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Homeland Security and Community policing: Shift in Federal Funding Post Sep. 11: From Community Policing to Homeland Security

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By

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Abstract

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In the aftermath of the 9/11, Homeland Security became the major model of the American Policing system, thus superseding community policing model. The purpose of this research is to use "before and after study design" to follow the grant trends of policing systems in order to examine whether the catastrophic events of 9/11 had a positive or negative impact on the grant funds of the mentioned policing models. Preliminary analyses revealed that there is significant difference in the mean level of funding prior and after the event for Homeland Security, community policing, and general policing programs. Segmented and Stepwise Regressions found a negative impact of the event on general policing funds and positive impact of the event on Homeland Security after the event, which shows the proof of shift in the policy. The event's impact on Homeland Security funds at the U.S level has a strong model. Furthermore, the regression confirms a statistically significant increase in Homeland Security fund trend for New York City after the event. Additionally, the study found the U.S general policing received less grant money before 9/11 than after the event at both the U.S and New York level. *T-test* indicated the significant mean level; and Segmented and Stepwise regression also predicted that the fund trend of Homeland security increased after the event. With the results from these analyses, it can be argued that the policing policy had a major shift after the event.

Dedication

To my wife Nazanine who supported me unconditionally in accomplishing this project. You inspired me to continue to be a better person, thank you.

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The larger the island of knowledge, the longer the shoreline of wonder (Ralph W. Sockman)

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Chapter 1: Introduction

The purpose of this research is to examine the impact of the September 11 terrorist attack on funded research in the fields of community policing and Homeland Security in terms of federal grants. After the professional model of policing ended, community policing claimed to be an effective model in the United States of America. (For additional information regarding different periods of policing, see Appendix I (different era of policing).)

However, in the aftermath of September 11, Homeland Security introduced new organizational policies to the U.S. criminal justice system, which affected community policing (CP). This research seeks to identify the impact of such policies on research grant allocation for community policing research. Although some scholars believe that federal assistance to community policing has evaporated (Lee, 2010), this claim was not supported with empirical research.

The current research intends to use the *pre-experimental design (before-and-after design)* method to examine the U.S. Census database to search for the grants awarded to community policing prior to and after the September 11 event to obtain a macro assessment of the entire U.S. and New York City in order to discover if there have been any negative or positive effects on community policing grants post September 11. Specifically, this research aims to examine federal grant opportunities as an indication of ***shift in policy***.

The Violent Crime Control Act of 1994 authorized billions of dollars from 1995 to 2000 in the form of grants allocated to local police departments in order to hire more officers and expand community-policing programs. It was this Act that created the office of Community

Oriented Policing Services (COPS), which supplemented several types of funding including Making Hiring Officer Redeployment Effective (MORE) funds and other innovative grants (Worrell & Kovandzic, 2007). Researchers have been evaluating COPS money in order to assess its outcome (Zaho, Zhang & Thurman, 2011; Worral & Kovandzic, 2007).

Research findings are not consistent. For instance, some findings show positive relationships between COPS hiring grants and all four types of police arrests (Zaho et al., 2011). However, other researchers contend that their data shows COPS grants had little to no effect on crime (Worral & Kovandzic, 2007). Conflicting results like these make it unclear whether or not the COPS grants have led to the reduction of crimes. Therefore, it is important to have the trends of the grant's money allocated to COPS programs in order to develop new policies or modify existing programs. While researchers were evaluating the outcomes of COPS programs, the September 11 attacks occurred. This catastrophic event resulted in some inevitable changes to the American policing system. The changes were introduced without sufficient scholarly research.

In the aftermath of the September 11 attacks, Homeland Security (HS) was established. Soon after its establishment, HS recognized the value of local police agencies and started to lend them financial support. For instance, $400 million was allocated as terrorism prevention grants to local agencies. Police departments became "intelligence gatherers" as well as first respondents (Friedmann & Cannon, 2007). However, this new practice of policing might not be fully comparable to the philosophy of community policing. Furthermore, the allocation of funds has been changed from community policing to security concerns under HS. For instance, in the 1990s, the Office of Community Oriented Policing Service (COPS) spent about one billion dollars each year on local agencies for hiring purposes, but this amount was reduced to less than $200 million for the fiscal year of 2003. Furthermore, the entire COPS funding for the year 2004

was reduced from $738 million to $164 million. The funds radically shifted from community policing to HS practice (DeSimone, 2003; Geraghty, 2003).

