incrementalism melds the political process into public decision making. This is especially relevant to the public budgeting process, when funds can be allocated incrementally, avoiding all or nothing funding. This allows for programs to be phased in, which can be viewed as a plus for law enforcement budgets. Compstat program implementation needs funding; it may be advantageous for police departments to phase the program in on an incremental basis to soften budgetary increases for a new Compstat unit and additional police officers.

Lastly, limited rationality is a mixture of the other two decision making approaches. According to Lee and Johnson, limited rationality: "recognizes the inapplicability of pure rationality to complex problems. While acknowledging the inherent constraints of human cognitive processes, limited rationality does not suggest that a deliberate search for alternative approaches to goal achievement is of no avail. Searching for alternatives is used to find solutions that are satisfactory although not necessarily optimal." (p. 20). This approach melds the other theories yet does not yield a definitive middle ground that will satisfy either view.

G. Public Budgeting Conclusion

Budgeting is essential to the well-being of any governmental body. Budgeting decisions can positively affect the robustness of a community, whose absence can

otherwise result in negative spillovers due to taxpayer flight. The concept of Pareto Optimality is useful in determining propriety in budgeting, or where a public entity enjoys maximum benefits, such that any change from that position would harm some section of the society. Such an outcome is difficult to attain if negative spillovers affect the budgeting process. In particular, this study concerns itself with whether spillovers from a successful New York City crime prevention program has had a negative spillover of increased criminal justice spending in smaller neighboring jurisdictions. The study is, therefore, retrospective in its employment of relevant data.

Chapter 3: Compstat

A. Introduction to Compstat

This Chapter explores policing strategies, specifically the Compstat program developed and implemented by the New York City Police Department starting in 1994. The gestation of Compstat and its program specifics will be explained to gain an understanding of its rationale. The goal of this chapter will be to provide the reader with a comprehensive understanding of the Compstat program and why some observers consider it a success in suppressing crime rates in New York City after its implementation in 1994. Critiques of the program will also be presented, including the latest [and favorable] report on the effectiveness of Compstat by the Brennan Institute of New York University in February 2015.

The origin of the Compstat (Computer Statistics) program by the New York City Police Department in 1994 represents a key law enforcement innovation. The program calls for crime mapping, precinct accountability, resource allocation adjustments, judicious manpower deployment, and the eventual decentralization of command, together balanced with a managerial adoption of decentralized accountability. Advances in computer technology allowed the Compstat program to identify and track crime patterns that led to New York Police Department precinct captains and borough commanders becoming singularly accountable for their sectors. The initial impetus for the program derives from a theory of crime rates articulated by Wilson and Kelling (1990). The essential concept simply states that crime rates increase when jurisdictions allow “broken windows”, or low-level incidents, to fester, including misdemeanors.

The Compstat system's birth arose as an outcome of a New York City Police Department's special unit initiated by Commissioner William Bratton in 1993. The initiative addresses three critical goals: (1) reducing crime, (2) increasing residents' quality of life, and, (3) improving both community police personnel relationships and resource management.

Compstat's eventual success in New York City (NYC) allowed for its diffusion and subsequent adoption and implementation in other cities across the country and globe. Basically, the system's core dimension centers on timely processing of the Federal Bureau of Investigation's (FBI) Uniformed Crime Reporting (UCR) statistics by geographical sector that is calculated for the entire City of New York, and then for each of its five boroughs and its precincts. In macro terms, violent crime in NYC decreased since 1995. Using the FBI's UCR, which will be elaborated subsequently, the total figure for violent crime in New York City stood at 115,156 in 1990. By 2000, it dropped about 34% to 75,692, and continues to fall to the present. From 1985 to 1990, however, violent crime in New York City decreased 15%, from 135,152 to 115,156. Compstat possesses a flexibility in its structure and process that allows for its adoption in varying degrees and shapes by different-sized departments, such as the City of Baltimore's extension to other agencies.

What type of technology is Compstat? Christenson (2000) identifies innovative technology as dichotomous. On one hand, technology can be continuous. This type involves augmenting or supplementing existing programs. An example is Microsoft creating its own Internet browser long after others had introduced this technology. Minimal organizational adjustments are necessary. However, on the other hand, a

disruptive technology requires reformatting organizational structures. For example, the introduction of distance learning in higher education required organizations to create independent technologies or units to handle the shift. From its inception, Compstat differentiated itself as a unique enterprise in the NYPD and it continues as such. Compstat can, therefore, be viewed as a disruptive technology.

Compstat's disruptiveness also reflects in its adoption by municipalities in non-law enforcement departments, such as public works or parks and recreation. As indicated, the City of Baltimore, Maryland, developed the Compstat model into Citistat that utilizes the same concepts to all municipal services. Obviously, appropriate measures need to be retrofitted, but the system's flexibility allows for the incorporation of variations to afford a municipality more opportunity to create and improve performance measurement to ultimately provide better services.

B. History of Compstat

The prevalence of crime in New York City should come as no surprise to anyone familiar with urban areas. Efforts to control crime have been ongoing since the inception of the New York City Police Department (NYPD) in 1845. The NYPD has grown into one of the largest police forces in the world. Its force of 34,500 uniformed officers is more than Los Angeles' 24,000 whose population is two million more than New York City's 9,000,000. With a broad range of resources, a central police concern is to develop methods to effectively control crime to desired levels. If crime to some degree appears to

be inevitable, especially in any area with dense populations, containing and controlling its impact on citizens' quality of life and other residents is important.

The NYPD, like many police departments, can be viewed as having a resistance to change (Weisburd, 2004, p. 1). In 1994, Mayor Rudolph Giuliani appointed William Bratton as Police Commissioner with a mandate to enact change, specifically that he: "believed the police could reduce crime" (Smith and Bratton, 1994, p. 458). At the time, the city became epitomized by infamous homeless "squeegee-men" who roamed the streets to clean automobile windows, essentially panhandling. Moreover, the internal culture in the NYPD's resistance to change posed additional dilemmas for Police Commissioner Bratton, who had "clearly staked out crime reduction and improving the quality of life in the neighborhoods of New York City as [NYPD's] top priorities" (Bratton, 1999, p. 12). Bratton took advantage of an innovative concept proposed by Deputy Commissioner Jack Maple of the NYPD's Crime Control Strategies Unit. Maple saw the NYPD: "as an ineffectual bureaucracy that did not do what they saw as the primary mission of police, namely, to fight crime" (Eterno and Silverman, 2006, p. 220).

With an impetus provided by Maple, Bratton initiated a Compstat unit. It conducted or prepared an overall performance analysis of the department and found the following [seven] deficiencies: "[1] the organization lacked a sense of the importance of its fundamental crime control mission . . . [2]not setting high enough expectations . . .[3] too many police managers had become moribund and were content to continue doing things the way they had always been done . . .[4] the department was beset with archaic, unproductive organizational structures that did more to promote red tape and turf battles than to facilitate teamwork to use scarce resources effectively" (Weisburd, 2004, p. 2).

But most importantly, the NYPD: "[5] lacked timely, accurate information about crime and public safety problems as they were emerging: [6] had little capacity to identify crime patterns, and: [7] had difficulty tracking how its own resources were being used" (Weisburd, 2004, p. 2).

Having had these many issues to contend with, Commissioner Bratton used different approaches to initiate Compstat. Outside experts were brought in to examine the department. Existing performance measures were targeted for reconsideration, such as arrests, reports of serious crimes, and criminal patterns. These measures were documented by the new Compstat Unit, which conducted a computer analysis on city-wide crime data and kept a weekly incidence report. The unit was comprised of newly-hired officers and analysts who reported directly to Bratton. The reports generated by the unit included: "weekly, monthly, and annual tallies of crime complaints, arrests, summonses, shooting incidents and victims, organized by precinct, borough and citywide" (Weisburd, 2004, p. 3). All of these activities were new and innovative to police work anywhere.

Weekly meetings [at NYPD headquarters in downtown Manhattan called 1 Police Plaza or 1pp] with area leaders [borough commanders and precinct captains] reviewed the data and allowed these supervisors to explain what the figures represented. What was unique to Compstat revolved around an expectation that the leaders had to address problem areas and certain precinct "hot spots" and to come up with solutions to reduce crime. The meetings provided opportunities for information sharing and enhanced accountability.

Accountability is a major factor in successfully implementing Compstat. Precinct captains and borough commanders were considered the operational leaders who: "are held accountable for addressing the crime and disorder issues and trends associated with the Compstat report data for their areas" (Vito, 2005, p. 188). These managers also are: "empowered to focus, manage, and direct their unit's problem-solving process" (Vito, 2005, p. 188). By making these managers responsible for their sectors' success or failure in controlling crime, their empowerment became vital to the program's success.

Also vital to successful program implementation was the continuing support of a police commissioner, as was the case with William Bratton. As Shane (2004) indicates: a chief or commissioner not only must sponsor Compstat, but must also: "champion the process with the command staff" (p. 12). In other words, without support at the top levels, Compstat would fail or, at best, have limited success. Front-line officers, such as lieutenants and sergeants, had to be trained in order for them to buy into the program. Clearly, without this push from top echelons, employees will not put in the effort necessary for the program's effectiveness. The computer's availability at meetings and in the field allowed for immediate visualization of reduction in crimes and problem "hot spot" areas.

C. Compstat Essentials

Compstat utilizes four crime reduction techniques: "[1] accurate and timely intelligence, [2] effective tactics, [3] rapid deployment of personnel and resources, and, [4] relentless follow-up and assessment" (Shane, 2004, p. 13). We consider these

techniques in order. First, accurate and timely intelligence gathered by field officers is necessary to provide up-to-the-minute data to be analyzed by crime analysts. Obviously, untimely data are of no use when crime occurs in real time or when problem areas shift quickly, especially if these issues are not detected early. Without timely data, any analysis will be skewed and resource allocation will be spotty.

Second, effective tactics is a necessary concept for Compstat: "devising effective tactics becomes the point in the Compstat process where accountability attaches" (Shane, 2003, p. 14). Knowing where to deploy and what tactics to roll out is essential to program success. If a commander does not forward or approve tactics, especially relevant to street-level bureaucrats (patrol officers and their supervisors) mission success can only be limited. As Lipsky (1980) implies: nothing beats empowering street-level intelligence coupled with timely crime statistics when coping with crime reduction.

Next, rapid deployment of personnel and resources is also necessary to attack problem areas and to saturate them quickly. Of course, a police department needs to have the appropriate personnel and resources to make this method a reality. Economic realities can make staffing and resource allocations difficult. For example, even with the assistance of outside grants, many agencies have found it difficult to retain personnel; most notably after a federal grant called Community Oriented Policing Services (COPS), which provides monies to hire new officers, runs its course in three years. In addition, resource allocation often requires matching funds that can prove cost-prohibitive.

Finally, relentless follow-up and assessment completes the crime-reduction cycle. Like other professions, history is a great teacher in police work. Often in police work, initial response is the only response. Community policing's focused a lot of its energy on

follow-up to complaints and problems. Much like the broken-window philosophy, formulated by two political scientists in 1982, which holds that criminals benefit from police overlooking small matters, such as cracked store-front windows remaining unfixed, following up to remove the source of such problems are essential to the gainful implementation of Compstat programs. But, in addition to the bottom-up idea of the "broken-window" theory, Commissioner Bratton also: "emphasized targeting both top (serious felonies) and bottom-ranked (quality-of-life) crime simultaneously; in effect, winning back the city "block by block" (Smith and Bratton, 1994, p. 459). Connecting the top and bottom means doing a credible job on assessment and accountability.

Assessment is often difficult but is centrally important. Assessment must be unbiased and unflinching in its honesty. Assessing is not about blame, but more about seeking answers. Asking why a solution is not working will provide commanders with a cleaner window into possible alternative solutions and further innovative approaches and tactics.

Accountability is vital for Compstat's success. The weekly commander meetings at 1 Police Plaza (NYPD Headquarters) hold leaders accountable. Discretion is also important to allow commanders the flexibility to change programs in a timely manner and to make the proper adjustments. Accountability then becomes a top-down as well as a bottom up process. Without the accountability of each command leader, maximizing program success becomes jeopardized.

In their seminal article "Compstat and Bureaucracy: A Case Study of Challenges and Opportunities for Change" Willis, Mastrofski and Weisburd (2004) identify six key elements that are central to the development of Compstat programs. They are coupled

with the four crime reduction techniques just discussed above. First, mission clarification that: "includes a demonstration of management's commitment" (Willis, 2004, p. 465). This caveat is important because a manager's level of commitment will show subordinates that they will receive support from supervisors. Second, internal accountability, which has already been discussed at length.

The third element is geographic organization of operational command. This regional approach includes placing specialized units under the appropriate commands to increase needed response (Willis, 2004, p. 466). The fourth element is organizational flexibility. This operational process has been described by Bratton as: "the capacity and the habit of changing established routines to mobilize resources when and where they are needed for strategic application" (Bratton, 1998, p. 250). In practical terms, this means installing flexibility into the organizational structure so supervisors know they are not constrained by rigid barriers when they need to utilize resources to combat shifting problems.

The fifth element is data-driven analysis of problems and performance measures associated with a precinct's or command level's problem-solving efforts. The sixth, and final element, is development of innovative problem-solving tactics (Willis, 2004, p. 466). This notion can be difficult to achieve since police organizations are often resistant to change, thus making innovation uneasy to obtain and harder to implement (Willis, 2004, p.466). Introducing new theory is not as appealing to officers who are used to performing tasks routinely, but not necessarily measuring them. Changing habits, of course, needs to be accomplished by implementing training programs in familiar ways. But, with budgetary concerns, it is often difficult to provide additional training, especially

with the addition of new police officers from Community Oriented Policing Services grants between 1994 and 1997.

In conclusion, taken together, Compstat is definitely a disruptive innovation in police work. It was developed using computer technology to analyze timely data and to convert the intentions into actionable efforts or impacts. Essentially, as Smith and Bratton acknowledge, Compstat is difficult to master because it: "is based on a complex set of interrelated assumptions about cause and effect in the production of public safety" (1994, p. 459). There are many dynamic elements in the Compstat process that rely on a continuity of managerial support, an across-the-board discretion, an expectation of accountability, a shifting mind-set regarding resource allocation, both in material and personal terms, and other related aspects for program implementation. Whether it can be considered a paradigm shift in police operations and strategies will be discussed later in the paper.

D. Compstat Theories

Many working features about Compstat have now been presented. Since Compstat has been defined as a: "goal oriented, strategic-management process that uses information technology, operational strategy, and managerial accountability to guide police operations" (Vito, Walsh and Kunselman, 2005, p. 187), it is apparent that these concepts are generally associated with the confluence of integrating management and

technology. To be sure, many of these concepts originated in private sector applications, although they have been modified or adapted to police work.

Two applied organizational theories appear to have relevance in the adoption and implementation of Compstat: [1] technical/rational theory and [2] institutional theory. First, technical/rational theory holds that Compstat's: "elements work like a well-oiled machine to form an efficient, transformative and goal-driven organizational system" (Bratton, 1998, p. 5). In addition, the technical/rational model states that Compstat reflects: "an organization's environment… characterized by precisely specified products or services. These are exchanged in a market, and organizations operating in these environments are rewarded for effective and efficient performance" (Scott, 1987, p. 31). In response to these market demands the organization [Compstat]: "develops formal structures to organize work processes rationally: positions, policies, programs, and procedures" (Ritti and Mastrofski, 2002).

Police Commissioner William Bratton, who served in that capacity from 1994 to 1996, seems to follow a technical/rational approach by stating: "We began to run the NYPD as a private profit-oriented business. What was the profit I wanted? Crime reduction. I wanted to beat my competitors – the criminals – who were out there seven days a week, 24 hours a day. I wanted to serve my customers, the public, better; and the profit I wanted to deliver to them was reduced crime" (Bratton, 1998, p. 5). As Willis (2007) avers: he, therefore: "focused on developing structures and practices to enable his organization to maximize efficiency and drive crime down" (p. 151).

One can plainly see why the technical/rational model fits more fully into the Compstat design. That is, by quantifying the performance measurements as fungible and

tangible practice-oriented concepts, such as crime-rate statistics, as surrogates for private-profit margins, the Compstat model uses these concrete measures to address incidence reduction as well as to achieve greater accountability to citizens or customers. This performance-based theory helps address the technical aspects of a disruptive technology. Essentially, by stripping away the human aspect of criminality, by using crime rates to allocate tactics and resources, Compstat analyzes crime trends with a lesser degree of bias and pre-judgments.

In a complementary way, the institutional theory is an open-systems concept that emphasizes: "institutions as products of human activities and commonsense knowledge" (Willis, 2007, p. 151). This theory believes that: "the structures and practices of organizations are not only influenced by rational calculations and technical imperatives, but also by the cultural features of their environments" (Scott, 1987, p. 6). The seminal work by Berger and Luckmann's The Social Construction of Reality Theory (1966) falls in line with the institutional theory. Thus, the reality of crime is a condition of human nature that manifests itself within a person's environment. The institutions, such as police departments, become the reality to combat crime and its effects on society. As Crank (1992) notes: "Since these social constructions of reality may emanate from and be enforced by politically salient actors or 'sovereigns' in the external environment (typically the press, community groups, and public officials), organizations are under considerable pressure to incorporate them into their formal structures and activities" (p. 342). To remedy these external conditions, the societal response is to: "closely integrate their internal structural arrangements to myths of what is the 'proper' or 'natural' way to

behave, institutionalized organizations gain legitimacy, thereby improving their prospects for resources and survival" (Meyer, 1983, p. 46).

Institutional theory differs from technical/rational model because: "the institutional organization benefits from decoupling its structures from its core routine tasks so that its structures can be more closely aligned with institutional values," thus allowing "the organization to focus on its functional activities while simultaneously employing means that have little do with its actual day-to-day work" (Maguire and Katz, 2002). This organizational assessment balances a technical/rational understanding of Compstat in many ways. That is, if one accepts that behavioral aspects and values influence coping with crime, parallels to the institutional theory are easily made, such as holding precinct commanders accountable or using social media to help predict social unrest (*The Economist*, 2013, p.4). Thus, much benefit accrues relating Compstat to the institutional theory to better grasp/capture its operation.

Technical-rational and institutional theories are the principal macro-level explanations for Compstat. They are joined by practice-level micro-level theories that offer additional insights into the Compstat strategy. Four such characterizations are referenced. First, strategic management theory has relevance to Compstat. Strategic management: "is defined as the art and science of formulating, implementing, and evaluating cross-functional strategies that enable an organization to respond to the demands of its environment and achieve its objectives (Thompson and Strickland, 1998). Five sub-tasks of strategic management include: (1) forming a vision for the basic mission and function, (2) setting objectives, (3) developing a strategy, (4) implementing these tasks, and (5) evaluating them (Walsh, 2001, pp. 355-356). These five operational

tasks are essential to the Compstat program as they help explain why strategic management remains a mainstay in its implementation.

The second complementary theory stems from some observers maintaining that Compstat is a paradigm shift for criminal justice. The assertion is that: "the problem of policing as being located at the police-community interface that conceptualizes problem solving as decentralized and as bottom up, a complete reversal of the top-down hierarchal management strategies of both the traditional bureaucratic managerial model . . . the rational-legal bureaucratic model, and the resurgent Compstat-aided approach to reasserting hierarchal managerial command and control of policing" (Kania, 2004, p. 80). This novel approach shifts Compstat's emphasis to "street-level bureaucracy" that favors increased discretion by officers in day-to-day operations, rather than on strong hierarchical models that stress top-down approaches (Lipsky, 1980).

Third, and similarly, some micro-level concepts contend that Compstat became: "a new organizational management paradigm for policing that involves changes in: vision, mission, values, goals, engagement, empowerment, accountability, outcomes and evaluation" (Walsh, 2001, p. 356). Thus, that the: "new organizational paradigm provides policing with a leadership style grounded in the traditions of the past while at the same time incorporating the organizational strategies of the present…something new from something old" (Walsh, 2001, p. 356). These theorists suggest that these new ideas Compstat bring to police management drastically changes the everyday way police work is done, thus becoming the new central tenet of police operations. In sum, this micro view is different for the macro technical/rationale view in that it stresses centrally-generated organizational goals and purposes over a bottom-up approach.

A fourth micro notion is that: “Compstat is a command aid, not a new paradigm” (Kania, 2004, p. 80). The belief is that Compstat is more of a “technology” than a new way of policing. That is, computer technology combined with statistical analysis that adds nothing new to basic community policing theory (Kania, 2004, pp. 82-83). This belief certainly challenges Compstat as a paradigm shift, and offers some practical thoughts to what the program attempts to accomplish. Taken together, these four complementary sub-theories round out the two major overall theories of rational choice and institutionalism.

E. Compstat Performance Measures

According to Smith and Bratton (1998), the NYPD Compstat program identifies ten central police goals: “[1] getting guns off the streets, [2] curbing youth violence in the schools and on the streets, [3] driving drug dealers out of New York City, [4] breaking the cycle of domestic violence, [5] reclaiming public spaces, [6] reducing auto related crime, [7] rooting out corruption, [8] reclaiming the roads, [9] fostering courtesy, professionalism and respect, [10] bringing fugitives to justice” (p. 462). In other words, to reduce crime successfully, and to fulfill these goals efficiently, it is necessary to formulate performance measurement data. For example, if the program goal is to get guns off the street, clearly, gun-related crime must be tracked at all operational levels. It is essential that developing a plan to facilitate getting guns off the street requires the involvement of precinct commanders. Such a plan would also require the assistance of connected law enforcement agencies such as the city’s District Attorney, as well as the

State Attorney and the United States Federal Attorney's offices. Together they produced ways to implement better probable cause arrests, including the debatable "stop and frisk" policies.

What is innovative about Compstat is that all ten goals noted by Smith and Bratton demand the same data collection and plan deployment in order to increase program effectiveness. Normally, performance measures in police work usually center on initial arrest and eventual clearance statistics due to the fact that they are kept in the daily course of business. But, Compstat employs other measures. Citizen feedback systems, sometimes referred to as complaint bureaus, can provide perceptual performance data that can help to identify problems and to find solutions that police agencies may not devise without such assistance.

F. Difficulties and Criticisms of Compstat

Although the positive aspects of Compstat have been highlighted thus far, not everyone supports the Compstat program, as the difficulties and criticisms of the program are worth noting. These critiques are especially worthwhile noting given that one way to improve any program is to examine its faults and to make corrections. That said, regardless of these critiques, the crime rates in key types and locations continued to decline between 1994 and 1997, therefore the Compstat formula had no need of changes.

Some observers see difficulties in measuring Compstat results. They point to concurrent events during Compstat's adoption and implementation that can be equal or greater factors in crime reduction. University of Chicago economist Steven Levitt points

to a variety of events that emerged alongside Compstat's introduction by the NYPD. Such events include: training and deploying 5,000 better educated police officers, police decision-making being devolved to precinct level, a 'zero-tolerance' policy against quality of life offenses, and gentrification with the upgrading of poorer neighborhoods, notably in the outlying boroughs. Other events include retirements and officer turnover, removing members of the "old guard."

Dennis Smith and William Bratton identify five rival hypotheses for crime reduction as follows: [1] demographics, [2] drugs, [3] gun control, [4] the economy and [5] arrests and incapacitation (1994, p. 471-475), which will be treated in turn. Demographics can shift, thus altering criminal environment and opportunity to commit crime, such as the recent steady decline in the urban juvenile population, beginning in the 1990's. The availability and demand for drugs can be altered by incarceration as well as treatment programs for addicts. Gun control programs, such as buy-backs, and aggressive street crime patrols can reduce the amount of guns on the street. Economic factors play a role in the motive and need to commit crime. High crime areas tend to have lower economic opportunities for would-be criminals as well as seasoned criminals who cannot find work. Aggressive policing can lead to higher arrest rates and increased incarceration for criminals. These hypotheses may be viewed positively as concurrent factors in affecting crime rates and their reduction between 1991 and 1997.

The tendency to down-play and reclassify crime is another criticism of Compstat. The pressure police supervisors face to reduce crime in their sectors can be immense. If a precinct has an assault problem, one could simply have officers re-classify assaults as harassment (a felony/misdemeanor becomes a simpler violation). This tactic occurs

frequently and has a two-fold effect. It can skew the crime numbers more favorably and it fails to address the basic problem that leads to avoiding further tactical adjustments to remedy the situation. Eterno and Silverman expand upon the reclassification scheme in: "The NYPD's Compstat: Compare Statistics or Compose Statistics?" (2010). The authors surveyed retired NYPD middle-managers to ascertain if they were pressured to lower crime rates and if they believed that this contributed to inaccurate statistics (Eterno and Silverman, 2010, p. 427). The authors conclude that: "based on these survey data and in-depth interviews with retirees, we can confidently state that Compstat-era captains and above, feel significantly different intense pressure from high-level managers than those who did not work in the Compstat era . . . the pressure is particularly pronounced for decreasing the levels of (FBI) index crime" (Eterno and Silverman, 2010, p. 442). This conclusion is credible given that retired captains and above are more apt to give an unpressured answer than current officers who may fear retribution.

Other criticisms focus on determining whether certain features of Compstat can cause one element to negate other necessary elements. Willis states: "the pressure of internal accountability strengthened the existing command hierarchy and hindered two of Compstat's other key elements – innovative problem-solving and geographic organization of operational command. Officers were reluctant to brainstorm problem-solving approaches during Compstat" (Willis, 2004, p. 492). This means that the command hierarchy became fearful of thinking "outside the box", or "groupthink" due to peer pressure and fear of punishment for non-conformance.

Related problems stemmed from Compstat's hierarchical structure. As Willis notes: "The decision making authority of middle managers was limited by top

management's willingness to query their judgment and to intervene in deployment decisions. Because the rank hierarchy within the bureaucratic organization legitimates superior power by providing the foundation for authority relations, any actions that would jeopardize the legitimacy of command are likely to be avoided" (Willis, 2004, p. 492). Thus, supervisory controls remained unquestioned.

The supervisory situation is paradoxical for many reasons. In essence: "too much control from top leadership stifles innovation, but too little exposes the organization to excessive risk of reckless actions by employees" (Simons, 1995, p. 80). For these reasons Willis argues that: "Compstat, as a program, has very significant internal inconsistencies that limit its ability to be fully implemented in a police agency" (Willis, 2004, p. 493). In other words, the ideal solution would appear to be a compromise between strict adherence to statistics and to innovating problem-solving without repercussion to encourage efficiency and to maximize results.

A study conducted by Vito, Walsh and Kunselman (2005) asserts that the top three main shortcomings of Compstat are: (1) SATCOM: strategic and tactical command, (2) civil enforcement units, and (3) recognizing officers who made arrests. First, the SATCOM problem occurs because: "resources that are usually controlled by separate bureaus or units are assigned to the precinct, bypassing the usual chain of command that had previously controlled those resources" (Vito, 2005, p. 192). This situation can lead to confusion and in-fighting among units and tension between command personnel.

The second negative issue revolves around a general critique of civil enforcement units, that is, different jurisdictions (especially between states) have different tolerance

with legal issues presented by certain types of enforcement. This imbalance can have an ill-effect on what actual gets done because agencies will not be operating in a cooperative and productive environment if they are not on the same page when it comes to enforcement, due to differing legal interpretation. For example, the NYPD and Compstat have jurisdictional issues with the Metropolitan Transit Authority (MTA) police force and neighboring police forces in New Jersey.

Third, officer recognition is a universal matter of motivation. It has also been identified as a shortcoming of Compstat. Eterno and Silverman argue that with Compstat: "the management style not only alienated some members of the community but also alienated some members of the NYPD" and that a weakness of Compstat: "derives from the department's failure to motivate a vast majority of officers" (Eterno and Silverman, 2006, p. 223). The authors argue that without proper motivation and buy-in by officers, the program may not achieve its desired result. Another problem with recognizing officers who made arrests is that it could encourage: "a competitive atmosphere that could increase police brutality and decrease trust and communication between officers" (Vito, 2005, p. 194). Rank and file motivation does not largely hinge on officer recognition, especially where Compstat is involved. Street-level officers respond to calls for service and initiate activity because that is their job description, they only know of Compstat by crime classification upon encountering situations that require action.

Social factors have also been given for the reductions in crime rates rather than the success of Compstat. Basil Wilson argues that during Compstat's early years: "the recent reductions in crime in America's cities, including New York, can most accurately

be attributed to the changing class composition of American society . . . low unemployment and an improving economy have helped to stabilize – and increase – New York's black middle class, which carries a lot of side benefits in terms of reduced crime and delinquency" (Wilson, 1997, p. 2). Proving these correlations has been weakened, as crime rates have continued to decline in the recession underway since the end of 2007.

Much is made of the accountability aspect of Compstat on the negative side. Accountability and other related aspects have been disputed by Skogan and Frydl in their book Fairness and Effectiveness in Policing: the Evidence (2004). They state that: "the intense sense of accountability for results did not trickle down to the rank and file, who were largely ignorant of and unaffected by what went on at Compstat meetings" (Skogan, 2004, p. 188). This disconnect means that the message of accountability did not get passed down to officers who enforce the laws and make street-level decisions that affected Compstat results. Skogan and Frydl conclude: it appears that officers did not have a stake in the results of their work as a part of Compstat. Another criticism about accountability relates to numerous weaknesses in data analysis: "the data analysis employed tended (a) to reacting to short-term changes in crime patterns while avoiding analysis of broader long-term trends, (b) to concentrating on identifying the location of hot spots but not figuring out what to do about them, (c) to focusing disproportionally on what was happening with individual cases rather than larger patterns, and (d) to underusing evaluating the effects of police interventions" (Skogan, 2004, p. 188). Each of these factors can have a negative effect on Compstat's effectiveness. Inaccurate use of Compstat data could led to a decreased program results.

Another downside pointed out by Skogan and Frydl is that police commanders: "remained constrained by civil service rules, union contracts, and local politics in where and how they could mobilize their personnel" (Skogan, 2004, p. 188). This matter is well-taken and can have broader implications than just personnel mobilization. Taken together, there is no doubt that these factors affected the effectiveness of Compstat.

In regard to Compstat command meetings, Skogan and Frydl also suggest that: "the pressure on middle managers to come to Compstat meetings with problems already identified and solutions already implemented tended to make irrelevant the suggestions of colleagues, who were also reluctant to offer radically different notions, since this incursion would reflect badly on the commander who had already committed to a course of action" (Skogan, 2004, p. 188). Not all researchers agree with this negative assessment, as they hold that Compstat meetings: "should be resource-sharing, problem-solving exercises with discussions that are designed to encourage participants to exchange ideas, share details about promising practices, praise subordinates, collectively develop plans, and promote an environment where new leaders can flourish" (DeLorenzi, Shane & Amendola, 2006, p. 4). By involving only police leaders to the Compstat meetings, there would be a tendency to share in "group-think" and may have a negative effect on program outcomes. Police leaders may not want to countermand each other which can lead to limiting problem solving.

Skogan and Frydl suggest that: "resort to innovative strategies was the exception, not the rule; most responses involved the traditional responses of increased levels of police surveillance and enforcement activities" (Skogan, 2004, p. 188). They contend that: "the limitations on Compstat derived from inadequate changes to fundamental

structures needed to support a fuller implementation of Compstat, such as the absence of in-depth management training in data analysis and its uses and inadequate staffing of the crime analysis operation" (Skogan, 2004, p. 188). This weakness is the other side of negative accountability. This notion occurred but did not appear to be lowering crime rates.

They also maintain that: "Compstat programs promulgated a narrowing of the police mission to focus on crime control . . . reforms appeared to have been transplanted onto traditional policing structures, rather than replacing them" (Skogan, 2004, p. 188). This narrowing can lead to confusion and conflicting objectives. In addition: "that Compstat has some built-in internal contradictions that cannot be overcome, such as the pressure for individual accountability versus the pressure for collaboration of the desire to give district commanders control of more resources versus the need for flexibility in moving resources from district to district as the need arises" (Skogan, 2004, p. 188). These contradictions can present challenges that may not be easy to overcome. This may occur at the higher levels of command, but may not have been noticed from street level officers who continue to do their job, regardless of command confusion.

These critiques can hold validity on varying aspects of the Compstat program. Regardless of the given impediments presented, the crime rates during the study period of 1991 to 1997 mostly declined. These critiques may have validity, but they did not appear to affect lowering the crime rates or tampering with the Compstat formula.

G. Diffusion of Compstat Model to other Municipal Services

Doubtless, the Compstat program has been effective for many police departments. Compstat, as noted, has been adopted and adapted to other municipal services. There are definite possibilities for such diffusion beyond police work in public administration. For example, two additional New York City departments use the Compstat model to increase their efficiency and accountability. The Department of Corrections, which runs one large jail for indicted felons and several precinct lock-ups incorporated: "the elements of accurate and timely intelligence combined with effective tactics, rapid deployment, relentless follow-up and assessment, and decentralized accountability" that "produced a major turnaround in prisoner safety and a drop in overtime expenses" (Smith and Bratton, 1998, p. 477). An early assessment is that: "the Rikers Island Jail, among the more dangerous facilities in the nation, became one of the safest" (Smith and Bratton, 1998, p. 477). Currently, the jail has had many problems, especially with officer conduct.

The New York City Department of Parks and Recreation, which supervises such larger facilities like Central Park and smaller units throughout the city, developed "Parkstat". This system: "converted a very good systematic method of annually measuring park safety and cleanliness into a system for intensively managing those conditions" (Smith and Bratton, 1998, p. 477). The successful diffusion of the Compstat model to both of these departments illustrates how this program can migrate into organizations with differing missions, as long as they are tailored to their principal purposes.

As also noted, the City of Baltimore created a system called Citistat. It took the elements of Compstat and applied them to city-wide services. The program entails various: "bureau chiefs [filing] reports to Citistat staff on their department's finances, operations and services . . . [that] maps and charts track city worker's performance, and the department heads are held responsible for problems such as overtime or missed garbage pickups" (Brock, 2006, p. 22). The program also includes citizen feedback through a 311 call center to assist in identifying problems and applying solutions. As Brock concludes: "The program has improved the city's response to work orders from 311 calls because it prioritizes those calls" (p. 22). This assertion has been countered that the improvements work well in the "tourist" and better neighborhoods close to the refurbished Inner Harbor and not in the run-down "projects" (Klein, 2009, p. 1).

The key aspect of adoption of the Compstat program is defining a mission and pinpointing performance measures to reach certain goals. Hypothetically, if a department of public works wants to develop a statistical program labeled Dpwstat, it would first have to decide on an objective. For example, an objective could be to increase the usability of their vehicle fleet. The agency could then choose performance measures, such as which vehicles by age and size require maintenance each week, to track these vehicles compared to the similar vehicles. If the data show that certain vehicles need more maintenance, the shop stewards would be responsible for developing a strategy of reducing the maintenance on those vehicles. Essentially, these stewards would then have to determine if it is a human negligence/error problem, or if it is a physical problem/deficiency with the vehicle itself.

Another example would be for sanitation pick-up. Its objective could be to reduce the time it takes to complete trash routes. A department could require workers to log the times it picks up trash cans on each street and compare these numbers to an accepted maximum time for such a task. These basic examples show how the Compstat idea could be adopted for varied municipal departments. The main concept that assists the diffusion of Compstat either to police agencies or to other municipal services is program flexibility. While the NYPD Compstat program can be altered to conflate with various service needs, as already indicated, it is obvious that following the basic tenets of the program are necessary. Despite its flexibility, it is not a one-size fits all concept.

H. Conclusion of Compstat

In sum, Compstat is a program with a great upside that has the potential for success in most municipal services. As pointed, however, it is not without faults and difficulties, but it has the potential to help agencies increase performance. As a disruptive technology, Compstat is an innovation that can lead to further improvements for jurisdictions that adopt it. While it is uncertain as to its promulgating a paradigm shift, it is a program that builds upon earlier community-policing concepts and increases accountability. Compstat is a solid building block for other innovations, not only in criminal justice, but across municipal services.

Chapter 4: Crime Spillover

A. Introduction

The notion of crime spillover has been a topic in law enforcement for many years. The general theory maintains that if crime is suppressed in one area, it will gain a foothold or become displaced into other locales. Simply stated, if the opportunity to commit crime is taken away, perpetrators will move their unlawful activity elsewhere. Crime spillover, also referred to as displacement, is a concept that holds that crime will travel to another area when enforcement efforts are successful in a neighboring targeted zone. This movement of crime from one jurisdiction to some other place can have budget implications in public administration. As a result, these affected governments may have to increase police budgets and take on appropriate initiatives to combat the surges in crime-rates. In effect, this transfer can erupt in new locations, leading to augmented police budgets and the accompanying need to establish tactics to combat the spillover in crime.

While it may be argued that underlying crime-rates can be explained by various societal causations, when they become abated in one area, criminals may be forced to move elsewhere. For example, narcotic use has the obvious penal law consequence of arrests for possession and distribution. Narcotic use also has other results such as tendencies to commit violent crime, burglary and robbery to buy drugs or to steal them from another person. Hospitalization for injuries, or mental health treatment, neglect and abuse of spouses and children are also contingencies of the drug-crime syndrome. These

are additional costs to society in general and to the jurisdictions in particular where these activities take place. If crime is diffused to another location, requisite resources and services will undoubtedly be summoned to satisfy new demands, or to incur downside risks to a municipality.

The concepts of crime spillover/displacement are now reviewed from both theoretical and practical perspectives. Various studies reveal evidence that supports or contradicts crime spillover. It will be necessary to determine that crime spillover exists to some extent that can have budgetary impacts on municipalities. An understanding of crime spillover/displacement forms the central thesis of this paper: to connect how reportedly successful programs in crime-rate reduction, such as Compstat in New York City, may lead to a displacement/spillover of criminal activities into neighboring jurisdictions with the distinct possibility of increased public budgets for police services.

Crime can be opportunistic, meaning that criminal activity is predicated on the perceived benefits of getting away with committing an unlawful act. This opportunistic factor is key to crime spillover/diffusion. If opportunity is lessened or eliminated in one jurisdiction, the perceived chance for success in another jurisdiction hypothetically increases.

The literature review of crime spillover will include: criminal perspectives and mobility, economic theories of crime, crime displacement, mechanical crime prevention, criminal spatial mobility and public policies to combat displacement.

B. Criminal Perspectives

The following section examines various criminal perspectives that influence crime spillover/displacement. Each perspective possesses valid reasons for causing crime spillover/displacement. The Federal Bureau of Investigation (FBI) keeps track of crime in its Uniform Crime Report, that is made up of eight Part I offenses (including: criminal homicide, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft and arson) as well as Part II offenses (all other relevant offenses not in Part I, arrest data only), that are defined in the Uniform Crime Reporting (UCR) Handbook (2004, p. 1 & 8).

1. Criminal Mobility

Criminal mobility can be recognized as a factor in the displacement or spillover of crime into other jurisdictions. Technology has increased criminal opportunities, especially with accessible public transportation. Crime's geographic boundaries have been expanded that compounds the problem for law enforcement.

The issue of mobility affects the relationship between law enforcement and criminal activity. An earlier article by McIver titled "Criminal Mobility: A Review of Empirical Studies" (1981) challenges the notion that the: "relationships between these two variables, that is, crime should have a positive impact on police activities, while [heightened] police activities should have a negative impact on crime" (McIver, 1981, pp.

32-33). He reviews four studies on crime displacement that result in statistical significance.

The first study by Mehay in (1977) finds: "that crime rates are statistically related to intercommunity differences in police manpower . . . [that is] increases in local manpower increases the crime rates in neighboring jurisdictions . . . police are effective only in exporting offenders who commit property crimes . . . individuals who engage in violent crimes [he argues] are not affected by or cognizant of relative police effort" (Mehay, 1977, p. 33). Meaning that as the severity of the crime increases, police manpower has less impact than on lower classified crime.

The second study by Deutsch (1998) on the relationship between Atlanta, Georgia, and its suburbs, has surprising findings: "contrary to the expectations of many… crime is displaced from the suburbs to the central city rather than from the central city of Atlanta to its suburbs" (Deutsch, 1998, p. 33). The data shows that crime actually had the opposite effect of moving from the suburbs into the city.

The third spillover study by Fabrikant (1979) of student juvenile crime finds: "that different arrest rates clearly affect the location of juvenile robberies . . . sanctioning, however, does not have an impact on the location of other juvenile property crimes" (Fabrikant, 1979, p. 33). For juveniles, this means that police arrest activity in one area has a greater effect than court sanctioning.

The fourth study by Hakim (1979) on interjurisdictional crime spillover finds that: "simultaneously demonstrating the reduction of crime by local police effort (operationalized as police expenditures per capita) and the displacement of crime into a jurisdiction by increased police efforts elsewhere" (Hakim, 1979, p. 33). Crime appears

to be displaced by police initiatives from one jurisdiction into another. Taken together, these four studies reveal that positive crime spillover does occur, but not all agree on its direction.

McIver's own study (1981) explores crime mobility from an economic perspective. He states that: "economists have approached the study of crime movement from the general perspective of public goods theory . . . such goods are defined in terms of two principal characteristics [indivisibility] . . . the consumption by one individual does not decrease the consumption by another [non-excludability] . . . second, the exclusion of potential consumers of this type of good is not feasible" (McIver, 1981, p. 36). Police deterrence then becomes an aspect of crime spillover. McIver states that: "displacement of crime is the [negative] externality of law enforcement, that is, the movement of an offender from one jurisdiction to another as a consequence of police activity . . . citizens in one community are forced to bear a reduction in their safety because of the law enforcement practices in adjacent communities" (McIver, 1981, p. 38). On the whole, then, these conclusions point out that criminals move somewhere else when police efforts are made to suppress crime in a given area.

2. Economic Theories of Crime

Other economists propose that a rational-choice decision making process explains crime. This theory posits that: "criminals as planners who consciously are attempting to maximize the monetary and psychic rewards to the criminal act net of all costs. The costs associated with committing a crime include the direct costs involved in planning and

implementing a crime, the opportunity costs [pay-offs] for lawful activities forfeited in order to commit the criminal act, and the psychic costs [anxieties] associated with the risk of apprehension and punishment" (Hakim and Rengert, 1981, p. 8). The present review relies heavily on Hakim and Rengert because it is the most widely-sourced in the field. Furthermore, as Cornish and Clarke (1987) later elaborate: rational-choice theory for crime assumes: "that offenders seek to benefit themselves by their criminal behavior; that this involves the making of decisions and choices, however rudimentary on occasions these choices might be; and that these processes, constrained as they are by time, the offender's cognitive abilities, and by the availability of relevant information, exhibit limited rather than normative rationality" (p. 933). Adding to this calculated choice view: "offenders respond selectively to characteristics of particular offenses – in particular, their opportunities, costs, and benefits . . . in deciding whether or not to displace their attentions elsewhere" (Cornish and Clarke, 1987, p. 933). In all, these studies strongly support rational-choice theory to explain criminal behavior, as opposed to "impulse" criminality.

Correspondingly, Teichman (2005) offers that criminals are more calculating; they use a cost-benefit analysis in which they: "evaluate the potential gains and costs of a crime and commit crime only if it has a positive expected [discount] value" of money (p. 1839). Returning to Hakim and Rengert (1981), they add that: "the rational criminal must have some criminal opportunities in mind . . . the criminal evaluates the various opportunities possible and chooses the one which is expected to result in the highest net benefit" (p. 8). In traditional police training, detectives look for opportunity, motive and means to solve crimes.

Crime, of course, has its obvious costs both to individuals and society, such as losses in profits, time, and property. Not so obvious costs can include bribery together with police and court corruption. These latter costs are illustrated by a study of the "drug war" in California by Vencill and Sadjadi (2000). They calculated the direct costs incurred by federal, state and local governments as well as indirect costs that included: "unintended consequences, opportunity costs, hidden costs, and spillover costs" (Vencill and Sadjadi, 2000, p. 2). The authors find that the costs of crime are higher than initially estimated when all factors are considered.

Crime location is an important issue in a criminal's cost-benefit analysis. In a criminal location strategy study by Deutsch and Epstein (1998) the authors suggest that: "higher population densities in city centres, higher transportation costs of commuting to farther locations, less familiarity . . . with distant places which increase their chances of being apprehended; these thus reduce their expected revenues net of all costs of crime" (p. 1335). These authors proposed a formula to examine crime location choice that includes: "general distributions of probability of apprehension and expected revenue which are updated over time by the criminal . . . general conditions under which the criminal determines his optimal location strategy" (p. 1336). This formula helps measure factors that determine how a criminal chooses the location of committing a crime, such as familiarity and opportunity.

These studies have in common the theme of utility maximization employed to evaluate crime opportunities. Hakim and Rengert (1981) state that: "if we introduce space into the analysis, then the criminal views the net benefits expected of various alternative crime sites. A criminal will choose to execute the crime at the place which

yields the highest net revenues" (Hakim and Rengert, 1981, pp. 8-9). This spatial-choice dimension incorporates other variables. They include: "explicit transportation costs, set-up costs spent in learning about a less well-known environment as an outsider, and problems of becoming acquainted with the particular police practices" (Hakim and Rengert, 1981, p. 9). Teichman, however, counters that: "holding everything else equal, criminals are expected to commit their crimes in the area with the lowest expected sanction" (2005, p. 1840). Meaning that criminals will take many factors into consideration, but will ultimately commit crimes in a location that maximizes the best chance for success.

These maximization concepts have a counterpart in police efforts to stop criminal activity. Municipalities spend tax dollars on police services to thwart criminal activity. Teichman (2005) avers that the jurisdictional theories have been focused on an: "island economy" notion that: "policy makers in such an economy are not effected by the criminal sanctions created in neighboring communities, and can design an optimal sanctioning regime given the unique cast of deterring crime and the harm caused by crime in their specific jurisdiction" (p. 1842). Communities, then, strive to reduce criminal opportunity within their borders. Hakim and Rengert (1981) add that: "this [outcome] involves costs for community protection which must be balanced against costs which accrue to the community when a criminal act is perpetrated. These latter costs are measured in terms of real property stolen as well as less tangible costs associated with a decrease in the 'quality of life' resulting from victimization" (Hakim and Rengert, 1981, p. 9). In sum, the efforts of a community to reduce crime through proactive measures do not necessarily stem from concerns about neighboring communities, but largely though

self-interest in preserving the quality of life within a given community synonymous with a legitimate "beggar thy neighbor" in tax abatement or a non-zero-sum game.

A community has obvious incentives to reduce crime within its boundaries. These methods have been termed "crime deterrence" or "corrective measures" that: "have positive effects on neighboring communities by reducing the number of criminals who might exploit them" (Hakim and Rengert, 1981, p. 9). There are also: "mechanical prevention programs" or "target hardening" that are more focused in their approach. Programs such as Compstat or "hot-pot" policing tactics target high-crime areas, suppressing crime within the targeted area. The upshot of these programs can lead to spillovers: "crime may be displaced to a neighboring community rather than deterred" (Hakim and Rengert, 1981, pp. 9-10).

Hakim, Ovadia and Weinblatt (1970) looked at the inter-jurisdictional spillover of crime and police expenditures in Camden, New Jersey and Philadelphia, Pennsylvania. The study: "introduces the effect on the level of one community's police expenditure which results from a change in neighboring communities level of expenditure; that is, as police expenditure in municipality A increases, crime flows to the adjacent municipality B, which in turn increases its police expenditures" (Hakim, Ovadia and Weinblatt, 1970, p. 55). The findings: "show that interjurisdictional crime spillover is found for aggregate crime spillover and in particular for two categories – breaking and entering, and auto theft . . . however, no crime spillover is found for larceny, theft [burglary] and violent crime" (Hakim, Ovadia and Weinblatt, 1970, p. 211). The study concludes that spillover indeed exists for certain crimes, such as burglary and auto crime, but not others. Auto theft is decreasing, however, due to technological improvements (Halsey, 2013, p. 1), but

not in the 1990's. The recent decrease in auto theft can also be seen as a factor in the decrease in robbery since many criminals rely on stolen cars for the purpose of getting away (*The Economist,* 2013, p. 6). In regard to expenditures, Hakim, Ovadia and Weinblatt state that: "the adjustment in police expenditure in any given community as it reacts to direct and indirect changes in police expenditures of neighboring communities" (1970, p. 211). This early inter-jurisdictional study strengthens the case for the prominence of crime spillover/displacement as an explanation.

3. Economic Theory Problems

Application of economic theory to crime displacement makes common sense by accepting that criminal behavior is rational and measureable. This intentionally, however, is not always so and can expose deficiencies to classifying economic theories. Hakim and Rengert (1981) believe that the theory's most glaring deficiency is: "the assumption that all property criminals are alike – economically rational individuals" (Hakim and Rengert, 1981, p. 13). Human nature does not lend itself fully too rational analysis and patterns, especially among criminals. Criminals are not programmed machines that operate in one way or fashion. The second maximization deficiency identified by Hakim and Rengert (1981) is the: "assumption that each component of the utility maximization model has equal weight" (Hakim and Rengert, 1981, p. 13). Assigning weight to different criminal components is difficult and can skew study results. The final deficiency identified is: "the role of regional cooperation in crime control" (Hakim and Rengert, 1981, p. 13). Given the multitude of overlapping federal, state and

local agencies in one jurisdiction, as well as with bordering jurisdictions, this deficiency directly imparts an understanding of determining the proper resource allocation and budgetary constraints.

A study titled: "Typology of Inter-Jurisdictional Offenders in Florida" by Burton, Finn, Livingston, Padgett and Scully looked at inter-jurisdictional offenders in Florida in 2002. As an upshot of the study finding that inter-jurisdictional offending had occurred, it concluded that: "our findings indicate strong support for the value [need for] of inter-agency cooperation and the importance of sharing offender information across jurisdictional boundaries" (Burton, et al., 2002, p. 9). Efforts to serve these cooperative ends have increased recently, especially with the movement to share services and consolidation. Compstat's priority has always remained to overcome these limitations. Information technology has also made it easier to disseminate and share information. The use of task forces to target specific crimes has improved. Problems still occur due to agency differences caused by mistrust or simply the fact that there is a limited supply of funding for agencies.

4. Crime Displacement

Criminologists call crime spillover displacement. Hakim and Rengert (1981) define four forms of displacement: [1] temporal displacement, [2] tactical displacement, [3] target displacement, and [4] spatial displacement (Hakim and Rengert, 1981, p. 11). A fifth form of displacement is [5] perpetrator, as described by Bowers and Johnson (2003, p. 276). Each of these types of displacement are now discussed.

1. Temporal displacement occurs: “when the criminal substitutes another time of the day, week, or season to victimize the same site or area” (Hakim and Rengert, 1981, p. 11). This type of displacement involves planning thus eliminating random types of crime. A crime such as burglary will attain a greater success rate for the criminal if a temporal displacement occurs.

A study by Baker and Wolfer (2003) of a COPS grant program in a Pennsylvania park illustrated temporal displacement. They employed a SARA (scanning, analysis, response and assessment) model to help police respond to crime within the park. The assessment found that drug dealers could easily monitor police response and hide within the park. As a countermeasure, the implementation of proactive patrol and the forming of a neighborhood watch program helped reduce crime opportunity within the park.

2. Tactical displacement occurs when offenders: “adopt a different modus operandi” (Bowers and Johnson, 2003, p. 276). This means that a criminal’s method of operation changes to try to thwart police efforts to categorize criminal activity. This dissimulation, however, makes it more difficult to discern criminal patterns and to analyze criminal behavior.

3. Target displacement occurs: “when the criminal searches for an easier target in the same area” (Hakim and Rengert, 1981, p. 11). This approach is similar to the type of crime displacement that holds that: “the criminal substitutes a type of crime not affected by the mechanical tactics of a community” (Hakim and Rengert, 1981, p. 11). Both of these types of displacement involve target selection that will lessen the threat of apprehension.

4. Spatial displacement is most closely tied with crime spillover into other communities. The theory holds that: "the criminal searches for a new area or region to operate in" (Hakim and Rengert, 1981, p. 11). This type of displacement can occur for many reasons; foremost can be seen as increased police activity or presence that decreases the likelihood of criminal success or opportunity. The typology of criminal spatial behavior is described by Hakim and Rengert (1981) as: "the spatial movement necessary to commit most property crimes . . . movement over space entails costs of time and money, but is necessary in order to exploit the subjectively identified "best targets"… in order to maximize economic gain, the criminal chooses among sites located at different distances from the origin area" (Hakim and Rengert, 1981, p. 14). This means that location has an inverse effect to the criminal due to the possibility of being caught if the locations are too close together. This reversal becomes a negative externality (spillover) of crime commission.

They further describe the negative externalities that can occur with spatial displacement as follows:

> "assuming that a local government optimally allocates resources to harden crime targets, then the benefits to that community from a reduced crime rate net of all costs associated with enforcing the "mechanical measures" and the loss of property due to residual crime will be greater than zero. However, if crimes are being spatially displaced to adjacent communities, then the social benefits (for all locals) net of social costs might be negative. If we assume free flow of resources, then the resources committed to mechanical measures might have higher productivity in alternative uses. Hence, when we consider the entire region, rather that just the initial community, the mechanical prevention activities may be inefficient due to the negative externalities associated with them" (Hakim and Rengert, 1981, p. 11).

This means that costs to prevent crime in one area will cause increased costs in another area that will outweigh the benefit of the original crime reduction savings cost.

5. The final spillover presented here is by Bowers and Johnson (2003). It is the perpetrator displacement theory which holds that: “apprehended offenders are replaced by new ones” (p. 276). This criminal replacement angle has great prevalence to our study question. The changeover cycle is difficult to combat if criminal opportunity is not reduced. Another aspect of apprehended offenders is that prisons are virtual training academies for criminals to exchange knowledge and to hone their skills. A study in Columbia, South America, proposes a model that examines the diffusion of criminal knowledge and expertise from career criminals to lower level or new criminals (Gaviria, 2000, p. 15). This means that career criminals instruct newer criminals to become better criminals. For a contemporary example, French authorities are going to separate imprisoned Muslims from the regular population in the wake of the Charlie Hebdo incident in January 2015, creating educational proving grounds inside prisons (Temple-Raston, NPR, on-line, January 22, 2015).

5. Mechanical Crime Prevention

The use of police and community resources to reduce crime can be considered a form of mechanical crime prevention. Resource and manpower allocation are associated with programs such as broken windows theory, intrinsic to Compstat programs. Their advantage has been described as: “they are easily implemented by local policy makers and reach immediate and measureable results by reducing the local crime rate. Therefore, it is an attractive measure since the efforts are visible to the local constituents and the results can be identified in the short run through crime statistics” (Hakim and

Rengert, 1981, p. 12). Criminals also react to mechanical crime prevention by employing displacement tactics, as we have described. The question still remains that crime displacement into other communities may occur, thus causing budgetary problems for others.

6. Criminal Spatial Mobility

As previously mentioned, criminal spatial mobility represents one of six theories of crime displacement. This theory, which can be summarized as criminals maximizing their unlawful acts, is an important aspect of crime spillover/displacement and now warrants further discussion. Hellman (1981) offers an interesting perspective on this subject. As noted, criminal spatial mobility involves the movement of criminals to seek the best return from their unlawful activities in the best areas available. The decisions by criminals for choosing the optimal place to commit crimes are affected by the opportunities available in the given geographical area. Hellman contends that if a jurisdiction reduces revenue to criminal deterrence, crime may increase, thus affecting property values. Yet, if crime prevention funds are increased, the same effect may also happen. Thus: "if the initial increase in crime in the community is the result of crime spillovers, decisions made by neighboring communities lead to welfare losses in the community . . . these losses are not only in the form of direct losses from increased crime, but also in the form of reduced property values and reduced ability to finance public services, including crime control" (Hellman, 1981, p. 146). He concludes that: "it should be noted that the spillover effect hinges on the relative profitability of crime in different

locations . . . increases in police expenditures and inputs in one community are expected to increase expected punishment costs in that community and, therefore, export crime" (Hellman, 1981, p. 148). This conclusion means that crime spillover can affect neighboring jurisdictions, but does not guarantee savings in the original community, especially in property values.

Another study of crime displacement in Jersey City, New Jersey, by Weisburd, Wyckoff, Ready, Eck, Hinkle and Gajewski in 2006 titled "Does Crime Just Move Around the Corner? A Controlled Study of Spatial Displacement and Diffusion of Crime Control Benefits" (2006) provides insight into this locational concept. This qualitative work's: "main focus is on immediate spatial displacement or diffusion of crime to areas near the targeted sites of an intervention…Do focused crime prevention efforts at places simply result in a movement of offenders to areas nearby targeted sites – 'do they simply move crime around the corner?' " (Weisburd, 2006, p. 550).

The study finds that: "interviews showed that though some offenders desist from criminality as a result of hot spot [high crime] interventions, others seek out adaptations that allow them to continue offending in target areas . . . this may in fact lead to an overall crime prevention benefit, because such adaptations often require greater effort and thus reduce the actual levels of offending of specific individuals (Weisburd, 2006, p. 584). This interpretation suggests that even if criminals still target areas within a community, enforcement efforts reduce overall opportunity, yet the displacement efforts are worth the crime or unlawful effort.

C. Policies to Consider

There are many tactics used by law enforcement to combat crime displacement and spillover. Just increasing police budgets without readjusting police tactics are unwelcome solutions to many constituencies. Adding new officers will do little without a plan to maximize crime reduction by asset allocation in a justified manner and in geographical areas. As a corrective, Hakim and Rengert (1981) propose five regional policies that have been implemented to address crime displacement to improve upon ineffective spillover reduction efforts. The *first* corrective or palliative policy involves police consolidation across jurisdictions that purports to: "internalize the external effects of crime displacement" (Hakim and Renegert, 1981, p. 16).

Hellman (1981) also advocates consolidation as a possible solution for displacement and states that: "in the absence of compensating intergovernmental transfers, an alternative solution is police agency consolidation . . . such as intergovernmental contracting, or, more generally, formation of metropolitan-wide governments" (p. 146). He contends that the benefits of consolidation: "include improved efficiency and equity via elimination of the spillover problem, and potential advantages of economies of scale" (Hellman, 1981, p. 146).

Police consolidation, however, does not guarantee success of reducing spillover or budgetary concerns of municipalities. While there are positive aspects of consolidation, the negative externalities associated with consolidation provide little evidence of addressing displacement (Hellman, 1981, p. 147).

Consolidation is a much-discussed topic, especially among smaller municipal police departments. In the 1990s, Westchester County, New York, developed the "Westchester 2000" study on police consolidation within the county. The recent economic downturn has sparked a renewed interest in municipal consolidation in Westchester County. This situation is occurring due to New York State grant funding from the Shared Municipal Services Incentive (SMSI) program that became available for the studying and implementing of municipal consolidation, reducing spending and lowering taxes (Leland and Wodicka, 2015, pp. 171-172). The Village and Town governments of Ossining and Briarcliff Manor studied a consolidation between the two entities for police and public work departments (The Journal News, May 9, 2010) for two years, beginning in 2009. The issue of local control and the myriad details involving civil service and union concerns are made the process arduous. The Town of Ossining Police Department was eventually taken over by the Westchester County Department of Public Safety in 2011, which acted as a proxy for consolidation. On January 1, 2015, control of the Town of Ossining was taken over by the Village of Ossining Police Department.

The above police consolidations involved larger police departments absorbing a smaller department. Marc Holzer and John Fry studied police consolidations in New Jersey and found: "A larger consolidated department has more flexibility to respond to absences…and to the need for ancillary activities, such as training and administration. Smaller departments are forced to have excess capacity at some times in order to have adequate capacity at others" (2010, p. 3). This indicates that police consolidations could

lead to positive externalities in training and administration expenses as well as overtime costs.

The *second* spatial mobility policy discussed by Hakim and Rengert is to: "pressure crime 'exporting' localities (perhaps through a taxing scheme) to shift resources from 'mechanical' [greater offenses] to 'corrective' [lesser offenses] prevention programs" (1981, p. 16). This seems be a valid option if the circumstances allow a municipality to pursue correlated prevention programs, and appropriate budgetary resource allocations can be acquired.

The *third* spatial mobility policy is to: "subsidize corrective programs in exporting localities from funds collected in crime importing localities in order to reduce the criminal population" (Hakim and Renegert, 1981, p. 16). This exporting seems especially impractical in the face of reduced budgets and negative aspects associated with criminal rehabilitation. The policy may not necessarily reduce the criminal population, since additional resources are required to introduce tactics such as Compstat along with the support necessary to reduce criminal opportunity and thus the criminal population.

The *fourth* spatial mobility policy is basically a shared services concept stated to: "improve inter-jurisdictional voluntary cooperation in order to combat the mobile criminal" (Hakim and Rengert, 1981, p. 16). A shared services concept may be adopted as a low-cost response to crime spillover. Sharing services such as dispatching, narcotics enforcement, emergency services, equipment and others can help facilitate a greater cooperative atmosphere between neighboring jurisdictions. The foremost aspect of shared services is the prospect of information collaboration. This sharing enables police departments to allocate resources and manpower to areas that could affect crime and

lessen the likelihood of spillover between the jurisdictions. While there are underlying problems with inter-jurisdictional cooperation, the advent of computer technology from the mid-1990's has bridged the gap of delayed information between agencies. Some agencies have difficulties sharing information, however, whether from a sense that they will receive less funding, if they are successful, or are jealous of another's performance. Most police agencies, nonetheless, recognize the benefit and have increasingly shared information and services to improve efficiency and effectiveness (Hakim and Rengert, 1981).

The *fifth* spatial mobility policy suggested by Hakim and Rengert is to: "encourage localities to spend more on 'corrective' rather than 'mechanical' programs by offering matching funds provided by federal and state governments" (p.16). There have been many federal and state grant opportunities to encourage this concept. Grant opportunities have not always produced the desired results and can be difficult for agencies to sustain due to unanticipated long term costs.

Other strategies include mutual aid agreements and public safety officer models. Mutual aid agreements: "provide larger capacity by taking advantage of neighboring resources…providing a high level of service to the public during times of need without having to size the agency for those needs all of the time" (Leland & Wodicka, 2015, p. 163). Mutual aid agreements are common place in Westchester County, New York, in both police and fire districts. The mutual aid agreements allow smaller police and fire agencies respond to large incidents without having to staff at higher levels or purchase redundant equipment that is not utilized often.

Leland and Wodicka define the public safety officer model (PSO) as: "the complete consolidation of municipal police and fire departments that had previously been separate in their administration and operations" (2015, p. 168). The obvious benefits of this model are decreased administrative and personnel costs since officers are cross-trained and serve in both capacities. The downsides are competency, cost of training and retention (Leland & Wodicka, 2015, p. 169). The issue of competency is a legitimate concern in emergency services that can result in lower effectiveness and efficiency in both police and fire agencies.

As noted above, Wilson and Kelling (1990) developed a crime-rate theory that influenced the creation of Compstat. This broken windows theory focused on strict enforcement of quality of life [lesser] offenses to help solve bigger criminal problems: "the term 'broken windows' is a metaphor that alludes to the fact that if a broken window is left unfixed, it indicates that no one cares and invites more broken windows and more serious behavior" (Kelling & Sousa, 2006, p. 2). This proposition centers on enforcement of the possible sources of crime propagation. As the broken part is fixed, the problem as a whole starts to fix itself. Hypothetically, community policing of this type would lead to a more productive society that functioned with greater harmony from police activities.

D. Compstat as a Corrective Program

The origin of Compstat is a major "corrective" program and disruptive technology. Yet, its visionary founder, Detective Jack Maple, who was appointed by

Commissioner Bratton to chair an anti-crime task force, began with a map of the city and corkboard pins that later turned into sophisticated computer mapping systems. The mapping of crime helps agencies allocate resources and manpower where they will be most effective in crime reduction.

The subsequent development of geographic information systems (GIS) also assisted agencies in mapping crime areas. GIS is essentially: "software tools that allow the crime analyst to map crime in many different ways, from a simple point map to a three-dimensional visualization of spatial or temporal data . . . a set of computer based tools that allows the user to modify, visualize, query, and analyze geographic and tabular data" (Boba, 2009, p. 7). Boba defines crime mapping as: "the process of using a geographic information system to conduct spatial analysis of crime problems and other police-related issues" (2009, p. 7). The three functions of crime mapping are: "[1] it facilitates visual and statistical analysis of the spatial nature of crime and other types of events . . . [2] it allows analysts to link unlike data sources together based on common geographic variables . . . and, [3] it provides maps that help to communicate analysis results" (Boba, 2009, p. 7). This mapping technology has become an essential tool for many law enforcement agencies to identify and target problem areas, and serves as a complement to Compstat. As a complement to GIS, Community Policing policies have long been implemented to reduce crime. The interesting aspect of community policing programs is the movement back to the "cop-on- the-beat" idea that vehicles presumably replaced. The United States Department of Justice's Office of Community Oriented Policing (COPS) states that community policing:

> focuses on crime and social disorder through the delivery of police services that includes aspects of traditional law enforcement, as well as prevention, problem

> solving, community engagement, and partnerships. The community policing model balances reactive responses to calls for service with proactive problem solving centered on the causes of crime and disorder. Community policing requires police and citizens to join together as partners in the course of both identifying and effectively addressing these issues (Boba, 2009, p. 40).

Community policy combines old law enforcement methods with newer ideas that can allow police agencies to implement sophisticated prevention programs with greater efficiency and effectiveness. In many ways, Compstat's overtly bridging old and new methods addresses specific criticisms of many observers had such as technology innovations and managerial strategies.

So-called "Hot-spots" policing is a policy: "in which police systematically identify areas within a city that have disproportionate amounts of crime and employs response in those specific areas" (Boba, 2009, p. 42). There have been many studies of hot spot enforcement. Green (1988) examines Oakland, California's drug hot spot efforts. The drug hot spot enforcement theory states that: "this type of place-oriented strategy generally assumes that opportunities for drug dealing can be reduced by targeting the situation and places that facilitate drug sale or use, rather than the people who use or sell drugs" (Green, 1998, p. 737). Police officers: "worked with a team of city agency representatives to inspect drug nuisance properties, coerced landowners to clean up blighted properties, posted 'no trespassing' signs, enforced civil law codes and municipal regulatory rules, and initiated court proceedings against property owners who failed to comply with the civil law citations" (Green, 1998, p. 738). The study concludes that: "these results suggest that fewer people were contacted in the catchment areas after the SMART (Specialized Multi-Agency Response Team) interventions than before…a small net diffusion of benefits effect" (Green, 1998, p. 752). The hot spot policy, much like

Compstat, is a relevant step towards identifying a problem and applying a solution that involves both the police and the community.

Another study of hot spot policing occurred in Richmond, Virginia, and one in casinos in Reno, Nevada, that were identified as hot spots for crime and crime spillover. The Richmond study found that: "crime reported in the target area was down significantly during the crackdown month of April 1999 . . . at the same time, reported crime in the comparison area was unchanged during the crackdown month" (Smith, 2001, pp. 69-70). The Reno casino study measured crime spillover within a distance of 1200 feet around a casino and finds that: "[in] the spatial and geographic distribution of crime incidents in and around casinos…when population at risk is taken into account that casinos do not appear to be 'hot spots' that generate crime one might still ask other questions about the criminogenic effect of casinos" (Barthe and Stitt, 2007, p. 136). These studies have opposite results of crime spillover. But, as the short study period in Richmond and the fact that the Reno casinos are in rural zones, were not treated in the studies, the outcomes were questionable.

Problem-Oriented policing holds out greater promise in relation to spillover. It is a policing method that: "takes a proactive role in identifying, understanding, and responding to problems (not just incidents) in their communities" (Boba, 2009, p. 43). Commonsensically, it appears that this initiative can be helpful in combination with other programs to allocate resources appropriately to combat known problems within the community. Gaining community support also follows this type of proactive policing strategy.

E. Conclusion of Crime Spillover

Crime spillover is a concept that has garnered much attention as a topic that affects municipalities, especially in regards to impacts on public budgeting. Neighboring jurisdictions are essentially in competition with one another for public tax dollars, and are compelled to compete for resident's tax dollars. A municipality's desirability is tied to many factors, one of them being low crime rates that influence whether one would like to live in that location compared to another. Obviously, since crime displacement does occur, municipalities have little choice but to combat crime, or at least gain the perception of lower crime within their borders. Crime-rate is a topic that will continue to garner attention by the public and the police, as municipalities compete for residents.

Chapter 5: Crime in the Nineties

A. Introduction

Having presented the Compstat program and the concept of crime spillover, it now becomes important to discuss crime rates in the decade between 1990 and 2000. During this time period crime decreased nationwide about which many observers have offered studies and opinions as to its cause. This chapter reviews those hypotheses and attempts to put into context the viability of the crime decrease claims.

B. Nationwide Crime Decline

In the 1990s, overall nationwide crime rates declined statistically. According to Professor Franklin Zimring from the University of California Berkeley School of Law: "Prior to 1991, the largest decline of the post-1950's era was four years of dropping crime after 1980, followed by a reversal of direction after 1985 and an increase back to the neighborhood of the 1974 and 1980 high" (Zimring, 2007, p. 23). Attempts to definitively explain the reversions continue to this day. Different factors are hypothesized only to be challenged by others. One thing is for certain, the UCR totals during the of the 1990's time period show a dramatic decrease in crime numbers throughout the United States for every category. Jenni Gainsborough and Marc Mauer noted in September of 2000 that: "In the seven-year period 1991-98 the overall [U.S.] rate of crime declined 22%, violent crime by 25%, and property crime by 21%"

(Gainsborough & Maurer, 2000, p. 3). As no one "causal" agent satisfies all researchers, this chapter reviews the most prominent rationales.

C. Factors in Crime Reduction

The most common factors suggested for the crime reduction include: innovations in policing strategies, increases in imprisonment, emergence of a crack-cocaine epidemic and attendant drug culture, changes in population (demographics), uneven gun control laws, shifts in the economy and a rise in (uniformed) police staffing. Somewhat more speculative are such possible impacts of the multiplied use of the death penalty or of the advent of cellular telephones.

A central factor, which is integral to this study, is innovative policing strategies. They range from employing "community policing," to adopting "broken windows" concepts to implementing Compstat policing strategies, principally in New York City. Treated separately, these two factors have been credited as contributing to crime reduction. Franklin Zimring found that policing strategies were part of the crime decline. He found that New York City Police Department: "engaged in more aggressive policing, such as making stops that were independent of arrests and establishing a misdemeanor arrest program for drug offenses as well as other public-order offenses" (Zimring, 2007, p. 8). These reasons underlie implementing Compstat. New York City had the most dramatic crime decline nationwide, so their policing strategies have been studied and duplicated.

Other writers, however, such as Professor of Economics at the University of Chicago, Steven D. Levitt, question the notable importance of the statistically-driven Compstat program. He counters with four reasons why Compstat does not play a major part in crime reduction. The first reason is: that "the crime drop in New York began in 1990" and Compstat began in the middle of the decade (Levitt, 2004, p. 172). This maintains that the crime drop was a nationwide phenomenon, thus making New York City's crime drop more impressive due to its large population and varied makeup. The fact, nonetheless, that Compstat began in 1994 certainly does not distract from its impact on sustained crime reduction in New York City, even hypothesized as an intervening variable.

Levitt goes on. Secondly: "the change in policing strategies was accompanied by enormous growth in the size of the police force" (2004, p. 172). In itself a fact, but increases in the size of the police force allowed NYPD administrators to deploy manpower more efficiently, increased accountability and incorporated a "broken windows" focus on curtailing quality of life offenses – all of which are central to Compstat. Thirdly: ". . . few other cities…instituted New York City-type policing strategies" (Levitt, 2004, p. 173). This assumes that crime declined independent of Compstat in other cities.

Levitt's last reason is: "New York City has had abortion rates among the highest anywhere in the nation since abortion was legalized in 1970, three years before the Supreme Court decision in Roe v. Wade" (Levitt, 2004; p. 173). This notion: "rests on two premises: 1) unwanted children are at greater risk for crime, and 2) legalized abortion leads to a reduction in the number of unwanted births" (Levitt, 2004, p. 181-

182). These factors are speculative and difficult to quantify, thereby, making it hard to prove definitively.

Another recent study conducted by David Greenburg of the Department of Sociology at New York University analyzed crime data from individual precincts in New York City during the 1990s that contained: "deeper information about the demographic composition and socioeconomic status of neighborhoods where crime occurred, the presence and practices of local police officers there, and the prison admission rates of people who were arrested" (Badger, 2013, p. 3). Greenburg concludes that: "There is no indication here that Compstat had any non-trivial effect on violent or property crime rates in New York" (Greenburg, 2013, pg. 1). This assertion is certainly not supported by the UCR crime data from that time period. Compstat allowed the NYPD to deploy manpower to individual precincts that were identified to have crime problems. And, crime rates declined in these areas. Moreover, the accountability of Compstat would lend itself to greater uniformity of police practices.

The increase in the number of police officers in the 1990s has been cited as a reason for crime's decrease. In the mid-1990's the Federal Government started grant programs such as Community Oriented Policing Services (COPS) that allowed municipalities to increase their police forces. These COPS grants helped police departments deploy more manpower to troubled precincts and to target problem neighborhoods. The grants assisted programs such as Compstat in that they allowed department flexibility in manpower deployment and permitted officers to target quality of life offenses. Increases in the number of officers needs to be considered in relation to their strategic use, which Compstat permitted.

Use of incarceration has been noted to be a factor in decreasing crime rates. Levitt states that: "by locking up offenders, they are removed from the streets and unable to commit further crimes while incarcerated (incapacitation effect)… (and) deterrence – the increased threat of punishment induces forward-thinking criminals not to commit crimes they otherwise would find attractive" (Levitt, 2004, p. 177-178). Incarceration rates increased dramatically from 1991 to 1998. The prison population in New York State grew from 57,862 in 1991 to 72,289 in 1998 while New Jersey grew from 23,483 to 31,121 in the same period. (Gainsborough and Mauer, 2000, p. 29). The incarceration rate percent of change from 1991 to 1998 was 24% for New York, while the crime rate percent declines were 43%. New Jersey had a 27% spike in incarceration with a 33% decline in crime rates (Gainsborough and Mauer, 2000, p. 14). Gainsborough and Mauer, who are members of the Washington, D.C., The Sentencing Project, state that: "during this period [1991-1998] the number of state and federal prisoners rose substantially, from 789, 610 to 1,252,830 – a 59% increase in just seven years. The rate of incarceration (number of prisoners per 100,000 population) rose from 313 to 461, an increase of 47 %" (Gainsborough and Mauer, 2000, p. 3). There is no denying that increased prison populations can be linked to lower crime rates. Simply, the opportunities to commit crimes decrease when offenders are incarcerated. In addition, the unforgiving Rockefeller Drug Sentencing Laws in New York State enacted in 1973 increased [minor] drug offender prison sentences that lead to the incarceration of many drug users, even by lower-level (possession) participants who were repeat offenders.

Changes in the drug culture in the United States are often mentioned as a factor in crime decreases. The widespread crack epidemic that started in the early 1980s tapered

off by the mid to late 1990s. Crack cocaine took an expensive narcotic and made it inexpensive by cutting cocaine and mixing it with baking soda that gives the user an intense high when smoked, ingested or sniffed (Levitt, 2004, p. 179). The profit margin for drug dealers rose and violence tended to surround fixed geographic drug areas, especially lower income urban areas. Levitt posits that: "crack has quite likely played an important role in the decline in homicide in the 1990s, at least for homicide" (Levitt, 2004, p. 181). Drug offenders, when compared to all other criminal offenders: "between 1990 and 1998…accounted for 19% of the growth in the state prison population" (Gainsborough & Mauer, 2000, p. 17). As there is no doubt that when the crack epidemic slowed down in the 1990s, a negative effect on crime rates followed. Gainsborough and Mauer state that: "after the crack cocaine market peaked in the early 1990s, changes in the crack trade appear to have had an impact in reducing crime…the ending of turf battles, the shift in drug trading off the streets to behind closed doors, and declines in the use of crack have all contributed to the reduction in the rates of violent crime associated with the peak of the epidemic" that occurred nationwide (Gainsborough and Mauer, 2000, p. 21). Crack users were notorious for committing crimes just to purchase the substance due to its highly addictive nature, therefore whether due to incarceration from these crimes or the deaths of the users, the decline in demand had a positive effect on crime rates.

Gun control laws have been identified as a factor to have affected crime rates. Individual states have different laws governing gun control. As a well-known rule, stricter gun laws do not necessarily coincide with lower crime rates. Thus, access to guns for law-abiding citizens may be stringent, but criminals do not use legal channels to get

guns. A counter program instituted in many urban communities is the gun "buy-back" program. Levitt maintains, however, that: "the guns that are typically surrendered…are those guns that are least likely to be used in criminal activities" and "guns turned in will be, by definition, those for which the owners derive little value…replacement guns are relatively easily obtained…the likelihood that any particular gun will be used in a crime in a given year is low" (Levitt, 2004, p. 174). These compelling reasons show a lack of effect gun control laws have on crime rates.

Demographic changes in the population have been cited as another reason for crime decreases in the 1990s. According to Levitt, during the 1990s the "baby boomer" generation increased and concurrently, the African-American population increased and: "in spite of the overall aging of the population, the echo of the baby boom is leading to a temporary increase in the number of teenagers and young adults" (Levitt, 2004, p. 171). This belief surmises that older adults are less likely to commit crime, but that appears to be offset by the increase in young adults who are more likely to commit crimes. The difficulty with this view is the assumption that these demographic changes had any effect on actual crime rates.

Changes in the economy have been noted as a factor in crime reduction in the 1990s. Some believe that if the overall economy improves, crime no longer becomes as much of a necessity. The observation is that more jobs and higher wages diminish the need for individuals to commit criminal acts to survive. Levitt believes that two economic factors could affect crime rates. They are: "increased spending on police and prisons" (Levitt, 2004, p. 171). While Jeffrey Grogger, Professor of Urban Policy at the University of Chicago, holds that: "young men weigh the tradeoffs between wages earned

in the legitimate economy and wages earned from crime and then choose the route that maximizes their situation" (cited in Travis & Waul, 2002, p. 14). This economic explanation fails to account for aspects of crime that are not tied to wages, such as crimes of passion, domestic homicides and assaults, and the assumption that criminals will choose to work, especially if the job does not yield high enough wages. Economic factors can affect crime rates, especially if the economy hits a down turn and has negative employment consequences, conversely having a positive effect with a robust economy.

Another factor considered to have an effect on crime rates is concealed weapons. Individual states have different laws for the possession of weapons, especially handguns. A study by Lott and Mustard in 1997 found that anti-concealed weapon laws led to reductions in violent crime. Levitt states that: "The theory behind this claim is straightforward: armed victims raise the costs faced by a potential offender" (p. 175). The major problem with this theory is that many crimes, such as burglary or auto theft, often occur when the "victim" is not present, thus negating the impact of a firearm.

Capital punishment has been proposed as a reason for the decrease in crime rates. This argument has been discussed for many decades pre- and post-1990. Some writers argue that capital punishment acts as a deterrent for potential criminals in regards to committing violent crimes. The argument against capital punishment, besides the human aspects of killing a convicted criminal, is that most states have long appeals processes that essentially negate the threat of execution (Levitt, 2004, p. 175). These arguments continue today and the likely effect of capital punishment on crime rates is negligible compared to previously discussed factors.

A further explanation for the crime drop in the 1990s was the advent of cellular telephones. According the John MacDonald: "The crime decline really started in 1993 and that's coincident with when mobile phone technology started coming online but really penetration started sometime in the mid-90's" (cited in Fielder, 2012, p. 1). This theory states: "that potential victims and bystanders could more easily call for help when they didn't have to find a payphone…when the chance of being detected and caught goes up, people are more likely to avoid committing that kind of crime" (Fielder, 2012, p.1). This innovation in technology can be viewed positively in this type of use; whether it could account for the significant amount of crime decline is dubious. Mobile telephone technology at this time had use limitations, especially in urban areas with many buildings that inhibited cellular signals. Mobile telephones also were expensive and thus use was prohibitive to lower income citizens in the mid-1990s. Therefore, technical limitations and affordability obscure the affect this technology had on crime rates.

Gary LaFree, Professor of Criminology and Criminal Justice at the University of Maryland, wrote that political legitimacy had an effect on lowering crime rates. LaFree stated that: "crime and deviance rates may be related trends in the legitimacy of political institutions" (LaFree, 1999, p. 149). As globally, earlier, Emile Durkheim in the late 19th century and Philip Smelser in the mid-20th century projected that: "a breakdown in social organization, informal sources of social control – family, work, school, voluntary organizations – lose their ability to channel individuals into conventional behavior. The resulting disorganization frees social actors to engage in a wide variety of antisocial behavior, including crime and collective action" (cited in LaFree, 1999, p. 150). Socio-

political legitimacy, however, is difficult to quantify and may not be a causal factor in crime rate decline in the 1990s.

LaFree also argues family disorganization emerged as an issue in the 1990s crime decline. LaFree gives two reasons: "First, throughout human history, families have helped to regulate crime rates by serving as the primary institution for passing social rules and values from one generation to the next (Davis 1948)…. Second, families control crime by directly regulating the behavior of their members" (LaFree, 1999, p. 151). This rationale is another factor that incorporates difficult units of measure. While family structure and influence are important to the development of individuals, the correlation to adult activity is difficult to quantify and use as a reason for diminished crime rates.

As an extension of the social disorganization thesis, the theory of changes in routine activities has been proposed as a reason for crime decreases. Cohen and Felson, sociologists at the University of Illinois: "argue that economic and social development in the United States has brought about changes in routine activities, increasing the dispersion of activities away from the home and consequently heightening opportunities for crime" (cited in LaFree, 1999, p. 154). This use of situational variables is interesting but is not easy to quantify.

Another factor is education and welfare effects. The education effect holds that schools have a similar effect on crime as families, in that: "increasing the effectiveness of social control…by protecting students from the criminal behavior of others" (LaFree, 1999, p. 156). In the mid-1990s, however, crime rates were lower in nearly all urban areas, and, notably in New York City. More positively, the welfare effect indicates that:

"welfare's [payments] presumed ability to ameliorate economic stress and thereby reduce the motivation of potential offenders to commit crime and to improve the effectiveness of informal social control mechanisms" (LaFree, 1999, p. 156). On one hand, both of these factors could mitigate crime rates, but on the other, they could also have the opposite effect: increasing opportunity to meet other criminals at school and creating a welfare culture that decreases the desire to work legitimately. Their quantification is beyond the scope of this study.

D. Crime in the 1990s Conclusion

Undoubtedly, every factor mentioned so far may have had an effect on the decrease in crime rates in the 1990s. While each one may have materialized in lowering crime rates, many are difficult to quantify, though they lay a sound basis for a multi-factor phenomenon. The confluence of the factors contributes to an overall drop in crime rates. There have been no definitive answers to the phenomenon, but these positions can be considered as parts of the whole.

Chapter 6: Synthesis/Research Question

A. Synthesis of Topics

Thus far we have examined four topics: [1] Compstat as an innovative police program, [2] together with various aspects of crime spillover and displacement, [3] crime in the 1990's, as well as their relationship to [4] public budgeting. The literature reviews reveal their strengths and weaknesses. This section attempts to synthesize the topics to develop a research question.

B. Statement of Problem

The problem presented by the effectiveness of crime suppression, be it Compstat or tougher criminal sanctions by the courts, is that it can lead to negative externalities such as spillover and displacement. This downside poses a particular problem in New York City's neighboring jurisdictions with possible rises in crime-rates, which, in turn, may lead to increasing police budgets to reduce the newly-discovered spurt in criminal activities.

It is now helpful to establish whether a spillover and displacement of crime rates occurred into New York City's neighboring communities after Compstat proved to be a successful prevention tactic. Supporters of Compstat believe its effects are largely a non-zero sum game with only winners, except felons, who benefit from quality of life improvements and crime reduction. The detractors maintain that Compstat is a zero-sum

game with winners and losers who may see crime reduction occurring at the expense of other factors unrelated to Compstat. The major concern of this paper is to determine whether the supporters of Compstat are good reality-testers in that we will empirically examine the before and after crime-rate and budgetary impacts on smaller neighboring jurisdictions, which no other study has done.

That is, there are few current studies of the effects of Compstat on neighboring communities. One by Blumstein and Wallman's The Crime Drop in America (2006), offers a look at the homicide rate per capita for New York City, states surrounding New York State, as well as general homicide rates in the United States from 1991 to 1996. The authors found that the homicide rate was strongly tied to social factors. They offer four conclusions: "the implementation of Compstat in New York in 1994 cannot be credited independently with the decline in homicides in that city. Second, for the same reasons as the first conclusion, the other changes in New York City's policing practices implemented around the same time as Compstat (e.g. zero-tolerance policing) cannot be given the credit for the decline in homicide in New York City. Third, the diffusion of the Compstat process to other cities throughout the United States came too late to have produced the national decline in homicides" (Blumstein and Wallman, 2006, p. 234-235). Finally, they conclude that: "there is little evidence to support the assertion that Compstat caused the decline in homicides, Compstat is only one manifestation of focused policing in general and directed patrolling in particular" (Blumstein and Wallman, 2006, p. 235). This study was narrow and did not seem to use data other than Uniform Crime Reports for its analysis. It also does not look at spillover and displacement into the immediate jurisdictions surrounding New York City. This spillover effect is where the problem of

Compstat's success would show an immediate impact. It is common sense to say that successful crime initiatives in one jurisdiction, especially a large one, will lead to spillovers into other smaller localities. For instance, illegal narcotics distribution always seems to find new locations after one area closes down. A study published in February 2015 by the Brennan Center for Justice analyzed "the 50 most populous cities" and those with "Compstat-style programs were responsible for a 5 to 15 percent decrease in crime" (Roeder, Eisen and Bowling, 2015, p. 4).

Obviously, some crimes are not prone to spillover and displacement effects. Crimes of passion and domestic abuse are not particularly mobile since they occur between few individuals with close ties. These crimes are not Compstat's targets. Quality of life crimes, violent crime, narcotics and the like are easier to identify and track. Resource and manpower deployment to areas involving incidents of these types are prime targets for programs such as Compstat.

In the case of New York City, there are many adjoining and nearby jurisdictions that are easily accessible. Public transportation is available and allows for a mobile criminal or customer to seek out a new source of illicit activity. For instance, the City of Newark in New Jersey is easily assessable to New York City – twenty minutes away by local train.

From a public administration standpoint, the budgetary impacts of crime spillover and displacement are a worthy topic of study. Yet, it seems that policy makers who scrutinize police budgets often penalize police departments for success in crime reduction. But, on the other hand, crime spillover and displacement can put a strain on police departments that could lead to outcries by vested interests for increased budgetary

needs in manpower and resources. Upswings in crime also can put pressure on the local court system, as more burdensome arrests and prosecutions occur.

If a link can be found between the accomplishments/achievements of Compstat and the subsequent spillover and displacement of crime from New York City to surrounding jurisdictions, it would help explain related budgetary responses. This linkage may also build a case for diffusion of successful public programs, such as Compstat, to other communities and other types of municipal services.

C. Research Question

The folding of the three topics, Compstat, crime spillover and displacement and public budgeting, leads to an important research question. It is:

> The New York City Compstat program has been hailed as a success by many scholars and practitioners in its ability to reduce crime, allocate resources, increase accountability and utilize technology. In fact, as some scholars point out, it is the new paradigm for criminal justice. But, it must be asked: where did the crime go? Was there a crime spillover/displacement into surrounding jurisdictions in Westchester County in New York State as well as adjacent municipalities in New Jersey? Could there be a negative externality of Compstat's success in New York City that causes such a spillover? From a public administration viewpoint, did increases in crime rates result in larger police budgets in those jurisdictions?

Simply stated:

> To what extent did the reported achievements of the New York City Police Department's Compstat program in reducing crime rates lead to a criminal spillover/displacement in the surrounding communities in New York State and New Jersey?
>
> If the crime rates increased, did the municipalities respond by augmenting their police budgets?

These questions will bring together the three topics in an effort to discover if there was indeed crime spillover/displacement and if public expenditures for law enforcement increased. As the literature review shows, there are many disputes over Compstat's singularity in crime reduction. While disagreements over this issue have occurred, no study has specifically examined whether a spillover of crime rates emerges from New York City reducing them, especially violent crime, onto neighboring jurisdictions.

D. Research Methodology

The time period for this study begins three years prior to Compstat's introduction and continues for three years after its implementation, that is, from 1991 to 1997. This time interval is sufficient to show movements in both crime rates and police budgets prior to the initiative and after its implementation.

The data include the Uniform Crime Reporting (UCR) data from the Federal Bureau of Investigation (FBI) that categorizes major crimes. They latter are: criminal homicide, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft and arson (called Part I offenses) as well as Part II offenses (all other

relevant offenses other than Part I arrest data only (UCR, 2004, p. 1&8). Part II involves other offenses that are defined in the UCR Handbook. The UCR reports will be used for New York City as well as the surrounding tri-state police departments selected for the study. One area of concern is drug-induced crime. This matter is a shortcoming of UCR data, as it does not appear in the subtotals. At the same time, it can be assumed that these crimes are equally distributed in the population of the study cities, and, therefore, non-mitigating. Data from the Law Enforcement Management and Administrative Statistics (LEMAS) program of the Department of Justice Bureau of Statistics cannot be used, since it does not include cities.

The eight comparison city police departments include four cities from Westchester County, New York: Mount Vernon, New Rochelle, White Plains and the City of Yonkers. Cities from New Jersey include: Elizabeth, Hoboken, Jersey City and the City of Newark. In addition, to gain a historical perspective, interviews with current or past department members who were present during the 1990's time frame will be conducted, if possible, both in the comparison cities and the NYPD.

Total police budgets from each of the jurisdictions during the target years are included. These police budgets will be analyzed to see if any changes occur that could be explained by increases in crime. The budgets will be gauged in relation to the whole city budget (general appropriations budget) to determine any percentage of change. The total police budget involve: (1) salaries, (2) overtime, (3) equipment purchases, and (4) new hires. A look at external grant receipts will also be helpful to learn whether federal assistance was awarded to the designated jurisdictions during the time frame. Of particular interest is Community Oriented Policing Services (COPS) grants. These grants

often cover new hire salaries and benefits for a period of three years. It is widely known that receiving a COPS-funded officer has a correlation to need, usually expressed by crime increases and the like. Demographic variables will be included in the comparative analysis to eliminate the possibility of alternative explanations.

E. Time Frame

As stated earlier, the time frame will include analysis of crime rate statistics and municipal budgets three years prior to Compstat's introduction and three years after its implementation. This period will allow for a look at crime rate statistics and budgets pre-Compstat for all the targeted municipalities to establish base-line numbers, that is, to illustrate the impact of Compstat's lowering crime rates in New York City on nearby city crime statistics and budgets. The analysis will also discuss crime rates for New York City during the six-year study period to determine which areas witnessed the greatest decreases that might be attributed to Compstat. For the selected cities, the six-year time frame can be employed to learn whether parallel decreases in New York City affected their crime rates. Of course, we may not attribute any decline in crime rates in New York City to the presence of Compstat. Yet, crime rates started declining in the 1990s as well as after Compstat's implementation. Our concern is: did the criminals go elsewhere and, most likely, to nearby cities, inviting budget increases.

F. Crime Data

The data chosen for analysis will be the crime statistics for major crimes from the Federal Bureau of Investigations Uniform Crime Reporting (UCR) data. Selecting the UCR occurs for two reasons: one, for its uniformity, and, two for its universal usage. Each police agency is required to submit reports to the FBI. Because the crime classifications are standardized, they are important in this study to ensure consistent analysis of crime data.

Uniformity in crime statistics, even by the New York Police Department's (NYPD) (www.nyc.gov/html/nypd) own admission, varies significantly from other police departments. This variation stems from the fact that bordering police agencies can decide to classify similar crimes differently. Generally, classification guidelines do not completely agree across police agencies. For example, an assault and battery can be presented to a District Attorney either as a violation charge of harassment in the first degree or as a misdemeanor assault in the third degree. The difference is that harassment carries lesser penalties. Often, cities may have significantly more crime than police officers report because they do not have the time to charge offenders with felonies that require arraignments and court appearances. Instead, it is easier to charge a misdemeanor that can allow officers more time to issue an appearance ticket for a future court date that will then become the official arraignment. This delay not only allows officers to get back on patrol, but also decreases overtime for court appearances.

Not surprisingly, inter-state uniformity is even harder to achieve. The penal, criminal procedure and vehicle and traffic laws vary from state to state. Since this study

will compare cities from New York and New Jersey, it would be problematic to use local crime data from each municipality from different states since crime classifications varies widely between states.

Arguments have been made previously in this paper as to the accuracy of crime reporting during the implementation of Compstat. This problem leads to the issue of confidence in the UCR crime statistics for some critics of Compstat. While critics (Eterno and Silverman, 2010) argue that many commanders in the NYPD re-classified crimes to make their precincts look better during the weekly Compstat meetings, there is no way to determine whether the actual data were altered. It is highly unlikely that under or over exaggeration had been done consistently among the cities. Therefore, this confounding effect will be considered to be randomly distributed among the sample cities. They didn't consult with one another to over-inflate or under-inflate. Yet, a question can be asked in that cities may have exaggerated crimes in order to get more funding for their police departments. These competing factors can be confounding variables that cannot be truly measured but need to be discussed in order to justify reliance on the UCR crime statistics.

It seems obvious that local media in the study cities would be sensitive to either crime rate increases or decreases. As all of these cities have access to New York City television stations, reporters would be aware of Compstat's presence and influence on crime rates. Therefore, as part of anecdotal analysis, local papers will be reviewed to see how responsive media are to crime rates.

The use of the UCR crime statistics strengthens consistency of crime classifications and allows for the comparison of major crime data. This consistency

means that three crime categories, including felony offenses in the violent crime realm, will be compared. For example, since New York City experienced a steady decrease in robbery within the study years, if our hypothesis has any validity we expect that the New York City's robbers went to the other cities on day trips. Robbery involves a personal violence against individuals compared with burglary that usually means breaking and entering where individuals may not be present.

G. Budget Data

Police budgets from each municipality will be examined as to learn whether they changed after the implementation of Compstat. The working hypothesis is that if any growth in crime rates occurred in the cities under review, then police budgets should be affected, that is, increased. Of course, if felons distribute their crimes across the cities equally, then, only a modest increase would occur in crime rates. If crime rates remain unchanged, or decreased, police budgets would not increase, thus undermining the working hypothesis. When crime rates increase modestly, the usual first response by police departments is to employ overtime to meet the challenge. To the degree possible, overtime budgets will be examined since police departments initially address the problem that way, rather than admitting to crime increases.

Federal grant funding will also be investigated for each municipality. Federal grants can impact budgets and reduce spending for officer salaries, equipment and facility costs. These funds must be accounted for to determine the true budgetary costs for the agencies.

H. Municipalities Used: A Summary

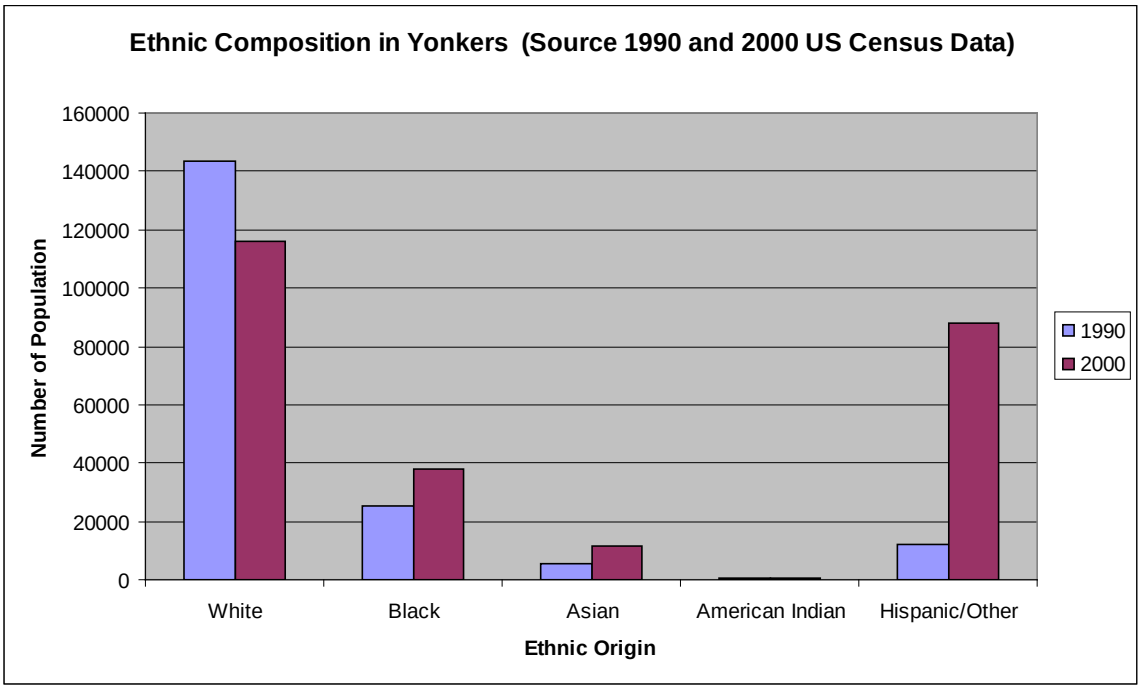
New York City will be used as the base city for comparison since Compstat originated there. Comparable cities from New York and New Jersey will be used. Each was chosen due to proximity (50 mile radius of New York City) and similar demographic characteristics.

The cities chosen in New York State are the cities of Mount Vernon, New Rochelle, White Plains and Yonkers. The City of White Plains has a current population of 57,181 (www.factfinder.census.gov), while the City of Yonkers has a population of 200,000 (www.yonkers.ny.gov/index.aspx?page=217). The demographic breakdowns, however, were comparable in the areas of ethnic composition, income, education and similarly structured police forces. Despite the obvious difference in total population, the other variables remained consistent and retain the same relationships. The relevant years' data are 1991 to 1997.