Under the rising influence of HS, community-policing programs were the recipients of an "unprecedented level" of federal grants (Lee, 2010). The former focus on policing was challenged by HS. Consequently, after the 9/11 attacks, the direction of community policing funds shifted toward HS, which is an indication of a major policy modification. Such a shift in grant allocation will be the focus of the current study.

Chapter 2: Theoretical framework

A) Focusing Events Theory

After the occurrence of any catastrophic event, society's reaction is to change current policies to prevent similar incidents from occurring in the future. The policy changes after the occurrence of such events are well known to scholars. Events can change policies and also shift funds in different directions. Kingdon believes that some vivid events that have negative impacts on society are also able to cause the general public as well as public officials to pay more attention to the root cause of those events (Kingdon, 1984). Scholars also mention the importance of events that seize public attention as potential causes of policy change (Cobb & Elder, 1983; Light 1999; & Walker, 1977). These catalytic events are known as *focusing events* (Birkland, 1998). For instance, in 1993 a natural gas pipeline exploded near an apartment building in Edison, N.J. (Pena, 1994). This accident drove state officials to enact obligatory regulations for contractors to notify neighborhoods prior to digging close to pipelines (Birkland, 1997).

Some *focusing events* are capable of changing and shifting governments' funding in other directions and instigating the development of new policies as well. For instance, the energy challenges after the Fukushima incident provoked some countries to change their policies on nuclear reactors. Chinese officials announced that they had ceased approving the construction of any new nuclear plants in the country (Popescu & Leca, 2012). Safety review and stress tests took place in nearly all counties using nuclear plants. In particular, Germany decided to shut down all of the reactors that had been in operation prior to 1980 and also announced that all others would

be closed by 2022 (Popescu & Leca, 2012). Furthermore, Italy had a referendum in June 2011 to close all nuclear programs permanently (Popescu & Leca, 2012). Therefore, the Fukushima incident can be used as an example of an event that results in drastic public policy changes at an international level.

Birkland claims that three *focusing events* in the aviation history of the U.S. were the cause of major policy changes:

1) Pan Am flight 103 bombing over Lockerbie, Scotland, which killed all of the passengers as well as eleven people on the ground. This focusing event resulted in enacting the Aviation Security Improvement Act of 1990, which required giving greater attention to explosive detection and also instigated organizational changes in the Department of State and Federal Aviation Administration (FAA) regarding intelligence information (Birkland, 2004);

2) The explosion of TWA flight 800 over the Atlantic Ocean near Long Island, New York. This incident occurred because of an overheated empty fuel tank with fuel fumes. When a spark was introduced to the tank from fuel level devices, both the fuel tank and the airplane exploded. This dramatic event resulted in the Federal Aviation Authorization Act of 1996. The Act mandated the profiling of passengers by the FAA; the usage of explosive detection; and the implementation of the baggage-matching system (Birkland, 2004);

3) Finally, but of no less importance, is the hijacking of planes for the September 11 attacks. This event caused major changes to take place in aviation security policies throughout the Aviation and Transportation Security Act (Birkland, 2004). Evidence of such a change in aviation policy clearly establishes September 11 as a focusing event. There is an equally likelihood of its being a focusing event with respect to changes in community policing.

Using the *focusing events* theory, one might conclude that the aforementioned aviation policy modification was not the sole effect of September 11. The incident also produced other policy changes. When the World Trade Center and the Pentagon were attacked, the establishment of the department of Homeland Security as the prime agency to fight and prevent similar incidents became the first priority of the Federal Government, which once again pushed the policing system in another direction. The direction of funds was shifted from community policing to Homeland Security as well.

The Homeland Security office identified four goals for its existence: a) prevention of terrorist attacks; b) protection of the key resources and critical infrastructure of the U.S.; c) responding to incidents that have already occurred as well as recovering from them; and d) continuing to strengthen the foundation of Homeland Security to ensure long term success (Kappeler & Gaines, 2011). This was a major policy change resulting from the *focusing event* of September 11.

B) Moral Panic Theory:

Moral panic theory concerns situations where a society encounters acts of malevolence by malefactors and exaggerates the degree of harm inflicted by them or even imagines additional harm. Communities' reactions to these threats or harms are disproportionate to the actual threats. Sociologists call this "*moral panic*" and wrongdoers are named *folk devils* (Goode & Ben-Yehuda, 2009).