As an example, Chart 6.1 through 6.7 below illustrates the differences and similarities with several demographic variables between the cities of Yonkers and White Plains. The tables also indicate why the two cities are comparable, despite their population differences. Their comparability extends to their proximity to New York City and the availability of public transportation. Each comparison city and New York City's demographic variables will be examined later in the paper.

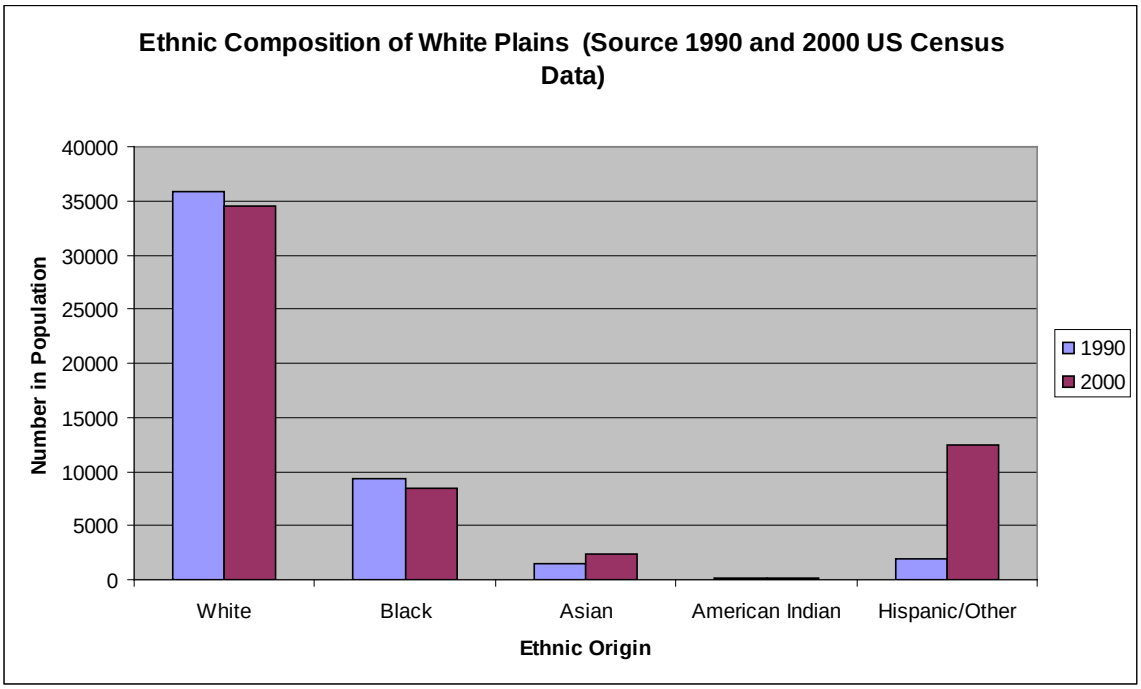
The principal source for Charts 6.1 through 6.7 is the US Census 1990 and 2000, http://www.census.gov, unless otherwise noted.

Chart 6.1: Ethnic Composition in Yonkers



(American Indian population non-significant)

Chart 6.2: Ethnic Composition in White Plains



(American Indian population non-significant)

Chart 6.3: Household Income in Yonkers

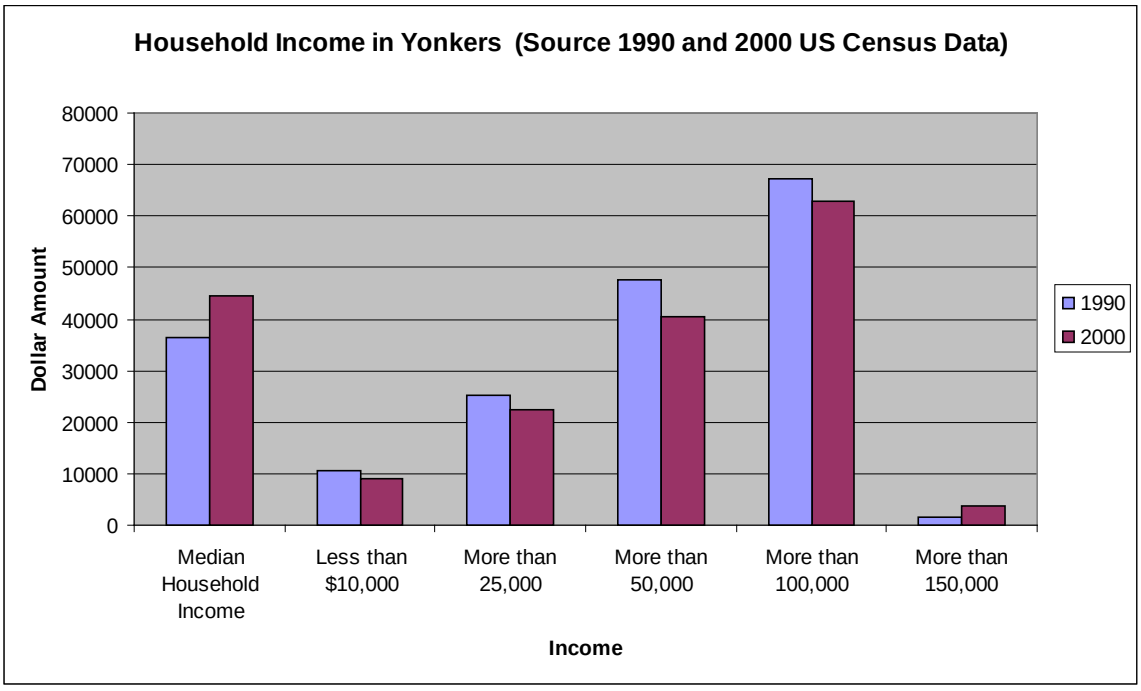


Chart 6.4: Household Income in White Plains

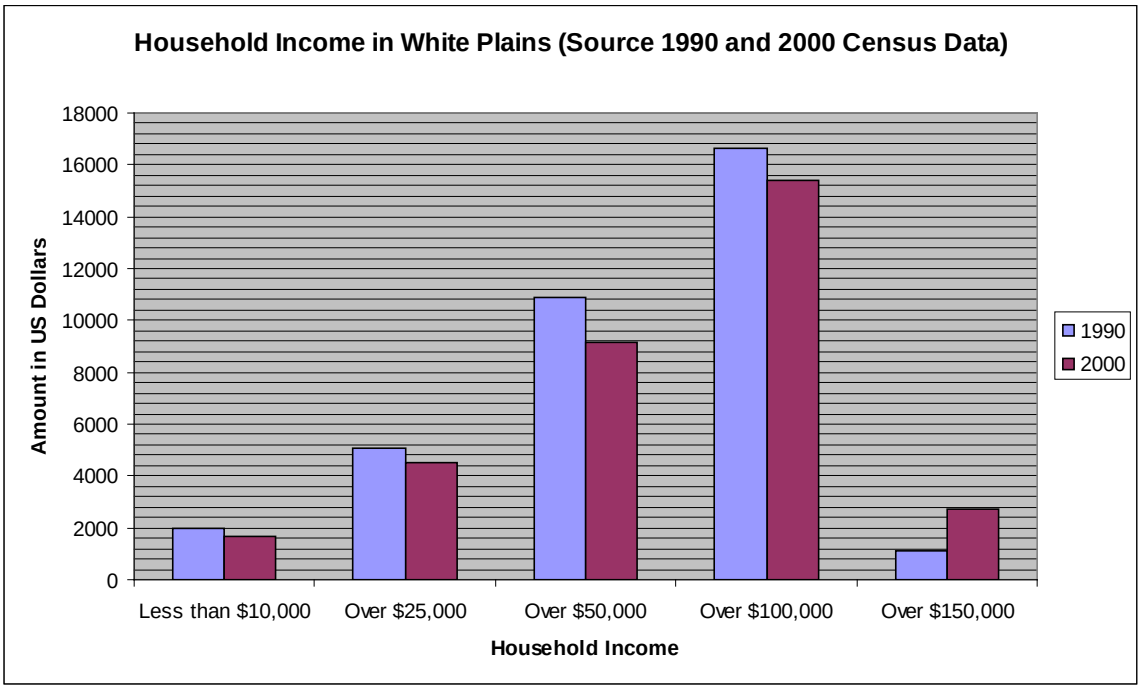


Chart 6.5: Education Attainment in Yonkers

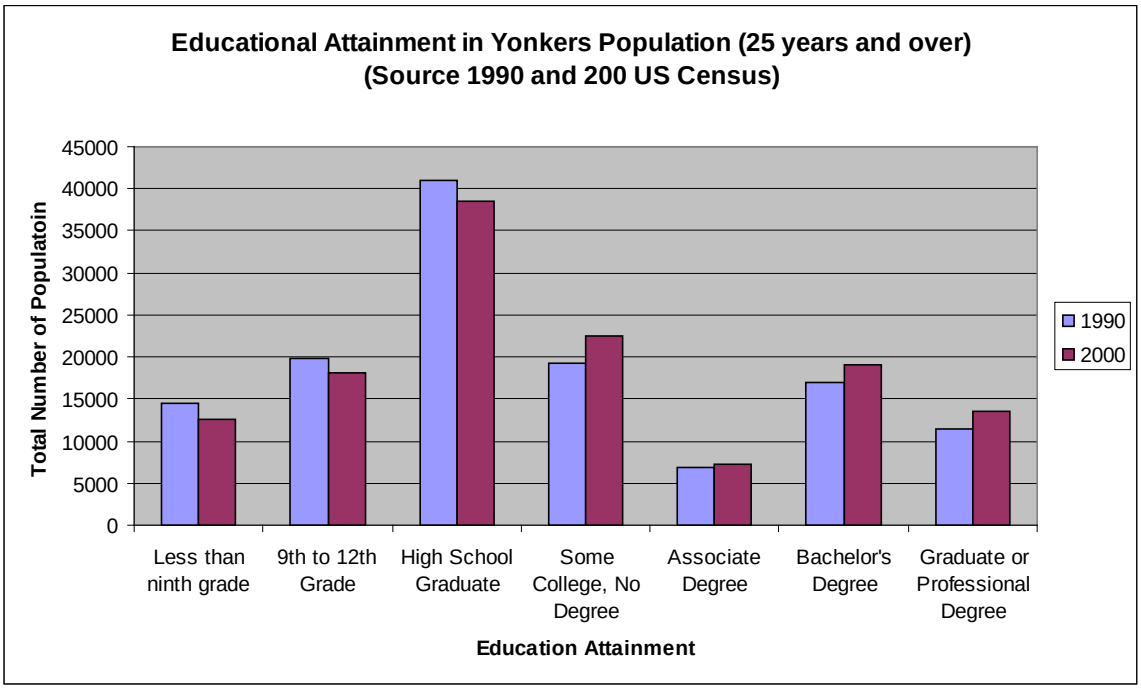


Chart 6.6: Educational Attainment in White Plains

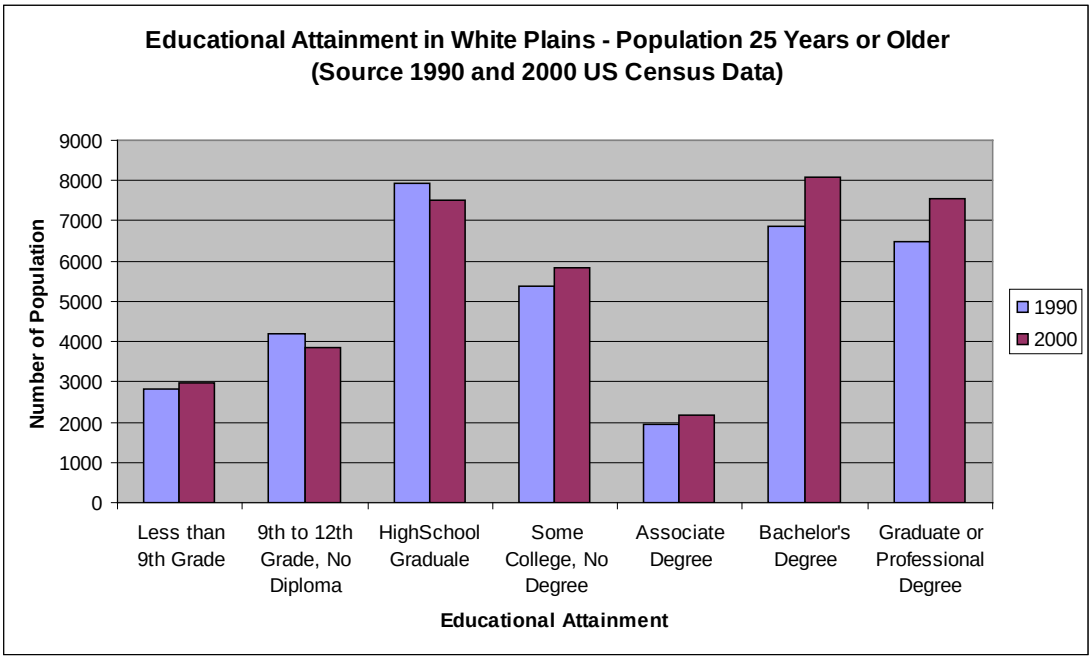
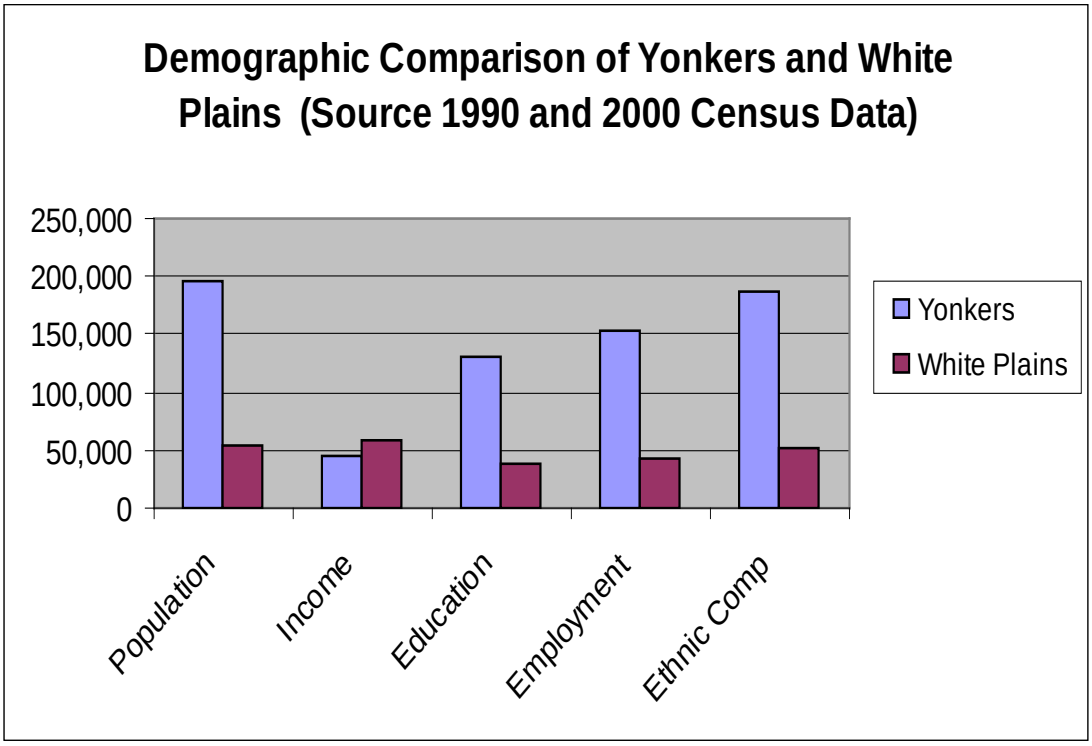


Chart 6.7: Demographic Comparison of Yonkers and White Plains



The cities chosen in New Jersey were: Elizabeth, Hoboken, Jersey City and the City of Newark. Each of the four cities, as illustrated by demographic information, experienced degrees of economic fluctuations in the 1990s, especially given the unsteady national economic climate during the time period studied. The tri-state area followed national trends during this time period. Because immigrant populations were unevenly distributed in the four New Jersey cities, they cannot be associated with any relationship compared to New York City. Therefore, we will eliminate any consideration of any immigrant population.

I. Variables

Many variables affect Compstat's implementation, some of which have been previously discussed, such as methods of crime reporting and economic factors. Since this study is basically correlational, comparative analysis will provide a process of elimination to discount other possible explanations for crime spillover and budget increases.

The null hypothesis is that: Compstat has no effect on crime rate spillover/displacement and subsequently the police budgets of surrounding jurisdictions. The null hypothesis is that no change occurs in the surrounding cities that might be affected by Compstat's role in crime reduction. The independent variable employs the steady lowering of crime rates in New York City. The dependent variable becomes the relative crime rates in outlying territories and the attendant police budget figures. Clearly, the working hypothesis holds that there is an increase in crime rates in nearby locales and subsequently in their police budgets. Therefore, a decrease in New York City's crime rates results in an increase in proximate cities' rates and police budgets. Comparative analysis will be completed using crime rates and budgets to address the research interests.

Intermediate variables will include demographic information, from the 1990 and 2000 US Census data, including: population, median family income, employment/unemployment rates, labor force changes, poverty rates as well as education. The type of crime is important. Crime does not increase without cause, but the type of crime must be factored, such as its severity and nature. Since some types of crime are not

transferable, such as domestic violence, it is important to use the UCR crime data to establish that the crime data used are transferable across communities and are thus comparable. Some intermediary variables are difficult to track, such as cultural dimensions of police departments. For example, police culture discourages officers from 'snitching' on each other, often called "the thin blue line". Therefore, UCR data will be used to ensure comparability between agencies.

Confounding variables need to be acknowledged. That is, certain unknowns will affect the analysis. For example, establishing criminal residency in the six cities will be fuzzy, as criminals may be mobile. To some extent, mobility can be treated as equally distributed. The assumption is that day-time opportunist crime, such as robbery, will be independent of a felon's address. But even in the absence of this particular confounding variable, it will not interrupt determining whether crime rates and budgets increased or decreased. Juvenile crime, ages 13 to 17, will be used as the control variable because juveniles lack mobility that limits opportunity. Juvenile crime holds steady to a greater degree than adult crime due to these factors. The lack of general mobility and motive among juveniles make it a more constant and reliable variable for crime rates.

J. Data Analysis/Statistical Methods

Data will be analyzed by testing the null hypothesis of no budget increases in the relevant variables, using comparative, regressive and correlational statistics. The comparative, regressive and correlational analyses will be completed using pre- and post-data to address UCR statistics and demographic data. The data analysis has policy-

making implications. If the null hypothesis is rejected, then municipalities have an opportunity to decide on the benefits of implementing Compstat. As it is a disruptive technology, municipalities will have to invest funds into setting up new units to lower crime rates. In establishing the viability of the working hypothesis that spillover does occur, it will provide a tool to determine whether Compstat is an effective program in financial terms.

Police budgets from each of the jurisdictions during the target years are included. Police budgets will be analyzed to see if any changes occurred that could be explained by increases in the crime statistics. These budgets will be gauged in relation to the whole city budget (general appropriation budget) to determine any proportional changes. The total police budget include: (1) salaries, (2) overtime, (3) equipment purchases, and (4) new hires. A look at external grant receipts will also be helpful to learn whether federal assistance was awarded to the designated jurisdictions during the time frame. Of special interest is the Community Oriented Policing Services (COPS) hiring grants. These grants covers up to seventy-five percent of new-hire police officer salaries and benefits for a period of three years, with the municipality agreeing to retain the officers after the grant expires. It is widely known that receiving a COPS funded officer has a correlation to stated needs, usually expressed by crime increases and the like. Various demographic variables, such as population, income, education levels, labor rates and industry, will be included in our comparative analysis to eliminate the possibility of alternative explanations.

The comparative analysis will analyze the following hypotheses:

H1: Crime rates increased in the comparison cities after implementation of the Compstat in New York City in 1994. (Crime Spillover/Hypothesis)

H2: The implementation of the Compstat in New York City in 1994 had no effect on UCR crime rates in the New Jersey or New York comparison cities. (Null Hypothesis)

H3: Demographic variables were altered in the comparison cities after the implementation of Compstat in New York City in 1994. (Intermediate Variable Spillover)

H4: The general appropriation budgets generally increased in the comparison cities after the implementation of Compstat in New York City in 1994. (Budgeting Spillover/Competition Model)

H5: The total police budgets in the comparison cities increased after the implementation of the Compstat in New York City in 1994. (Budgeting Spillover/Hypothesis)

These five factors in parenthesis will be subjected to statistical analysis using the variables found in the UCR data, public budgets and US Census data. The results will be discussed in the study's conclusion.

K. Limitations of Study

This study examines the time period from 1991 to 1997. As many studies have found, it takes very little time for crime rates to change following the introduction of a major strategy change. The budget data from this time period differed from online web

storage periods. Literally, the availability of the workaday budget data had to be found in municipal vaults, libraries, and in one instance, gathering dust under a desk. The quality of budget data varied greatly between and within the New York and New Jersey comparison cities. Getting access to data for more in-depth information, for example, detective department allotments were non-existent in most cases. Therefore, the main municipal published budget totals as well as the main police department budgets were used for comparison. Even New York City's 1990s budgets had to be found in the City Hall library, as the New York City and NYPD budget offices did not have them.

The general assumption by experts is that the New York City budget is not wholly accurate. This assumption is based on the fact that the NYPD unions are rarely under contract and the use of overtime is not included in the budgets. For the purpose of this study, however, the New York City budgets were treated equally with the other municipal budgets since there is no definitive way to account for specific amounts of overtime for each police union, therefore there is no concrete way to account for the "missing" overtime budget amounts.

Another limitation is that there is no official budget for the NYPD Compstat Unit. This was confirmed by the NYPD Commissioner's Office (E-mail, Sept. 18, 2014). This limited the study by not being able to separate this unit's budget as a percentage of the total police budget for the NYPD.

As previously discussed, UCR data were used to ensure that the comparable crime rates were recorded consistently between the target cities in New York and New Jersey as well as in New York City. Local data are notoriously incomplete and inconsistent. The

Law Enforcement Management and Administrative Statistics (LEMAS) reports excluded cities and, therefore, were not helpful in this study.

Another limitation was locating actual police personnel who directly participated in Compstat in the 1990s. Police officers can retire after twenty years and only a few high-ranking officers involved in Compstat are still active. A number of the interviews, when possible, were mostly conducted with officers who were around during this time period. They are small in numbers and their recollections vary about specific topics regarding Compstat. Nonetheless, interviews were conducted with officers for a historical context.

There are obvious limitations to using quantitative research data for a project in which social factors impact crime spillover/displacement. These criminal conditions include economic and social factors. Economic factors play a role in the motive and need to commit crime. High crime areas tend to have lower economic opportunities and aggressive policing has led to increased incarnation rates. Positive social factors include lower unemployment rates in the time period, improvements in the economy as well as the changing class composition of society (Wilson, 1997, p. 2). Generally, it is difficult to quantify social variables into solid research, but their profiles can be identified. Police officers usually do not make written field observations. Discretion as it relates to police work at the street-level is also not easily quantified, especially if police officers are poorly versed in why it is necessary to handle many illicit situations.

The complete US Census data from 1990 is no longer available on-line. This limited access to demographic variables such as population age and gender. The absence of the complete 1990 census data limited comparisons to the 2000 census data.

These limitations are important to note as the findings of this study paint a broad picture of this time period when nationwide crime rates were dropping, yet more public funds were being spent on law enforcement. While the study has numerous limitations, some of them are due to the archaic manner by which the jurisdictions maintained budget data.

Chapter 7: Demographic Variable Data Analysis

A. Introduction

The start of the comparative analysis examines the demographic variables of New York City and the comparison cities. The data employed were taken from the 1990 and 2000 US Census data. The conditions of each city will be examined as well as that of New York City. Before discussing the demographic data, the form of government of the cities will be presented.

B. Forms of City Governments

There are two forms of city government used in New York City and in the comparison cities. The most common form in New York City and six of the comparison cities is the mayor-council form of government. This form of government has an elected mayor and council that work both together and independently to run the city government. This form of government is highly political, but at times can be a form of checks and balances, as reflected in regular elections.

To form a control group for the chosen comparison cities, the cities of New Rochelle (New York) and Hoboken (New Jersey) were selected because of their city manager form of government. These two cities possess a city manager form of government that differs from the six other mayor council cities. The city manager form of government allows for more centralized discretionary power in regards to budgetary

matters. For obvious reasons, the mayor-council form of government has the propensity to allow politics to play a greater role in budgetary matters. Both the mayor and the council compete for shares of the budget, making it increasingly difficult for a municipality to contain the budget and to allocate equal amounts of police funding. Police services can then be compromised when competing actors divide budgetary funds to appease constituents in their requisite wards, leading to greater politicization of budget-making.

These differing factors can be seen in the study's comparison cities. Geographically, Hoboken is literally across the Hudson River from New York City. It has direct and easy access on the commuter train that emanates from the downtown World Trade Center in New York City. Passengers utilize a New York City transit Metro Card form of payment, while New Jersey Transit uses a separate payment system that affects the other New Jersey cities. Hoboken's population is generally younger and a majority commutes to work in New York City, and has more disposable income. As a result, the City of Hoboken has many bars and restaurants that cater to a younger populace. Hoboken employs a city manager form of government and has lower crime rates than its counterparts in New Jersey. Its police budgets were also comparatively lower than the other mayor-council cities in New Jersey.

In New York State, the City of New Rochelle also uses the city manager form of governing. New Rochelle was the one comparison city that did employ an imitation of Compstat shorty after New York City's Compstat implementation. The New Rochelle Police Commissioner in 1994, Patrick Carroll, was a former NYPD inspector, who employed a version of Compstat for New Rochelle. The city manager form of

government allowed for the allocation of funds for its Compstat program implementation, thus increasing its chance of success. New Rochelle is not the commercial hub that White Plains is, but is close to New York City's Bronx County and has a population of 67,265 in 1990 and 72,182 in 2000. The median family income was $95,604 in 1989 and $93,648 in 1999 according to the US Census Bureau.

The principal source for Charts 7.1 through 7.3 is the Federal Bureau of Investigation (FBI) UCR statistics, http://fbi.gove/stat-services/crimestats, and the source for Table 7.1 through 7.27 is the US Census 1990 and 2000, http://www.census.gov, unless otherwise noted.

Chart 7.1: Per Capita UCR Violent Crime Rates in Hoboken and New Rochelle (City Manager Cities) from 1991 to 1997

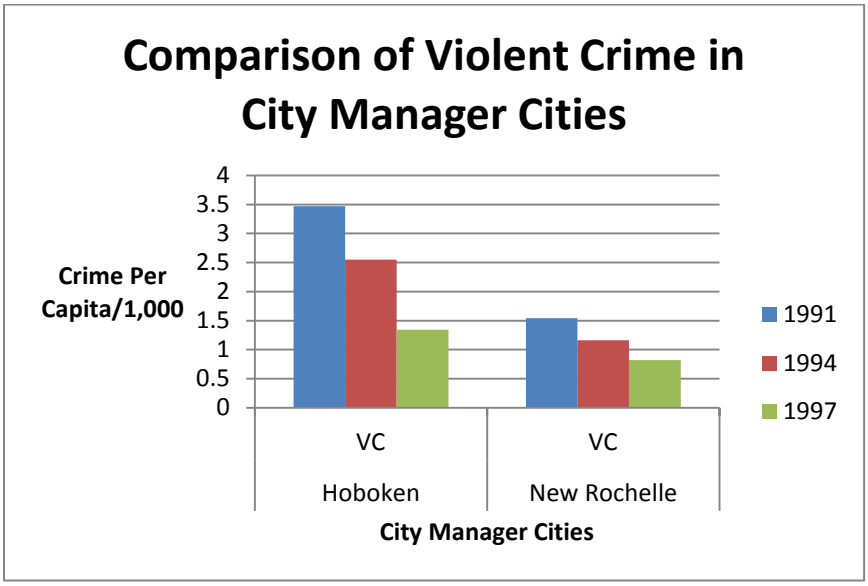


Chart 7.1 shows the decrease in violent crime rates in both Hoboken and New Rochelle between 1991 and 1997. The violent crime rates in New Rochelle started low in

1991 and were practically non-existent by 1997. Hoboken's violent crime rates started higher than New Rochelle's in 1991, but declined near New Rochelle's level by 1997.

Chart 7.2: Per Capita UCR Personal Crime Rates in Hoboken and New Rochelle (City Manager Cities) from 1991 to 1997

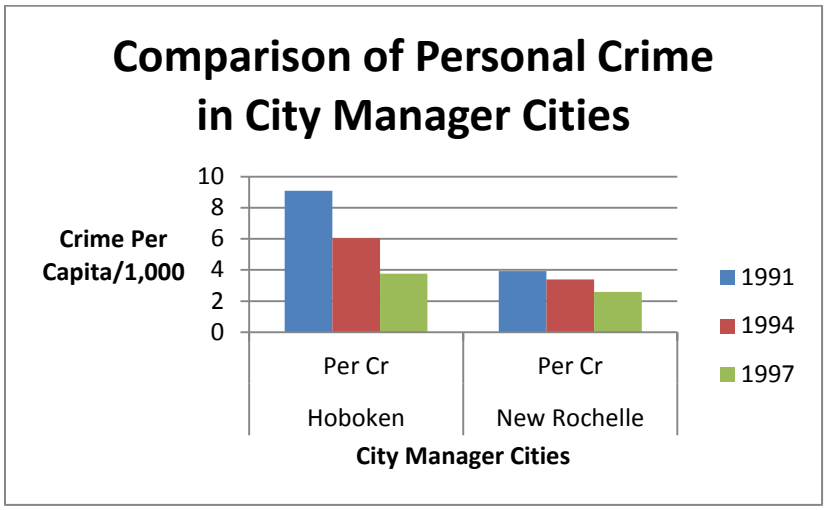


Chart 7.2 illustrates the decline of personal crime rates in Hoboken and New Rochelle. The personal crime rate decline is more dramatic in Hoboken, but the crime rate per 1,000 residents remained lower from 1991 to 1997 than in New Rochelle.

Chart 7.3: Per Capita UCR Property Crime Rates in Hoboken and New Rochelle (City Manager Cities) from 1991 to 1997

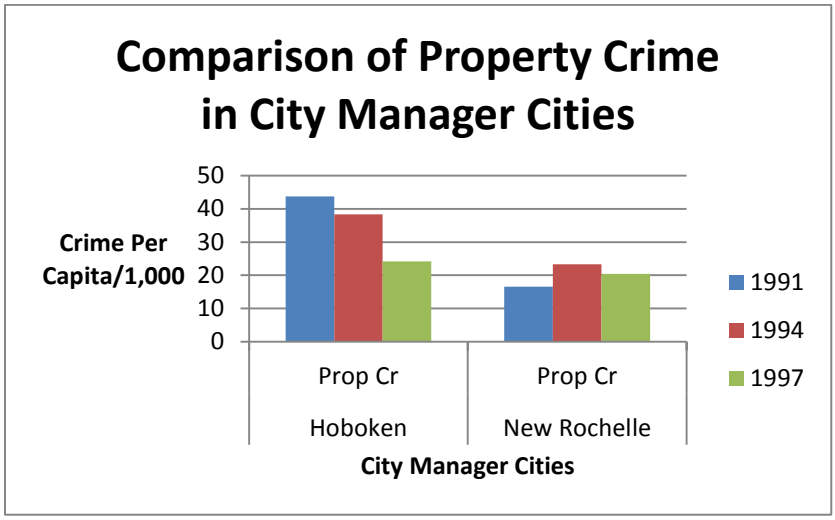


Chart 7.3 illustrates that New Rochelle had a spike in property crimes in from 1991 to 1994. It also shows that New Rochelle corrected the trend from 1994 to 1997. The explanation for this rise in property crime rates remains unknown, but what is known is that the problem declined after New Rochelle implemented its Compstat program in 1994.

The above comparisons will illustrate how the city manager cities differ from the mayor-council cities, as will be shown in the crime rate chapter. It is an important distinction that serves as a control variable function in this study. The distinction between the cities becomes evident as the demographic, crime and budget data are now examined.

C. Individual City Demographic Variables

This section will examine each city's US Census data to provide the individual cities' makeup. The study takes a balanced approach in showing the city demographic variables. Here they will be compared across the other cities, and to a greater extent in the findings section. The New Jersey comparison cities will be examined first, followed by the New York comparison cites, and concluding with New York City.

The US Census data percent of employed residents by industry tables involves the grouping of industry types. All industries in the US Census data are classified by the Standard Industry Classification (SIC) standards. The industries were grouped together in four categories. The first category is manufacturing that includes the following industries: agriculture and mining, construction, and public utilities. The second category is the services industry that includes: transportation, communication and public utilities, finance, insurance, real estate, business and repair services, personal and professional services. Thirdly, the retail industry that includes: wholesale and retail trade. The fourth industry category is public administration.

1. The City of Elizabeth, New Jersey

The City of Elizabeth, New Jersey, is located in Union County and has a current population of 124,969, making Elizabeth the fourth largest city in New Jersey. Geographically it is in close proximity to New York City and has two New Jersey Transit trains to connect to NYC. (elizabethnj.org). the above factors made the City of Elizabeth a good city for comparison.

Table 7.1: Census Data for Elizabeth, New Jersey (1990 & 2000)

Elizabeth, New Jersey, US Census Data (1990 & 2000)						
Year	Type			Year	Type	
	Population				Education	
1990	Total Pop	110,002		1990	No HS	41.5
2000	Total Pop	120,568		2000	No HS	38.3
1990-2000	% Change	9.6				
	Median Family Income			1990	HS Grad	31.4
1989	MF Income (2009 $)	54,461		2000	HS Grad	32
1999	MF Income (2009 $)	49,410				
	Employed Residents			1990	Some College	15.6
1990	Employed Residents	51,092		2000	Some College	17.6
2000	Employed Residents	47,689				
1990-2000	% Change	(-6.7)		1990	College Grad	11.5
	Unemployment Rate			2000	College Grad	12.1
1990	Unemployment Rate	9.9				
2000	Unemployment Rate	9			(*HS = High School)	
	Labor Force Change				(*Grad = Graduate)	
1990-2000	% Change	(-7.6)				
	Poverty Rate					
1989	Poverty Rate (% of Pop)	16.1				
1999	Poverty Rate (% of Pop)	17.8				

The city of Elizabeth's population increased 9.6% from 110,002 in 1990 to 120,568 in 2000. This was an increase of 10,566 residents. All of the New Jersey comparison cities showed growing population changes during this time period.

The median family income in Elizabeth, however, fell from 1989 to 1999. The amount of family income lost was $5,051 per family. The loss of median family income was consistent in Jersey City and New York City, while Newark had an insignificant increase and Hoboken experienced a significant gain.

The number of employed residents in Elizabeth also decreased during this ten year period from 51,092 in 1990 to 47,689 in 2000. That represents a negative change of

6.7 percent. This loss was significantly greater than the negative 1.7 percent change in Newark and the slight one percent gain in Jersey City. The unemployment rate decreased from 9.9 percent in 1990 to 9 percent in 2000. The labor force change was negative 7.6 percent from 1990 to 2000.

The poverty rate in Elizabeth worsened between 1990 and 2000, growing from 16.1 percent in 1989 to 17.8 percent in 1999. These rates are parallel to Jersey City and Newark, while Hoboken's poverty rate declined.

The educational rates in Elizabeth showed positive results in three categories and negative results for one category. The percent of residents with no high school education fell from 41.5 percent in 1990 to 38.3 percent in 2000, which was a gainful sign. The percent of residents with a high school education showed a marginal upswing from 31.4 percent in 1990 to 32 percent in 2000. A similar trend occurred for residents with some college, moving from 15.6 percent in 1990 to 17.6 percent in 2000. Again, residents with college education progressed slowly from 11.5 percent in 1990 to 12.1 percent in 2000 for another positive change. Educational attainment is weak in the 1990s.

Table 7.2: US Census Data Race/Ethnicity Groups Percentage, Elizabeth, New Jersey from 1990 to 2000

US Census Data for Race/Ethnicity as Percent of Total Population				
Elizabeth, New Jersey				
		Race/Ethnicity		
Year	White	Black	Hisp	Other
1990	40	18.2	38.9	2.9
2000	26.8	18.5	49.5	5.2

Table 7.2 shows the race/ethnicity as a percent of population in Elizabeth, New Jersey, between 1990 and 2000. The white population dropped out of the city, from 40 percent in 1990 to 26.8 percent in 2000, for a loss of 13.2 percent. On the other hand, Hispanic population increased 10.6 percent from 1990 to 2000, overtaking the white population and representing nearly fifty percent of Elizabeth's population. The New Jersey comparison cities all featured declines in white population and upticks in the Hispanic population between 1990 and 2000, with the exception of Hoboken which experienced the opposite outcome. The other races showed little variation between the New Jersey comparison cities from 1990 to 2000.

Table 7.3: US Census Percent of Employed Residents by Industry, Elizabeth, New Jersey, from 1990 to 2000

US Census Data Percent of Employed Residents by Industry				
(Standard Industry Classification)				
Elizabeth, New Jersey				
Year	Manufacturing	Services	Wholesale/	Pulbic
			Retail Trade	Administration
1990	32.7	43.4	20.1	3.9
2000	25.7	47	24.1	3.2

The city of Elizabeth, as shown in Table 7.3, showed differences in the percent of employed residents by industry between 1990 and 2000. The manufacturing industry fell from 32.7 percent in 1990 to 25.7 percent in 2000. The public administration industry declined 0.7 percent from 1990 to 2000. The services industry rose from 43.4 percent in 1990 to 47 percent in 2000. The wholesale and retail trade industry experienced a boost from 20.1 percent in 1990 to 24.1 percent in 2000. These changes indicate that the City

of Elizabeth turned into a service and trade industry city by 2000. All of the New Jersey comparison cities witnessed declines in manufacturing and upswings in services from 1990 to 2000. Only slight changes occurred with retail and public administration between the New Jersey comparison cities.

2. The City of Hoboken, New Jersey

The city of Hoboken is located Hudson County, New Jersey, across the Hudson River from Manhattan. Hoboken has a smaller population than the other New Jersey cities, but given its close proximity and easy access via public transportation to New York City, Hoboken made a worthwhile comparison city. Hoboken is known as a bedroom community.

Table 7.4: United States Census Data for Hoboken, New Jersey (1990 & 2000)

Hoboken, New Jersey, US Census Data (1990 & 2000)						
Year	Type			Year	Type	
	Population				Education by Percent	
1990	Total Pop	33,397		1990	No HS	30.2
2000	Total Pop	38,577		2000	No HS	16.7
1990-2000	% Change	15.5				
	Median Family Income			1990	HS Grad	16.6
1989	MF Income (2009 $)	59,380		2000	HS Grad	12.1
1999	MF Income (2009 $)	86,922				
	Employed Residents			1990	Some College	13.5
1990	Employed Residents	19,226		2000	Some College	11.8
2000	Employed Residents	25,661				
1990-2000	% Change	34		1990	College Grad	39.7
	Unemployment Rate			2000	College Grad	59.4
1990	Unemployment Rate	6.2				
2000	Unemployment Rate	4.4			(*HS = High School)	
	Labor Force Change				(*Grad = Graduate)	
1990-2000	% Change	31.1				
	Poverty Rate					
1989	Poverty Rate (% of Pop)	16.4				
1999	Poverty Rate (% of Pop)	11				

Hoboken witnessed a 15.5 percent increase in total population in 1990 from 33,397 to 38,577 in 2000. Increases in total population were common in all New Jersey comparison cities during this time period.

The median family income in Hoboken rose sharply between 1989 and 1999. The amount of family income increased from $59,380 in 1989 to $86,922 in 1999, an growth of $27,542 per family. This upsurge is much larger than the small increase in Newark, and the decreases in both Elizabeth and Jersey City.

The number of residents employed in Hoboken increased during this ten year period from 19,226 in 1990 to 25,661 in 2000. This represents an expansion of 6,435

employed residents. Again, this escalation was much greater than the small increase in Jersey City, and the decreases in both Elizabeth and Newark. The unemployment rate decreased from 6.2 percent in 1990 to 4.4 percent in 2000. The labor force change was 31.1 percent, a positive change unlike the other New Jersey comparison cities.

The poverty rate in Hoboken dropped from 16.4 percent in 1989 to 11 percent in 1999. Hoboken again was positive when the other New Jersey comparison cities poverty rates were negative during this time period.

The educational rates in Hoboken differed in several ways from the other New Jersey comparison cities. The main differences were in the percentage of college educated residents. In 1990, the percent of residents with a college education was 39.7 that increased to 59.4 percent in 2000. The percent of residents with no high school diploma fell positively from 30.2 percent in 1990 to 16.7 percent in 2000. The percent of residents with a high school diploma decreased negatively from 16.6 percent in 1990 to 12.1 percent in 2000. The percent of residents with some college decreased from 13.5 percent in 1990 to 12.1 percent in 2000.

Table 7.5: US Census Data for Percent of Race/Ethnicity, Hoboken, New Jersey, from 1990 to 2000

US Census Data for Race/Ethnicity as Percent of Total Population				
Hoboken, New Jersey				
		Race/Ethnicity		
Year	White	Black	Hisp	Other
1990	62	3.6	29.8	4.6
2000	70.5	3.4	20.2	6

Table 7.5 exhibits changes in Hoboken's race/ethnicity as percent of total population from 1990 to 2000. Hoboken's white population increased 8.5 percent from 62 percent in 1990 to 70.5 percent in 2000. Hoboken's Hispanic population fell 9.6 percent from 29.8 percent in 1990 to 20.2 percent in 2000. These two trends in Hoboken were opposite of the other New Jersey comparison cites who experienced declines in the white population and upswings in the Hispanic population.

Table 7.6: US Census Data for Percent of Employed Residents by Industry, Hoboken, New Jersey, from 1990 to 2000

US Census Data Percent of Employed Residents by Industry				
(Standard Industry Classification)				
Hoboken, New Jersey				
Year	Manufacturing	Services	Wholesale/	Pulbic
			Retail Trade	Administration
1990	20.2	59.8	16.7	3.3
2000	13.5	71.2	12.7	2.6

Hoboken witnessed declines in manufacturing, wholesale/retail trade and public administration between 1990 and 2000. The only increase occurred in the service industry that rose 11.4 percent from 59.8 percent in 1990 to 71.2 percent in 2000. This would further indicate that Hoboken is a bedroom community that relies heavily on the service industries. Hoboken followed similar trends in industry to the other New Jersey comparison cities from 1990 to 2000.

3. Jersey City, New Jersey

Jersey City borders the Hudson River and is located across from the NYC boroughs of Manhattan and Staten Island. Hoboken is north of Jersey City and west of Newark. Jersey City is the second largest city in New Jersey. The city has twenty-four hour New Jersey Transit PATH trains into Manhattan as well as other transportation services into NYC. Jersey City's close proximity to NYC and easy access made Jersey City an ideal comparison city for this study.

Table 7.7: US Census Data for Jersey City, New Jersey (1990 & 2000).

Jersey City, New Jersey, US Census Data (1990 & 2000)						
Year	Type			Year	Type	
	Population				Education by Percent	
1990	Total Pop	553,099		1990	No HS	35.9
2000	Total Pop	608,975		2000	No HS	29.5
1990-2000	% Change	1.00%				
	Median Family Income			1990	HS Grad	28.3
1989	MF Income (2009 $)	60,987		2000	HS Grad	26.8
1999	MF Income (2009 $)	56,729				
	Employed Residents			1990	Some College	16
1990	Employed Residents	269,310		2000	Some College	18.4
2000	Employed Residents	271,941				
1990-2000	% Change	1		1990	College Grad	19.7
	Unemployment Rate			2000	College Grad	25.3
1990	Unemployment Rate	8.80%				
2000	Unemployment Rate	8.70%			(*HS = High School)	
	Labor Force Change				(*Grad = Graduate)	
1990-2000	% Change	0.80%				
	Poverty Rate (% of Pop)					
1989	Poverty Rate	14.8				
1999	Poverty Rate	15.5				

Jersey City's total population rose 10.1 percent from 553,099 persons in 1990 to 608,975 in 2000. This positive population increase was similar to Newark and Elizabeth during this time period.

The median family income fell between 1989 and 1999. The amount of median family income lost was $4,258 per family. This loss was slightly less than Elizabeth while Newark had an insignificant increase.

The number of employed Jersey City residents increased from 269,210 in 1990 to 271,941 in 2000 for a positive one percent change. This increase in employed residents compared with decreases in both Elizabeth and Newark. The unemployment rate by percent decreased from 8.8 percent in 1990 to 8.7 percent in 2000. The labor force percentage of change from 1990 to 2000 was 0.8 percent. The poverty rate in Jersey City increased slightly from 14.8 percent in 1989 to 15.5 percent in 1999. This growth in the poverty rate was consistent with increases in both Elizabeth and Newark, but not in Hoboken.

The educational rate from 1990 to 2000 showed positive increases in residents with some college or associate degrees as well as those residents with college or advanced degrees. There was a decrease in residents with no high school education from 35.9 percent in 1990 to 29.5 percent in 2000, a positive sign for Jersey City. There was also a decrease in those residents with high school educations from 28.3 percent in 1990 to 26.8 percent in 2000. This decrease in residents with a high school education is a negative aspect for Jersey City.

Table 7.8: US Census Data for Race/Ethnicity as a Percent of Total Population, Jersey City, New Jersey, from 1990 to 2000

US Census Data for Race/Ethnicity as Percent of Total Population				
Jersey City, New Jersey				
		Race/Ethnicity		
Year	White	Black	Hisp	Other
1990	47.7	12.7	32.8	6.8
2000	35.3	12.2	39.8	12.7

Table 7.8 shows that Jersey City experienced changes in race/ethnicity between 1990 and 2000. Jersey City's white population declined 12.4 percent from 47.7 percent in 1990 to 35.3 percent in 2000. The Hispanic population increased 7 percent from 32.8 percent in 1990 to 39.8 percent in 2000. The black population experienced little change, but the "other" category nearly doubled from 6.8 percent in 1990 to 12.7 percent in 2000. With the exception of Hoboken, Jersey City followed similar race/ethnicity trends of the New Jersey comparison cities from 1990 to 2000.

Table 7.9: US Census Data for Percent of Employed Residents by Industry, Jersey City, New Jersey, from 1990 to 2000

US Census Data Percent of Employed Residents by Industry				
(Standard Industry Classification)				
Jersey City, New Jersey				
Year	Manufacturing	Services	Wholesale/	Pulbic
			Retail Trade	Administration
1990	24.1	51.3	20.2	4.4
2000	17.6	57.8	21.2	3.5

Jersey City experienced declines in manufacturing and public administration between 1990 and 2000. Manufacturing fell 6.5 percent from 24.1 percent in 1990 to 17.6 percent in 2000. Jersey City's service industry rose 6.5 percent from 51.3 percent in 1990 to 57.8 percent in 2000. The other industries experienced little change from 1990 to 2000. Jersey City's industry followed similar trends as the other New Jersey comparison cities from 1990 to 2000.

4. The City of Newark, New Jersey

Newark is the largest city in New Jersey and is in close proximity to New York City. It is the county seat of Essex County and has direct and easy access to New York City via AMTRAK and New Jersey Transit PATH trains and buses. Newark also has an airport and a large port. Newark was the largest and most populated city of the comparison cities.

Table 7.10: US Census Data for Newark, New Jersey (1900 & 2000)

City of Newark, New Jersey, US Census Data (1990 & 2000)						
Year	Type			Year	Type	
	Population				Education by Percent	
1990	Total Pop	1,915,928		1990	No HS	23.5
2000	Total Pop	2,032,989		2000	No HS	18.4
1990-2000	% Change	6.1				
	Median Family Income			1990	HS Grad	29.4
1989	MF Income (2009 $)	86,580		2000	HS Grad	27.9
1999	MF Income (2009 $)	87,419				
	Employed Residents			1990	Some College	20.2
1990	Employed Residents	966,146		2000	Some College	22.1
2000	Employed Residents	949,994				
1990-2000	% Change	(-1.7)		1990	College Grad	26.9
	Unemployment Rate			2000	College Grad	31.5
1990	Unemployment Rate	14.7				
2000	Unemployment Rate	16.1			(*HS = High School)	
	Labor Force Change				(*Grad = Graduate)	
1990-2000	% Change	(-12.8)				
	Poverty Rate					
1989	Poverty Rate (% of Pop)	8.8				
1999	Poverty Rate (% of Pop)	9.7				

The total population of Newark increased from 1,915,928 residents in 1990 to 2,032,989 in 2000, a growth of 6.1 percent and a proliferation of 117,061 residents. All of the New Jersey comparison cities showed positive population changes during this time period.

The median family income in Newark increased between 1989 and 1999. The amount of family income in Newark grew by $839 per family. Both Elizabeth and Jersey City had a decrease in median family income during this time period, while Hoboken experienced a significant gain.

The number of employed residents in Newark decreased during this ten year period from 966,146 in 1990 to 949,994 in 2000. This represents a negative change of 1.7 percent, with a loss of 16,152 employed residents. This loss was smaller than Elizabeth (negative 6.7 percent) while Jersey City had a small one percent increase and Hoboken experienced a large 34 percent escalation. Newark's unemployment rate increased from 14.7 percent in 1990 to 16.1 percent in 2000. The labor force change was a negative 12.8 percent for 1990 to 2000.

The poverty rate in Newark was positive between 1990 and 2000. The poverty rate increased from 8.8 percent in 1989 to 9.9 percent in 1999. This represents a 1.1 percent expansion in the poverty rate between 1989 and 1999. The poverty rates increased in both Elizabeth and Jersey City, while Hoboken experienced a decrease.

The educational rates in Newark showed positive results in three categories and negative results for one category. The percent of residents with a college education increased from 26.9 percent in 1990 to 31.5 percent in 2000. The percent of residents with some college rose from 20.2 percent in 1990 to 22.1 percent in 2000. Compatibly, the percent of residents with no high school education fell from 23.5 percent in 1990 to 18.4 percent in 2000, another positive sign. The percent of residents with a high school degree also decreased from 29.4 percent in 1990 to 27.9 percent in 2000.

Table 7.11: US Census Data for Race/Ethnicity as Percent of Total Population, Newark, New Jersey, from 1990 to 2000

US Census Data for Race/Ethnicity as Percent of Total Population				
Newark, New Jersey				
		Race/Ethnicity		
Year	White	Black	Hisp	Other
1990	65.9	21.5	9.6	3
2000	58.9	21.7	13.3	6.2

Table 7.11 shows that Newark experienced changes in race/ethnicity from 1990 to 2000. Newark's white population fell 7 percent from 65.9 percent in 1990 to 58.9 percent in 2000. The Hispanic population rose 3.7 percent from 9.6 percent in 1990 to 13.3 percent in 2000. The "other" population category doubled from 1990 to 2000, while the black population had little change. With the exception of Hoboken, Newark followed similar trends of the New Jersey comparison cities from 1990 to 2000.

Table 7.12: US Census Data for Percent of Employed Residents by Industry, Newark, New Jersey, from 1990 to 2000

US Census Data Percent of Employed Residents by Industry				
(Standard Industry Classification)				
Newark, New Jersey				
Year	Manufacturing	Services	Wholesale/	Pulbic
			Retail Trade	Administration
1990	24.5	52.6	18.9	3.9
2000	20.7	56.7	18.7	3.9

Newark experienced a decline in manufacturing of 3.8 percent from 24.5 percent in 1990 to 20.7 percent in 2000. Newark had little change in wholesale/retail trade, and

no change in public administration between 1990 and 2000. Newark did have a 4.1 percent uptick in the service industry from 52.6 percent in 1990 to 56.7 percent in 2000. On the whole, Newark followed similar industry trends with the other New Jersey comparison cities from 1990 to 2000.

In sum, the New Jersey comparison cities all experienced growth in populations. Yet, the race of the populations saw declines in the white population and growth in the Hispanic population in all New Jersey comparison cities, excluding Hoboken that experienced the opposite. The economic conditions of the New Jersey cities were mixed. The median family income was split between the cities, and the poverty rates increased in all New Jersey cities, except Hoboken. Industry in the New Jersey cities saw a decline in manufacturing and an uptick in the service industry.

5. The City of Mount Vernon, New York

Now turning to the "upstate" New York comparison cities, they are: Mount Vernon, New Rochelle, White Plains and Yonkers. The City of Mount Vernon is located in Westchester County, New York, and it adjoins Bronx County in New York City on its southern border. Although it is only 4.4 square miles, it is the most densely populated city in Westchester County. Mount Vernon has easy access to New York City by buses and trains as well as being accessible via foot travel to the Bronx. Mount Vernon was positioned to be a good comparison city for this study.

Table 7.13: US Census Data for Mount Vernon, New York (1990 & 2000)

Mount Vernon, New York, US Census Data (1990 & 2000)						
Year	Type			Year	Type	
	Population				Education by Percent	
1990	Total Pop	67,153		1990	No HS	29.2
2000	Total Pop	68,381		2000	No HS	25.6
1990-2000	% Change	1.80%				
	Median Family Income			1990	HS Grad	29.6
1989	MF Income (2009 $)	71,143		2000	HS Grad	26.5
1999	MF Income (2009 $)	63,837				
	Employed Residents			1990	Some College	20.7
1990	Employed Residents	32,520		2000	Some College	23.7
2000	Employed Residents	30,989				
1990-2000	% Change	(-4.7)		1990	College Grad	20.4
	Unemployment Rate			2000	College Grad	24.2
1990	Unemployment Rate	7.4				
2000	Unemployment Rate	7.3			(*HS = High School)	
	Labor Force Change				(*Grad = Graduate)	
1990-2000	% Change	(-4.9)				
	Poverty Rate					
1989	Poverty Rate (% of Pop)	11.8				
1999	Poverty Rate (% of Pop)	14.2				

The city of Mount Vernon's total population increased 1.8 percent from 67,153 in 1990 to 68,381 in 2000. This was the smallest growth of the comparison cities in Westchester County.

Median family income fell significantly between 1989 and 1999. In 1989, the median family income was $71,143. By 1999, the median family income dropped to $63,837 per family. The amount of family income lost was $7,306 per family. The loss of median family income was a theme with all the New York comparison cities, as well as New York City.

The number of employed residents in Mount Vernon also decreased during this time period from 32,520 in 19990 to 30, 989 in 2000. This represents a net loss of 1,531 employed residents, for a negative change of 4.7 percent. The unemployment rate remains about the same: 7.4 percent in 1990 to 7.3 percent in 2000. The labor force change from 1990 to 2000 declined by 4.9 percent.

The poverty rate in Mount Vernon increased between 1989 and 1999, moving from 11.8 percent in 1989 to 14.2 percent in 1999. The poverty rates increased in all of the New York comparison cities as well as New York City.

The education rate showed positive results for three categories and negative results for one category. The percent of Mount Vernon residents without a high school education fell from 29.2 percent in 1990 to 25.6 percent in 2000. The percent of residents with some college rose modestly from 20.7 percent in 1990 to 23.7 percent in 2000 for a positive three percent gain. The percent of residents with a college education increased from 20.4 percent in 1990 to 24.2 percent in 2000, for a 3.8 percent increase. The negative development in Mount Vernon occurred with the percent of residents with high school educations falling from 29.6 percent in 1990 to 26.5 percent in 2000.

Table 7.14: US Census Data for Race/Ethnicity as Percent of Total Population, Mount Vernon, New York, from 1990 to 2000

US Census Data for Race/Ethnicity as Percent of Total Population				
Mount Vernon, New York				
		Race/Ethnicity		
Year	White	Black	Hisp	Other
1990	35.9	54.4	7.5	2.3
2000	24.4	58.3	10.4	6.9

Table 7.14 exhibits that Mount Vernon experienced race/ethnicity changes between 1990 and 2000. Mount Vernon's white population declined 11.5 percent from 35.9 percent in 1990 to 24.4 percent in 2000. All of the other race categories rose, including the black population which increased 3.9 percent from 54.4 percent in 1990 to 58.3 percent in 2000. Mount Vernon's Hispanic population grew 2.9 percent while the "other" race category expanded by 4.3 percent. All of the New York comparison cities had declines in their white populations, upticks in their Hispanic and "other" race categories. The black populations rose in all the New York comparison cities, with the exclusion of White Plains.

Table 7.15: US Census Data Percent of Employed Residents by Industry, Mount Vernon, New York, form 1990 to 2000

US Census Data Percent of Employed Residents by Industry					
(Standard Industry Classification)					
Mount Vernon, New York					
Year	Manufacturing	Services	Wholesale/ Retail Trade	Pulbic Administration	Not Classified
1990	29.9	46.6	18.6	3.2	1.6
2000	25.7	48.6	19.2	5.2	1.2

Mount Vernon experienced changes in all industries from 1990 to 2000. Mount Vernon's manufacturing industry declined 4.2 percent from 29.9 percent in 1990 to 25.7 percent in 2000. The services industry in Mount Vernon rose by 2 percent, while the wholesale/retail trade industry grew slightly by 0.6 percent. The public administration industry gained 2 percent from 3.2 percent in 1990 to 5.2 percent in 2000. Mount Vernon

followed the industrial trends of the other New York comparison cities from 1990 to 2000.

6. The City of New Rochelle, New York

The city of New Rochelle is located in south eastern Westchester County, New York. The city is located approximately two miles north of Bronx County in New York City. New Rochelle has Metro North train service as well as bus service to New York City. Due to its location and size, New Rochelle was a good comparison city for this study. Its per capita income is the highest of all the comparison cities, as most employed residents have higher-paying jobs in New York City. New Rochelle has a city-manager form of government which is used as a control variable along with Hoboken, New Jersey, in this study.

Table 7.16: US Census Data for New Rochelle, New York (1990 & 2000)

New Rochelle, New York, US Census Data (1990 & 2000)						
Year	Type			Year	Type	
	Population				Education by Percent	
1990	Total Pop	67,265		1990	No HS	21.8
2000	Total Pop	72,182		2000	No HS	20
1990-2000	% Change	7.30%				
	Median Family Income			1990	HS Grad	25.2
1989	MF Income (2009 $)	95,604		2000	HS Grad	23.2
1999	MF Income (2009 $)	93,648				
	Employed Residents			1990	Some College	19.7
1990	Employed Residents	35,090		2000	Some College	18.5
2000	Employed Residents	33,763				
1990-2000	% Change	(-3.8)		1990	College Grad	33.3
	Unemployment Rate			2000	College Grad	38.3
1990	Unemployment Rate	5.1				
2000	Unemployment Rate	4.3			(*HS = High School)	
	Labor Force Change				(*Grad = Graduate)	
1990-2000	% Change	(-4.7)				
	Poverty Rate					
1989	Poverty Rate (% of Pop)	7.6				
1999	Poverty Rate (% of Pop)	10.5				

The total population of New Rochelle increased from 67,265 residents in 1990 to 72,182 in 2000, a 7.3 percent rise by 4,917 residents. This percent of population change is greater than Yonkers and Mount Vernon, but less than White Plains or New York City.

The median family income in New Rochelle fell slightly between 1989 and 1999, respectively from $95,604 to $93,648. The amount of family income lost was $1,956 per family. This loss of median family income was the smallest among the New York comparison cities.

The number of employed residents in New Rochelle also decreased during this ten year period from 35,090 residents in 1990 to 33,763 residents in 2000. That represents a

negative change of 3.8 percent. All New York comparison cities experienced a negative change during this time period. The unemployment rate, however, decreased from 5.1 percent in 1990 to 4.3 percent in 2000. The labor force change from 1990 to 2000 was negative 4.7 percent.

The poverty rate in New Rochelle turned negative between 1990 and 2000, increasing from 7.6 percent in 1989 to 10.5 percent in 1999. The poverty rates grew in all of the New York comparison cities as well as in New York City.

Education rates in New Rochelle showed two positive results and two negative results. The decrease in residents without a high school education fell slightly from 21.8 percent in 1990 to 20 percent in 2000, which was a positive sign. The percent of residents with a college education increased positively from 33.3 percent in 1990 to 38.3 percent in 2000. The percentage of residents with high school diplomas fell from 25.2 percent in 1990 to 23.2 percent in 2000, indicating a negative trend. The percentage of residents with some college trended negatively, falling from 19.7 percent in 1990 to 18.5 percent in 2000.

Table 7.17: US Census Data for Race/Ethnicity as Percent of Total Population, New Rochelle, New York, from 1990 to 2000

US Census Data for Race/Ethnicity as Percent of Total Population				
New Rochelle, New York				
		Race/Ethnicity		
Year	White	Black	Hisp	Other
1990	68.7	17.7	10.5	3.1
2000	55.8	18.5	20.1	5.6

Table 7.17 shows that New Rochelle experienced changes in race/ethnicity between 1990 and 2000. New Rochelle's white population declined 12.9 percent from 68.7 percent in 1990 to 55.8 percent in 2000. The Hispanic population nearly doubled by 9.6 percent, rising from 10.5 percent in 1990 to 20.1 percent in 2000. The black population and "other" category experienced upticks. New Rochelle was similar to the other New York comparison cities in all race/ethnicity categories, with the exception of White Plains that experienced a decrease in the black population between 1990 and 2000.

Table 7.18: US Census Data for Percent of Employed Residents by Industry, New Rochelle, New York, from 1990 to 2000

US Census Data Percent of Employed Residents by Industry					
(Standard Industry Classification)					
New Rochelle, New York					
Year	Manufacturing	Services	Wholesale/	Pulbic	Not
			Retail Trade	Administration	Classified
1990	18.2	53.6	21.5	3.5	3.3
2000	13.1	60.1	20.5	4.4	1.9

New Rochelle experienced changes in all industry categories from 1990 to 2000. The manufacturing industry in New Rochelle dropped 5.1 percent from 18.2 percent in 1990 to 13.1 percent in 2000. The wholesale/retail trade industry declined 1 percent between 1990 and 2000. New Rochelle's service industry rose 6.5 percent from 53.6 percent in 1990 to 60.1 percent in 2000. There was a slight increase in public administration from 3.5 percent in 1990 to 4.4 percent in 2000. New Rochelle experienced similar industry changes to the other New York comparison cities from 1990 to 2000.

7. The City of White Plains, New York

The city of White Plains is located in lower central Westchester County, New York, north of New York City. White Plains is the county seat of Westchester and has a large commercial area that houses major shopping districts. New York City is accessible by public transportation via the Metro North Railroad and public buses, and major highways intersect in White Plains. White Plains fit as a comparison city due to its population and location.

Table 7.19: US Census Data for White Plains, New York (1990 & 2000)

White Plains, New York, US Census Data (1990 & 2000)						
Year	Type			Year	Type	
	Population				Education by Percent	
1990	Total Pop	48,718		1990	No HS	19.7
2000	Total Pop	53,077		2000	No HS	18
1990-2000	% Change	8.9				
	Median Family Income			1990	HS Grad	22.2
1989	MF Income (2009 $)	98,071		2000	HS Grad	19.8
1999	MF Income (2009 $)	92,577				
	Employed Residents			1990	Some College	20.6
1990	Employed Residents	26,583		2000	Some College	21.1
2000	Employed Residents	26,405				
1990-2000	% Change	(-0.7)		1990	College Grad	37.5
	Unemployment Rate			2000	College Grad	41.1
1990	Unemployment Rate	5				
2000	Unemployment Rate	5.6			(*HS = High School)	
	Labor Force Change				(*Grad = Graduate)	
1990-2000	% Change	0				
	Poverty Rate					
1989	Poverty Rate (% of Pop)	7.7				
1999	Poverty Rate (% of Pop)	9.8				

The city of White Plains total population increased from 48,718 in 1990 to 53,077 in 2000, representing an 8.9 percent change. This percent of population change was the largest of all the New York comparison cities between 1990 and 2000.

The median family income in White Plains fell between 1989 and 1999. The amount of family income lost was $5,494 per family. This loss was similar to the other comparison cities in New York, as well as New York City.

The number of employed residents in White Plains remained steady with a small negative change of 0.7 percent. In 1990, White Plains had 26,583 employed residents, which fell negligibly in 2000 to 26,405. This decrease in employed residents was the

smallest decreases in the New York comparison cities. The unemployment rate increased from 5 percent in 1990 to 5.6 percent in 2000. There was no labor force change from 1990 to 2000.

The poverty rate increased between 1989 and 1999, gaining from 7.7 percent in 1989 to 9.8 percent in 1999. The poverty rates escalated in all of the other New York comparison cities, as well as in New York City.

The education rates in White Plains showed positive results for three categories and negative for one category. The percent of residents with no high school education declined from 19.7 percent in 1990 to 18 percent in 2000. The percent of White Plains residents with some college increased from 20.6 in 1990 to 21.1 in 2000, which was a positive sign. The percent of residents with college educations rose from 37.5 percent in 1990 to 41.1 percent in 2000, which was higher than the other New York comparison cities. The education category that showed a negative trend was the percent of residents with high school diplomas. White Plains decreased from 22.2 percent in 1990 to 19.8 percent in 2000.

Table 7.20: US Census Data for Race/Ethnicity as Percent of Total Population, White Plains, New York, from 1990 to 2000

US Census Data for Race/Ethnicity as Percent of Total Population				
White Plains, New York				
		Race/Ethnicity		
Year	White	Black	Hisp	Other
1990	65.2	18.5	13.1	3.1
2000	54.2	15.3	23.5	7

Table 7.20 exhibits that White Plains experienced changes in race/ethnicity between 1990 and 2000. White Plain's white population declined 11 percent from 65.2 percent in 1990 to 54.2 percent in 2000. White Plains was the only New York comparison city to experience a decline in the black population, from 18.5 percent in 1990 to 15.3 percent in 2000 for a 3.2 percent drop. White Plains' Hispanic population rose 10.4 percent from 13.1 percent in 1990 to 23.5 percent in 2000. The "other" population rate more than doubled from 3.9 percent between 1990 and 2000. With the exclusion of the decline in black population, White Plains was comparable in race/ethnicity to the other New York comparison cities from 1990 to 2000.

Table 7.21: US Census Data Percent of Employed Residents by Industry, White Plains, New York, from 1990 to 2000

US Census Data Percent of Employed Residents by Industry				
(Standard Industry Classification)				
White Plains, New York				
Year	Manufacturing	Services	Wholesale/	Pulbic
			Retail Trade	Administration
1990	14.3	63.3	18.7	3.6
2000	13.6	64.9	17.7	3.8

White Plains experienced changes in all industry classifications between 1990 and 2000. Manufacturing in White Plains declined 0.7 percent, along with a 1 percent fall in the wholesale/retail trade industry. White Plains' service industry gained by 1.6 percent from 63.3 in 1990 to 64.9 percent in 2000. The public administration rose 0.2 percent in White Plains between 1990 and 2000. Industry in White Plains was comparable with the other New York comparison cities between 1990 and 2000.

8. The City of Yonkers, New York

Like Mount Vernon, the city of Yonkers borders Bronx County in New York City and has the highest population in Westchester County. Yonkers has both Metro North train service and bus service to New York City. The city of Yonkers has commercial and residential characteristics that are comparable to the other New York and New Jersey comparison cities. For these characteristics and its close proximity to New York City, Yonkers was a good choice for inclusion in this study.

Table 7.22: US Census Data for Yonkers, New York (1990 & 2000)

Yonkers, New York, US Census Data (1990 & 2000)						
Year	Type			Year	Type	
	Population				Education by Percent	
1990	Total Pop	188,092		1990	No HS	26.4
2000	Total Pop	196,086		2000	No HS	23.3
1990-2000	% Change	4.3				
	Median Family Income			1990	HS Grad	31.6
1989	MF Income (2009 $)	74,924		2000	HS Grad	29.3
1999	MF Income (2009 $)	68,550				
	Employed Residents			1990	Some College	20.1
1990	Employed Residents	89,523		2000	Some College	22.6
2000	Employed Residents	84,212				
1990-2000	% Change	(-5.9)		1990	College Grad	21.9
	Unemployment Rate			2000	College Grad	24.8
1990	Unemployment Rate	6.5%				
2000	Unemployment Rate	6.7%			(*HS = High School)	
	Labor Force Change				(*Grad = Graduate)	
1990-2000	% Change	-5.7				
	Poverty Rate					
1989	Poverty Rate (% of Pop)	11				
1999	Poverty Rate (% of Pop)	15.5				

The city of Yonkers total population increased 4.3 percent from 188,092 in 1990 to 196,086 in 2000. This was an growth of 7,994 residents. This percent growth is

greater than Mount Vernon, but less than New Rochelle, White Plans as well as New York City.

The median family income in Yonkers fell between 1989 and 1999. The amount of family income lost was $6,374 per family. The loss of median family income was a theme of all the New York comparison cities as well as in New York City.

The number of employed residents in Yonkers also decreased during this ten year period from 89,523 in 1990 to 84,212 in 2000. That represents a negative change of 5.9 percent. It was the largest decrease in employed residents in all the New York comparison cities as well as in New York City. The unemployment rate increased from 6.5 percent in 1990 to 6.7 percent in 2000. The labor force change from 1990 to 2000 was negative 5.7 percent.

The poverty rate in Yonkers increased between 1989 and 1999, from 11 percent in 1989 to 15.5 percent in 1999. The poverty rates expanded in all of the New York comparison cities as well as in New York City.

The educational rates in Yonkers showed positive results for three categories and negative results for one category. The percent of residents with no high school education fell from 29.7 percent in 1990 to 26 percent in 2000, which was a positive sign. The percent of residents with some college rose modestly from 19.4 percent in 1990 to 20.7 in 2000. The percent of residents with a college education enlarged from 24.6 percent in 1990 to 29.4 percent in 2000 for another positive change. Like all the other New York comparison cities and New York City, however, the percent of residents with a high

school education fell, indicating a negative trend. Yonkers decreased from 26.2 percent in 1990 to 24.2 percent in 2000.

Table 7.23: US Census Data for Race/Ethnicity as Percent of Total Population, Yonkers, New York, from 1990 to 2000

US Census Data for Race/Ethnicity as Percent of Total Population				
Yonkers, New York				
		Race/Ethnicity		
Year	White	Black	Hisp	Other
1990	67.4	13.1	16.3	3.2
2000	50.7	15.4	25.9	8

Table 7.23, shows that Yonkers experienced changes in the race/ethnicity of its population between 1990 and 2000. The white population in Yonkers decreased 16.7 percent, from 67.4 percent in 1990 to 50.7 percent in 2000. Yonkers' black population increased 2.3 percent between 1990 and 2000. The Hispanic population rose 9.6 percent in Yonkers, from 16.3 percent in 1990 to 25.9 percent in 2000. The "other" population category grew 4.8 percent from 1990 to 2000. Overall, Yonkers experienced comparable changes in race/ethnicity to the other New York comparison cities between 1990 and 2000.

Table 7.24: US Census Data for Percent of Employed Residents by Industry, Yonkers, New York, from 1990 to 2000

US Census Data Percent of Employed Residents by Industry				
(Standard Industry Classification)				
Yonkers, New York				
Year	Manufacturing	Services	Wholesale/	Pulbic
			Retail Trade	Administration
1990	19	56.9	19.6	4.5
2000	15.4	61.2	18.6	4.9

The city of Yonkers experienced industry changes in all categories between 1990 and 2000. Manufacturing in Yonkers declined 3.6 percent, from 19 percent in 1990 to 15.4 percent in 2000. The wholesale/retail trade industry dropped 1 percent from 1990 to 2000. The service industry in Yonkers rose 4.3 percent, from 56.9 percent in 1990 to 61.2 percent in 2000. Yonkers' public administration industry increased 0.4 percent from 1990 to 2000. Industry in Yonkers was comparable to the other New York comparison cites between 1990 and 2000.

The New York "upstate" cities have much in common. Positively, the New York comparison cities all had population growth, but not at the rate of the New Jersey comparison cities. The race/ethnicity of the New York comparison cities exhibited declines in the white population and increases in the Hispanic population. Employment and income declined in all the New York comparison cities along with the manufacturing industry. More positively, the service industry increased in the New York comparison cities between 1990 and 2000.

9. The City of New York, New York

New York City is at the epicenter of this study. As the largest city in size and population in New York State and one of the largest in the world, it is made up of five boroughs. Two of those boroughs, the Bronx and Manhattan border several of the comparison cities and are close to the rest. The New York City Police Department started the Compstat program in 1994, and the city's crime rates continued its downward movement that had started by 1991. This study's purpose is to determine whether crime rates increased in these comparison cities with possible effects on their police budgets after New York City implement their Compstat program in 1994.

Table 7.25: US Census Data for the City of New York, New York (1990 & 2000)

New York City, New York, US Census Data (1990 & 2000)						
Year	Type			Year	Type	
	Population				Education by Percent	
1990	Total Pop	8,546,846		1990	No HS	29.7
2000	Total Pop	9,314,235		2000	No HS	26
1990-2000	% Change	9				
	Median Family Income			1990	HS Grad	26.2
1989	MF Income (2009 $)	64,906		2000	HS Grad	24.2
1999	MF Income (2009 $)	59,842				
	Employed Residents			1990	Some College	19.4
1990	Employed Residents	3,891,914		2000	Some College	20.7
2000	Employed Residents	3,893,072				
1990-2000	% Change	(-0.1)		1990	College Grad	24.6
	Unemployment Rate			2000	College Grad	29.2
1990	Unemployment Rate	9				
2000	Unemployment Rate	9.6			(*HS = High School)	
	Labor Force Change				(*Grad = Graduate)	
1990-2000	% Change	1.1				
	Poverty Rate					
1989	Poverty Rate (% of Pop)	17.5				
1999	Poverty Rate (% of Pop)	19.5				

The city of New York's population increased between 1990 and 2000. The total population in 1990 was 8,546,846, increasing to 9,314,235 in 2000; the additional population accounted for a 9 percent change. The New York comparison cities all escalated, but none exceeded New York City's. Mount Vernon had the lowest increase at 1.8 percent. Three of the New Jersey comparison cities had greater percentages of population change than their New York counterparts: Elizabeth (9.6%), Jersey City (10.1%) and Hoboken (15.5%). Only Newark experienced a lower positive population growth rate at 6.1 percent.

The median family income in New York City decreased from 1989 to 1999. The amount of family income fell from $60,987 in 1989 to $56,729 in 1999. Two New Jersey comparison cities, Elizabeth and Jersey City, witnessed declines in median family incomes. Along with lower amounts of family income than New York City, the city of Newark had a small increase in median family income, as well as greater monetary value than New York City. The city of Hoboken also had a percentage increase in median family income, but it started from a lower baseline than New York City in 1989. By 1999, Hoboken had escalated to a much larger median income than New York City. The New York comparison cities all had decreases in median family income from 1989 to 1999, but had higher median family incomes than New York City, as well as New Rochelle and White Plains. The city of White Plains only had a negligible decline in median family income with a negative 0.7 percent rate. The decreases in the New York comparison cities illustrate that residents' incomes were similar to New York City's. The New Jersey comparison cities illustrate that Hoboken was attracting higher wage earners, while Newark's resident income stayed relatively the same.

The number of employed residents in New York City remained virtually the same from 1991 to 1997, moving from 3,891,914 to 3,897,072. The New York comparison cities all experienced negative employment changes, but with White Plains having the smallest change, albeit a negative change of 0.7 percent. In the New Jersey comparison cities, Hoboken was an outlier, having a positive employment increase of 33.5 percent between 1991 and 1997. Jersey City had a small positive employed resident change of one percent. The city of Newark had a negative 1.7 percent decline in employed residents, with the city of Elizabeth having the largest decrease of all the New Jersey and New York comparison cities with a negative 6.7 percent of change.

The unemployment rate in New York City increased from 9 percent in 1990 to 9.6 percent in 2000. The New York comparison cities included both positive and negative unemployment rates during this period. Both Mount Vernon and New Rochelle experienced declines in their unemployment rates, while they rose in White Plains and Yonkers. In New Jersey, three of the comparison cities had positive declines in unemployment rates, while Newark had a negative gain of 1.4 percent.

New York City had a positive 1.1 percent labor force change for 1990 to 2000. Three of the New York comparison cities, Mount Vernon, New Rochelle and Yonkers, also had negative labor force changes, while White Plains had no change during the time period. Two of the New Jersey comparison cities, Elizabeth and Newark, had the largest negative labor force changes of all the comparison cities. Jersey City experienced a small increase of 0.8 percent. Hoboken was again the outlier by having a positive 31.1 percent labor force change from 1990 to 2000.

The poverty rate from 1991 to 1997 in New York City rose 2 percent, from 17.5 percent to 19.5 percent of the population. The additions to the poverty rate in New York City were similar to all the New York comparison cities that ranged from 2 percent to 4.5 percent. Of the New Jersey comparison cities, Elizabeth, Jersey City and Newark showed negative gains in the poverty rate between one and two percent. Hoboken, the outlier, revealed a decrease of its poverty rate of 5.4 percent.

Education rates in New York City were only negative in the amount of residents with high school educations, which fell from 26.2 percent in 1990 to 24.2 percent in 2000. Similarly, the percent of residents without a high school education declined from 29.7 percent in 1990 to 26 percent in 2000. The percent of residents with some college, however, increased modestly from 19.4 percent in 1990 to 20.7 percent in 2000. The largest growth in education for New York City came from the percent of residents with a college education, which rose from 24.6 percent in 1990 to 29.2 percent in 2000. Most of the education categories were similar between New York City and the New York and New Jersey comparison cities.

Table 7.26: US Census Data for Race/Ethnicity as Percent of Total Population, New York City, New York, from 1990 to 2000

US Census Data for Race/Ethnicity as Percent of Total Population				
New York City, New York				
		Race/Ethnicity		
Year	White	Black	Hisp	Other
1990	48.1	23.6	21.6	6.8
2000	39.6	22.7	25.1	12.6

Table 7.26 exhibits that New York City experienced changes is race/ethnicity between 1990 and 2000. New York City's white population declined 8.5 percent from 48.1 percent in 1990 to 39.6 percent in 2000. This decline in the white population occurred in all of the New York and New Jersey comparison cities from 1990 to 2000. The Hispanic population in New York City increased 3.5 percent, while the "other" population doubled to 5.8 percent from 1990 to 2000. The black population in New York City did not fall much from 1990 to 2000.

Table 7.27: US Census Data Percent of Employed Residents by Industry, New York City, New York, from 1990 to 2000

US Census Data Percent of Employed Residents by Industry				
(Standard Industry Classification)				
New York City, New York				
Year	Manufacturing	Services	Wholesale/ Retail Trade	Pulbic Administration
1990	15.8	62.1	17.2	4.9
2000	12.9	64.9	17.7	4.5

New York City experienced changes in industry between 1990 and 2000. Manufacturing in New York City declined 2.9 percent from 15.8 percent in 1990 to 12.9 percent in 2000. New York City's service industry grew by 2.8 percent from 62.1 percent in 1990 to 64.9 percent in 2000. The wholesale/retail trade and the public administration industries experienced small changes from 1990 to 2000. New York City followed the New Jersey and New York comparison cities with declines in manufacturing and increases in services.

D. Conclusion of Individual City Demographic Variables

The above examination of each city's demographic variables from the 1990 and 2000 in the US Census data indicates commonalities and differences between the New Jersey and New York comparison cities, as well as New York City. The commonalities and differences within the states were indicated in each city's breakdown. The New York City section juxtaposed the cities with its own demographics. The New Jersey comparison cities had the largest population increases. Yet, the percent of white populations declined and the Hispanic populations increased in all study cities, excluding Hoboken in New Jersey. Another commonality was the decline in manufacturing and the boost in the service industries experienced by all study cities. The differences impacted many variables, including income and employment.

Chapter 8: Uniform Crime Report Data for all Cities

A. Introduction

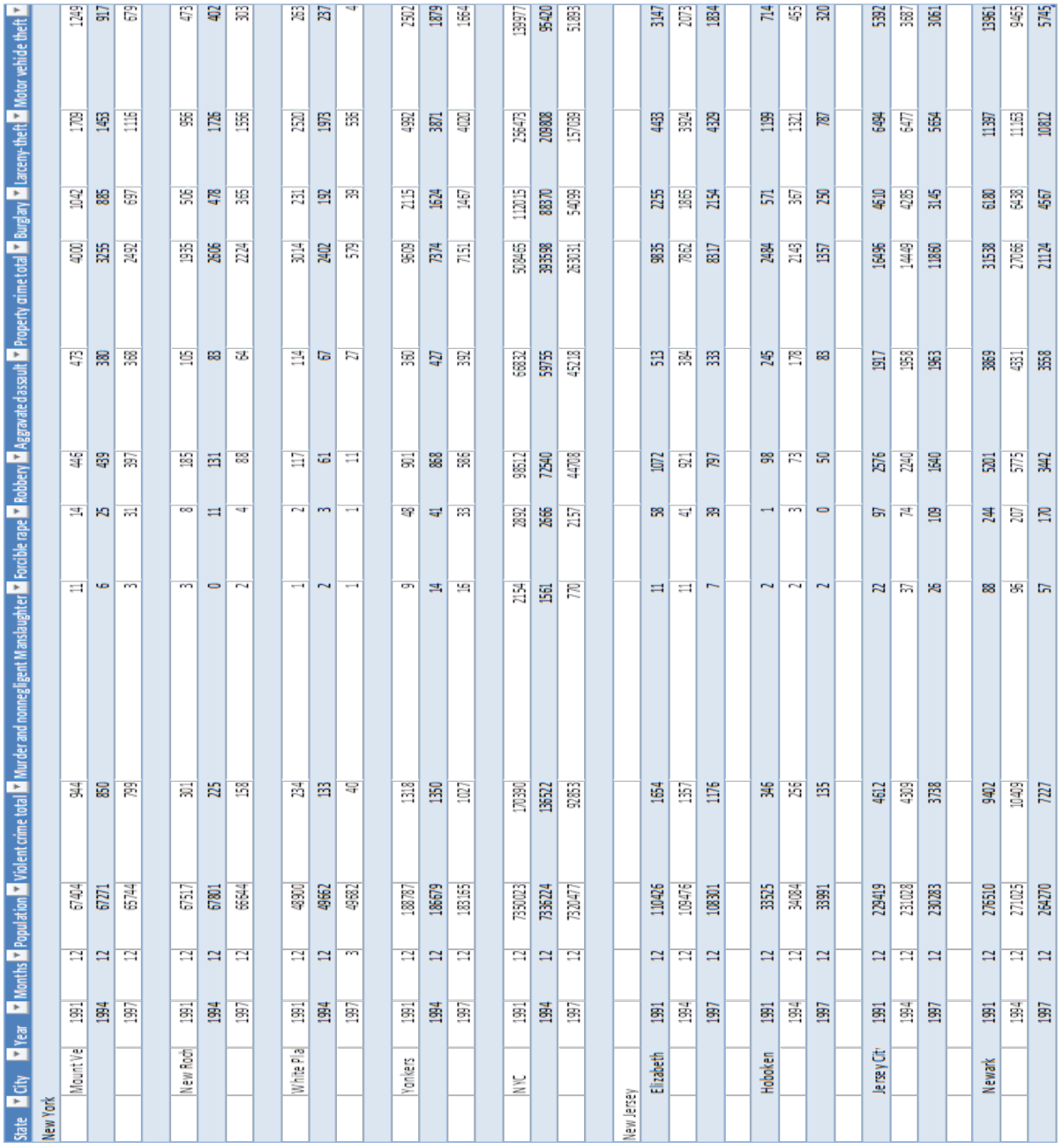
This chapter examines each city's Uniform Crime Reporting (UCR) data. Prior to reviewing the individual city data, it is necessary to explain the raw UCR data and why it was imperative to group the data for better comprehension and clarity. The individual cities will then be analyzed to illustrate how the data changed during the study time period.

B. Explanation of the UCR Raw Data for all Cities

The UCR data report contains nine major crime categories. They are: [1] violent crime total, [2] murder and nonnegligent homicide, [3] forcible rape, [4] robbery, [5] aggravated assault, [6] property crime total, [7] burglary, [8] larceny-theft and [9] motor vehicle theft.

The principal source for Tables 8.1 through 8.10 as well as Chart 8.1 through 8.27 and 8.30 through 8.37 is the Federal Bureau of Investigation (FBI) UCR statistics, http://fbi.gove/stat-services/crimestats, and the source for Chart 8.28 and 8.29 is the US Census 1990 and 2000, http://www.census.gov, unless otherwise noted.

Table 8.1: UCR Raw Data for all Comparison Cities from 1991 to 1997



State	City	Year	Months	Population	Violent crime total	Murder and nonnegligent Manslaughter	Forcible rape	Robbery	Aggravated assault	Property crime total	Burglary	Larceny-theft	Motor vehicle theft
New York													
	Mount Ve	1991	12	67404	944	11	14	446	473	4000	1042	1709	1249
		1994	12	67271	860	6	25	459	380	3255	885	1453	917
		1997	12	65744	799	3	31	397	368	2492	697	1116	679
	New Roch	1991	12	67517	301	3	8	185	105	1935	506	956	473
		1994	12	67801	225	0	11	131	83	2606	478	1726	402
		1997	12	66644	158	2	4	88	64	2224	365	1556	303
	White Pla	1991	12	48900	234	1	2	117	114	3014	231	2520	263
		1994	12	49662	133	2	3	61	67	2402	192	1973	237
		1997	3	49682	40	1	1	11	27	579	39	536	4
	Yonkers	1991	12	188787	1318	9	49	901	360	9609	2115	4992	2502
		1994	12	186679	1360	14	41	868	427	7374	1624	3871	1879
		1997	12	183165	1027	16	33	586	392	7151	1457	4020	1664
	N.Y.C.	1991	12	7350023	170390	2154	2832	98512	66832	509465	112015	256475	139977
		1994	12	7336224	136522	1561	2666	72540	59755	393598	88370	209808	95420
		1997	12	7330477	92853	770	2157	44708	45218	263031	54039	157039	51893
New Jersey													
	Elizabeth	1991	12	110426	1654	11	58	1072	513	9835	2235	4433	3147
		1994	12	109476	1357	11	41	911	394	7862	1865	3924	2073
		1997	12	108301	1176	7	39	797	333	8317	2154	4329	1834
	Hoboken	1991	12	33525	346	2	1	98	245	2484	571	1199	714
		1994	12	34084	256	2	3	73	178	2143	367	1321	455
		1997	12	33981	135	2	0	50	83	1357	250	787	320
	Jersey Cit	1991	12	229419	4612	22	97	2576	1917	16496	4610	6494	5392
		1994	12	231028	4309	37	74	2240	1958	14449	4285	6477	3687
		1997	12	230283	3738	26	109	1640	1963	11860	3145	5654	3061
	Newark	1991	12	276510	9402	88	244	5201	3869	31538	6180	11397	13961
		1994	12	271025	10409	96	207	5775	4531	27066	6438	11163	9465
		1997	12	264270	7227	57	170	3442	3558	21124	4567	10812	5745

Table 8.1 contains the complete UCR data for the years 1991, 1994 and 1997 for all the study's cities: New York City, Mount Vernon, New Rochelle, White Plains, Yonkers, Elizabeth, Hoboken, Jersey City and Newark. The years were chosen as they represent three years prior to and after 1994. The year 1994 is significant since it begins Compstat's implementation in New York City. Essentially the other years are pre- and post- years to examine whether Compstat's results affect crime rates and budgets of the comparison cities. The UCR data were first used to illustrate whether Compstat contributes to crime reduction in NYC and then whether any discernable crime diffusion or spillover occurred in neighboring locales.

In their raw form, the UCR data fail to adequately show how crimes affect individual citizens. The populations alone vary widely and they can distort how the crime numbers impacts individuals. Therefore, the data were recalculated to show crime as a per capita percentage of 1,000 citizens. This calculation allows populations to equalize with the requisite number of citizens that, in turn, gives a reader a sense for how much the crime rates affect the individual citizen. As an illustration, for the city of Elizabeth, New Jersey, Table 8.2, helps visualize how the concept of crime rates per capita better encapsulates the effect of comparative crime on citizens.

Table 8.2: Per Capita UCR Crime Rates for Elizabeth, New Jersey, from 1991 to 1997

Crime reported by Elizabeth Police Dept, New Jersey	Column1	Column2	Column3	Column4	Column5	Column6	Column7	Column8	Column9	Column10	Column11
Year	Months	Population	Violent crim	Murder and	Forcible rap	Robbery	Aggravated	Property cri	Burglary	Larceny-theft	Motor vehicl
1991	12	110426	1654	11	58	1072	513	9835	2255	4433	3147
Per Capita			0.01497836	9.9614E-05	0.00052524	0.00970786	0.00464565	0.08906417	0.02042032	0.04014453	0.02849872
Per 1,000			14.9783565	0.09961422	0.52523862	9.70785866	4.64564505	89.0641697	20.4209154	40.14453118	28.49872313
1994	12	109476	1357	11	41	921	384	7862	1865	3924	2073
Per Capita			0.01239541	0.00010048	0.00037451	0.0084128	0.00350762	0.07181483	0.0170357	0.03584347	0.01893566
Per 1,000			12.3954103	0.10047864	0.37451131	8.41280281	3.50761811	71.814827	17.0356073	35.84347254	18.93565713
1997	12	108301	1176	7	39	797	333	8317	2154	4329	1834
Per Capita			0.01085863	6.4635E-05	0.00036011	0.00735912	0.00307476	0.07679523	0.01988901	0.03997193	0.01693428
Per 1,000			10.8586255	0.06463468	0.36010748	7.35911949	3.07476385	76.7952781	19.889013	39.97193008	16.93428

The UCR data in Table 8.2 show that robberies in 1991 represented only 0.009 for all citizens. But when the 1991 data are converted to per capita/1,000, the number of robberies represents 9.7 per 1,000 citizens. By using this method it is easier to see how the UCR crime numbers relate to the citizens of a municipality, at the same time also making the comparisons more amenable between the municipalities.

C. Grouping of UCR Data

The UCR data sets were divided into three categories of crime. By disaggregating the types of crime, differences between the categories become evident. The first grouping was labeled violent crime that includes: violent crime total, murder and non-negligent manslaughter, and forcible rape. These three categories make up the strongest and most violent crimes in the UCR data. They illustrate the common theme of aggressive crimes against a person and are all felony offenses. The second group is personal crime that involves: robbery, aggravated assault, and burglary. These combined crimes are a classified as serious but not to the extent of violent crimes. Many are felonies but they include misdemeanor charges as well. The last category is classified as property crimes. These stem from: property crime total, larceny-theft, and motor vehicle

theft. The grouping reflects their non-violent nature, yet the classifications include felonies and violations. They are the "least serious" crimes and complement each other in this category.

Grouping the UCR data into three categories presents the information in a manageable form that allows for greater understandability of the statistics for each municipality. For example, the categories for the New York and the New Jersey comparison cities can be more easily recognized in relation to New York City. That is, the categories help to differentiate the UCR data between the cities while maintaining consistent crime reporting from 1991 to 1997.

D. UCR Data for all Cities

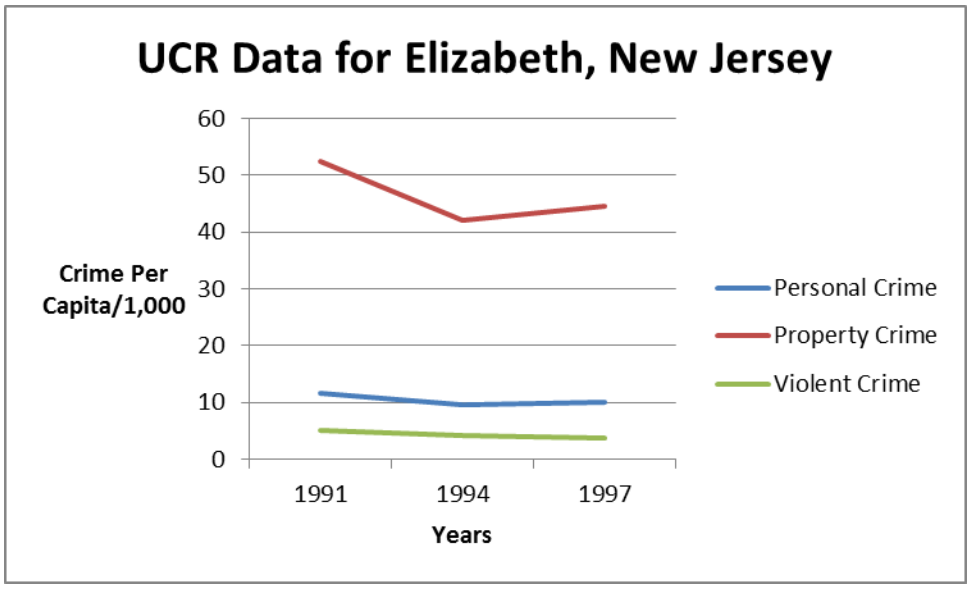
1. The City of Elizabeth, New Jersey

   The individual UCR rates for Elizabeth will be examined followed by a comparison of crime rates with New York City.

Table 8.3: Per Capita UCR Rates for Elizabeth, New Jersey, from 1991 to 1997

Elizabeth UCR Data			
Year	Violent Crime	Personal Crime	Property Crime
1991	5.20	11.59	52.57
1994	4.29	9.65	42.20
1997	3.76	10.11	44.57

Chart 8.1: Per Capita UCR Rates for Elizabeth, New Jersey, from 1991 to 1997



Tables 8.3 and Chart 8.1 present the UCR data for Elizabeth between 1991 and 1997; they reveal small decreases in violent crime rates. All crime rates are per 1,000 residents. Violent crime rates decline 1.4 percent from 5.2 in 1991 to 3.76 in 1997. The decreases were not dramatic, but decline, as will be the case for the other New Jersey comparison cities.

The personal crime rates are significant since they decrease from 1991 to 1994, then increase from 1994 to 1997. The personal crime rate fell from 11.59 percent in 1991 to 9.65 percent in 1994, then rise to 10.11 percent in 1997.

The property crime rates are much higher than the other two crime categories. In 1991, the rates were at their peak with a 52.57 percent rate per 1,000 residents. The property crime rates then fell to 42.2 percent in 1994, before increasing to 44.57 percent in 1997. The upsurge in personal and property crimes, while not extreme, illustrate how

Elizabeth was able to slightly decrease their violent crime rates, but were unable to sustain declines in personal and property crimes between 1994 and 1997.

Chart 8.2: Per Capita UCR Data Comparison of Violent Crime: Elizabeth and New York City from 1991 to 1997

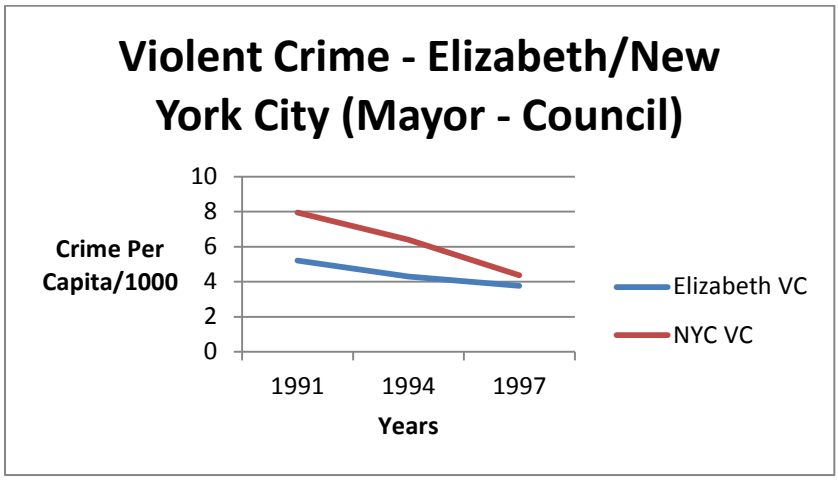


Chart 8.3: Per Capita UCR Data Comparison of Personal Crime: Elizabeth and New York City from 1991 to 1997

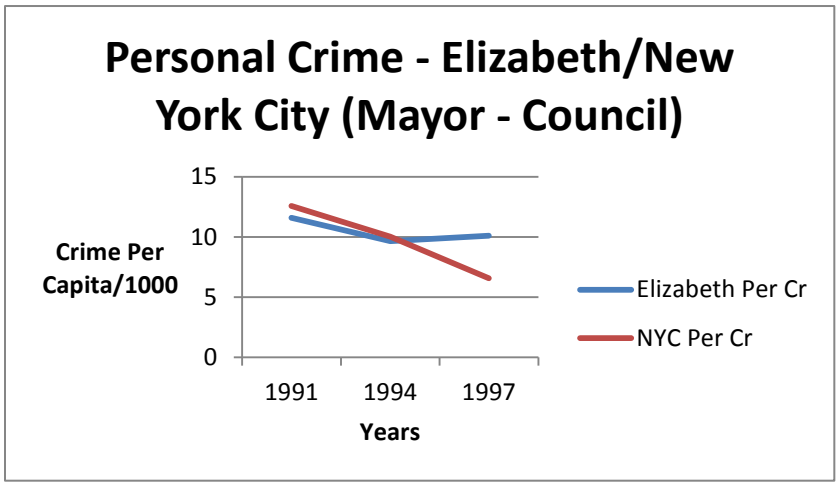
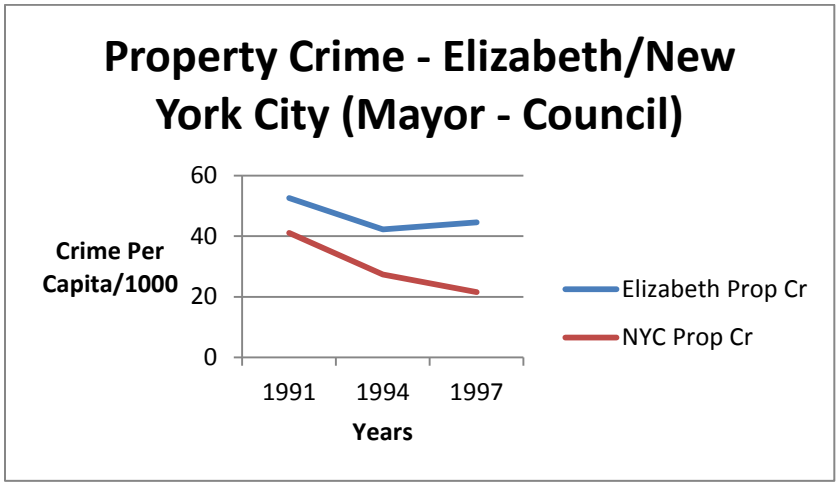


Chart 8.4: Per Capita UCR Data Comparison of Property Crime: Elizabeth and New York City from 1991 to 1997



The three crime rates for Elizabeth will be compared with New York City. As indicated in the Chart 8.2, Elizabeth had much lower violent crime rates than New York City. The violent crime rates decrease steadily between 1991 and 1997 for Elizabeth and New York City. In 1991, New York City had an 8 percent rate of violent crime per 1,000 residents while Elizabeth had a 5.2 percent rate. In 1997, New York City's violent crime rates decreased to 4.4 percent, while Elizabeth fell to 3.8 percent. By 1997, New York City had achieved a similar violent crime rates as Elizabeth.

The differences between Elizabeth and New York City, however, occur in the personal and property crime rates from 1991 to 1997. In 1991, the personal crime rates in New York City were 12.6 percent of crime per 1,000 residents, while Elizabeth started with a similar personal crime rate of 11.59 percent. Similarly, in 1994, both cities personal crime rates fell; New York City dropped to 10 percent while Elizabeth's rate

lowered to 9.7 percent. In 1997, the personal crime rate differ; in New York City, it fell to 6.6 percent, but the personal crime rate in Elizabeth increased to 10.1 percent.

In both cities property crime rates were higher than either violent or personal crime rates. For New York City, the property crime rates started at 41 percent per 1,000 residents in 1991, while Elizabeth had a higher property crime rate of 52.57 percent. By 1994, the property crime rates in New York City decreased to 27.3 percent, while Elizabeth's declined to 42.2 percent. In 1997, the property crime rates in New York City fell to 21.5 percent, yet Elizabeth's increased to 44.57 percent. Therefore, the percentages of personal and property crime rates in Elizabeth increased, not in coincidentally following New York City's implementation of its Compstat program.

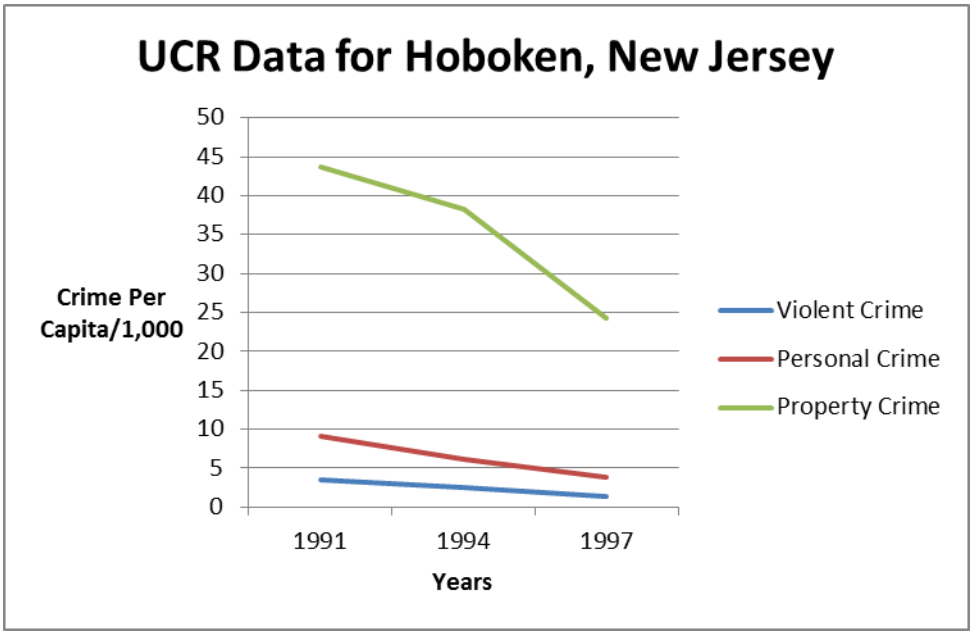
2. UCR Rates for the City of Hoboken, New Jersey

The individual UCR rates will be examined for the City of Hoboken, New Jersey. A comparative analysis with New York City during the study time period will follow.

Table 8.4: Per-Capita Uniform Crime Reporting (UCR) Rates for Hoboken, New Jersey, from 1991 to 1997

Hoboken UCR Data			
		Crime Type	
Years	Violent Crime	Personal Crime	Property Crime
1991	3.47	9.09	43.72
1994	2.55	6.04	38.33
1997	1.34	3.76	24.16

Chart 8.5: Per Capita Uniform Crime Reporting (UCR) Rates for Hoboken (City Manager), New Jersey, from 1991 to 1997



Tables 8.4 and Chart 8.5 of the Uniform Crime Reporting (UCR) data for the city of Hoboken, between 1991 and 1997, highlight a steady decline in both violent and personal crimes, while exhibiting a sharp decline in property crimes rates. Yet, the violent crimes rates per 1,000 residents were lower than all the other New Jersey comparison cities. In 1991, violent crime rates were 3.47 percent, decreasing to 2.55 percent in 1994. By 1997, violent crime rates fell to 1.34 percent of crime per 1,000 residents, a significantly lower percentage than any other New Jersey comparison city. Hoboken represents a control variable with a city manager-type government.

The personal crime grouping rates are similarly low, as they start at 9.09 percent of crime per 1,000 residents in 1991, then decrease to 6.04 percent in 1994. By 1997, the personal crime rates fell further to 3.76 percent.

The Hoboken property crime rates, as Chart 8.5 shows, were much higher than the other two crime categories. The property crime rates start at 43.72 percent in 1991 then fell to 38.33 in 1994. By 1997, the property crime rates dropped to 24.16 percent per 1,000 residents.

Chart 8.6: Per Capita UCR Violent Crime Data Comparison between Hoboken and New York City from 1991 to 1997

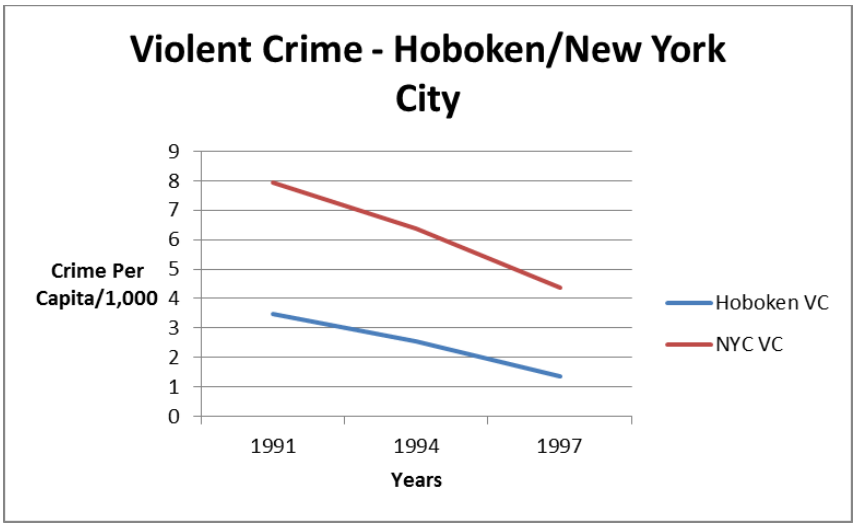


Chart 8.7: Per Capita UCR Personal Crime Data Comparison between Hoboken and New York City from 1991 to 1997

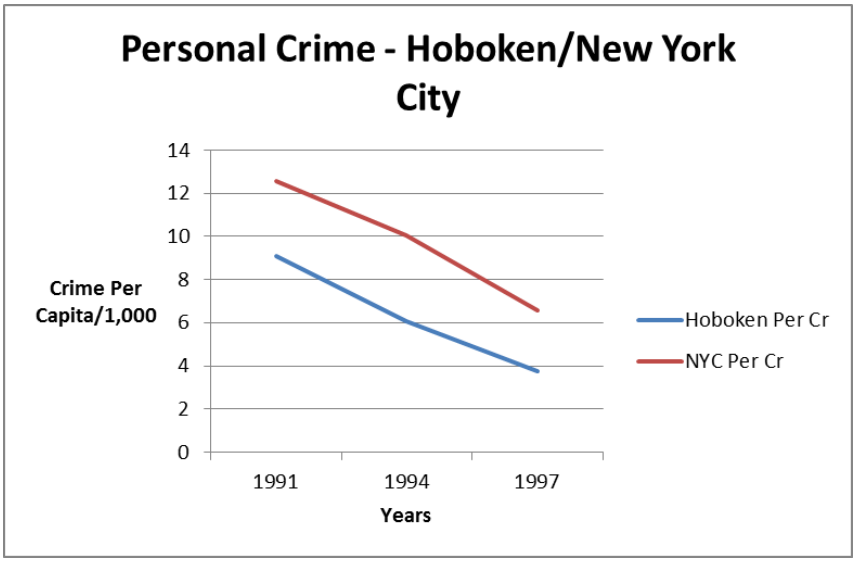
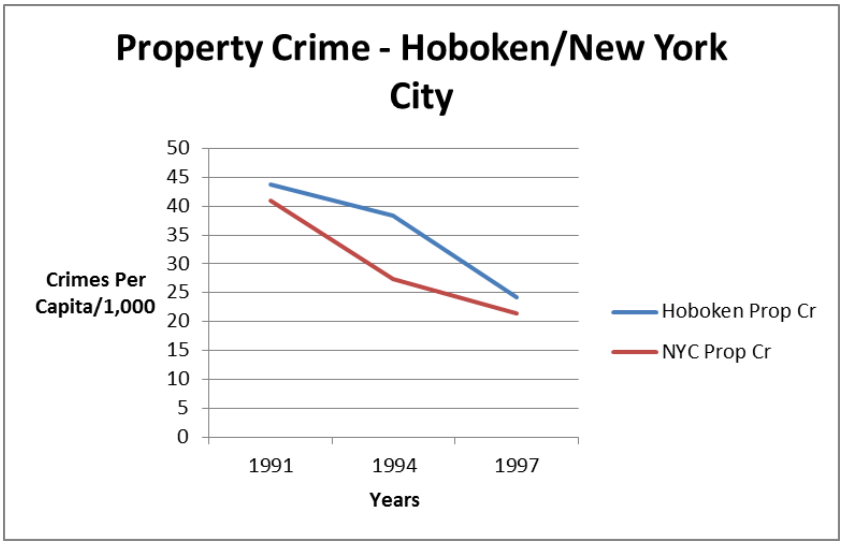


Chart 8.8: Per Capita UCR Property Crime Data Comparison between Hoboken and New York City from 1991 to 1997



The three crime category rates for Hoboken will be compared with New York City's. As indicated Chart 8.6, violent crime in Hoboken, from 1991 to 1997, is over fifty percent lower than New York City. In 1991, Hoboken starts with a 3.47 percent of violent crime rate per 1,000 residents while New York City has an 8 percent rate. In 1994, Hoboken's violent crime rate falls to 2.55 percent in 1994, while New York City drops to a 6.4 percent rate. By 1997, the Hoboken violent crime rate fell to 1.34 percent per 1,000 residents while New York City decreased to 4.4 percent.

The personal crime rates, from 1991 to 1997, decreased in Hoboken as they did in New York City, but at lower rates. In 1991, the personal crime rates in Hoboken were 9.11 percent per 1,000 residents, while New York City had a 12.6 percent rate. In 1994, the personal crime rates in Hoboken decreased to 6.04 percent while New York City fell to 10 percent. By 1997, the personal crime rates continued to drop in both cities, with Hoboken at 3.86 percent and New York City at 6.6 percent.

The property crime rates in both Hoboken and New York City were much higher than either violent or personal crime rates. In 1991, property crime rates in Hoboken starts at 43.72 percent while New York City had a lower rate of 41 percent. In 1994, Hoboken's property crime rate decreased to 38.33 percent while New York City's fell to 27.3 percent. By 1997, the property crime rate in Hoboken fell to 24.16 percent, while New York City's dropped to 21.5 percent.

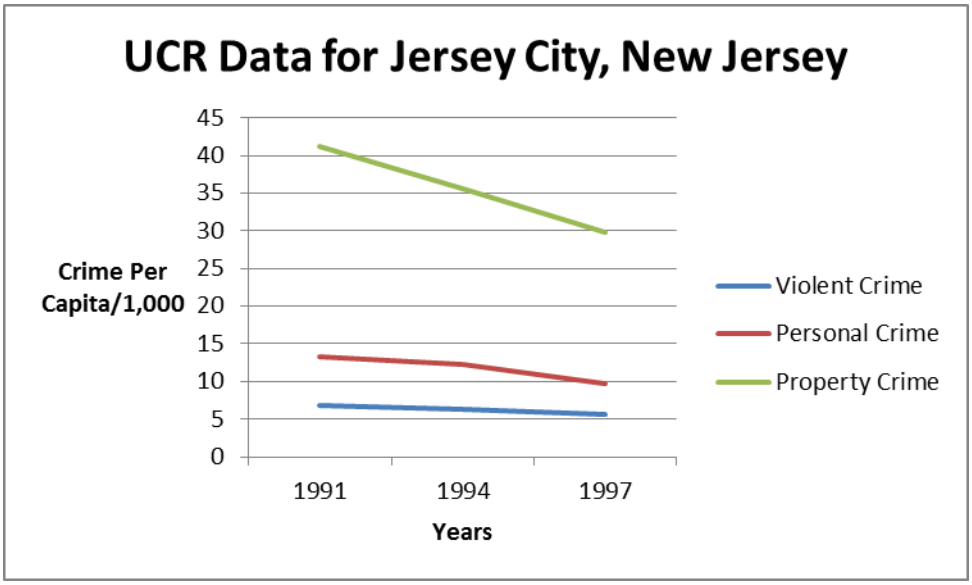
3. UCR Rates for Jersey City, New Jersey

The UCR crime rates for Jersey City will be reviewed, followed by a comparative analysis with New York City's.

Table 8.5: Per Capita UCR Rates for Jersey City, New Jersey, from 1991 to 1997

Jersey City UCR Data			
		Crime Type	
Year	Violent Crime	Personal Crime	Property Crime
1991	6.87	13.23	41.24
1994	6.38	12.24	35.51
1997	5.61	9.77	29.78

Chart 8.9: Per Capita UCR Rates for Jersey City, New Jersey, from 1991 to 1997



Tables 8.5 and Chart 8.9 present UCR data for Jersey City. They highlight a steady decline in the violent crime grouping from 1991 to 1997, based on rates per 1000 residents. Violent crime rates were the lowest of the three categories during each year, declining only 1.26 percent from 6.87 percent in 1991 to 5.61 percent in 1997.

Personal crime rates also witnessed a steady drop from 1991 to 1997. The rate decreased from 13.23 percent in 1991 to 12.24 percent in 1994. The greatest drop occurs after 1994, from 12.24 percent to 9.77 percent in 1997.

Highest of the three crime rates in Jersey City, property crime rates opens at 41.24 percent in 1991 and decreases to 35.51 percent in 1994. The rates fall further to 29.78 percent in 1997. While the latter property crime rate remains relatively high, it does show a slow decline between 1991 and 1997.

Chart 8.10: Per Capita UCR Data Violent Crime Comparison between Jersey City and New York City from 1991 to 1997

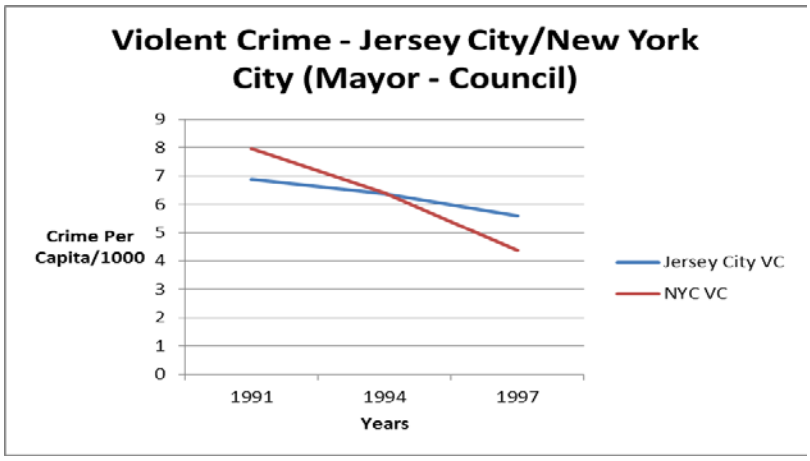


Chart 8.11: Per Capita UCR Data Personal Crime Comparison between Jersey City and New York City from 1991 to 1997

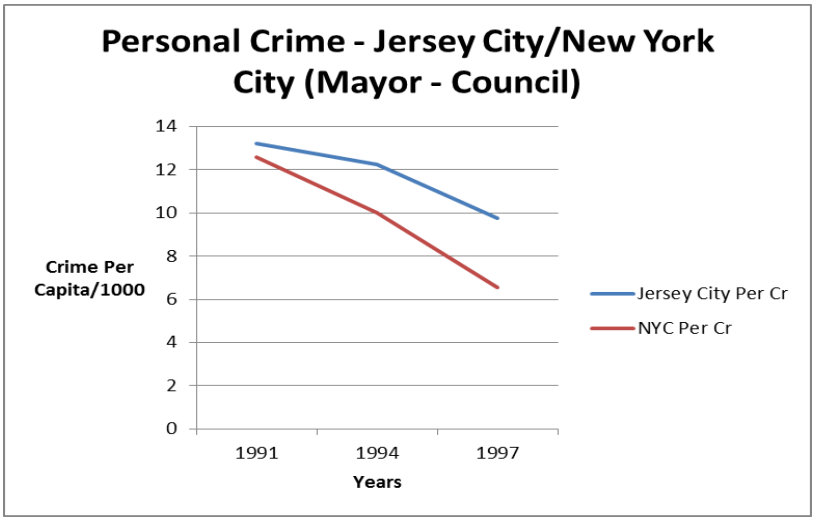
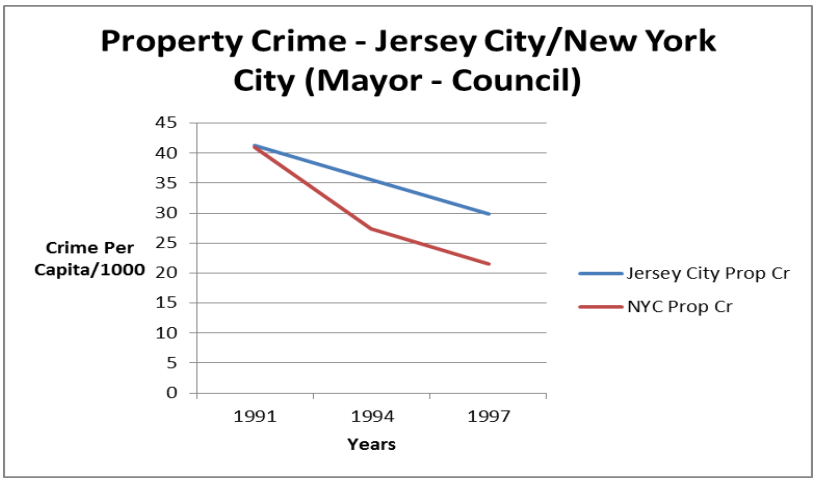


Chart 8.12: Per Capita UCR Data Property Crime Comparison between Jersey City and New York City from 1991 to 1997



Turning to comparisons in crime rates with New York City, as illustrated in Charts 8.10 to 8.12. First, violent crime rates in NYC start higher at 8 percent in 1991 compares closely to Jersey City's 6.87 percent. In 1994, both cities had approximately the same amount of violent crime at 6.4 percent. While both decrease between 1994 to

1997, NYC had a greater decline in violent crime to 4.4 percent, while Jersey City lowers to 5.61 percent. Recall that the years 1994 to 1997 represent the initiation period for Compstat in NYC when the drop in violent crime lessened considerably.

Again, personal crime also saw declines in both cities from 1991 to 1997. The two cities start with similar rates per capita (13.23 percent for Jersey City and 12.6 percent for NYC). By 1994, however, NYC fell to 10 percent (a 2.6 percent decline) while Jersey City's dropped to 12.24 percent (a one percent reduction). From 1994 to 1997, the gaps widened between the cities. NYC personal crime rates diminished to 6.6 percent (a 3.4 percent fall) while Jersey City's rates dropped to 9.77 percent (a 2.47 percent decline).

Property crimes follow a similar trend as personal crime rates in this time period. In 1991, the baseline for both cities is 41 percent. By 1994, however, Jersey City's property crime rates drop to 35.51 percent (a 5.73 percent decline), while NYC's rates decreased to 27.3 percent (a 13.7 percent drop). From 1994 to 1997, the two cities property crime rates followed similar patterns (5.73 percent in Jersey City and 5.8 percent in NYC).

Overall, NYC had lower crime rates and greater overall decreases than Jersey City. For each crime grouping, this picture is especially evident after 1994, as the NYPD implemented its Compstat program.

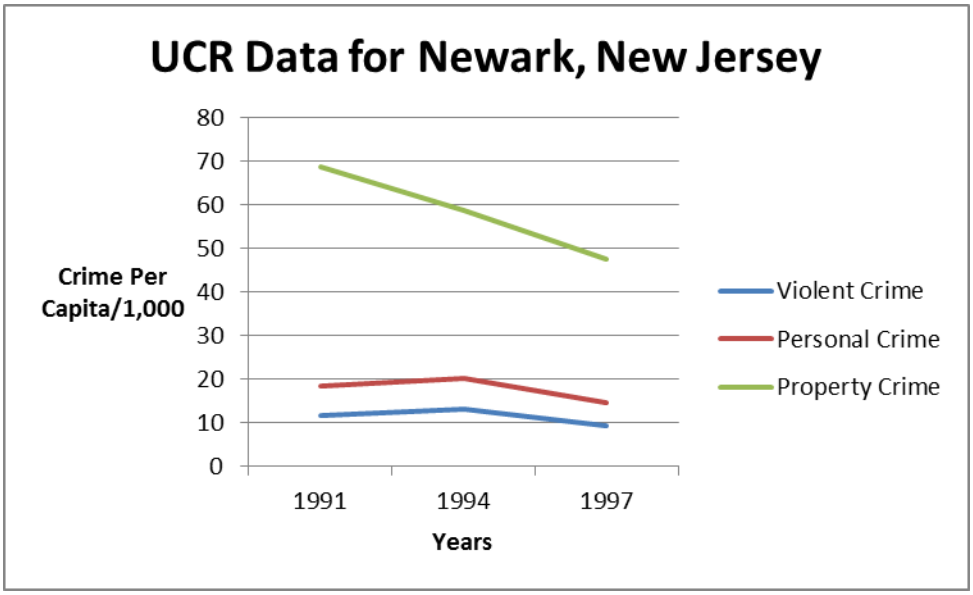
4. UCR Data for the City of Newark

   The individual UCR crime data for the city of Newark will be analyzed, and then by a comparative analysis with New York City.

Table 8.6: Per Capita UCR Rates for the City of Newark, New Jersey, from 1991 to 1997

Newark UCR Data			
		Crime Type	
Years	Violent Crime	Personal Crime	Property Crime
1991	11.73	18.38	68.59
1994	13.17	20.29	58.66
1997	9.40	14.59	47.53

Chart 8.13: Per Capita UCR Rates for the City of Newark, New Jersey, from 1991 to 1997



Tables 8.6 and Chart 8.13 show the Uniform Crime Reporting (UCR) data for Newark between 1991 and 1997. All crime rates are per 1,000 residents. Violent crime increases from 11.73 percent in 1991 to 13.17 in 1994. This gain appears to be opposite of the national crime rates for violent crime, as well as the other New Jersey comparison cities. The violent crime rates then fall in 1994 from 13.17 percent of crime per 1,000 residents to 9.4 percent in 1997. While not dramatic, this decline contrasts with the rise between 1991 and 1994.

The personal crime rates follow the same trend as the violent crime rates, but are proportionally higher. The personal crime rates increases from 18.38 percent in 1991 to 20.29 percent in 1994. The personal crime rates then falls to 14.59 percent in 1997.

Overall, the property crime rates are much higher than the other two crime categories during this time period. Still, property crimes reveal a steady decline. In 1991, property crime rates start at a high of 68.59 percent per 1,000 residents, before dropping further to 58.66 percent in 1994. By 1997, property crime rates fell to 47.53 percent. On balance, this category is a positive sign for Newark.

Chart 8.14: Per Capita UCR Violent Crime Data Comparison between Newark and New York City from 1991 to 1997

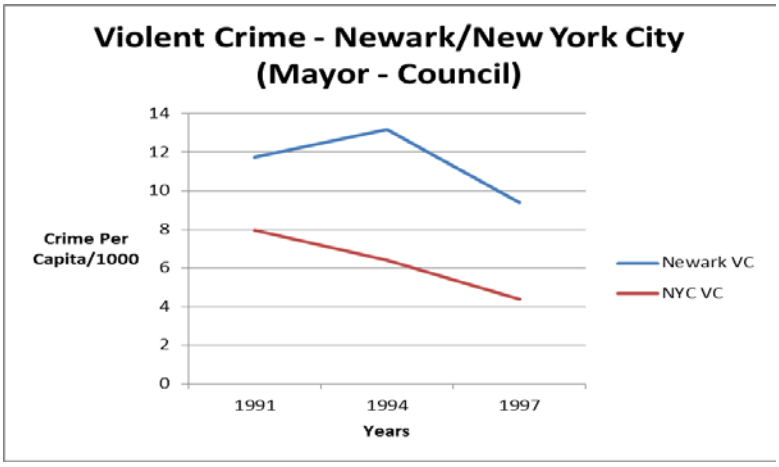


Chart 8.15: Per Capita UCR Personal Crime Data Comparison between Newark and New York City from 1991 to 1997

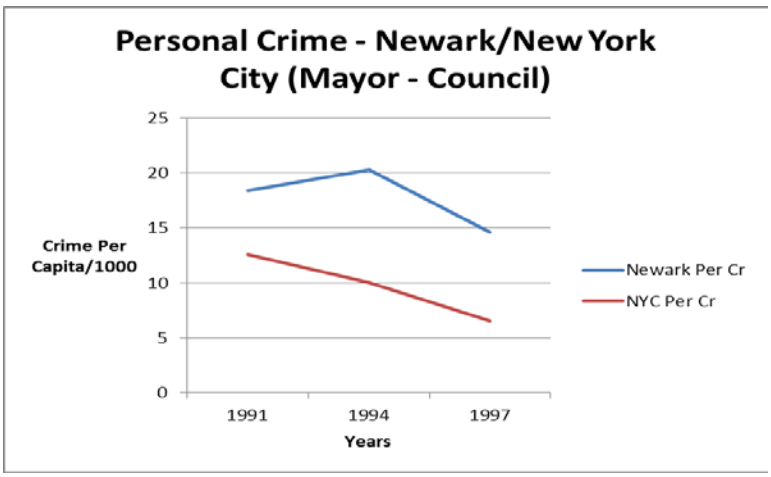
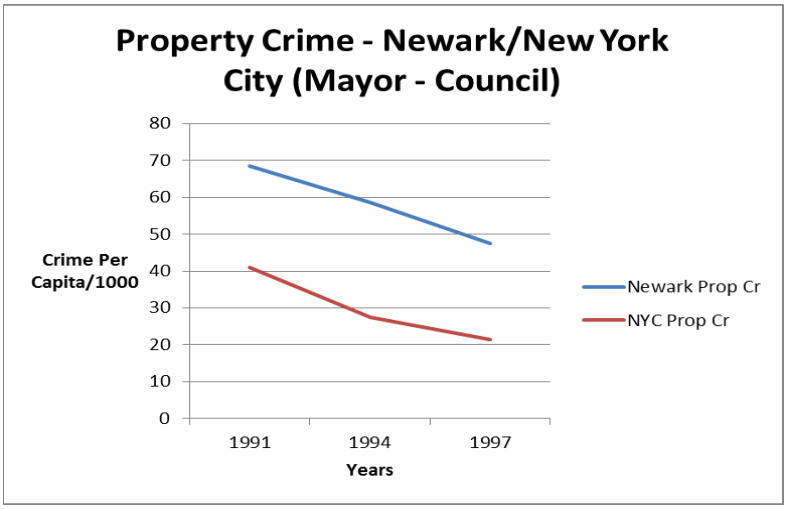


Chart 8.16: Per Capita UCR Property Crime Data Comparison between Newark and New York City from 1991 to 1997



The three crime rates for Newark will be compared with New York City's. As indicated in Chart 8.14, Newark has much higher violent crime rates than New York City. In 1991, Newark's violent crime rate is 11.73 percent, while New York City has an 8 percent of crime rate per 1,000 residents. In 1994, the violent crime rate for Newark grows to 13.17 percent, while New York City's declines to 6.4 percent. By 1997, Newark's violent crime rate does fall to 9.4 percent per 1,000 residents, while New York City continues its decline to 6.6 percent. Considering the extreme differences in populations between the cities, Newark's violent crime rates far exceeds New York City's, even in 1997 when Newark's rate moves considerably lower, but they are still higher that New York City's in 1991.

Personal crime rates follow the same pattern as violent crime rates between the cities. In 1991, Newark starts off at 18.38 percent per 1,000 residents that increases to 20.29 percent in 1994. In 1991, New York City has a much lower personal crime rate of

12.6 percent that subsequently decreases to 10 percent by 1994. While New York City continues a decline in personal crime rates to 6.6 percent per 1,000 residents in 1997, Newark then decreases to 14.59 percent. This comparison again reveals that Newark's violent and personal crime rates are much higher than New York City's between 1991 and 1997.

Property crime rates diminish between 1991 and 1997 for both Newark and New York City. Yet, a disturbing fact is the gap between the percentages: over the study years, Newark has much higher rates than New York City. In 1991, Newark opens with a 68.59 percent of property crime per 1,000 residents, while New York City has a 41 percent rate. Respectively, in 1994, the rates drop to 58.66 percent, while New York City falls further to 27.3 percent. The final comparison sees Newark decrease to 47.53 percent, while New York City slows to 21.5 percent. These differences are still dramatic; in 1997, Newark is still 6.53 percent more than New York City's 1991 rate of 41 percent.

In conclusion, Newark differs greatly from New York City on many accounts. First, the shear percentage of crimes per 1,000 residents was much higher in Newark. Second, Newark experienced increases in both violent and personal crime rates between 1991 and 1994, but New York City sees steady declines in all three categories.

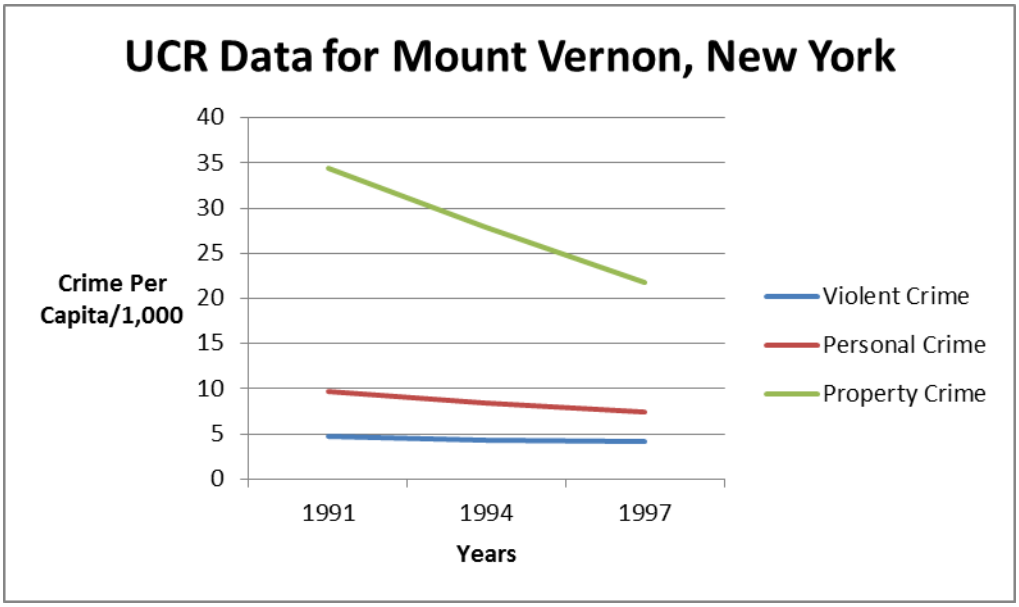
5. UCR Data for the City of Mount Vernon, New York

The individual UCR crime data for the City of Mount Vernon will be examined, followed by a comparative analysis with New York City.

Table 8.7: Per Capita Uniform Crime Reporting (UCR) Rates for Mount Vernon, New York, from 1991 to 1997

Mount Vernon UCR Data			
	Type of Crime		
Years	Violent Crime	Personal Crime	Property Crime
1991	4.79	9.70	34.41
1994	4.37	8.44	27.87
1997	4.22	7.41	21.74

Chart 8.17: Per Capita Uniform Crime Reporting (UCR) Rates for Mount Vernon, New York, from 1991 to 1997



Tables 8.7 and Chart 8.17 present the Uniform Crime Reporting (UCR) data for Mount Vernon between 1991 and 1997, and illustrate small decreases in violent and

personal crime rates and a large decrease in property crime rates. All crime rates are per 1,000 residents. The violent crime rates in Mount Vernon start at 4.79 percent of crime per 1,000 residents in 1991, and then decrease to 4.37 percent in 1994. By 1997, the violent crime rates fall to 4.22 percent.

The personal crime rate grouping showed a steady decrease from 1991 to 1997. The personal crime rate began at 9.7 percent per 1,000 residents in 1991, and then fell to 8.44 percent in 1994. By 1997, the personal crime rate lessened to 7.41 percent.

The property crime rates for Mount Vernon are much higher than violent and personal crime rates, but they drop at a considerably steeper rate during the seven-year study period. In 1991, the property crime rates were at their highest with a rate of 34.41 percent per 1,000 residents. In 1994, the property crime rates fell to 25.87 percent, then in 1997 decreased to 21.74 percent. This accounts for a 12.67 percent decline between 1991 and 1997, as opposed to a negligible 0.57 percent decrease in the violent crime rates and a 2.29 percent drop in personal crime rates.

Chart 8.18: Per Capita UCR Violent Crime Data Comparison between Mount Vernon and New York City from 1991 to 1997

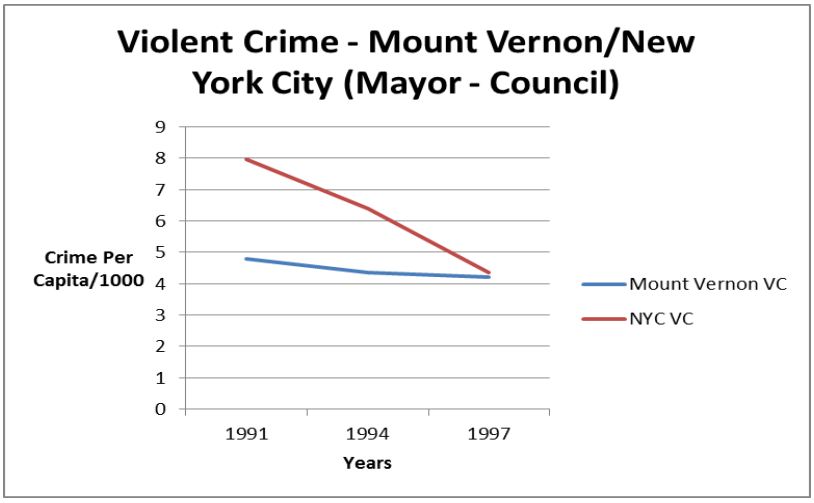


Chart 8.19: Per Capita UCR Personal Crime Data Comparison between Mount Vernon and New York City from 1991 to 1997

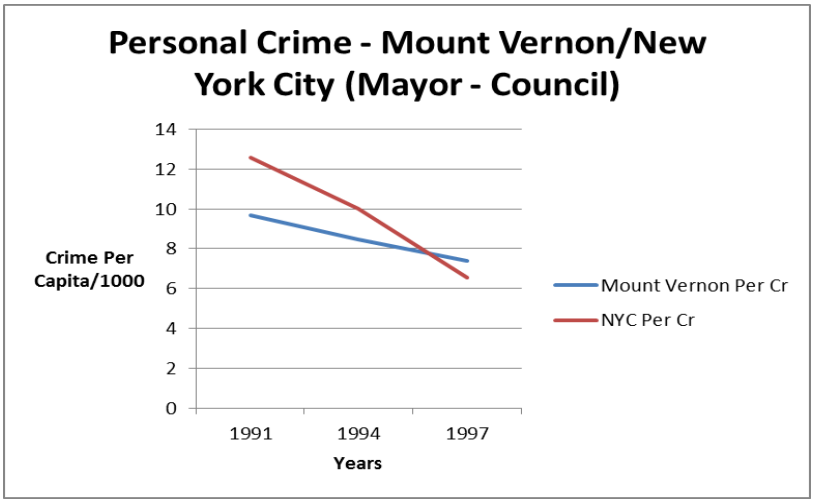
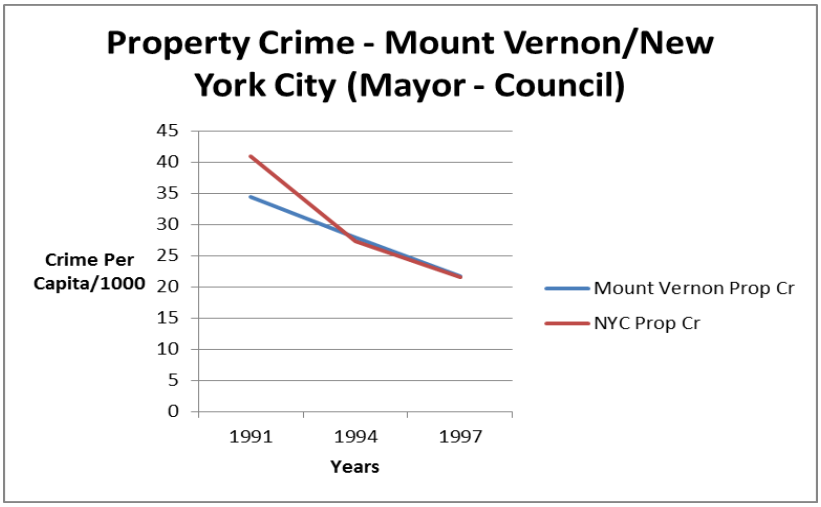


Chart 8.20: Per Capita UCR Property Crime Data Comparison between Mount Vernon and New York City from 1991 to 1997



The three crime rate categories for Mount Vernon will be compared with New York City. As indicated in Chart 8.18, from 1991 to 1997, violent crimes in the city of Mount Vernon declined 0.57 percent per 1,000 residents. In 1991, New York City started with a violent crime rate of 8 percent that by 1997 fell to 4.4 percent. New York City's violent crime rates decreased 3.6 percent from 1991 to 1997. After New York City implemented the Compstat program in 1994, its violent crime rate fell by 2 percent, while Mount Vernon diminished to 0.15 percent.

The personal crime grouping comparison illustrates an equal difference between the cities by 1997. In 1991, New York City stands at 12.6 percent per 1,000 residents, while Mount Vernon has a 9.70 percent rate. In 1994, Mount Vernon's personal crime rate falls to 8.44 percent, while New York City drops to 10 percent. After New York City implements the Compstat program in 1994, its personal crime rate falls to 6.6 percent, while Mount Vernon's rate decreases to 7.41 percent.

The property crime rates between 1994 and 1997 illustrated that New York City started with higher rates than Mount Vernon, but trended equally downward with Mount Vernon. In 1991, Mount Vernon's property rate was 34.41 percent per 1,000 residents, while New York City had a 41 percent rate. By 1994, Mount Vernon's property crime rates were 27.87 percent, while New York City dropped to a property crime rate of 27.3 percent. Between 1994 and 1997, the property crime rates continued on a similar path between the cities, with Mount Vernon having a 21.74 percent rate, while New York City's rate drops to 21.5 percent.

Overall, New York City had steeper drops in violent and personal crime rates, with personal crime rates falling below Mount Vernon's rate by 1997. Property crimes started higher in New York City, but then equaled Mount Vernon's rates between 1994 and 1997.

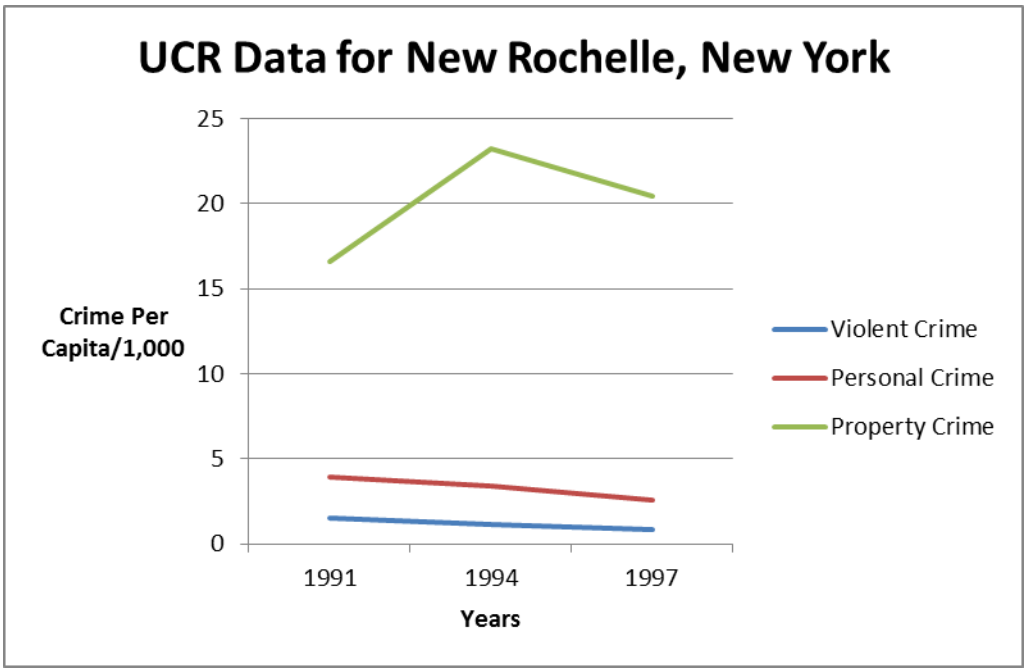
6. UCR Data for the City of New Rochelle, New York

The individual UCR crime data for the City of New Rochelle will be examined, followed by a comparative analysis with New York City. Recall that New Rochelle serves as a control variable with its city manager form of government.

Table 8.8: Per Capita UCR Data for New Rochelle (City Manager), New York, from 1991 to 1997

New Rochelle UCR Data			
	Type of Crime		
Years	Violent Crime	Personal Crime	Property Crime
1991	1.54	3.93	16.61
1994	1.16	3.40	23.27
1997	0.82	2.59	20.42

Chart 8.21: Per Capita UCR Data for New Rochelle (City Manager), New York, from 1991 to 1997



Tables 8.8 and 8.21 present the UCR data for New Rochelle between 1991 and 1997. They demonstrate decreases in violent and personal crime rates. All crime rates are per 1,000 residents. Rates for violent crimes were the lowest grouping that started at 1.54 percent in 1991. The violent crime rates further decreased to 1.16 percent in 1994, before falling to 0.84 percent in 1997. The violent crime rates for the New York

comparison cities are lower than in the New Jersey counterparts. New Rochelle was the only comparison city in either New York or New Jersey that implemented a Compstat program between 1994 and 1997, under a city manager form of government.

The personal crime rate grouping decreased steadily from 1991 to 1997, but were still substantially low overall. The personal crime rate began at 3.93 percent per 1,000 residents in 1991 then slowed to 3.4 percent in 1994. By 1997, the personal crime rates unraveled further to 2.59 percent.

The property crime grouping rates actually increased from 1991 to 1994, and then decreased by 1997. In 1991, the property crime rates began at 16.61 percent per 1,000 residents, and then escalated to 23.27 percent in 1994. The property crime rates recoiled to 20.4 percent in 1997, after the introduction of a Compstat program in New Rochelle. New Rochelle was the only New York comparison city not to witness a steady decline in property crime rates between 1991 and 1997.

Table 8.22: Per Capita UCR Violent Crime Data Comparison between New Rochelle and New York City, from 1991 to 1997

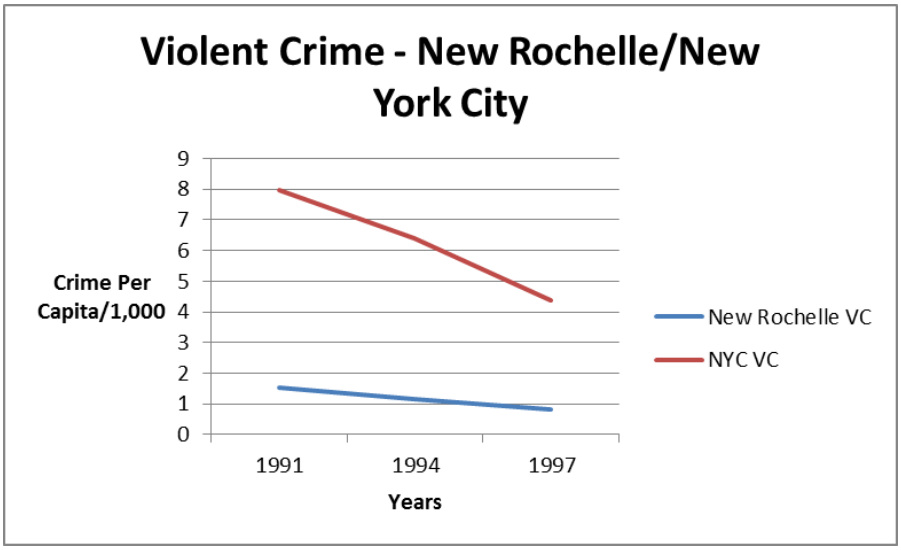


Table 8.23: Per Capita UCR Personal Crime Data Comparison between New Rochelle and New York City, from 1991 to 1997

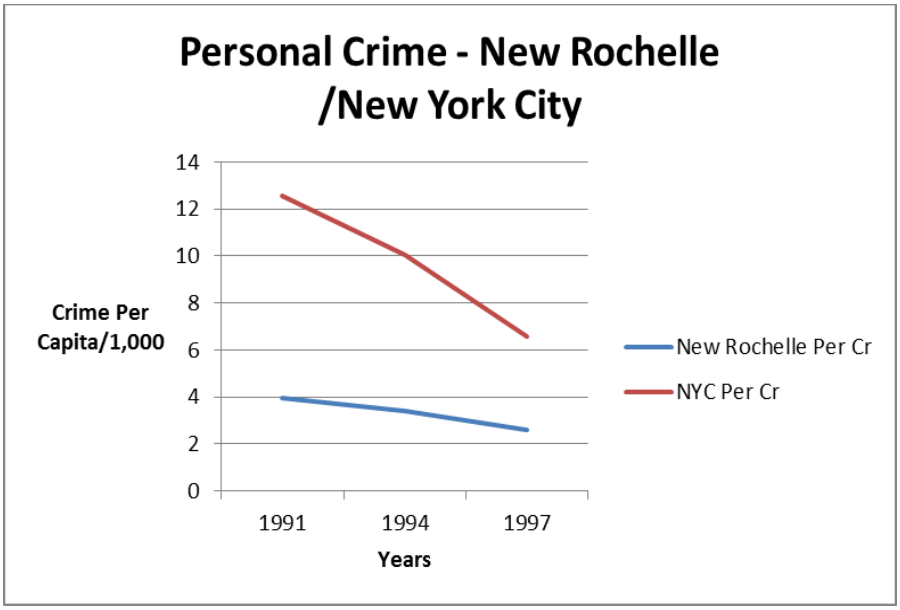
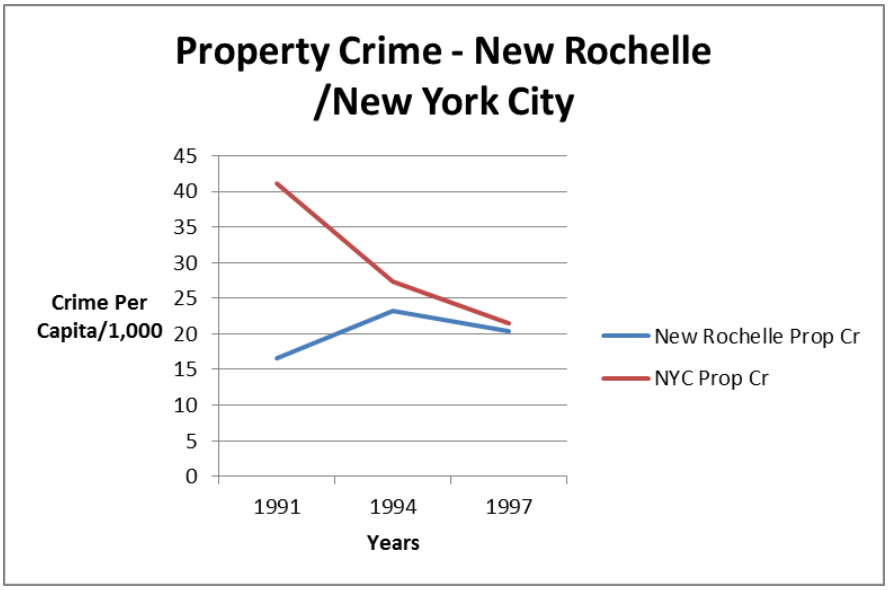


Table 8.24: Per Capita UCR Property Crime Data Comparison between New Rochelle and New York City, from 1991 to 1997



The three crime rate groupings for New Rochelle will be compared with New York City's. Charts 8.22 to 8.24 exhibits that New Rochelle had significantly lower crime rates than New York City. The uptick in property crimes in Chart 8.24 for New Rochelle, between 1994 and 1997, still stayed below the rates of New York City.

As indicated in the violent crime Chart 8.22, from 1991 to 1997, New Rochelle had much lower rates than New York City. In 1991, New York City had an 8 percent violent crime rate per 1,000 residents, while New Rochelle had a 1.54 percent rate. In 1994, New York City's violent crime rate fell to 6.4 percent while New Rochelle decreased to 1.16 percent. In 1997, New York City's violent crime rate fell to 4.4 percent, while New Rochelle dropped to 0.84 percent.

From 1991 to 1997, the personal crime rates illustrate major differences between New Rochelle and New York City. In 1991, the personal crime rates in New York City

were 12.6 percent, whereas New Rochelle owned a 3.93 percent rate. In 1994, the personal crime rate in New York City fell to 10 percent, while New Rochelle decreased marginally to 3.4 percent. The 1997 personal crime rate in New York City fell to 6.6 percent per 1,000 residents, and New Rochelle's dropped to 2.59 percent.

As New Rochelle is largely a suburban location, not unexpectedly, the property crime rates differed from urban New York City's between 1991 and 1997. In 1991, the property crime rate in New Rochelle was 16.61 percent per 1,000 residents, then shot upwards to 23.27 percent in 1994. In 1997, New Rochelle's property crime rates slipped to 20.40 percent. New York City's property crime rates decreased steadily: from 41 percent in 1991 to 21.5 percent in 1997. Property crime rates dropped dramatically for New York City from 1991 to 1997, even though New Rochelle revealed overall lower rates.

Generally, since New Rochelle's crime rate groupings were lower than New York City's during the study time period, a notable aspect of this comparison is that New Rochelle implemented a Compstat program in 1994 and the property crime results show a decrease in its rate afterwards.

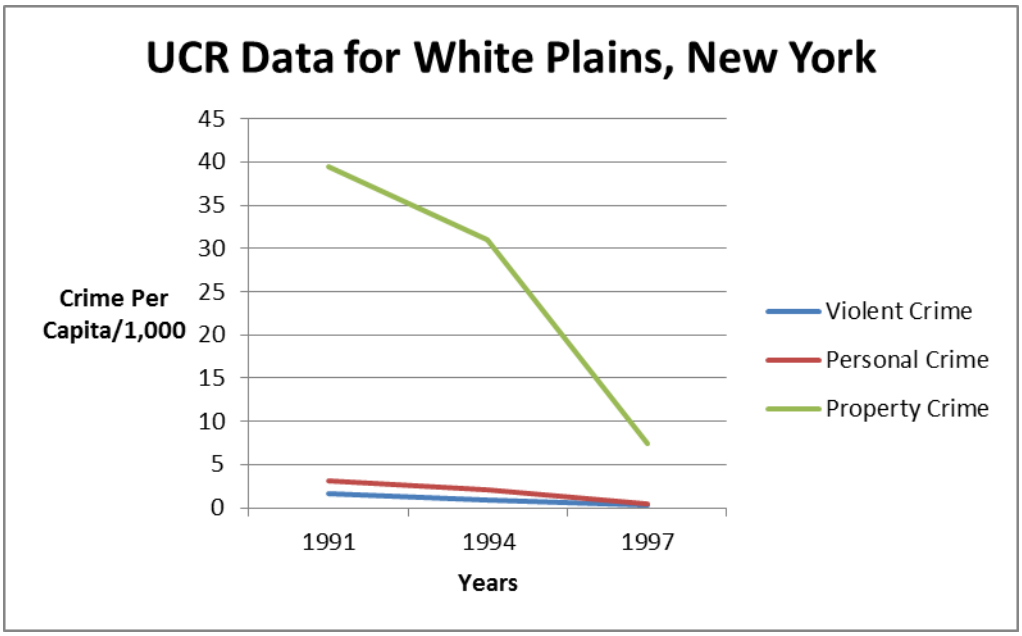
7. UCR Data for the City of White Plains, New York

The individual UCR crime data for the city of White Plains will be examined, followed by a comparative analysis with New York City.

Table 8.9: Per Capita UCR Data for White Plains (Mayor Council), New York, from 1991 to 1997

White Plains UCR Data			
	Type of Crime		
Years	Violent Crime	Personal Crime	Property Crime
1991	1.62	3.15	39.52
1994	0.93	2.15	30.96
1997	0.28	0.52	7.51

Chart 8.25: Per Capita UCR Data for White Plains (Mayor Council), New York, from 1991 to 1997



Tables 8.9 and Chart 8.25 present the Uniformed Crime Reporting (UCR) rates for White Plains between 1991 and 1997. All the crime rates are per 1,000 residents. Each crime grouping in White Plains is in decline, notably for the violent and personal crime rates that are virtually non-existent. In 1991, the violent crime rate was 1.62 percent per 1,000 residents. By 1994, the violent crime rate fell to 0.93 percent. In 1997, the violent crime rate was a miniscule 0.28 percent of crime per 1,000 residents. White Plains violent crime rate was the smallest both in the New York and New Jersey comparison cities, as well as in New York City.

The personal crime grouping was the lowest of all study cities and almost disappeared by 1997. The personal crime rate began at 3.15 percent of crime per 1,000 residents in 1991, then decreased to 2.15 percent in 1994. By 1997, the personal crime rate had fallen to 0.52 percent.

The property crime grouping rates started much higher in 1991, with a rate of 39.52 percent. In 1994, the property crime rates fell to 30.96. By 1997, the property crime rates decreased to 7.51 percent of crime per 1,000 residents. The property crime rates in 1997 were, by a wide margin, lower than the other New York comparison cities.

From the UCR data, the city of White Plains presents itself as an outlier when contrasted to the other New York comparison cities. As Table 8.10 and 8.11 demonstrate, the numbers of violent and personal crime are extremely low when compared to the other New York mayor-council comparison cities.

Chart 8.26: Per Capita New York Mayor-Council Comparison Cities Violent Crime Rates from 1991 to 1997

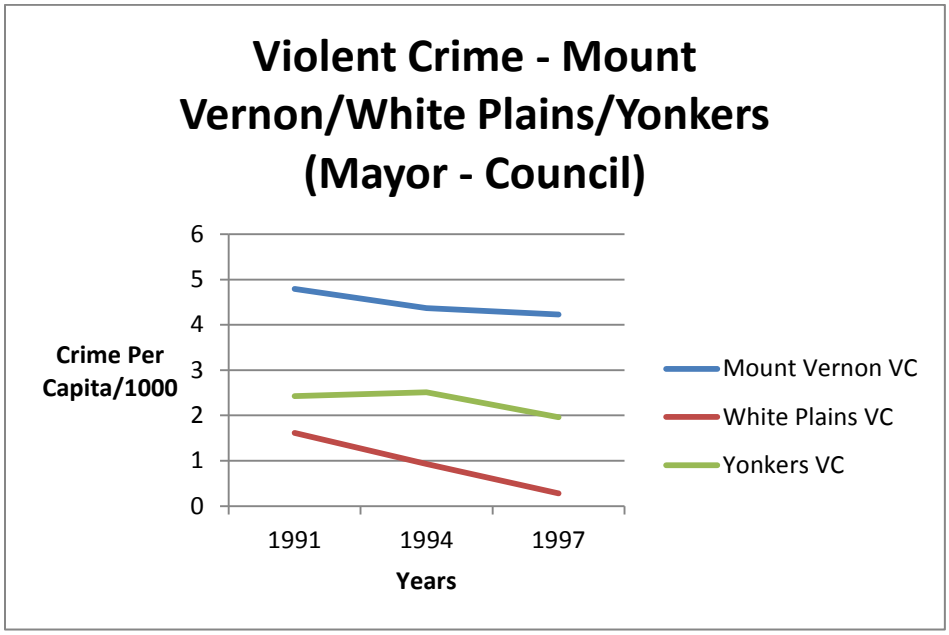
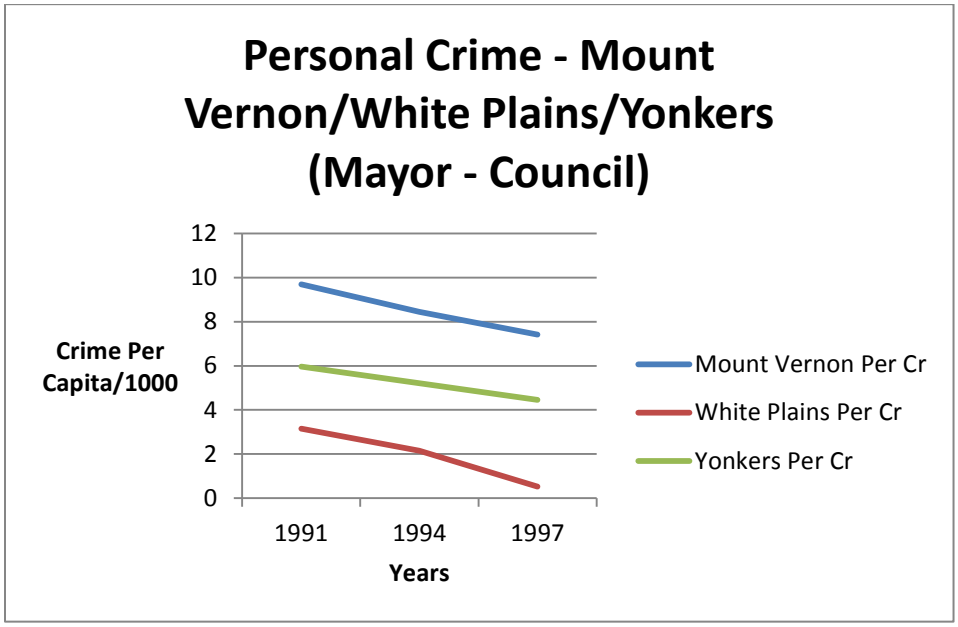


Chart 8.27: Per Capita New York Mayor-Council Comparison Cities Personal Crime Rates from 1991 to 1997



Violent crime in White Plains fell from 1.6 percent per 1,000 residents in 1991 to 0.28 percent in 1997. Personal crime fell from 3.15 percent in 1991 to 0.52 percent in 1997. These numbers are so low that using White Plains as a comparison city became unexpectedly tenuous. A possible explanation for these discrepancies can be seen in the education and income data of the 1990 and 2000 census. Chart 8.28 and 8.29 capture these discrepancies by turning to White Plain's income and education figures from the 1990 and 2000 US Census data.

Chart 8.28: US Census Data of White Plains Household Income (1990 & 2000)

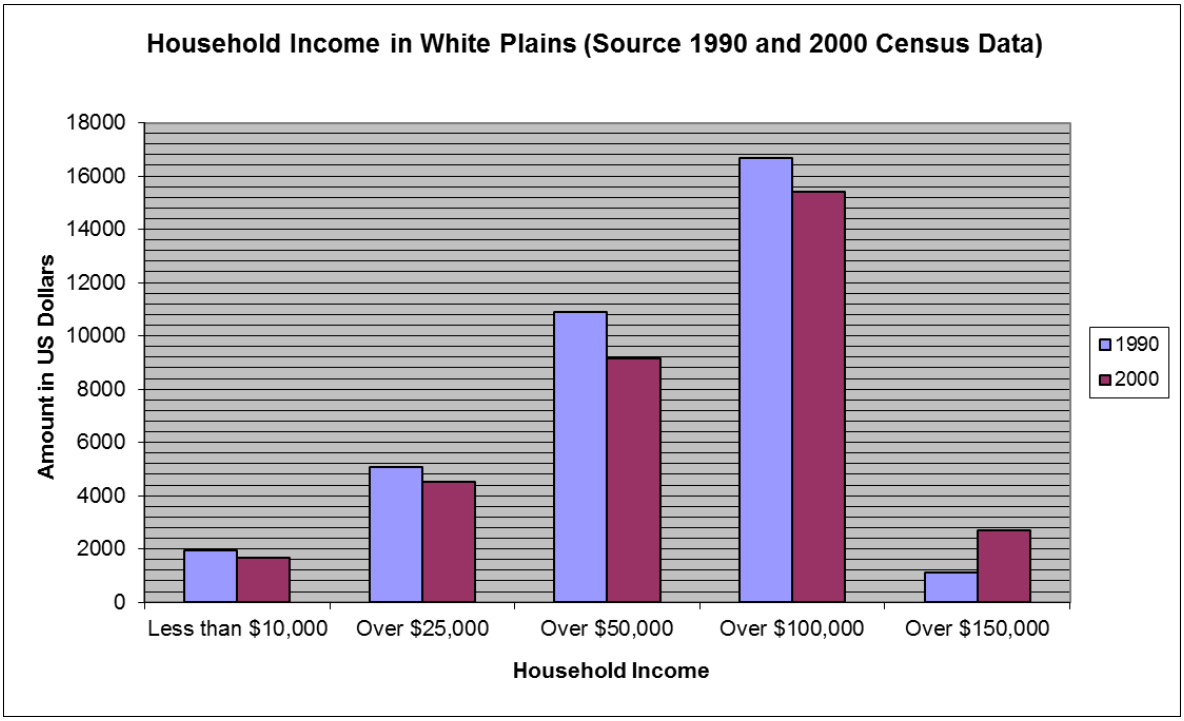


Chart 8.29: US Census Data of White Plains Educational Attainment (1990 & 2000)

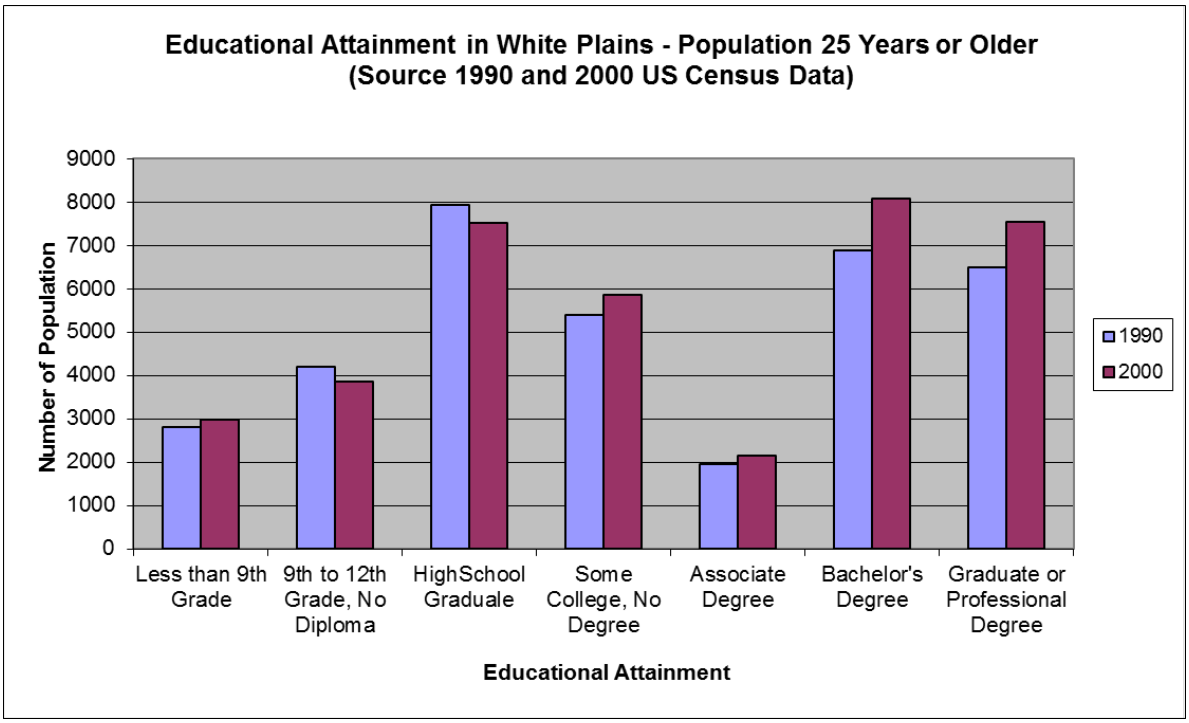
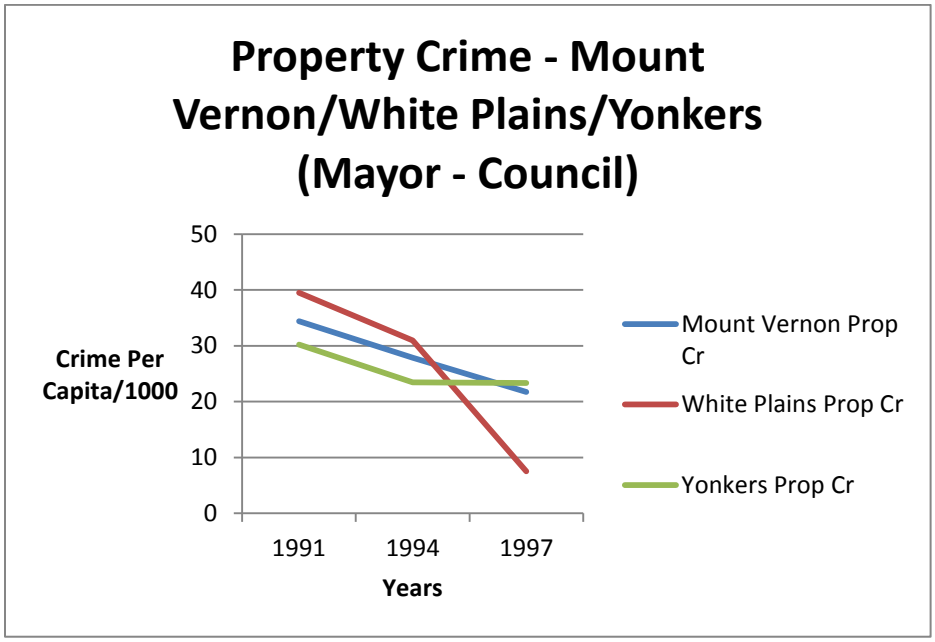


Chart 8.28 shows that income in White Plains consists of households making between $50,000 and $150,000 in both 1990 and 2000. Chart 8.29 indicates that White Plains residents attained high school and college educations well in excess of those residents without high school educations. Income and education, it appears, can be seen as determining factors in the ultimate success of the citizenry of a municipality.

Chart 8.30: Per Capita UCR Property Crime Rate Comparison of White Plains and other New York Comparison Cities (Mayor-Council) from 1991 to 1997



As indicated in Chart 8.30, the UCR property crime figures for White Plains differ greatly from the other New York State mayor-council comparison cities. Note how the property crimes were actually greater than the other cities in 1991, but fell precipitously as the economy improved by 1997. From 1991 to 1997, White Plains' property crime rate per 1,000 residents reduced remarkably from 39.5 percent to 7.5 percent.

White Plains is also the commercial hub of Westchester County that contains major shopping malls and has a vibrant downtown with restaurants and bars. It is home to many large company headquarters, resulting in many upscale neighborhoods. The commercial makeup of White Plains does lend itself to property crimes, including larceny from stores.

Chart 8.31: Per Capita UCR Violent Crime Data Comparison between White Plains and New York City (Mayor-Council) from 1991 to 1997

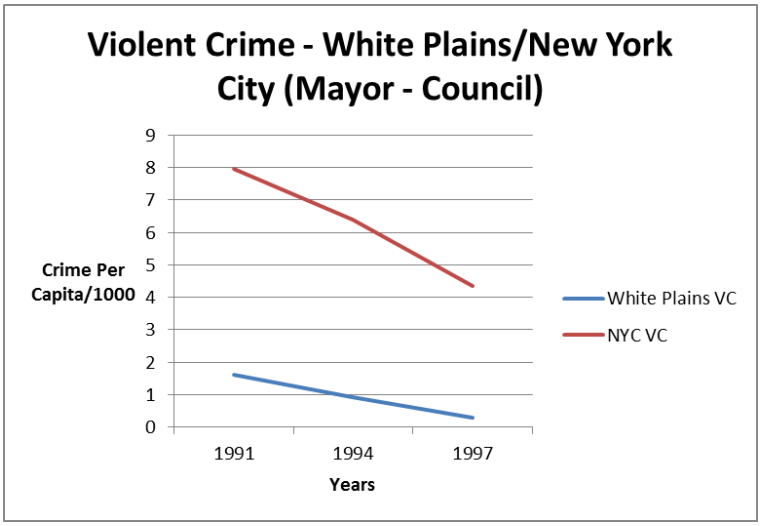


Chart 8.32: Per Capita UCR Personal Crime Data Comparison between White Plains and New York City (Mayor-Council) from 1991 to 1997

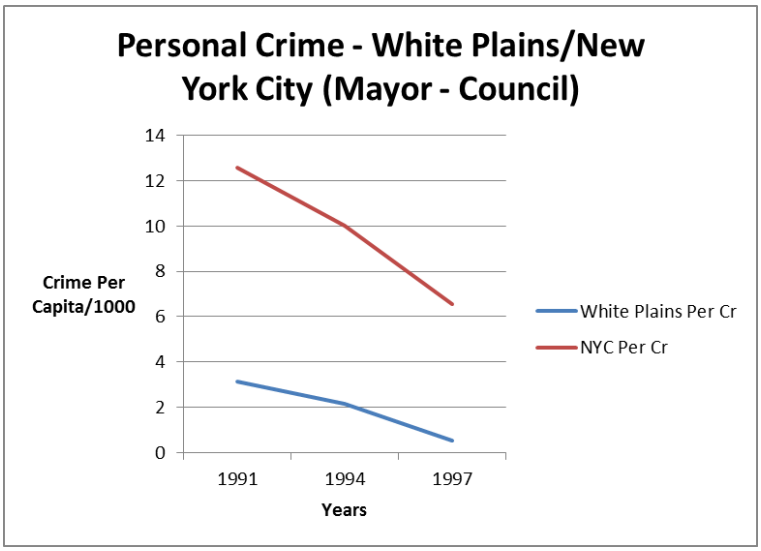
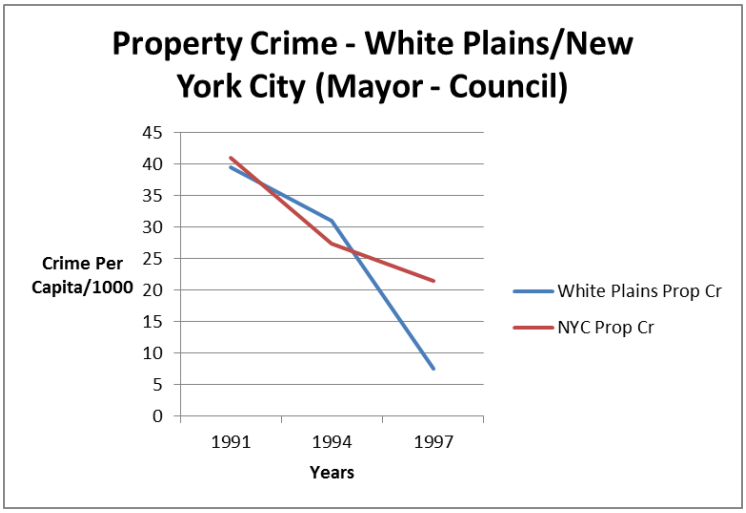


Chart 8.33: Per Capita UCR Property Crime Data Comparison between White Plains and New York City (Mayor-Council) from 1991 to 1997



The three crime grouping rates for White Plains will be compared with New York City. As indicated in the Chart 8.28, violent crime rates in White Plains are extremely low compared with New York City. In 1991, the violent crime rate in White Plains start at 1.62 percent per 1,000 residents, while New York City's rate is 8 percent. By 1997, White Plains violent crime rate fell to 0.28 percent, while New York City's rate moves to 4.4 percent.

The personal crime rate grouping also suggests a wide gap between the cities. In 1991, White Plains had a personal crime rate of 3.15 percent rate per 1,000 residents, while New York City had a 12.6 percent rate. In 1994, White Plains fell to a personal crime rate of 2.15 percent, while New York City decreased to 10 percent. By 1997, personal crime rates for White Plains downgraded to a miniscule 0.52 percent, while New York City dropped to 6.6 percent.

The property crime rates are the only crime grouping that is comparable, at least in 1991 and 1994. In 1991, the property crime rate in White Plains was 39.52 percent per 1,000 residents, while New York City had a 41 percent rate. In 1994, White Plains had a property crime rate of 30.96 percent, while New York City dropped to 27.3 percent. In 1997, White Plains fell to a property crime rate of 7.51 percent, while New York City decreased to 21.5 percent, exhibiting a large difference, despite New York City implementing its Compstat program.

Overall, both cities had decreases in all crime categories between 1991 and 1997. However, the violent and personal crime rate groupings were noticeably smaller in White Plains. The property crime rates for both cities were similar in 1991 and 1994, but White Plains achieved extremely low rates by 1997, compared to New York City.

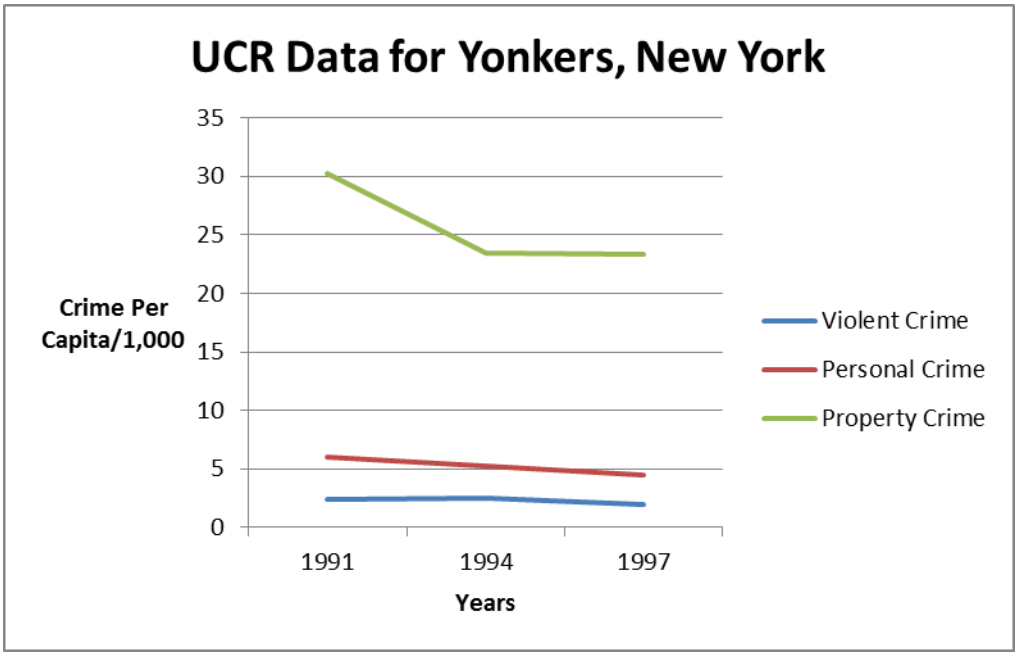
8. UCR Data for the City of Yonkers, New York

The individual UCR crime rates for the City of Yonkers will be examined, followed by a comparative analysis with New York City.

Table 8.10: Per Capita UCR Data for Yonkers, New York (Mayor-Council) from 1991 to 1997

Yonkers UCR Data			
	Type of Crime		
Years	Violent Crime	Personal Crime	Property Crime
1991	2.43	5.96	30.20
1994	2.51	5.21	23.43
1997	1.96	4.45	23.36

Chart 8.34: Per Capita UCR Data for Yonkers, New York (Mayor-Council) from 1991 to 1997



Tables 8.10 and Chart 8.34 show the UCR data for Yonkers between 1991 and 1997. They illustrate small decreases in personal and violent crime rates with a large diminishment in the property crime rate. All crime rates are per 1,000 residents. The violent crime rates were the lowest grouping that started in 1991 at 2.43 percent. The violent crime rate then rose inconsequentially to 2.51 percent in 1994. By 1997, the violent crime rates lowered to 1.96 percent.

The personal crime groupings revealed a steady decrease from 1991 to 1997, but were still overall substantially low. This crime rate began at 5.96 percent per 1,000 residents in 1991 then decreased imperceptibly to 5.21 percent in 1994. By 1997, the personal crime rates slipped further to 4.45 percent.

The property crime rate groupings started much higher than the other two categories, like the other New York comparison cities. The rates in 1991 were at their highest with 30.20 percent per 1,000 residents. They then fell to 23.43 percent in 1994 that held steady in 1997 with a personal crime rate of 23.36 percent.

Chart 8.35: Per Capita UCR Violent Crime Data Comparison between Yonkers and New York City (Mayor-Council) from 1991 to 1997

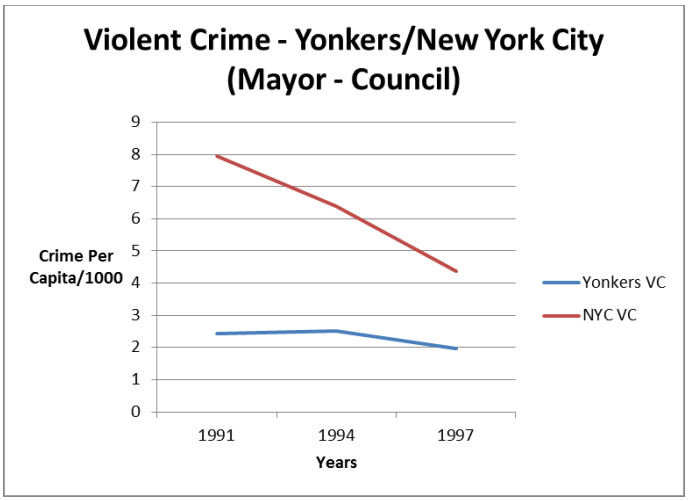


Chart 8.36: Per Capita UCR Personal Crime Data Comparison between Yonkers and New York City (Mayor-Council) from 1991 to 1997

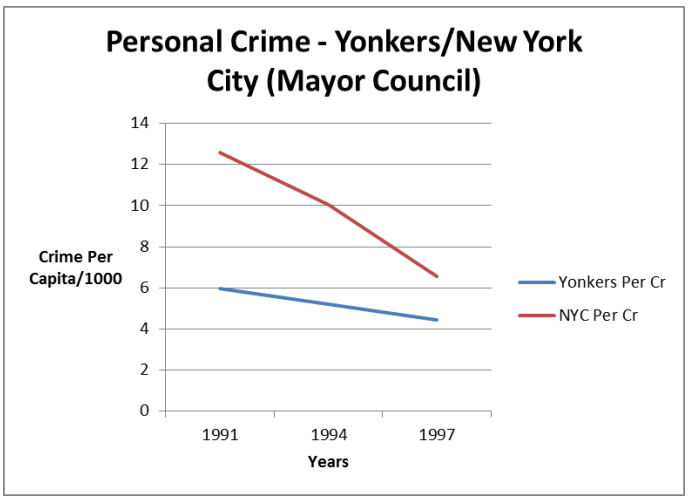
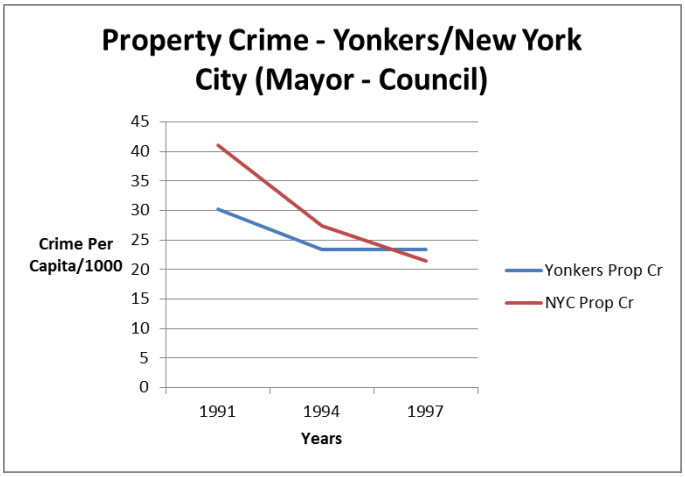


Chart 8.37: Per Capita UCR Property Crime Data Comparison between Yonkers and New York City (Mayor-Council) from 1991 to 1997



The three crime rate groupings for Yonkers will be compared with New York City's. As indicated in Chart 8.35, from 1991 to 1997, Yonkers had much lower violent crime rates than New York City. Thus, in 1991, New York City had an 8 percent violent crime rate per 1,000 residents while Yonkers had a 2.43 percent rate. In 1994 Yonkers had a small rate increase to 2.51, while New York City's dropped to 6.4 percent. In 1997, the violent crime rate in New York City again declined to 4.4 percent per 1,000 residents, while Yonkers fell to 1.96 percent. Even though New York City experienced significant declines in violent crime between 1991 and 1997, violent crime rates in Yonkers traversed even lower, including decreasing between 1994 and 1997 when New York City introduced the Compstat program.

From 1991 to 1997, the personal crime grouping rates unraveled steadily in both cities. The beginning rates were again much higher in New York City. In 1991, the New York City personal crime rate was 12.6 percent per 1,000 residents, while Yonkers had a 5.96 percent rate. In 1994, New York City's personal crime rate fell to 10 percent, while

Yonkers lowered its rate to 5.21 percent. By 1997, the personal crime rate in New York City diminished to 6.6 percent, but Yonkers posted a 4.4 percent rate.

The property crime rates in both cities from 1991 to 1997 tell different stories. For New York City in 1991, the property crime rate grouping opened at 41 percent per 1,000 residents, while Yonkers had a 30.2 percent rate. By 1994, the property crime rates then decreased in New York City to 27.3 percent in New York City, with Yonkers declining to 23.43 percent. Between 1994 and 1997, however, property crime rates are less for New York City than Yonkers. In 1997, the property crime rates in New York City fell to 21.5 percent, while Yonkers remained steady at 23.36 percent. Thus, New York City's property crime rates actually fell below Yonkers after the implementation of Compstat in 1994. Nonetheless, both violent crime and personal crime rates were strikingly lower in Yonkers during the study time period. The main difference occurred in property crime rates that actually show New York City experiencing a decisive drop by 1997.

E. Conclusion of UCR Data

This chapter presented the UCR crime rate data for each of the New York and New Jersey comparison cities. Each comparison city's UCR crime rate grouping was individually compared with New York City's crime rates. Violent crime rates declined in all study cities, yet they were lower in the New York comparison cities than New York City and the New Jersey cities. Personal crime rates were again lower in the New York comparison cities compared to the New Jersey comparison cities, while New York City

had lower personal crime rates than Mount Vernon, New York, by 1997. Property crime rates were lower in the New York comparison cities and New York City than the New Jersey comparison cities. In sum, the New York comparison cities exhibited lower crime rates than the New Jersey comparison cities, while New York City had lower personal crime rates than Mount Vernon, New York, by 1997.

Chapter 9: Budget Data for All Cities

A. Introduction

This chapter examines each city's budget for 1991, 1994 and 1997. Budget data will determine whether any relationship exists between their outcomes and changes in crime rates for the three categories under review. The budgeting component of this study has policy implications for municipalities struggling to control crime while keeping their police resources within limited constraints. The total police budgets exclude external grant funding; this will be examined for further budget changes in Chapter 10.

The principal sources for Tables 9.1 through 9.9 are the municipal budgets of the following cities (in order of appearance): (New Jersey) – Elizabeth, Hoboken, Jersey City, Newark, and (New York) – Mount Vernon, New Rochelle, White Plains, Yonkers, and New York City.

B. General Appropriations and Total Police Budgets of all Cities

1. The City of Elizabeth Budgets

Table 9.1: City of Elizabeth General and Police Department Budgets from 1991 to 1997

City of Elizabeth Budget		
Year	General Appropriations	Total Police
1991	81,288,351	7,959,616
1994	94,398,155	10,236,585
% Change	16.13	28.61
1994	94,398,155	10,236,585
1997	108,300,592	18,440,035
% Change	14.73	80.14
1991	81,288,351	7,959,616
1997	108,300,592	18,440,035
%Change	33.23	131.67

Table 9.1 presents the general appropriations and total police portions of the city of Elizabeth in 1991, 1994 and 1997. The dollar amounts were converted from nominal value to real value using the Consumer Price Index (CPI). The table also gives the percent of change between 1991 and 1994, 1994 and 1997 as well as the total percent of change between 1991 and 1997.

In 1991, the total general appropriations for Elizabeth were $81,288,351, with a total police budget of $7,959,616. In 1994, the general appropriations increased to $94,398,155, with the total police budget expanding to $10,236,595. The general appropriations percent rose by 16.13 percent, with the total police budget gaining a 28.61

percent of change. The large increase in the police budget coincided with decreasing UCR crime rates in all crime categories.

The next time period, between 1994 and 1997, reveals another staggering total police budget escalation that will also be repeated in Newark and Jersey City. The general appropriations budget only increased 14.73 percent to $108,300,592 in 1997, which is lower than the 16.3 percent change from 1991 to 1994. The total police budget, however, increased from $10,236,585 in 1994 to $18,440,035 in 1997, an upwards movement of $8,203,450, or 80.14 percent.

Introspective, the period of 1991 to 1997, the general appropriations budgets increased 33.23 percent. During that same period, the total police budgets percent of change increased an enormous 131.67 percent. The largest growth occurred from 1994 to 1997; the period during the New York City Police Department's initial implementation of the Compstat program.

2. The City of Hoboken Budgets

Table 9.2: City of Hoboken General and Police Department Budgets from 1991 to 1997

City of Hoboken Budget		
Year	General Appropriations	Total Police
1991	38,882,971	4,081,570
1994	50,758,477	7,780,543
% Change	30.54	90.63
1994	50,758,477	7,780,543
1997	55,393,997	8,040,375
% Change	9.13	3.34
1991	38,882,971	4,081,570
1997	55,393,997	8,040,375
% Change	42.46	96.99

Table 9.2 shows the general appropriations and total police portion of the Hoboken budgets in 1991, 1994 and 1997. The dollar amounts were converted from nominal value to real value using the Consumer Price Index (CPI). The table also gives the percent of change between 1991 and 1994, 1994 and 1997 as well as the total percent of change between 1991 and 1997.

In 1991, the general appropriations budget for Hoboken was $38,882,971 with a total police budget of $4,081,570. In 1994, the general appropriations budget advanced to $50,758,477 while the total police budget swelled to $7,780,543. Respectively, the additions are 30.54 percent for the general appropriations budget and 90.63 percent for the police budget. The latter grew two times faster than the former.

The next time period, between 1994 and 1997, reflects smaller expansions in both budgets. By 1997, the general appropriations budget increased to $55,393,997 for a 9.13 percent change over 1994. The total police budget increased to $8,040,375 for a 3.34 percent growth, significantly lower than the 90.63 percent increase between 1991 and 1994.

Overall, the period from 1991 to 1997 illustrated an upsurge of 42.46 percent for the general appropriations budget. During that same time period, the total police budget increased a larger 96.99 percent, but mostly between 1991 and 1994.

3. The Jersey City Budgets

Table 9.3: Jersey City General and Police Department Budgets from 1991 to 1997

Jersey City Municipal Budget		
Year	General Appropriations	Total Police
1991	254,564,774	29,196,076
1994	280,263,514	41,429,500
% Change	10.10	41.90
1994	280,263,514	41,429,500
1997	281,886,819	60,600,000
% Change	0.58	46.3
1991	254,564,774	29,196,076
1997	281,886,819	60,600,000
% Change	10.73	107.56

Table 9.3 portrays the Jersey City general appropriations budget and its police portion in 1991, 1994 and 1997. The dollars amounts were converted from nominal value to real value using the Consumer Price Index (CPI). The table also gives the

percent of change between 1991 and 1994, 1994 and 1997 as well as the total percent of change between 1991 and 1997.

In 1991, the total general appropriations for Jersey City were $254,564,774 with a total police budget of $29,196,076. The general appropriations in 1994 escalated to $280,263,514, or 10.10 percent, while the police budget increased to $41,429,500, or 41.90 percent. The UCR crime rates decreased for Jersey City during this time period.

The next time period, 1994 and 1997, reveals another jump in the total police budget while the general appropriations had minimal growth. The general appropriations only expanded to $281,886,819, or less than one percent. The total police budget advanced to $60,600,000, or a 46.3 percent increase.

Overall, from 1991 to 1997 the general appropriations budgets increased 10.73 percent, and the total police budget more than doubled to 107.56 percent. Both periods, between 1991 and1997, witnessed over 40 percent buildups in their police budgets.

4. City of Newark Budgets

Table 9.4: City of Newark General and Police Department Budgets from 1991 to 1997

City of Newark Municipal Budget		
Year	General Appropriations	Total Police
1991	371,512,234	46,564,954
1994	398,928,747	56,535,466
% Change	7.38	21.41
1994	398,928,747	56,535,466
1997	399,820,049	85,142,116
% Change	0.22	50.60
1991	371,512,234	46,564,954
1997	399,820,049	85,142,116
% Change	7.62	82.85

Table 9.4 summarizes the general appropriations and total police portion of the city of Newark budget in 1991, 1994 and 1997. The dollar amounts were converted from nominal values to real value using the Consumer Price Index (CPI). The table also presents the percent of change between 1991 and 1994 and between 1994 and 1997, as well as the total percent of change between 1991 and 1997.

In 1991, the total general appropriations budget for Newark stood at $371,512,234 with a total police budget of $46,564,954. In 1994, the general appropriations budget increased 7.38 percent to $398,928,747 with total police budget growing 21.4 percent to $56,535,466.

The period between 1994 and 1997, however, reveals a large growth in the total police budget. The general appropriations increased less than one percent to $399,820,049, while the total police budget jumps 50.6 percent to $85,142,116.

The overall change in the total police budget for Newark from 1991 to 1997 is substantial. That is, the total police budget balloons 82.95 percent. Yet, the general appropriations budget for the City of Newark increases only 7.62 percent from 1991 to 1997.

5. The City of Mount Vernon Budgets

Table 9.5: City of Mount Vernon General and Police Department Budgets from 1991 to 1997

City of Mount Vernon Budget		
Year	General Appropriations	Total Police
1991	45,477,263	10,008,316
1994	44,335,961	9,896,888
%Change	-2.51	-1.11
1994	44,335,961	9,896,888
1997	48,238,055	10,799,345
%Change	8.80	9.12
1991	45,477,263	10,008,316
1997	48,238,055	10,799,345
%Change	6.07	7.90

Table 9.5 charts Mount Vernon's general appropriations budget and the total police portions in 1991, 1994 and 1997. The dollar amounts were converted from nominal values to real value using the Consumer Price Index (CPI). The table also gives

the percent of change between 1991 and 1994 and between 1994 and 1997, as well as the total percent of change between 1991 and 1997.

In 1991, the total general appropriations budget for Mount Vernon was $45,477,263 with a total police budget of $10,008,316. By 1994, the city's budgets declined with the general appropriations budget falling to $44,335,961, or negative 2.51 percent, and the total police portion decreasing to $9,896,888, or negative 1.11 percent.

Between 1994 and 1997, however, both the general appropriations and total police budgets rose. The general appropriations budget enlarged to $48,238,055, or 8.8 percent, while the total police budget escalated to $10,799,345 for a 9.2 percent supplement.

Overall, from 1991 to 1997 the general appropriations budget increased 6.07 percent. During the same time period the total police budget added 7.9 percent, with that proliferation occurring between 1994 and 1997. During this period of growth, the UCR crime rates from 1994 to 1997 for Mount Vernon experienced small decreases in violent and personal crime.

6. The City of New Rochelle Budgets

Table 9.6: City of New Rochelle General and Police Department Budgets from 1991 to 1997

City of New Rochelle Budget		
Year	General Appropriations	Total Police
1991	55,418,577	11,487,783
1994	62,917,339	12,775,977
%Change	13.53	11.21
1994	62,917,339	12,775,977
1997	68,060,600	15,960,136
%Change	8.17	24.92
1991	55,418,577	11,487,783
1997	68,060,600	15,960,136
%Change	22.81	38.93

Table 9.6 presents New Rochelle's general appropriations budget and the police portion in 1991, 1994 and 1997. The dollar amounts have been converted from nominal values to real value using the Consumer Price Index (CPI). The table also gives the percent of change between 1991 and 1994 and between 1994 and 1997, as well as the total percent change between 1991 and 1997.

In 1991, the total general appropriations budget for New Rochelle is $55,418,577 with a police budget share of $11,487,783. By 1994, the general appropriations budget climbs to $62,917,339, or 13.53 percent, while the total police budget grows to $12,775,977, or 11.21 percent greater.

The time period between 1994 and 1997 switches the percentages of change between the general appropriations budget and the police budget. The general appropriations for New Rochelle upsurges to $68,060,600 in 1997, or an 8.17 percent growth, but the police budget escalated to $15,960,136 for a 24.92 percent supplement, or three times more than the total budget.

Put differently, from 1991 to 1997 New Rochelle's general appropriations budget increases 22.81 percent, while the police budget soars 38.93 percent. New Rochelle was the only New York comparison city that employs a city manager form of government. Between 1991 and 1997 New Rochelle had the largest percent increase of all the New York Mayor-Council cities, 14.63 percent above White Plains.

7. The City of White Plains Budgets

Table 9.7: White Plains General and Police Department Budgets from 1991 to 1997

City of White Plains Budget		
Year	General Appropriations	Total Police
1991	66,956,585	14,344,153
1994	68,974,048	15,827,369
% Change	3.01	10.34
1994	68,974,048	15,827,369
1997	81,393,065	17,829,616
% Change	18.01	12.65
1991	66,956,585	14,344,153
1997	81,393,065	17,829,616
% Change	21.56	24.30

Table 9.7 displays White Plains' general appropriations budgets and the police department's portion in 1991, 1994 and 1997. The dollar amounts were converted from nominal values to real value using the Consumer Price Index (CPI). The table also presents the percent changes between 1991 and 1994, 1994 and 1997 as well as the total percent of change between 1991 and 1997.

In 1991, White Plains general appropriations budget stood at $66,956,585 with a police budget of $14,344,153. By 1994, the general appropriations budget improved to $68,974,048, or 3.01 percent, while the police budget expanded to $15,827,369, or 10.34 percent. During this time period, the UCR crime rates decreased in all three crime categories. Compared with New York City, the violent and personal crime rates were much lower.

Between 1994 and 1997, the general appropriations budget had a larger escalation than the police budget. In 1997, the general appropriations budget increased to $81,393,065, or and 18.01 augmentation, whereas the police budget escalated 12.65 percent to $17,829,616.

From 1991 to 1997, however, the police budget had great increases: the police budget enlarged 24.30 percent, but the general appropriations budget grew 21.56 percent. Recall that White Plains' UCR rates in violent and personal crime were extremely low and property crime rates almost disappeared compared to any of the study's cities by 1997.

8. The City of Yonkers Budgets

Table 9.8: City of Yonkers General and Police Department Budgets from 1991 to 1997

City of Yonkers Budget		
Year	General Appropriations	Total Police
1991	367,722,566	32,830,644
1994	410,762,634	35,064,298
% Change	11.70	6.80
1994	410,762,634	35,064,298
1997	431,537,731	39,962,692
% Change	5.06	13.97
1991	367,722,566	32,830,644
1997	431,537,731	39,962,692
% Change	17.35	21.72

Table 9.8 discloses the Yonkers general appropriations budget and the police department portion in 1991, 1994 and 1997. The dollar amounts were converted from nominal values to real value using the Consumer Price Index (CPI). The table also records the percent of change between 1991 and 1994, 1994 and 1997 as well as the total percent of change between 1991 and 1997.

In 1991, the general appropriations budget for Yonkers was $367,722,566 with a police budget of $32,830,644. By 1994, the general appropriations budget jumped to $410,762,634, or 11.7 percent, while the total police budget escalated to $35,064,298, or 6.8 percent.

Between 1994 and 1997, however, the percentages of change reverse between the general appropriations budget and the police budget. Thus, the general appropriations

budget gains 5.06 percent to $431,537,731 in 1997, while the total police budget jumps 13.97 percent to $39,962,692.

Overall, from 1991 to 1997 the general appropriations budget multiplied 17.35 percent, while the police budget advanced 21.72 percent. The bulk of the improvement for the Yonkers police budget came between 1994 and 1997. Yet, this period had low UCR crime rates for violent and personal crimes, and property crime rates were flat.

9. The City of New York Budgets

Table 9.9: City of New York General and Police Department Budgets from 1991 to 1997

City of New York Budget		
Year	General Appropriations	Total Police
1991	27,922,312,622	1,593,244,252
1994	31,269,416,965	1,745,396,397
% Change	11.99	9.55
1994	31,269,416,965	1,745,396,397
1997	32,980,526,390	2,296,080,086
% Change	5.47	31.55
1991	27,922,312,622	1,593,244,252
1997	32,980,526,390	2,296,080,086
% Change	18.12	44.11

Table 9.9 relates New York City's general appropriations budget and the police department's share in 1991, 1994 and 1997. The dollar amounts were converted from nominal values to real value using the Consumer Price Index (CPI). The table also explores the percent of budget change between 1991 and 1994 and between 1994 and 1997, as well as the total percent of budget change between 1991 and 1997.

In 1991, New York City's total general appropriations budget was $27,922,312,622 with a police budget of $1,593,244,252. In 1994, the general appropriations budget enlarged to $31,269,416,965, or 11.99 percent, with a police budget of $1,745,396,397, or a 9.55 percent supplement.

Between 1994 and 1997, however, the police budget escalates considerably more than the general appropriations budget. Thus, in 1997, the general appropriations budget increased 5.47 percent to $32,980,526,390, but the police budget rose 31.55 percent to $2,296,080,086. Even though Compstat program by the New York City Police Department in 1994, and while the UCR crime rates continued to fall in all three categories for New York City, no actual budget figures are available for the program.

Overall, New York City's budgets show large differences between 1991 and 1997. The general appropriations budget increased 18.12 percent and the total police budget gained 44.11 percent. These results show that New York City spent more on its police department subsequent to the implementation of Compstat in 1994.

C. Budget Conclusion

This chapter examined each of the study city's budgets during the time period. The general appropriations budgets and the total police budgets were compared and contrasted for the years 1991, 1994 and 1997. The total police budgets revealed surprising increases in the New Jersey comparison cities. Again, the total police budgets excluded the external grant funding; this will be examined further in Chapter 10 for

budget changes. The general budget appropriations and total police budget (including external grant funding) numbers will be combined in the findings section to test the hypotheses of this study.

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Chapter 10: Community Oriented Policing Services (COPS) Grants

A. Introduction

This chapter will examine the Community Oriented Policing Services (COPS) grants received by each of the study cities. As noted, the COPS hiring grants assisted municipalities in adding additional police officers to combat crime, presumably, to lower crime rates. Funding was available from 1993 to 2014, and the COPS hiring grants allocated funding for up to 75 percent of new-hire officers salary and benefits for three years, after which municipalities would have to maintain the officer's salary and benefits. The municipalities were awarded different amounts of grant funding, but not always to pay for additional police officers. The grants received are discussed for each municipality, as it gives insights into how the municipalities supplemented their budgets from 1993 to 1997. As previously stated, The Department of Justice started issuing COPS grants in 1993, during the study time frame of 1991 to 1997.

The principal sources for Tables 10.1 through 10.9 is the United States Department of Justice Community Oriented Policing Service (COPS), http://cops.usdoj.gov, the principal source of Table 10.10 is the New York Police Department, http://www.nyc.gov//html/nypd, the principal source of Table 10.11 is the municipal budget data for all cities, unless otherwise noted.

B. Individual COPS Grants Awarded to All Cities

1. COPS Grants for the City of Elizabeth, New Jersey

Table 10.1: Community Oriented Policing Services (COPS) Grants for Elizabeth, New Jersey, from 1994 to 1997

Accepted COPS Grants for Elizabeth, New Jersey							
Program	Awarded Date	Type	Officers	Funding		Yearly Funding	Amount
PHASE 1	10/1/1994	Police	5	375,000		1994 Funding:	375,000
AHEAD	4/1/1995	Police	3	225,000		1995 Funding:	342,975
MORE for 1995	12/1/1995	Police	5	117,975		1996 Funding:	750,000
UHP	5/1/1996	Police	10	750,000		Total Funding:	1,467,975

The city of Elizabeth accepted four Community Oriented Policing Services (COPS) grants from the United States Department of Justice between 1994 and 1996. In 1994, the city of Elizabeth was awarded a PHASE 1 grant (a hiring program superseded by the Universal Hiring Grant to add police officers) by adding 5 additional officers with total funding of $375,000. The total 1995 grant allocations offset Elizabeth's total police budgets by $342,975. The 1995 grants included an Accelerated Hiring, Education and Deployment (AHEAD) grant for an additional 3 officers ($225,000) as well as a Making Officer Redeployment Effective (MORE) for 1995 grant for another 5 officers ($117,975). In 1996, Elizabeth accepted a Universal Hiring Program (UHP) grant for 10 additional officers for a total of $750,000.

Many COPS grants were awarded to police agencies nationwide for the purpose of adding new officers, hopefully without major increases to their police budgets. Between 1994 and 1996, the COPS grants added 23 new officers in Elizabeth, with a

total funding allocation of $1,467,975. The total police budgets in Elizabeth had an 80.14 percent increase between 1994 and 1997. The grant funding allotted to the city of Elizabeth does not seem commensurate with the large increases in its total police budgets.

2. COPS Grants for Hoboken, New Jersey

Table 10.2: Community Oriented Policing Services (COPS) Grants for Hoboken, New Jersey, from 1995 to 1997

Accepted COPS Grants for Hoboken, New Jersey							
Program	Awarded Date	Type	Officers	Funding		Yearly Funding	Amount
FAST	3/1/1995	Municipal	3	225,000			
UHP	5/1/1996	Municipal	16	1,200,000		1995 Funding:	225,000
UHP	7/1/1997	Municipal	8	600,000		1996 Funding:	1,200,000
PSP	5/1/1997	Municipal	0	149,893		1997 Funding:	994,143
More for 1996	6/1/1997	Municipal	7.1	176,250			
ACP	10/1/1997	Municipal	0	68,000		Total Funding:	2,419,143

The city of Hoboken received six Community Oriented Policing Services (COPS) grants from the Department of Justice between 1995 and 1997. In 1995, Hoboken was awarded a Funding Accelerated for Smaller Towns (FAST) grant that added three officers with total funding of $225,000. In 1996, Hoboken won a Universal Hiring Program (UHP) grant, adding 16 police officers with total funding of $1,200,000. Awarded four grants in 1997, another UHP grant and a Making Officer Redeployment Effective (MORE) grant, Hoboken added 15.1more police officers with total funding of $776,250. The two other grants received by Hoboken during 1997 included a Problem-Solving Partnerships (PSP) grant for $149,893 and an Advanced Community Policing (ACP) grant for $68,000, neither of which brought any additional police officers. The total funding awarded to Hoboken during 1997 was $994,143.

Overall, Hoboken appeared to use the COPS grants to control crime rates by adding officers. Newark's total police budget increased 3.34 percent between 1994 and 1997 when the COPS grants were added.

3. COPS Grants for Jersey City, New Jersey

Table 10.3: Community Oriented Policing Services (COPS) Grants for Jersey City, New Jersey, from 1993 to 1997

Accepted COPS Grants for Jersey City, New Jersey						
Program	Awarded Date	Type	Officers	Funding	Yearly Funding	Amount
PHASE	12/1/1993	Police	18	1,350,000	1993 Funding:	1,350,000
AHEAD	4/1/1995	Police	21	1,575,000	1994 Funding:	0
MORE for 1995	7/1/1995	Police	8.4	406,242	1995 Funding:	1,981,242
UHP	12/1/1996	Police	19	1,425,000	1996 Funding:	2,368,841
GANGS	6/1/1996	Police	0	499,985	1997 Funding:	326,278
Domestic Violence	6/1/1996	Police	0	182,650		
MORE for 1996	10/1/1996	Police	11.8	261,206	Total Funding:	6,026,361
PSP	5/1/1997	Police	0	125,241		
ACP	10/1/1997	Police	0	201,037		

Jersey City accepted nine Community Oriented Policing Services (COPS) grants between 1993 and 1997 from the United States Department of Justice. The 1993 PHASE grant (a hiring award superseded by the Universal Hiring Program) funds came December 1, 1993. This translated into adding 18 officers in 1994, due to having to send them to a New Jersey Municipal Police Academy and to field train them that takes at least six months. Yet, the 1993 PHASE grant gave Jersey City and additional $1,350,000 savings on its budget that expanded 41.9 percent from 1991 to 1994. This additional funding did not lower the total police budget.

In 1995, Jersey City accepted two grants: an Accelerated Hiring, Education and Deployment (AHEAD) grant for an additional 21 officers ($1,575,000) and a Making Officer Redeployment Effective (MORE) for another 8.4 officers ($406,242). All the 1995 grant allocations offset the total police budget of Jersey City by $1,981,242. This amount, however, did not reduce the police budget that continued to increase from 1994 to 1997.

In 1996, Jersey City received four additional COPS grants adding 30.8 officers from a Universal Hiring Program (UHP) grant and a Making Officer Redeployment Effective (MORE) for 1996 grant. The two other grants were for GANGS (Anti-Gang Initiative) and Domestic Violence. The total amount for COPS-type monies received by Jersey City in 1996 totaled $2,368,841. Again, these additional funds might have reduced the total police budget, but it only multiplied.

In 1997, Jersey City received two additional COPS grants, but neither one added police officers. The two grants included a Problem-Solving Partnerships (PSP) award for $125,241 and an Advancing Community Policing (ACP) funding for $201,037 that totaled $326,278. Even though the amount was a smaller than other New Jersey cites, Jersey City's police budgets continued to rise 46.3 percent from 1994 to 1997. To repeat, Jersey City's total police budgets increased 107.56 percent from 1991 to 1997. The COPS grants received would appear to have little effect on the large escalation in total police budgets.

4. COPS Grants for the City of Newark, New Jersey

Table 10.4: Community Oriented Policing Services (COPS) Grants for Newark, New Jersey, from 1993 to 1997

Accepted COPS Grants for Newark, New Jersey							
Program	Awarded Date	Type	Officers	Funding		Yearly Funding	Amount
PHASE	12/1/1993	Police	24	2,000,000			
AHEAD	4/1/1995	Police	29	2,175,000		1993 Funding:	2,000,000
MORE for 1995	7/1/1995	Police	20	582,197		1995 Funding:	4,867,197
UHP	12/1/1995	Police	15	1,125,000		1996 Funding:	16,894,242
UHP	12/1/1995	Police	13	975,000		1997 Funding:	250,000
UHP	5/1/1996	Police	92	6,900,000			
UHP	9/1/1996	Police	100	7,500,000		Total Funding:	24,011,439
TROOPS	1/1/1995	Police	0	10,000			
Domestic Violence	6/1/1996	Police	0	249,717			
MORE for 1996	10/1/1996	Police	57.5	1,544,325			
MORE for 1996	10/1/1996	Police	0	700,200			
ACP	10/1/1997	Police	0	250,000			

As New Jersey's largest city, Newark won twelve Community Oriented Policing Services (COPS) grants from the Department of Justice between 1993 and 1997. Of the comparison cities, Newark accepted the most grants which added the most officers. From 1993 to 1997, the city of Newark added 350.5 officers through COPS funds.

Newark won a 1993 PHASE grant (a hiring program superseded by the Universal Hiring Program) on December 1, 1993, that added 24 officers and $2,000,000 in funds. In 1995, Newark accepted four new COPS grants that contributed 77 new police officers for total funding of $4,867,197. In addition to the large amount of grant funding from 1993 to 1995, the total police budget grew rapidly.

Newark gained six more COPS-type grants in 1996, three of which added 249.5 officers. The total amount of COPS grant funding in 1996 equaled $16,894,242. This

largesse again did little to slow the growth of the total police budget. In 1997, Newark received one more COPS grant for $250,000 without adding officers. The total police budget in Newark increased 50.6 percent from 1994 to 1997. The COPS grants received from 1993 to 1997 totaled $24,011,439, but it is not included total police budget for the city of Newark.

5. COPS Grants for the City of Mount Vernon, New York

Table 10.5: Community Oriented Policing Services (COPS) Grants for Mount Vernon, New York from 1993 to 1997

Accepted COPS Grants for Mount Vernon, New York								
Program	Awarded Date	Type	Officers	Funding				
PHASE	12/1/1993	Police	10	750,000		Total Funding:		750,000

Turning to the New York State study cities, between 1994 and 1997, Mount Vernon was not an active participant in receiving Community Oriented Policing Services (COPS) grants from the Department of Justice. The city received a PHASE award in 1994 (a hiring program that was superseded by the Universal Hiring Program), with total funding of $750,000 that added ten police officers. Between 1991 and 1994, however, Mount Vernon's total police budget percent of change was a minus 1.11 percent, before increasing between 1994 and 1997 to a plus 9.12 percent. Like the other comparison cities in both New York and New Jersey between 1994 and 1997, Mount Vernon increased its total police budgets.

6. COPS Grants for the City of New Rochelle, New York

Table 10.6: Community Oriented Policing Services (COPS) Grants for New Rochelle, New York, from 1994 to 1997

Accepted COPS Grants for New Rochelle, New York							
Program	Awarded Date	Type	Officers	Funding		Yearly Funding	Amount
UHP	12/1/1995	Municipal	5	375,000		1995 Funding:	787,695
MORE for 1995	12/1/1995	Municipal	24.1	412,695		1996 Funding:	88,501
Domestic Violence	6/1/1996	Municipal	0	88,501		Total Funding:	876,196

The city of New Rochelle was a slightly more active grant recipient than Mount Vernon. From 1994 to 1997, it received three Community Oriented Policing Services (COPS) Grants from the Department of Justice. In 1995, New Rochelle won two grants for a total of $787,695. That is, the Universal Hiring Program (UHP) grant and the Making Officer Redeployment Effective (MORE for 1995) grant added 29.1 officers to New Rochelle's police force. In 1996, New Rochelle received a Domestic Violence grant for $88,501 that did not add any additional officers.

These overall police budget escalations for New Rochelle are below the large increases in the New Jersey comparison cities. The time period from 1991 to 1994 showed an 11.21 percent of change in the total police budget. The COPS grant funding awarded to New Rochelle from 1994 to 1997 coincide with a percent increase in the total police budget of 24.92 percent.

7. COPS Grants for the City of White Plains, New York

Table 10.7: Community Oriented Policing Services (COPS) Grants for the City of White Plains, New York, from 1994 to 1997

Accepted COPS Grants for White Plains, New York							
Program	Awarded Date	Type	Officers	Funding		Yearly Funding	Amount
FAST	3/1/1995	Municipal	2	150,000		1995 Funding:	214,775
MORE for 1995	12/1/1995	Municipal	4.3	59,775		1996 Funding:	124,222
TROOPS	1/1/1995	Municipal	0	5,000			
Domestic Violence	6/1/1996	Municipal	0	124,222		Total Funding:	338,997

The city of White Plains won four Community Oriented Policing Services (COPS) grants from the Department of Justice between 1994 and 1997. In 1995, White Plains received three grants for a total of $214,775. First, the Funding Accelerated for Smaller Towns (FAST) grant and then the Making Officer Redeployment Effective (MORE for 1995) grant added 6.3 officers. In 1996, White Plains received a Domestic Violence grant for $124,222; this grant did not add any new police officers.

Overall, the White Plains total police budgets did not witness dramatic increases. That is, the percent of change between 1991 and 1994 was 10.34 percent, followed by a 12.65 percent change between 1994 and 1997. Although White Plains experienced a dramatic decrease in property crime, the UCR rates were low for violent and personal crime.

8. COPS Grants for the City of Yonkers, New York

Table 10.8: Community Oriented Policing Services (COPS) Grants for Yonkers, New York, from 1994 to 1997

Accepted COPS Grants for Yonkers, New York								
Program	Awarded Date	Type	Officers	Funding				
PHASE 1	10/1/1994	Municipal	20	1,500,000		Total Funding:		1,500,000

Along with the city of Mount Vernon in New York, Yonkers received one Community Oriented Policing Services (COPS) grant from the Department of Justice from 1994 to 1997. This PHASE1 grant (a hiring program superseded by the Universal Hiring Program), came to Yonkers in 1994. Yonkers added twenty officers with total funding of $1,500,000.

The total police budget in Yonkers had a 6.8 percent of change from 1991 to 1994 and a 13.97 percent of change between 1994 and 1997. Although the percentages of change doubled during these time periods, Yonkers fell well below budget increases in the New Jersey comparison cities. The UCR crime rates for Yonkers were well below New York City in violent and personal crime rates, and property crime rates were similar, despite the lack of numerous grants and large budget increases in both New York City and the New Jersey comparison cities.

9. COPS Grants for the City of New York, New York

Table 10.9: Community Oriented Policing Services (COPS) Grants for the City of New York, New York, from 1994 to 1997

Accepted COPS Grants for the City of New York, New York							
Program	Awarded Date	Type	Officers	Funding		Yearly Funding	Amount
PHASE 1	10/1/1994	Municipal	28	1,918,505		1994 Funding:	1,918,505
MORE for 1995	7/1/1995	Municipal	1,145	93,398,675		1995 Funding:	93,398,675
UHP	7/1/1996	Municipal	800	60,000,000		1996 Funding:	66,185,409
Domestic Violence	6/1/1996	Municipal	0	168,459		1997 Funding:	83,647,931
MORE for 1996	10/1/1996	Municipal	133.5	3,204,450			
MORE for 1996	10/1/1996	Municipal	0	2,812,500		Total Funding:	245,150,520
UHP	4/1/1997	Municipal	800	60,000,000			
PSP	5/1/1997	Municipal	0	150,000			
ACP	10/1/1997	Municipal	0	997,931			
UHP	12/1/1997	Municipal	300	22,500,000			

New York City received ten Community Oriented Policing Services (COPS) grants from the Department of Justice between 1994 and 1997. The total amount of COPS funding received by New York City between 1994 and 1997 was $245,150,520. The number of new police officers added by these grants equaled 3,073. While this seems to be a large amount, it represents less than ten percent of officers in the NYPD by 1997. In 1994, New York City added 28 police officers through a PHASE 1 grant (a hiring program superseded by the Universal Hiring Program) with total funding of $1,918,505. In 1995, a Making Officer Redeployment Effective (MORE for 1995) award to New York City added 1,145 more police officers for a total funding of $93,398,675. In 1996, New York City won four more COPS grants, including a Universal Hiring Program (UHP) grant that tagged on 800 additional officers ($60,000,000) and a MORE for 1996 grant to add 133.5 officers ($3,204,450). In 1997, New York City benefited

from four additional grants, including two UHP grants to hire 1,000 additional officers at a funding of $82,500,000.

Table 10.10: New York Police Department Staffing Levels - 1991 to 1997

NYPD Staffing 1991 - 1997								
		NYPD Borough Enforcement Staffing for Calender Years						
Year	Patrol	Detective	Narcotics	Vice Division	Housing	Transit	Total	Dept Headcount (Sworn)
1991	16532	1916	1071	187	*	*	19706	26939
1992	17223	2032	1019	161	*	*	20435	27813
1993	17837	2152	1080	163	*	*	21232	28535
1994	19096	2209	1093	165	*	*	22563	30346
1995	19446	2316	1162	162	1993	2791	27870	36326
1996	18956	2345	1954	147	1883	2540	27825	37525
1997	19328	2649	2013	128	1702	2411	28231	38052
* Prior to merger with former HAPD (Housing) and TAPD (Transit)								

The New York Police Department (NYPD) merged with Housing and Transit police departments in 1995. The 1995 staffing level of sworn personnel in the NYPD was 36,326. By 1997, the number totaled 38,052, an increase of 1,726. In effect, by 1997, the NYPD added less than ten percent of the new hires via COPS grants.

The total police budget for New York City expanded 9.55 percent from 1991 to 1994. If the police budget multiplied by 31.55 percent from 1994 to 1997, it reflected the costs of adding 4,633 new officers. The New Jersey comparison cities budgets increased by much larger percentages, without the large police officer increases the NYPD had.

10. COPS Grants Included in Budget Data

Recall that in the budgeting section (Chapter 9) we indicated that the external grant funding provided police departments with capital to spend on new officers. Table 10.11 shows the total police budgets with and without the external COPS hiring grants.

Table 10.11: All Cities Budgets Percent of Change Including COPS Grants from 1991 to 1997

All Cities Budgets: Percent of Change Including COPS Grants				
Municpality	Year	GA % Change	TP % Change	TP % Change (With Grants)
Elizabeth, NJ	1991-1994	16.13	28.61	28.61
	1994-1997	14.73	80.14	75.36
	1991-1997	33.23	131.67	125.52
Hoboken, NJ	1991-1994	30.54	90.63	90.63
	1994-1997	9.13	3.34	-2.77
	1991-1997	42.46	96.99	85.35
Jersey City, NJ	1991-1994	10.10	41.90	40.36
	1994-1997	0.58	46.30	44.90
	1991-1997	10.73	107.56	103.37
Newark, NJ	1991-1994	7.38	21.41	19.98
	1994-1997	0.22	50.60	39.99
	1991-1997	7.62	82.85	67.96
Mount Vernon, NY	1991-1994	-2.51	-1.11	-3.61
	1994-1997	8.80	9.12	11.95
	1991-1997	6.07	7.90	7.90
New Rochelle, NY	1991-1994	13.53	11.21	11.21
	1994-1997	8.17	24.92	22.87
	1991-1997	22.81	38.93	36.65
White Plains, NY	1991-1994	3.01	10.34	10.34
	1994-1997	18.01	12.65	12.20
	1991-1997	21.56	24.30	23.80
Yonkers, NY	1991-1994	11.70	6.80	5.28
	1994-1997	5.06	13.97	15.62
	1991-1997	17.35	21.72	21.72
NYC, NY	1991-1994	11.99	9.55	9.55
	1994-1997	5.47	31.55	28.52
	1991-1997	18.12	44.11	40.80
*GA = General Appropriations				
*TP = Total Police				

Table 10.11 shows the percent change in the total police budgets for all cities from 1991 to 1997. The COPS hiring program started in 1994, but some hiring grants were awarded in December of 1993. These funds were applied to the 1994 budgets; therefore, the inclusion of the external grant funding effects the time periods of 1994 to 1997 and 1991 to 1997.

The New York comparison cities exhibited nominal changes in total police budgets with the inclusion of the COPS funding from 1994 to 1997. Each New York comparison city had a change of 2 percent or less in their total police budgets, indicating that even with the inclusion of the COPS grants, the New York comparison cities were still substantially below the New Jersey comparison cities. New York City's total police budget was still above the New York comparison cities, even with the inclusion of the COPS hiring grants.

Turning to the New Jersey comparison cities total police budgets, the inclusion of the external COPS grant funds lowered their total police budgets, yet they were still considerably higher than New York City and the New York comparison cities. The exception between 1994 and 1997 remained Hoboken, whose total police budget (with the inclusion of the COPS grants) fell from 3.34 percent to minus 2.77. However, Hoboken's percent of total police budgets from 1991 to 1997 remained cumbersome at 85.35 percent. Newark also experienced declines in their total police budgets with the inclusion of the COPS grants, from 50.6 percent in 1994 to 39.99 percent in 1994. Yet, Newark also added a greater number of police officers than the other New Jersey or New York comparison cities. The cities of Elizabeth and Jersey City did not experience notable changes between 1994 and 1997.

In sum, the inclusion of the external grant funding did little to alter the New Jersey comparison cities large total police budgets. The New Jersey comparison cities total police budgets remained above New York City and the New York comparison cities.

C. COPS Grants Conclusion

The number of COPS grants varied between the study cities. All the police departments added officers with the grant funding. As mentioned in the crime in the 1990s section, some believe the additional officers were instrumental in lowering crime rates across the nation. It is interesting to note that the New Jersey comparison cities added more or as many officers as the New York comparison cities, yet the crime rates did not drop by greater margins. At the same time, the New Jersey comparison cities total police budgets increased by much greater margins during the study period.

Chapter 11: Findings

A. Introduction

This chapter discusses the findings related to three areas: the demographic variables, the UCR crime rate data and the municipal budget data. The combination of these variables for all of the study cities allows for greater discernment for a comparative, regressive and correlational analysis of the data. Correspondingly, the study hypotheses can now be more fully tested.

B. US Census Data – Demographic Variables

The US Census data provided basic information in comparing New York City across all the comparison cities. The census data was used as variables to learn whether changes occurred during the study time period between 1991 and 1997. The census data were gathered pre- and post- 1994, which is the start-year for the Compstat program in New York City. This chapter examines the census data in three categories: population, economic factors and education. These categories serve as a baseline to compare the New York and New Jersey comparison cities against each other and New York City.

The principal sources for Tables 11.1 through 11.3 is the US Census 1990 and 2000, http://www.census.gov, and Charts 11.1 through 11.6 is the Federal Bureau of

Investigation (FBI) UCR statistics, http://fbi.gove/stat-services/crimestats, and the sources for Table 11.4 are the local budgets of the nine study cities, unless otherwise noted.

1. Variable One: Total Population

The first variable is the total population of each city in this study. The absolute number of residents is not important in this study; the area of interest is the relative percentage of change in the total population between 1990 and 2000. The percentage of change indicates whether residents arrived or departed before and after Compstats was introduction in New York City in 1994.

Table 11.1: Combined US Census Data for Study Cities from 1990 to 2000

Combined Cities US Census Data - Population				
City	Year	Total Population		% Change
NEW YORK				(1990-2000)
Mount Vernon	1990	67,153		1.8%
	2000	68,381		
New Rochelle	1990	67,265		7.3%
	2000	72,182		
White Plains	1990	48,718		8.9%
	2000	53,077		
Yonkers	1990	188,092		4.3%
	2000	196,086		
NEW JERSEY				
Elizabeth	1990	110,002		9.6%
	2000	120,568		
Hoboken	1990	33,397		15.5%
	2000	38,577		
Jersey City	1990	553,099		1%
	2000	608,975		
Newark	1990	1,915,928		6.1%
	2000	2,032,989		
New York City	1990	8,546,846		9%
	2000	9,314,235		

Table 11.1 represents the combined US Census data from 1990 and 2000, and shows the percent of change in population for all the study cities. Table 11.1 combines the data to determine if any population changes occurred between the comparison cities and New York City.

The results are varied. The cities of Mount Vernon in New York and Jersey City in New Jersey had small percentages of population change between 1990 and 2000. Yonkers had the next smallest percent of change at 4.3 percent, which was lower than all other cities.

The main grouping of population change had four comparison cities within three percent of New York City. New York City experienced a 9 percent change in population between 1990 and 2000. The cities of New Rochelle and White Plains in New York, and the cities of Elizabeth and Newark in New Jersey, fell within that range during the time period.

The highest percent of population change belonged to the City of Hoboken, New Jersey, that had a 15.5 percent change. Excluding Jersey City and Mount Vernon, the New Jersey comparison cities experienced steeper population changes than the New York Comparison cities. Not one New York comparison cities achieved the same or greater percentage of population growth than New York City. Elizabeth and Hoboken in New Jersey exceeded the population rise of New York City.

As a variable, population change was of value only in the fact that the New Jersey comparison cities overall experienced higher growth than the New York comparison cities as well as New York City. The overall population did increase between 1990 and 2000 in all of the study cities, but the New Jersey comparison cities grew at a faster pace than the New York Comparison cities.

2. Variable Two: Economic Factors

The US Census data contained many economic features that were relevant in determining whether the New York and New Jersey comparison cities did indeed change during the study period. Many economic theories of crime were examined in the crime spillover and Compstat chapters. Economic factors were cited as a contributing factor to

the declining crime rates in the Crime in the 1990's section. This section looks at the US Census data for 1990 and 2000 to compare differences in population growth patterns.

Table 11.2: US Census Data for Study Cities – Economic Factors (1989 to 2000)

Combined Cities US Census Data - Economic Catagories									
City	Year	Median Family	Poverty Rate		Year	Employed	% Change	Unemployement	Labor Force Change
(NEW YORK)		Income (2009$)	(% of Population)			Residents	(1990-2000)	Rate (%)	(1990-2000)
Mount Vernon	1989	71,143	11.8%		1990	32,520	(-4.7)%	7.4	(-4.9)%
	1999	63,837	14.2%		2000	30,989		7.3	
New Rochelle	1989	95,604	7.6%		1990	35,090	(-3.8)%	5.1	(-4.7)%
	1999	93,648	10.5%		2000	33,763		4.3	
White Plains	1989	98,071	7.7%		1990	26,583	(-0.7)%	5	0
	1999	92,577	9.8%		2000	26,405		5.6	
Yonkers	1989	74,924	11%		1990	89,523	(-5.9)%	6.5	(-5.7)%
	1999	68,550	15.5%		2000	84,212		6.7	
(NEW JERSEY)									
Elizabeth	1989	54,461	16.1%		1990	51,092	(-6.7)%	9.9	(-7.6)%
	1999	49,410	17.8%		2000	47,689		9	
Hoboken	1989	59,380	16.4%		1990	19,226	34%	6.2	31.1%
	1999	86,922	11%		2000	25,661		4.4	
Jersey City	1989	60,987	14.8%		1990	269,310	1%	8.8	0.8%
	1999	56,729	15.5%		2000	271,941		8.7	
Newark	1989	86,580	8.8%		1990	966,146	(-1.7)%	14.7	(-12.8)%
	1999	87,419	9.7%		2000	949,994		16.1	
New York City	1989	64,906	17.5%		1990	3,891,914	(-0.1)%	9	1.1%
	1999	59,842	19.5%		2000	3,893,072		9.6	

The New Jersey and New York comparison cities are compared with each other and with New York City. The economic variables include: median family income and poverty rates from 1989 and 1999, employed residents, unemployment rates and labor force changes from 1990 and 2000.

Median family income shows some movement with declines in all of the New York comparison cities. The New Jersey comparison cities are about equally divided in median family incomes. They increased and decreased equally. Both Hoboken and Newark had escalations in their family incomes, with Hoboken having a large upsurge. The decreases in the New Jersey comparison cities occurred in Elizabeth and Jersey City,

where the industrial bases began eroding from the 1970s. New York City had a decline in family income from 1989 to 1999.

The poverty rates were almost a constant variable between the cities. The only city not to experience an increase in the poverty rate was Hoboken in New Jersey, largely because employment occurs in New York City. The upsurge in the poverty rates would intuitively suggest expanses in criminal activity, but that was not the norm as the UCR crime rates will bare out later

Resident employment between the 1990 and 2000 is the next economic factor considered. As Table 11.2 shows, the New York comparison cities all experienced decreases in the numbers of employed residents between 1990 and 2000. The City of White Plains was the lowest, while the other cities stayed within minus two percent of each other from 1990 to 2000. The New Jersey comparison cities again differed from the New York comparison cities in employment. Hoboken and Jersey City had increases in the number of employed residents, with Hoboken having a large uptick and Jersey City having a 1 percent rise. The city of Elizabeth employment fell the largest of all cities with minus 6.7 percent and Newark had a small decrease of minus 1.7 percent. New York City had a negligible change, indicating that it did not experience the declines of the New York comparison cities. The New Jersey comparison cities remained the only cities to show employment increases at the same time also having the largest decrease.

The unemployment rates were the next census variable. The New York comparison cities were mixed with Mount Vernon and New Rochelle experiencing declines in unemployment rates, while White Plains and Yonkers had escalations. The

New Jersey comparison cities had declines, except for Newark that had a 1.4 percent growth in the unemployment rate between 1990 and 2000. New York City had a 0.6 percent increase in their unemployment rate during this time period. Overall, unemployment rates were in a similar range between all of the cities in this study.

The last of the economic variables was the labor force percent of change. The New York comparison cities had negative labor force changes within negative one percent of each other, except for White Plains that underwent no change. The New Jersey comparison cities experienced mixed results. Elizabeth and Newark had the largest declines in labor forces, larger than the New York comparison cities. Hoboken had a large 31.1 percent increase in the labor force, while Jersey City had an addition of 0.8 percent. New York City had a positive 1.1 percent labor force change. Excluding Hoboken, the other cities either experienced no change, small increases, or suffered negative changes to their labor forces from 1990 to 2000.

3. Variable Three: Education

Educational attainment has been cited as a factor in preventing crime. Some believe that education reduces crime and gives opportunities that otherwise would be lost to citizens who would not be able to get jobs and advance in life, thus leading to an easier path to crime and incarceration. The census data gives the percent of residents in each city having no education to others achieving higher college degrees.

Table 11.3: US Census Data for Cities – Education (1990 to 2000)

Combined Cities US Census Data - Education					
City	Year	No High	High School	Some	College
(NEW YORK)		School	Graduate	College	Graduate
Mount Vernon	1990	29.2	29.6	20.7	20.4
	2000	25.6	26.5	23.7	24.2
New Rochelle	1990	21.8	25.2	19.7	33.3
	2000	20	23.2	18.5	38.3
White Plains	1990	19.7	22.2	20.6	37.5
	2000	18	19.8	21.1	41.1
Yonkers	1990	26.4	31.6	20.1	21.9
	2000	23.3	29.3	22.6	24.8
(NEW JERSEY)					
Elizabeth	1990	41.5	31.4	15.6	11.5
	2000	38.3	32	17.6	12.1
Hoboken	1990	30.2	16.6	13.5	39.7
	2000	16.7	12.1	11.8	59.4
Jersey City	1990	35.9	28.3	16	19.7
	2000	29.5	26.8	18.4	25.3
Newark	1990	23.5	29.4	20.2	26.9
	2000	18.4	27.9	22.1	31.5
New York City	1990	29.7	26.2	19.4	24.6
	2000	26	24.2	20.7	29.2

Table 11.3 gives the US Census data in all the study cities for educational status from 1990 to 2000. The education data will be contrasted between the comparison cities as well as with New York City.

The percentage of residents without a high school education decreased in all cities. This can be seen as a positive trend for each city. Differences occurred in the percentage of residents with a high school education. The New York comparison cities all experienced declines in the number of residents with a high school education between

1990 and 2000. In New Jersey, only Elizabeth had an increase in residents with a high school education. Like all other comparison cities, excluding Elizabeth, New York City had a decline in having a high school education.

The percentage of residents with some college produced mixed results among the cities. Cities experiencing positive increases included: New York City, Mount Vernon, White Plains and Yonkers in New York, as well as Elizabeth, Jersey City and Newark in New Jersey. The city manager cities of New Rochelle and Hoboken had declines in the percentage of residents with some college.

The last education variable was the percentage of residents with a college education. This variable showed positive increases in all of the study cities. Overall, the education variable did not reveal any deviations out of the norm. Educational attainment did not appear to be a strong factor in this study between the cities in regards to crime rates.

C. UCR Findings: All Cities

The research questions of this study stated:

To what extent did the reported achievements of the New York City Police Department's Compstat program in reducing crime rates lead to a criminal spillover/displacement in the surrounding communities in New York State and New Jersey?

If crime rates increased, did the municipalities respond by augmenting their police budgets?

This question has been explored in the New York and New Jersey comparison cities by comparing: (1) the demographic data, (2) UCR crime rate data, and (3) budgeting data to determine whether any differences among the cities appear. The cities were also individually compared to New York City to explain whether similarities and dissimilarities surfaced from 1994 to 1997.

Chart 11.1: Combined Violent Crime Grouping UCR Data Table for Mayor Council Cities from 1991 to 1997

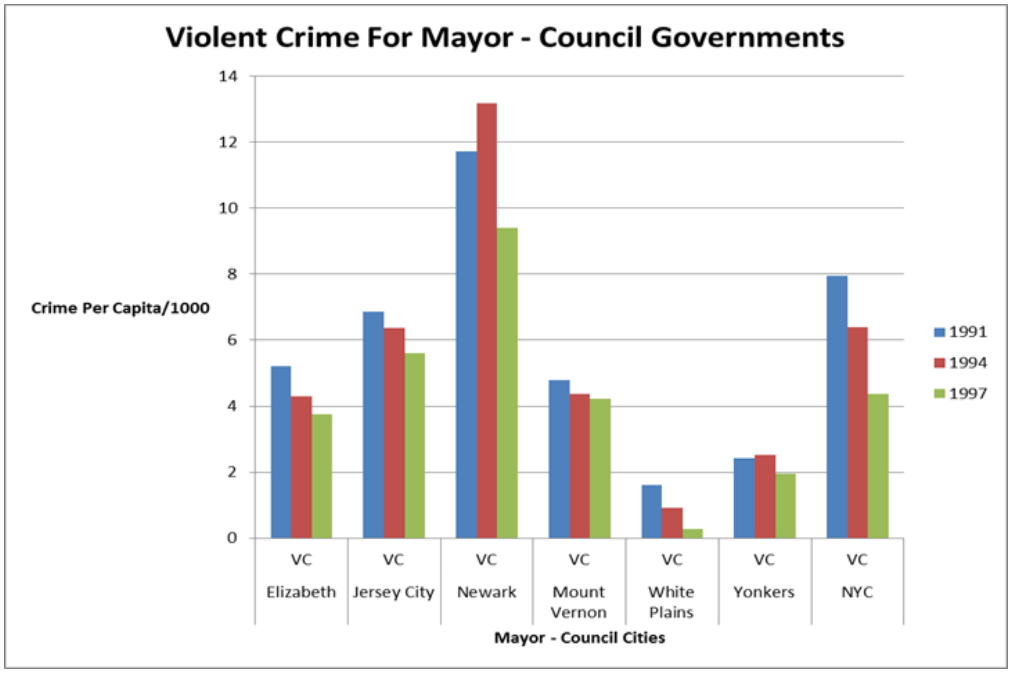
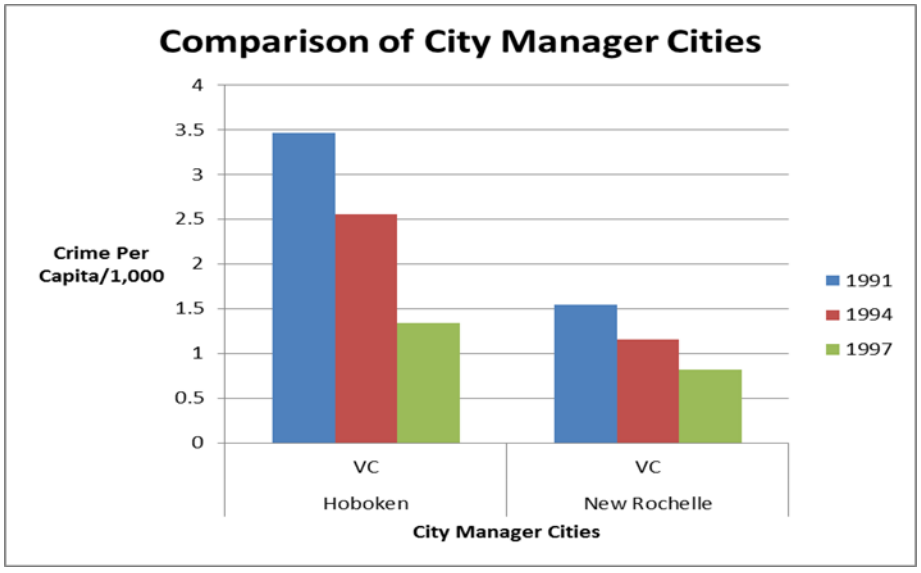


Chart 11.1 shows the rates of violent crime in the mayor-council cities from 1991 to 1997 in New York and New Jersey. As illustrated, the New York mayor-council comparison cities had lower percentages of violent crime rates per 1,000 residents than the New Jersey mayor-council comparison cities, even lower rates than New York City. With the exception of Mount Vernon and Elizabeth, who were similar, the other two New York comparison cities were much lower than their New Jersey counterparts.

Chart 11.2: Per-Capita UCR violent crime rates for City Manager cities, New Rochelle and Hoboken, from 1991 to 1997



Turning to the city manager comparison in violent crime rate from 1991 to 1997, Table 11.5 shows that Hoboken (New Jersey) and New Rochelle (New York) follow the same pattern as the mayor council cities. Between the city manager cities, Hoboken had higher violent crime rates per 1,000 residents in each year from 1991 to 1997.

Violent crime rates per1000 residents in the New York and New Jersey comparison cities and the City of New York yielded one similarity: violent crime rates decreased in all cities from 1991 to 1997. The difference lies in the overall numbers of violent crime in each state. The New York comparison cities fell but had much lower violent crime rates than the New Jersey comparison cities as well as New York City. The New Jersey comparison cities had higher violent crime rates even considering the downturn in violent crime in all cities. Violent crime in the city of Newark, New Jersey, however, was much higher than New York City in all years, with only Jersey City higher

in 1997. This would indicate that the New Jersey cities exceed the New York comparison cities in violent crime rates, with the exception of Mount Vernon, that was similar to Elizabeth. The violent crime rates had a similar pattern for the city manager cities as well.

Chart 11.3: Combined Personal Crime Per Capita Rate for Mayor-Council Cities from 1991 to 1997

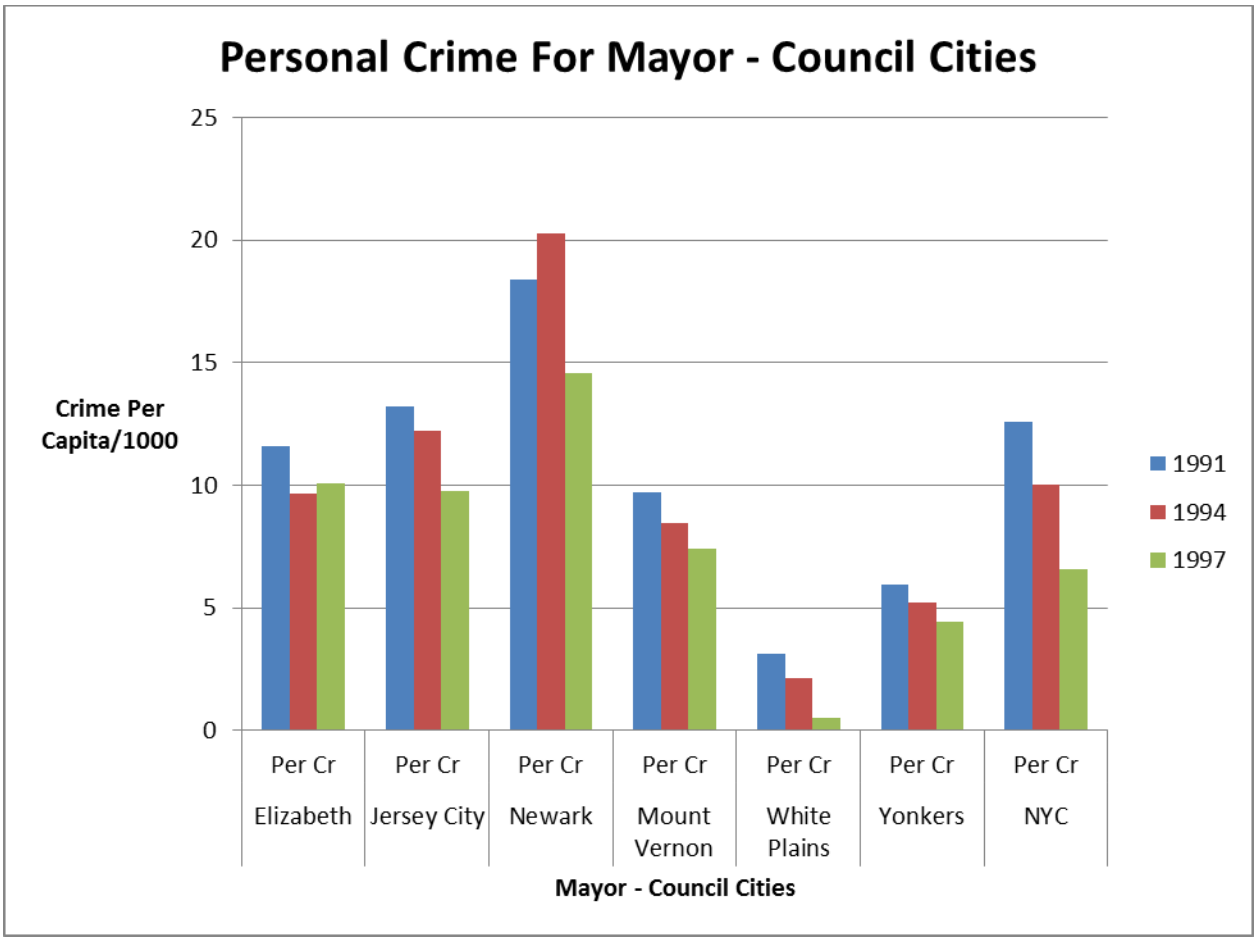


Chart 11.3 summarizes the UCR personal crime rates for the study's mayor-council cities from 1991 to 1997. It shows that the three New Jersey mayor-council comparison cities own much larger percentages of personal crime rates per 1,000

residents than the New York comparison cities. In 1991, personal crime rates in New York City were similar to the cities of Elizabeth and Jersey City, but were considerably lower than those in Newark. At this time the personal crime rates in the New York comparison cities were lower, especially in White Plains and Yonkers. In 1994, all but one of the cities saw declines in the personal crime rates; Newark witnessed an increase. By 1997, New York City's personal crime rates enjoyed a decline that put its rates lower than all the New Jersey comparison cities. Both White Plains and Yonkers personal crime rates, however, remained much lower than New York City's. Mount Vernon's rates did not fall below New York City's.

Chart 11.4: Per Capita UCR Personal Crime Rates for City Manager Comparison Cities from 1991 to 1997

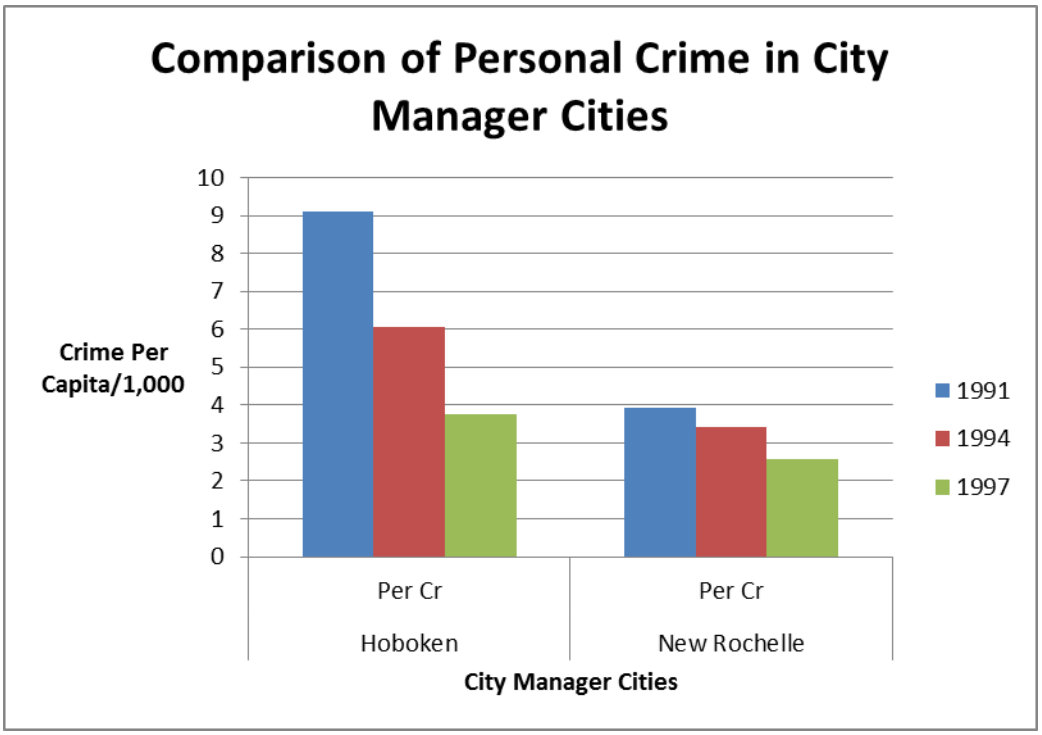


Chart 11.4 depicts personal crime rates of the city-manager cities of Hoboken, New Jersey, and New Rochelle, New York, from 1991 to 1997. It demonstrates that personal crime rates in both cities remained lower than New York City between 1991 and 1997 as indicated in the prior Chart 11.3. Overall, the personal crime rates in New Rochelle were lower than Hoboken's during this time period, but both remained lower than New York City.

To sum up, the UCR personal crime rates for New York City and the New York and New Jersey comparison cities reveal varying results. All of the New York Mayor-Council comparison cities as well as both city manager cities had lower personal crime rates in 1991 that remained below New York City in 1994. Although all the New York comparison cities exhibited declines between 1991 and 1997, Mount Vernon's personal crime rate ended up higher than New York City's rate in 1997. The New Jersey comparison cities personal crime rates were notably varied between 1991 and 1997. The city of Hoboken had the lowest rates; they started and ended lower than New York City's rates. The city of Elizabeth fell between 1991 and 1994, and then increased by 1997, which outranked New York City. Jersey City's personal crime rates equaled New York City's in 1994; its rates declined in 1997, but stayed above New York City's. Newark is again possesses the highest personal crime rates of all the cities. Its personal crime rate started with the large margin in 1991, and then escalates in 1994, before dropping but remaining high in 1997. As with the UCR violent crime rates, the personal crime rates indicate that the New York comparison cities are lower than their New Jersey counterparts. They were largely lower than New York City, regardless of their government type.

Chart 11.5: Per Capita UCR Property Crime Rates for Mayor-Council Cities from 1991 to 1997

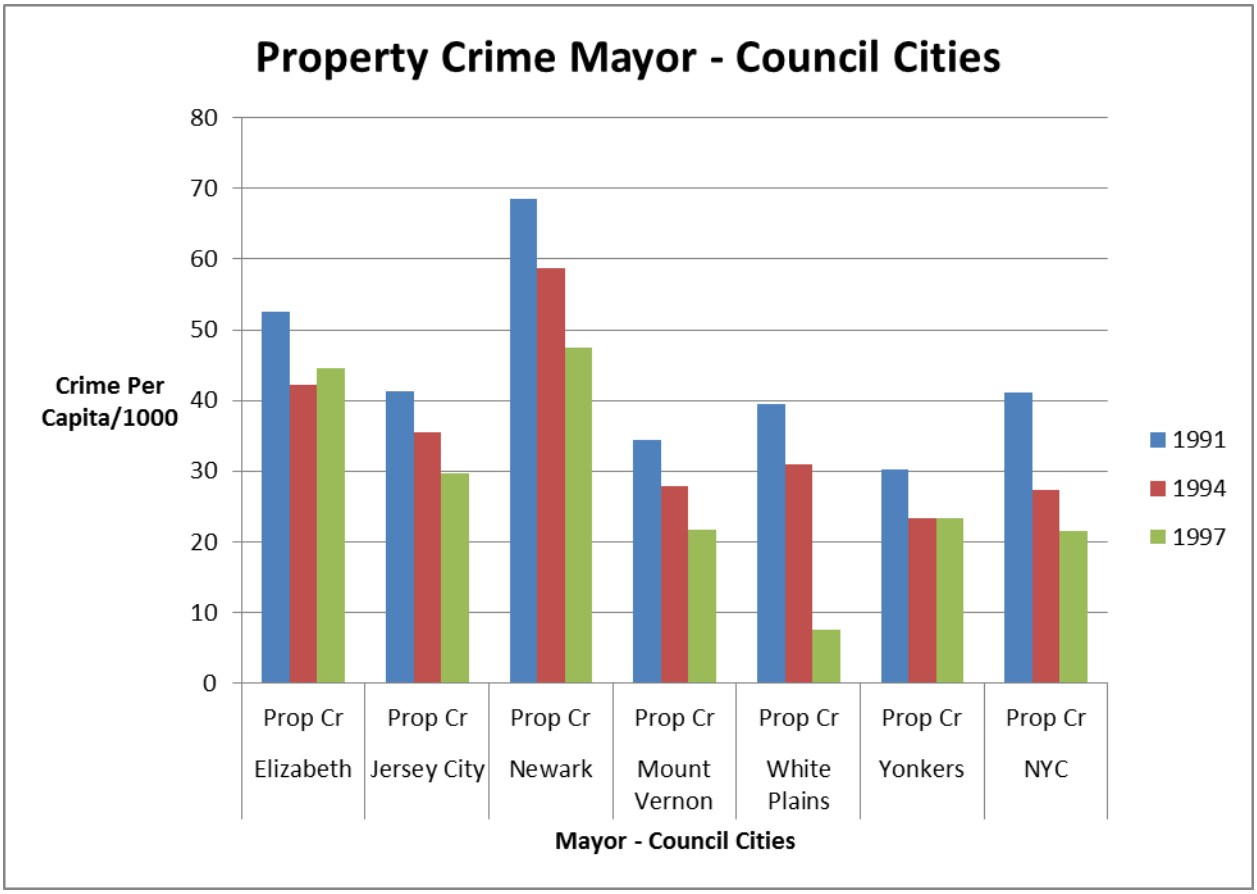


Chart 11.5 discloses UCR property crime rates for the New Jersey Mayor-Council cities from 1991 to 1997. It divulges that the New Jersey comparison cities have larger percentages of property crime than the New York comparison cities, as well as New York City. Newark again starts and ends with the highest percentages of property crime. The city of Elizabeth had the second largest comparative amount of property crime, dropping in 1994 before increasing again by 1997. Jersey City experienced decreases in 1994 and 1997, but remained higher than New York City in 1994 and 1997. The New York Mayor-Council comparison cities all started with lower property crime rates in 1991 than

the New Jersey cities, decreasing by 1994, except for Mount Vernon and White Plains where the property crime rates remained higher than New York City's. By 1997, White Plains had dropped considerably lower than the other New York comparison cities as well as New York City. The cities of Mount Vernon and Yonkers had similar property crime rates to New York City by 1997.

Chart 11.6: Per Capita UCR Property Crime Rates for City Manager Cities from 1991 to 1997

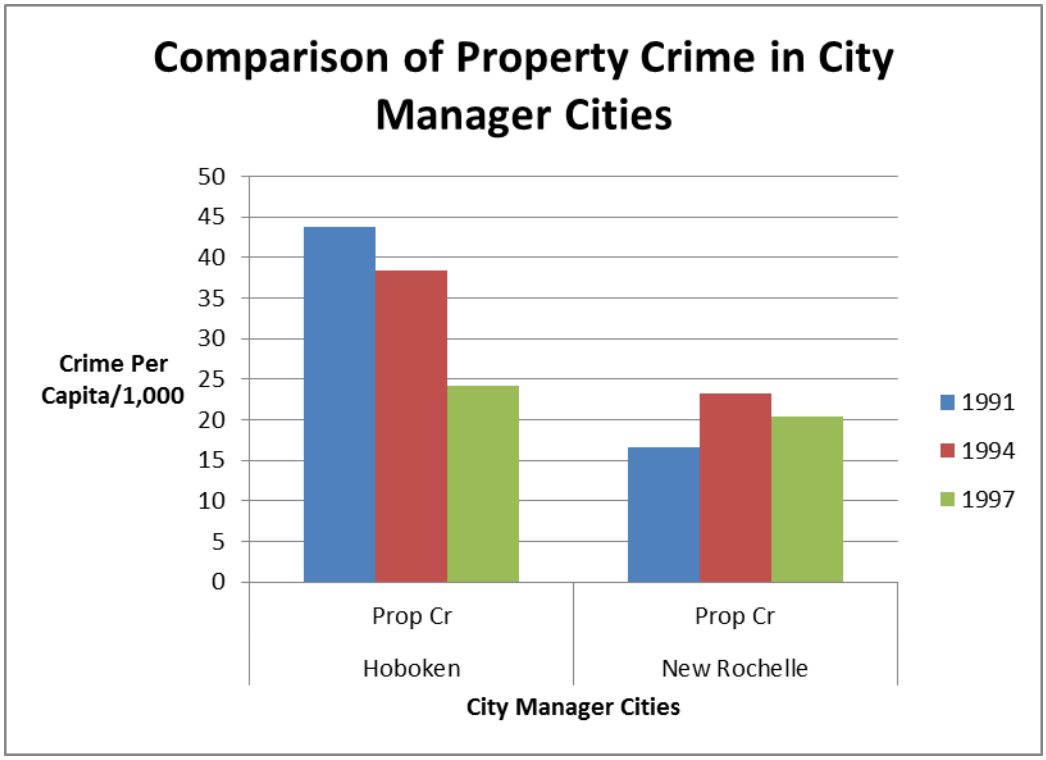


Chart 11.6 expresses property crime rates for the city manager cities in New York and New Jersey from 1991 to 1997. It indicates that property crime rates in the city manager cities are higher than the violent and personal crime rates. In 1991, Hoboken and New York City had similar property crime rates. In 1994, both cities property crime rates dropped, more so in New York City. By 1997, each dropped, but New York City's

rates remained lower. New Rochelle's property crime rates were lower than New York City's between 1991 and 1997. The difference with New Rochelle is that the rates were actually lower in 1991, escalated by 1994, before decreasing but remaining higher in 1997 than 1991.

Overall, the property crime rates indicate the same trend as the violent and personal crime rates. The property crime rates were similar or lower in each of the New York Comparison cities, regardless of the government type. The New Jersey comparison cities all had higher property crime rates than New York City and the New York comparison cities.

D. Combined Budget Data for all Cities

The budgeting aspect of this study became a focal point in determining if Compstat did create crime spillover on neighboring jurisdictions. Budgets reflect the effectiveness and efficiency of a municipality, ultimately illuminating their performance, thus revealing if the municipalities engender public accountability. As H4 asks: Did the neighboring comparison cities budgets increase after the implementation of the Compstat program in New York City? Did budgets become an indicator of a municipality's efficiency, effectiveness and performance in regards to police accountability?

The budgets for each city have been individually identified and scrutinized in chapter 9 and chapter 10. This section now combines the budget data to identify budgeting trends for the New York and New Jersey comparison cities in conjunction with

the budget data for New York City. As previously discussed, there were limitations to this budget data due to its age and consistency between agencies. The general appropriations budgets and total police budgets were utilized to illustrate the budgetary conditions in a comparable manner.

Table 11.4: Municipal Budgets for New York City and Comparison Cities from 1991 to 1997

All Cities Budgets: Percent of Change Including COPS Grants				
Municpality	Year	GA % Change	TP % Change	TP % Change (With Grants)
Elizabeth, NJ	1991-1994	16.13	28.61	28.61
	1994-1997	14.73	80.14	75.36
	1991-1997	33.23	131.67	125.52
Hoboken, NJ	1991-1994	30.54	90.63	90.63
	1994-1997	9.13	3.34	-2.77
	1991-1997	42.46	96.99	85.35
Jersey City, NJ	1991-1994	10.10	41.90	40.36
	1994-1997	0.58	46.30	44.90
	1991-1997	10.73	107.56	103.37
Newark, NJ	1991-1994	7.38	21.41	19.98
	1994-1997	0.22	50.60	39.99
	1991-1997	7.62	82.85	67.96
Mount Vernon, NY	1991-1994	-2.51	-1.11	-3.61
	1994-1997	8.80	9.12	11.95
	1991-1997	6.07	7.90	7.90
New Rochelle, NY	1991-1994	13.53	11.21	11.21
	1994-1997	8.17	24.92	22.87
	1991-1997	22.81	38.93	36.65
White Plains, NY	1991-1994	3.01	10.34	10.34
	1994-1997	18.01	12.65	12.20
	1991-1997	21.56	24.30	23.80
Yonkers, NY	1991-1994	11.70	6.80	5.28
	1994-1997	5.06	13.97	15.62
	1991-1997	17.35	21.72	21.72
NYC, NY	1991-1994	11.99	9.55	9.55
	1994-1997	5.47	31.55	28.52
	1991-1997	18.12	44.11	40.80
*GA = General Appropriations				
*TP = Total Police				

Table 11.4 portrays the combined municipal budgets for all study cities from 1991 to 1997, including the total police budgets with external grant funding that will be used in these comparisons. It articulates that discrepancies between the New York and New Jersey comparison cities are evident. The budgetary findings are expectedly revealing in the performance of the New Jersey comparison cities' total police budgets, notably between 1994 and 1997.

From 1991 to 1997, each New Jersey comparison city developed larger total police budget percentage increases than the New York Comparison cities, as well as New York City. The city of Hoboken was the one anomaly in that its major increase occurred between 1991 and 1994 when the total police budget moved up by 90.63 percent. Between 1994 and 1997, however, Hoboken's total police budget decreased by 2.77 percent. Jersey City had a large total police budget increase in the time period, ultimately resulting in a 103.37 percent increase from 1991 to 1997. With a police budget upward change of 125.52 percent between 1991 and 1997, Elizabeth had a large 75.36 percent increase in their police budget between 1994 and 1997. Newark's biggest rise in its police budgets occurred between 1994 and 1997, resulting in a 39.99 percent boost, with an overall increase of 67.96 percent between 1991 and 1997

The rise in the New York comparison cities fell far below the New Jersey cities. Mount Vernon had the smallest total police budget increase of 7.90 percent between 1991 and 1997. White Plains and Yonkers had proximate police budgets that enlarged respectively 23.80 percent and 21.72 percent, between 1991 and 1997. The largest New York addition to the police budget occurred in New Rochelle which posted a 36.65

percent increase between 1991 and 1997. Generally, these expansions are substantially lower than the New Jersey comparison cities.

New York City had a modest police budget escalation of 9.55 percent between 1991 and 1994. Between 1994 and 1997, however, the police budget increased 28.52 percent. Together, this accounted for a 40.8 percent growth in the police budget between 1991 and 1997. These improvements were higher than the New York comparison cities, but significantly lower than the New Jersey comparison cities.

The police budgets are part of a general appropriation budget. When examining the general appropriations budgets for the New Jersey comparison cities, large discrepancies are evident. In Elizabeth, the general appropriations budget increased 33.23 percent from 1991 to 1997, while the total police budget ballooned 125.52 percent. Hoboken's general appropriations budget rose 41.46 percent while the total police budget increased 85.35 percent during this time period. Jersey City had a 10.73 percent upward change in general appropriations between 1991 and 1997, while the total police budget increased 103.37 percent. Newark had the smallest general appropriations increase of 7.62 percent during this time period, but the police budget escalated to 67.96 percent. These New Jersey disparities are notable given that the police budgets dwarfed the general appropriations budgets, thus questioning the degree to which police funding reflected accountability in reducing crime rates which were lower in the New York comparison cities as well as in New York City.

The general appropriation budgets in the New York comparison cities, as well as in New York City, were more in line with real inflationary numbers. Mount Vernon had

the smallest disparity between general appropriations and total police numbers by 1997, 6.07 and 7.90 respectively. White Plains and Yonkers continued the trend with similar small gaps. New Rochelle had a larger difference, 22.81 and 36.65 in 1997. Similarly, New York City had a general appropriations change of 18.12 percent between 1991 and 1997, with a total police budget change of 40.8 percent.

In conclusion, the New Jersey comparison cities had much larger increases in total police budgets between 1991 and 1997. The difference was disproportionate and indicates that the police departments in New Jersey were spending large amounts to combat crime, yet their performance did not produce equal results contrast with the declines in the New York comparison cities, as well as in New York City. In sum, their performance does not register with the large total police budget allocations between 1991 and 1997.

E. Conclusion

The above comparison of the US Census Data, UCR crime rate data, and the budget data between New York City and the New Jersey and New York comparison cities assists with analyzing the hypotheses. Each study hypothesis will now be subjected to the comparative analysis data.

Chapter 12: Conclusions

A. Introduction

This chapter discusses the combined data from the previous chapters regarding three areas: (1) US Census data demographic variables, (2) UCR crime data and (3) budget data. The limitations of the study data have to be taken into account in treating the hypotheses, in that some of the information lacked consistency. Each hypothesis will be subject to these limitations.

B. Hypotheses

1. H1: Hypothesis - Crime rates increased in the comparison cities after the implementation of Compstat in New York City in 1994. (Crime Spillover)

   Answer: Each crime category will be discussed.

   Violent Crime: The violent crime rates per 1000 residents of the New York and New Jersey comparison cities and the City of New York had one similarity: in all the cities violent crime decreased from 1991 to 1997. The difference exists in the overall numbers of violent crime the cities in each state had. The New York comparison cities fell between 1991 and 1997 but had much lower violent crime rates than the New Jersey comparison cities as well as New York City. The New Jersey comparison cities had higher violent crime rates in 1991 that remained higher even considering the downturn in violent crime in all cities. The city of Newark, New Jersey, stands out. Its violent crime rate was much higher than New York City in all years, though Jersey City was also higher than New York City in 1997. These disparities

indicated that New Jersey exceeded all the New York comparison cities. The violent crime rates for the city manager cities declined as in both states as well from 1991 to 1997.

Personal Crime: The UCR personal crime rates for New York City and the New York and New Jersey comparison cities vary. All of the New York Mayor-Council comparison cities, as well as the city manager control city, New Rochelle, started with lower personal crime rates in 1991 than New York City and remained so disconnected in 1994. Although all the New York comparison cities declined between 1991 and 1997, Mount Vernon's personal crime rate ended up higher than New York City's rate in 1997. The New Jersey comparison cities personal crime rates varied considerably between 1991 and 1997. The city of Hoboken had the lowest personal crime rates that started and ended lower than New York City's. The City of Elizabeth fell between 1991 and 1994, and then increased by 1997, remained higher than New York City's. Jersey City's personal crime rates were similar to New York City's in 1994; the rates then subsided until 1997, but still continued above those of New York City's. Newark again owned the highest rates of all cities. Newark's personal crime rate began the highest by a large margin in 1991, and then shoots up in 1994, before dropping, but remaining large by 1997. In sum, as with the violent crime rates, the personal crime rates indicate that New York's comparison cities have lower rates than their New Jersey counterparts. The rates are mostly lower New York City, regardless of their government type.

Property Crime: Overall, the property crime rates follow the same trend as the violent and personal crime rates. The property crime rates were similar or lower in all of the New York comparison cities from 1991 to 1997, regardless of government type. The New Jersey comparison cities all had higher property crime rates than either New York City's or the state's comparison cities.

Conclusion: The violent crime rates decreased in all cities but remained higher in the New Jersey comparison cities. The New Jersey Mayor-Council cities personal crime rates were greater than New York City, with the exception of Hoboken. Mount Vernon was the only New York comparison city that had higher personal crime rates than New York City by 1997. The property crime rates found the New Jersey comparison cities to be greater than either New York City or the New York comparison cities. With the exception of Mount Vernon in New York, the New Jersey comparison cities had higher crime rates in all categories than the New York comparison cities by 1997.

2. H2: Null Hypothesis – The implementation of the Compstat in New York City in 1994 had no effect on UCR crime rates in the New Jersey or New York comparison cities. The first pass examine the descriptive statistics for the null hypotheses (see answer below). Section C will elaborate on the null hypothesis with regression and correlational statistics. They both come to the same conclusion. They are used separately but essentially reinforce each other.

Answer: On the surface, the UCR crime rates in the New Jersey comparison cities were higher than either New York City's or the New York comparison cities with the exception of Mount Vernon. Yet, since all of the cities' crime rates were in decline between 1994 and 1997, it cannot be stated that NYPD's Compstat itself had any effect on the comparison cities' crime rates.

3. H3: Demographic variables were altered in the comparison cities after the implementation of the Compstat in New York City in 1994. (Negative Externality – Intermediate Variable Spillover)

   Answer: Population Variable - population change was of value only in the fact that the New Jersey comparison cities overall experienced higher growth than the New York comparison cities, as well as New York City. If population did increase between 1990 and 2000 in all of the study cities, the New Jersey comparison cities grew at a faster pace than the New York's comparison cities.

   Economic Variable – produced mixed results. Median family income decreased in all New York comparison cities while New Jersey cities were divided. Poverty rates experienced negative increases in all cities but Hoboken. The numbers of employed residents fell in all New York comparison cities and were split in New Jersey. Unemployment rates increased in all New Jersey cities and were mixed in the New York comparison cities. The labor force percent of change results were mixed in both states' cities.

Education Variable: Overall, the education variable revealed little deviations. Among the cities, educational attainment did not appear to be a strong factor in this study.

Conclusion: The demographic variables did not show enough steadinesses to establish that the introduction of the Compstat program in New York City affected the comparison cities consistently in either state.

4. H4: The general appropriation budgets generally increased in the comparison cities after the implementation of Compstat in New York City in 1994.

   Answer: When examining the general appropriations budgets for the New Jersey comparison cities, large discrepancies are evident. In Elizabeth, the general appropriations budget increased 33.23 percent from 1991 to 1997, while the police budget mushroomed 125.52 percent. Hoboken's general appropriations budget rose 41.46 percent while the police budget increased 85.35 percent during this time period. Jersey City has a 10.73 percent change in general appropriations between 1991 and 1997, while the police budget increased 103.37 percent. Newark had the smallest general appropriations increase of 7.62 during this time period, but the police budget increased 67.96 percent. These disparities are notable given that the police budgets dwarfed the general appropriations budgets, thus questioning whether the New Jersey police funding was accountable to the performance of the police departments in reducing crime.

   The general appropriation budgets in the New York comparison cities, as well as in New York City, were more in line with true inflationary numbers.

Mount Vernon had the smallest disparity between general appropriations and total police numbers, 6.07 and 7.90 in 1997, respectively. White Plains and Yonkers also had similar small gaps. New Rochelle had a larger gap in 1997, 22.81 and 36.65, but is still lower than the New Jersey comparison cities. New York City had a total budget appropriations change of 18.12 percent between 1991 and 1997, with a commensurate police budget change of 40.8 percent.

Conclusion: The general appropriations budgets were more in line with those of New York City during the study period, even between 1994 and 1997.

5. H5: The total police budgets in the comparison cities increased after the implementation of the Compstat in New York City in 1994.

   Answer: The New Jersey comparison cities had much larger increases in police budgets between 1991 and 1997. The difference was immense indicating that the police departments in New Jersey were spending large amounts to combat crime, yet their performance, as measured by crime rates, failed to produce equal results, contrasted with the declines in both the New York comparison cities as well as in New York City. The waning of the UCR crime rates in New Jersey were not equal to those in New York, suggesting that the larger increases in their total police budgets lacked performance accountability. Their performance was not in accord with the much larger police budget allocations between 1991 and 1997.

C. Regression and Correlation of the Null Hypothesis

Using more elaborate statistical analysis of the data failed to show that the NYPD have any spillover effects of Compstat on the comparison cities in accord with the null hypothesis. The total labor participation (TLP) rate was used as an independent variable for several reasons. One, it is a constant formulation across all the cities. Two, any drastic changes would mean workforce members would seek alternative methods of employment, such as turning to crime. Three, the latter possibility relates equally to cities with higher crime rates, especially in New Jersey, such as Jersey City and Newark. Changes in the TLP for these cities would mean that more individuals have dropped out of the labor markets or are finding another way to make a living.

Using labor participation rate as the independent variable (employed and unemployed individuals) on violent crime rates for the year 1991 shows no regression effects on the three composite rates (violent, personal and property crime rates). See Tables 12.1 to 12.3. Secondly, to confirm these results, regressions were run treating the independent and dependent variables in reverse order. See Tables 12.4 to 12.6. Similarly, no statistical significance was found. To examine these results further, a Pearson correlation was run on the fuller data set. See Table 12.7. That is, using the original independent and dependent variable relationships for the 1991, 1994 and 1997 crime rates covering the longer period from 1990 to 2000, once again, establishing no significance.

The principal sources for Tables 12.1 through 12.7 is the US Census 1990 and 2000, http://www.census.gov, and the Federal Bureau of Investigation (FBI) UCR statistics, http://fbi.gove/stat-services/crimestats, unless otherwise noted.

Table 12.1: Regression for the Total Labor Force Participation Rate in 1990 and the UCR Violent Crime Rate in 1991

X (Independent)=Total Labor Force Participation Rate 1990								
Y (Dependent)=Violent Crime Rate 1991								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.11492224							
R Square	0.01320712							
Adjusted R Square	-0.1277633							
Standard Error	3.56243149							
Observations	9							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	1.188976512	1.18897651	0.09368719	0.76844372			
Residual	7	88.83642689	12.6909181					
Total	8	90.0254034						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	13.8525548	28.72466421	0.48225298	0.64434018	-54.07048281	81.7755924	-54.070483	81.77559239
1990LFP	-0.1322544	0.432085944	-0.3060836	0.76844372	-1.153975339	0.88946646	-1.1539753	0.889466463

Table 12.2: Regression for the Total Labor Force Participation Rate in 1990 and the UCR Personal Crime Rate in 1991

X (Independent)=Total Labor Force Participation Rate 1990								
Y (Dependent)=Personal Crime 1991								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.03237872							
R Square	0.00104838							
Adjusted R Square	-0.141659							
Standard Error	5.21070597							
Observations	9							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	0.199464677	0.19946468	0.00734637	0.934096219			
Residual	7	190.0601969	27.1514567					
Total	8	190.2596616						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	13.3320382	42.0150618	0.31731569	0.76025922	-86.01779589	112.681872	-86.01779589	112.6818722
1990LFP	-0.0541697	0.63200452	-0.085711	0.93409622	-1.548622939	1.44028349	-1.548622939	1.440283493

Table 12.3: Regression for the Total Labor Force Participation Rate in 1990 and the UCR Property Crime Rate in 1991

X (Independent)=Total Labor Force Participation Rate 1990								
Y (Dependent)=Property Crime Rate 1991								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.244243897							
R Square	0.059655081							
Adjusted R Square	-0.074679907							
Standard Error	14.93102549							
Observations	9							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	99.00054221	99.0005422	0.44407702	0.526506606			
Residual	7	1560.548655	222.935522					
Total	8	1659.549198						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-39.28361943	120.3921239	-0.3262973	0.75373813	-323.9657553	245.398516	-323.965755	245.3985165
1990LFP	1.206819736	1.810978332	0.66639104	0.52650661	-3.075463547	5.48910302	-3.07546355	5.489103018

Table 12.4: Regression for the Total Labor Force Participation Rate in 1990 and the UCR Violent Crime Rate in 1991

X (Independent)=Violent Crime Rate 1991								
Y (Dependent)=Total Labor Force Participation Rate 1990								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.11492224							
R Square	0.01320712							
Adjusted R Square	-0.1277633							
Standard Error	3.09556812							
Observations	9							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	0.897761475	0.89776147	0.09368719	0.76844372			
Residual	7	67.07779408	9.58254201					
Total	8	67.97555556						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	66.9283123	1.948994891	34.3399116	4.6045E-09	62.31967168	71.5369528	62.31967168	71.53695285
91 Violent Crime	-0.0998615	0.32625549	-0.3060836	0.76844372	-0.871333111	0.67161018	-0.87133311	0.671610175

Table 12.5: Regression for the Total Labor Force Participation Rate in 1990 and the UCR Personal Crime Rate in 1991

X (Independent)=Personal Crime Rate 1991								
Y (Dependent)=Total Labor Force Participation Rate 1990								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.03237872							
R Square	0.00104838							
Adjusted R Square	-0.141659							
Standard Error	3.11458072							
Observations	9							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	0.071264303	0.0712643	0.00734637	0.934096219			
Residual	7	67.90429125	9.70061304					
Total	8	67.97555556						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	66.6106099	2.430800255	27.4027493	2.2115E-08	60.86268064	72.3585391	60.86268064	72.35853911
91 Personal Crime	-0.0193536	0.225801192	-0.085711	0.93409622	-0.553288615	0.51458133	-0.55328862	0.514581335

Table 12.6: Regression for the Total Labor Force Participation Rate in 1990 and the UCR Property Crime Rate in 1991

X (Independent)=Property Crime Rate 1991								
Y (Dependent)=Total Labor Force Participation Rate 1990								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.2442439							
R Square	0.05965508							
Adjusted R Square	-0.0746799							
Standard Error	3.02183644							
Observations	9							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	4.05508729	4.05508729	0.44407702	0.526506606			
Residual	7	63.92046827	9.13149547					
Total	8	67.97555556						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	64.401653	3.195040886	20.1567539	1.8525E-07	56.84658181	71.9567241	56.84658181	71.95672414
91 Property Crime	0.04943164	0.074178131	0.66639104	0.52650661	-0.125971766	0.22483505	-0.12597177	0.22483505

Table 12.7: Pearson's Correlation Matrix of Total Labor Force Participation Rate in 1990/2000 and the UCR Violent, Personal and Property Crime Rates in 1991, 1994 and 1997

Pearson's Matrix from SPSS

Correlations

		LFP1990	LFP2000	VC91	PER91	PROP91	VC94	PER94	PROP94	VC97	PER97	PROP97
LFP1990	Pearson Correlation	1	.857**	-.115	-.032	.244	-.058	-.017	.466	-.109	-.073	.069
	Sig. (2-tailed)		.003	.768	.934	.527	.882	.965	.206	.781	.851	.861
	N	9	9	9	9	9	9	9	9	9	9	9
LFP2000	Pearson Correlation	.857**	1	-.151	-.092	.104	-.120	-.124	.239	-.208	-.258	-.185
	Sig. (2-tailed)	.003		.697	.815	.790	.758	.751	.535	.591	.503	.633
	N	9	9	9	9	9	9	9	9	9	9	9
VC91	Pearson Correlation	-.115	-.151	1	.968**	.784*	.979**	.970**	.728*	.960**	.891**	.702*
	Sig. (2-tailed)	.768	.697		.000	.012	.000	.000	.026	.000	.001	.035
	N	9	9	9	9	9	9	9	9	9	9	9
PER91	Pearson Correlation	-.032	-.092	.968**	1	.804**	.939**	.969**	.761*	.945**	.938**	.796*
	Sig. (2-tailed)	.934	.815	.000		.009	.000	.000	.017	.000	.000	.010
	N	9	9	9	9	9	9	9	9	9	9	9
PROP91	Pearson Correlation	.244	.104	.784*	.804**	1	.785*	.797*	.931**	.738*	.753*	.715*
	Sig. (2-tailed)	.527	.790	.012	.009		.012	.010	.000	.023	.019	.030
	N	9	9	9	9	9	9	9	9	9	9	9
VC94	Pearson Correlation	-.058	-.120	.979**	.939**	.785*	1	.986**	.772*	.979**	.904**	.731*
	Sig. (2-tailed)	.882	.758	.000	.000	.012		.000	.015	.000	.001	.025
	N	9	9	9	9	9	9	9	9	9	9	9
PER94	Pearson Correlation	-.017	-.124	.970**	.969**	.797*	.986**	1	.799**	.988**	.957**	.809**
	Sig. (2-tailed)	.965	.751	.000	.000	.010	.000		.010	.000	.000	.008
	N	9	9	9	9	9	9	9	9	9	9	9
PROP94	Pearson Correlation	.466	.239	.728*	.761*	.931**	.772*	.799**	1	.724*	.757*	.785*
	Sig. (2-tailed)	.206	.535	.026	.017	.000	.015	.010		.027	.018	.012
	N	9	9	9	9	9	9	9	9	9	9	9
VC97	Pearson Correlation	-.109	-.208	.960**	.945**	.738*	.979**	.988**	.724*	1	.953**	.757*
	Sig. (2-tailed)	.781	.591	.000	.000	.023	.000	.000	.027		.000	.018
	N	9	9	9	9	9	9	9	9	9	9	9
PER97	Pearson Correlation	-.073	-.258	.891**	.938**	.753*	.904**	.957**	.757*	.953**	1	.900**
	Sig. (2-tailed)	.851	.503	.001	.000	.019	.001	.000	.018	.000		.001
	N	9	9	9	9	9	9	9	9	9	9	9
PROP97	Pearson Correlation	.069	-.185	.702*	.796*	.715*	.731*	.809**	.785*	.757*	.900**	1
	Sig. (2-tailed)	.861	.633	.035	.010	.030	.025	.008	.012	.018	.001	
	N	9	9	9	9	9	9	9	9	9	9	9

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 12.7 represents the variables in a Pearson's correlation matrix. As with the regression tables, the variables show no statistical significance. Correlation would be

significant at the 0.01 and 0.05 levels; neither of these levels was achieved, upholding the null hypothesis that NYPD's Compstat program had no immediate spillover effects on the comparison cities.

D. Conclusion of Hypotheses

The above hypotheses produced mixed results in the comparative analysis conducted by this study. The main hypothesis asked whether the success of Compstat in New York City contributed to crime spillover into surrounding cities, thus leading to budget increases in those cities to combat crime. The comparative analysis results reveal that crime rates fell in the New Jersey comparison cities, but they remained higher than New York City. The main finding is that in the New Jersey comparison cities the total police budgets sustained comparative massive upticks between 1994 and 1997. Neither the Pearson's correlations nor the regressions supported the null hypothesis. Yet, performance lacked commensurate accountability, using a crime rate measure.

E. Implications for Public Budgeting

The budgeting hypotheses examined both the general appropriations and police budgets of New York City as well as the New York and New Jersey comparison cities. The results revealed differences between the New Jersey comparison cities and the other

cities from 1991 to 1997. The implications of these differences are shown in the accountability of municipal budget allocations to police departments when compared to their performance.

Accountability is an important topic in the public sector as municipal governments strive to provide services for their constituents that produce equitable performance from its departments. The New Jersey comparison cities were not shown to be accountable with their police budgets from 1991 and 1997.

The police budgets were examined in H5, which asked if: the total police budgets in the comparison cities increased after the implementation of the Compstat in New York City in 1994. The New Jersey comparison cities had larger increases in their police budgets from 1994 to 1997 when compared to the New York comparison cities, as well as New York City. The difference was immense, indicating that the police departments in New Jersey were spending large amounts of budgetary funds to reduce crime rates, yet their performance failed to produce equal results. The waning of the UCR crime rates in the New Jersey comparison cities were not equal to those in the New York comparison cities, suggesting that the larger increases in their total police budgets lacked performance accountability.

These New Jersey disparities are notable given that the police budgets dwarfed the general appropriations budgets, thus questioning the degree to which police funding reflected accountability in reducing crime rates, which were lower in the New York comparison cities as well as in New York City. The difference was disproportionate and indicates that the police departments in New Jersey were spending large amounts to

combat crime, yet their performance did not produce equal results when contrasted with the declines in the New York comparison cities, as well as in New York City. In sum, their performance does not register with the large total police budget allocations between 1991 and 1997.

Another implication is the use of external police grant funding by municipalities. Was there a "perverse incentive" for the New Jersey comparison cities to trade high crime rates for COPS awards? The indication is that the New Jersey cities added more police officers with the COPS grants than the New York comparison cities, yet their crime rates for the most part stayed higher. This implies that municipalities need to find better methods of decreasing crime rates without supplementing their police budgets with grants that can lead to expanded future police budgets. The additional officers in the New Jersey comparison cities did not produce the desired decreases in crime rates. Alternative police programs such as Compstat address many of these concerns and may help municipalities deal with these issues.

The implication for public budgeting in municipalities is that increased police budgets do not necessarily produce equal results in crime rate reduction. Police departments need to look at their tactics, deployment and community policing programs to reduce crime rather than just adding officers and increasing their budgets. Municipal leaders need to demand accountability for expended funds before allocating additional funds to police departments. Municipalities must also not fall for external funding as a placebo for effectiveness and efficiency in their police departments.

F. Further Research

This retrospective comparative analysis could be expanded to include other cities to further examine the main hypothesis during the study period. Given the limitations of the data during this time period, this expanded exercise would again be limited. A more practical exercise would be to examine recent demographic, crime-rate and budget data. The computerized nature of current information would assist in this endeavor to add increased confidence with the results. It would be worthwhile to study recent cities that employ a Compstat program in the years beyond 1997 to learn whether Compstat assisted in lowering crime rates and its impact on municipal budgets. An examination of such test cities on a country-wide level would be useful.

To provide a framework for these ideas, it becomes necessary to first identify a time frame for the new study. Due to the limitations of the budget data from the current study period of 1991 to 1997, it would be practical to move a future study to the years between 2000 and 2010. This would allow for a greater post-Compstat implementation time period that in turn would increase accessibility to relevant budget data. A limitation of the current study was the inaccessibility of the study city budgets, along with the lack of consistency between each city's budget data. If the budgets between 2000 and 2010 are computerized and contain more detailed and consistent police line items, the new study may reveal additional data, such as detective division budgets. The new data will be contrasted with the current study providing a benchmark to measure the new data. The new study would focus on Compstats' effect on public budgeting moving towards the present. Another positive aspect of using data between 2000 and 2010 is that the

demographic variables would be available from the 2000 and 2010 census data. This data is available on-line and would capture changes in demographics regardless of the new comparison city locations, whether local or nation-wide.

The impact of the Compstat programs would be different since its adoption amongst other departments occurred at different times or did not occur at all. The adoption of Compstat programs may also vary since different cities may only use parts of the original New York City Compstat program, tailoring the program to fit their needs.

After the selection of the comparison cities, the first order of business will be determining if and when the comparison cities adopted a Compstat-like program. The following questions will be asked: (1) if a city adopted a Compstat program, how did they set up and implement the system? (2) Did they sustain the program? (3) How did the city fund the new system? (4) Was there a budget line item for Compstat? (5) Did they add officers via COPS grants to help implement the system? (6) Did they keep the officers after the grant expired? (7) Did they change the structure of the department to help implement the system? (8) What were the budget ramifications of the new program? These questions would establish a baseline between the comparison cities as well as a time line of program implementation.

Crime rates would again be used to gauge the effectiveness and efficiency of the comparison city's efforts to control crime. If the crime rates continued to fall, as national trends indicate, then the comparison city budgets would be examined to explore whether additional funds were expended to fund the programs, including Compstat if applicable, that assist in keeping crime rates down. Additional questions would then be asked, such

as: (1) if no Compstat program was implemented, did the municipality have budget increases? (2) Were additional police officers added with COPS hiring grants? (3) What were the budget ramifications if the crime rates increased or decreased?

The new study would include following the COPS grant allocations for new hires. Questions raised in this regard include: (1) did the police departments retain the new hires after three years? (2) Did they hire new police officers or did they use COPS funds for overtime, office staff or to pay existing officers? The 2015 study "What Caused the Crime Decline?" by Oliver Roader, Lauren-Brooke Eisen and Julia Bowling intimates that some of these factors occurred with the COPS hiring grants. This becomes an important aspect of the new study since the current study includes just three years after New York Police Department implemented their Compstat program, thereby negating these questions. The new time period would allow for hindsight in this area, giving the new study an added dimension.

Expanding the scope of this study will be an area to consider. This will be done in several ways. First, the number of cities neighboring New York City will be expanded. This allows for the use of multiple regressions to analyze the data. This would be more practical in New Jersey than in New York. The New York comparison cities in this study were the largest Westchester County cities. The other bordering municipalities are small in composition and would not necessarily be compatible. For example, the Village of Pelham Manor is small and does not compare with any of the cities by any standards set forth.

Another way to expand this study would be to look at large cities across the country to examine whether: (1) They adopted Compstat-like programs, (2) If so, when? (3) Did they sustain the programs? (4) Examine COPS hiring grants, (5) Examine the general appropriations and total police budgets. The fifty most populated states of the United States will be a good starting point and would encompass cities from all over the nation. Utilizing the crime spillover aspect of the current study would be impractical due to the scope of the nationwide aspect. The spillover concept would need to be reformatted to encompass the comparison of when Compstat was initiated in New York City and when and if Compstat was initiated in the comparison cities across the nation. This would then become a pre- and post- comparison of the cities with their individual implementation dates. This data would be contrasted with the other comparison cities, as well as the New York City's, crime rate data and budget figures.

While it would be interesting to examine whether the nationwide comparison cities did experience any crime rate and budgetary diffusion into neighboring jurisdictions, similar problems of accessing budgetary data, demographic disparities as well as the difficulty of finding members of the police departments to interview that experienced or were part of Compstat program initiation time periods would be problematic. Therefore, the focus of the new study would be changed to using the large cities themselves as comparison cities.

The new study would have changes in methodology. The increase in numerical data with the increased time period would lend itself to using multiple regressions as a statistical method. The methodology would still benefit from comparative and

correlational analysis. The use of interviews would add texture to the results and help complement information not easily extracted by numbers alone.

Variables would, like the current study, include demographic data from the US Census bureau. The census data from the years 2000 and 2010 will be used. Demographic variables would include: Population, gender, race/ethnicity, income, poverty rates, employment, labor force change, education and industry.

Crime-rate data would again be tapped to provide a measure against budget data. The UCR crime rates would again be used due to their consistent nature. The local crime data between states would be problematic due to the varied nature of crime definitions between states. Crime classifications lack consistency between states, as well as the penalties attached to the crimes. The UCR data requires municipalities to categorize crime similarly, regardless of a cities location.

The future research will encompass the above outline and will be assisted by computerized data. New limitations will occur, such as the ability to gather local data and conduct interviews. The geographic scope of the new study will increase reliance on UCR crime rate data, US Census data and city budgets. The crime spillover aspect of the current study will be replaced by the diffusion of Compstat to other cities and its effects on crime rates and budgets in the new comparison cities.

Appendix

Interviews with police officers

Elizabeth Police Department, NJ
Interview: July 29, 2014 at 7:45 AM

1) Does the Elizabeth Police Department (EPD) currently use Compstat?
   "No, we do not use Compstat at this time"

2) Did EPD ever use Compstat?
   "It was implemented under Director Cosgrove in 1998. I was a Detective at the time and we had one meeting where we went over cases. I never heard or saw it again. Even through the ranks, midnights as a sergeant, lieutenant and captain"

3) Has EPD used any other community policy strategies in the 1990's and through today?
   "Now we have a community policing unit that targets any complaint area. It is an eighteen man unit under the command of Lt. (omitted). Elizabeth is one of the best cities in New Jersey. We have community policing. A good relationship with the citizens. We go out of our way to help citizens, for example, we do a lot of funeral details. We also get a lot of requests for officers to speak with community groups."

4) Did you notice any change in crime rates after New York City implemented Compstat in 1994?
   "I don't remember any change in crime rates. The worst period of crime was in the early 1990's."

5) Any morale issues?
   "Not that I recall."

6) Did you notice any abuse in reporting crime statistics?
   "No. Elizabeth is a different city than, say, Newark, in that Newark has precincts. The police department (EPD) is in the same building and is centralized. Precincts are not necessary. On the whole, most department members know each other and share information. Reports are centralized. Most members know what is going on."

Hoboken Police Department, New Jersey
Interview 7/28/14 at 11:00 AM

1) What is your current rank?
   "I'm currently a Detective."

2) Does Hoboken currently use a Compstat program?"
   "No."

3) Did Hoboken ever use Compstat"
   "No. Never used it."

4) Does Hoboken use any other Community Policing strategies?
   "No."

Mount Vernon Police Department, New York
Interview7/28/14 at 12:30 PM

1) What is your current rank?
   "I am a Captain."

2) Does the Mount Vernon Police Department (MVPD) use Compstat?
   "Yes, but we haven't used it in six months. We are currently retooling it. It was originally started in 1998 by Commissioner LaForge. It was a cross border strategy, especially with Yonkers."

3) Where you working in 1998?
   "Yes. I started in January 1987 and got promoted to Sergeant in 1999. I noticed a benefit to Compstat as a patrol sergeant, the sharing of information weekly. Overall, Compstat was the piece that brought information to us so we could see the entire picture. It was a real eye-opener. For example, burglaries would occur on the midnight shift and we didn't know how many had occurred on the 3-11 shift. It emphasized cross-border sharing, especially with Yonkers."

4) Did you notice any spillover crime from New York City after they implemented Compstat in 1994?
   "No, I didn't notice any."

5) Has the Mount Vernon Police Department had turnovers in Police Chiefs during your time?
   "We have had twelve chiefs in our history. But we have had five chiefs in the past eight to ten years."

6) Have you witnessed and crime statistic padding or abuse with Compstat?
   "No abuses with numbers. Padding is illegal."

7) Has Compstat caused any morale issues?
   "None. There is no pressure; I didn't notice any difference in morale."

New Rochelle Police Department, New York
Interview 7/28/14 at 11:54 PM

1) When was Compstat implemented in the New Rochelle Police Department (NRPD)? Who was the Police Commissioner or Chief?
   "In 1994. It was modeled somewhat after NYPD's program. Police Commissioner Patrick Carroll was a former NYPD Inspector. He arranged for the NRPD command staff to attend an actual Compstat meeting at NYPD headquarters."

2) Where there any other community policing strategies used by the NRPD prior to Compstat?
   "Yes. In the 1980's NRPD developed some community policing initiatives as well as some problem solving police initiatives."

3) Where you working then? Rank? Where you effected by Compstat?
   "In 1994 I was a Captain, and commanding officer of the Detective Bureau. Our Compstat meetings may have focused a little more, but it should be noted that NRPD tracked patterns and trends well before Compstat arrived."

4) Did you notice an increase in crime after the NYPD implemented Compstat in 1994?
   "No. Crime in New Rochelle as well as in the nation trended downward through the 1990's and even to the present."

5) Did Compstat affect morale in the NRPD?
   "It would be difficult to say. Many other organizational changes were occurring at the same time."

6) Would you say that Compstat was successful? Any problems?
"Again, it increased focus on crime conditions a little more"

7) Did you notice any abuse of crime reporting to reclassify crimes due to Compstat?
"No. If anything, NRPD strictly adhered to FBI/UCR definitions and crime reporting protocols."

White Plains Police Department, New York
Interview 7/29/14 at 9:50 AM

1) Does the White Plains Police Department (WPPD) use Compstat?
"Yes. It was started in 2004/2005"

2) What was your involvement?
"I was a patrolman and basically started it, started compiling statistics. We have expanded and changed it."

3) Did the White Plains Police Department use any other community policing strategies prior to Compstat?
"In 1994 we used MBO (Manage by objectives)."

4) Have you ever experienced any irregularities with crime statistic reporting?
"No. The numbers are what they are. On Sunday's I run the crime numbers. There is always a disclaimer that the stats are subject to change. Say the Detectives may want to reclassify a crime after further investigation. They have to fill out a form in order to change it."

5) Any factors that affect the crime statistics in White Plains?
"Stats change over time. They decrease and increase historically. The economy after 9/11 changed the stats. We have a great commercial base in White Plains with the malls and stores. So larcenies tend to drive the numbers, depending on economic conditions."

6) Did you model your Compstat program after the New York Police Department's (NYPD) Compstat program?
"We went to some NYPD Compstat meetings. The NYPD tends to put people on the spot and embarrassed commanders and different unit members. In White Plains we don't do that. We have weekly meetings to foster better communication. Therefore, everyone is aware and we have better morale."

Yonkers Police Department, New York

Interview 7/30/14 at 7:15 AM

1) What is your current rank with the Yonkers Police Department (YPD)?
   "I am a Lieutenant in the Detective Division."

2) When was Compstat implemented in the YPD?
   "It started in 2006."

3) Who was the Police Chief or Commissioner at the time Compstat was started?
   "It was Commissioner Hartnet."

4) Did the YPD use any other community policing strategies prior to Compstat?
   "Yes. Citizen observer program that now uses e-mail functions. Yonkers has a 411 program for tips. We also have community affairs officers."

5) What was your assignment when YPD implemented Compstat? Where you affected by Compstat?
   "I was a Sergeant. I had to prepare stats."

6) Did you notice an increase in crime after the NYPD implemented their Compstat program in 1994?
   "I started as a police officer in 1997. Since I have worked in Yonkers there has always been a spillover in crime from New York City. Yonkers borders the Bronx."

7) In your opinion, has the YPD's Compstat program been effective?
   "For the most part yes."

8) Have you noticed any abuse in regards to crime statistic reporting?
   "No."

New York Police Department, New York

Interview on 1/8/15 at 3:30 PM

1) Were you working for the NYPD in 1994? What was your rank, assignment and precinct at that time?
   Answer: "In 1994 I was a Sergeant, a narcotics supervisor, in the 79 (Precinct) in Brooklyn"

2) What was your involvement with the Compstat program?

Answer: "No involvement other than pushing up the arrest numbers. Basically keeping the Lieutenant apprised of arrest numbers, what the unit (narcotics) was doing."

3) Did the Compstat program change how the NYPD operated?
Answer: "It changed as it progressed. It did make precinct commanders on down more accountable. They were replaced if they were not accountable. It made you accountable for all that was in your control. More accountability. The flip-side was that senior inspectors were made fun of at meetings. One time they put a picture of Pinocchio on the screen as an inspector was giving his numbers. The old commanders didn't like it. There was a lot of alienation and bullying in the meetings."

4) Did you notice a change after Compstat was implemented in 1994?
Answer: "The crime numbers had been trending down prior to Compstat. I believe that the decline had little to do with Compstat. Little changed from Dinkins to Giuliani and Bratton with the numbers going down. It was a great tool though. Under Dinkins you weren't allowed to make street level narcotic arrests. He wanted the kingpins. That didn't work."

5) Where there any other reasons for crime decline?
Answer: "Listen, Compstat was a tool of accountability that was great. Basically it was the broken windows theory, the enforcement of quality of life crimes. More criminals were locked up (increased incarcerations). The streets were calming down. Social change was already underway."

6) Did you witness any abuses of crime number reporting?
Answer: "It was huge, disgusting, fudging of the crime numbers. No one wanted to be called out. There was declassifying of the seven major crime categories. Commanders bent over backwards to coddle crime numbers and re-classify crimes. It was blatant. Who wants to be called on the carpet and lose their command?"

7) Where there any other crime prevention programs during your career that worked to reduce crime?
Answer: "Operation Pressure point worked. They basically flooded drug areas, Harlem and Alphabet City. It was great for those areas, re-gentrified them, but the downside was that the crime dispersed into the surrounding areas."

8) When did you retire? Where from?
Answer: "Retired in February 2002. Was working in the Support Services Bureau at the World Trade Center for the FBI Joint Task Force."

Attempts at interviews with the City of Newark Police Department and Jersey City Police Department were negative. Neither the Police Commissioners Office nor Compstat office responded to numerous attempts from author

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