Any incident might activate *moral panic*. In 1949, when the mutilated body of a young girl was found in Los Angeles, mass media paid special attention to a number of similar past crimes.

When Fred Stroble was arrested as the first suspect, the Los Angeles District Attorney extracted a confession from the defendant, who also agreed to meet with reporters and repeat his confession.

Following such incidents, many states passed *sexual psychopath laws*. Sutherland believes the enacting of these laws was associated with the manipulation of public demands by the press and the influence of psychiatrists on the process of legislation (Sutherland, 1950).

Moral panic needs a variety of actors to fully evolve. Cohen (1972) believes that mass media, the public opinion, police, social activists, politicians and legislators are primary actors in the drama of moral panic. He pays special attention to the press as the most important actor, because the media can easily ignite the attention of both politicians and the public. Cohen also believes that mass media is capable of exaggerating incidents, makings false stories, and overstressing the seriousness of any situation. A *folk devil* is a suitable enemy for effecting moral panic because it represents evil. Therefore, moral panic divides society into "them /devils" and "us/ law abiding citizens" (Cohen, 1972). Goode and Ben-Yehuda recognized five basic elements of moral panic*: a) concern or fear; b) hostility toward the folk devil; c) some consensus about the nature of the threat; d) a disproportion between the concern and the threat; e) a certain degree of volatility of the concern* (Goode & Ben-Yehuda, 2009, p. 49). They also add that moral panic expresses itself in different ways: public opinion, media, social movement with accompanying political activities and law enforcement.

The moral panic theory of Ben-Yehuda and Goode will be used to examine the implications of post-September 11 on federal grants allocation and the possible change in funding venues.

The link between the theoretical framework and examined variables

Focusing events and moral panic are two main theories that provide theoretical contexts for the study. These theories are being used in order to have a potentially better understanding of the effects of the September 11 attacks (independent variable) on community policing funds (dependent variable), while enabling the researcher an opportunity to further examine and confront the theories.

1) Focusing event theory: if the theory is correct, one can therefore conclude that September 11 changed the policing direction to one different from what it was previously because the theory suggests that incidents like this are capable of altering public policy as well as shifting the direction of funds. Using this theory, one can predict not only that the event changed the format of policing from community policing to Homeland Security, but also that it shifted funds from community policing to Homeland Security. This prediction can be used as an answer to research questions of the study to explain why the observed variables exist. It can also enable an interpretation of the results.

2) Moral panic theory: *folk devils* (i.e., sexual psychopaths, hijackers, etc.) are the most suitable for enabling the media to generate fear, which consequently results in the demand for change by the general public. Politicians have made those changes, for instance, by transforming the community policing system into Homeland Security. This has resulted in cutting or discontinuing community policing funds. This will be the probable answer to the research questions of this study and will also enable interpreting the outcome of the research with the help of theoretical frameworks.

Chapter 3: Research on Community Policing

A) Previous research

By reviewing the research related to community policing, one can examine whether the concept of CP has been implemented by those agencies that adopted it. As Goldstein (1993) notes, community policing has been widely used without paying attention to its substance. Furthermore, politicians use its label to create a popular image (Goldstein, 1993). Therefore, it is imperative to examine the real extent of CP. To do this, two different national surveys were conducted in 1992 and 1997 regarding community policing. Using the Likert scale, the police departments in both surveys were asked to agree or disagree with the following comment: "*It is not clear what community policing means in practical terms.*" In 1992, 47% of departments agreed or strongly agreed with the sentence. Those who agreed with the same sentence in 1997 amounted to 31%, indicating police departments have developed their understanding of community policing over time. Almost 50% of police departments did not have a clear understanding of community policing in practice in 1992. However, only 30 % of police departments had the same problem in 1997. This study was conducted by the Police Foundation, which was funded by the Department of Justice. About 2,337 police departments participated in the study. The second survey (1997) was conducted by the Opinion Research Corporation Company (ORC) and the Police Executive Research Forum (PERF) and received responses from 1,637 different police departments (Fridell, 2004). The author also discusses the following findings of these two surveys:

- *We have not considered adopting a* community policing *approach*. 28% of agencies in 1992 agreed with the above comment while only 5% of departments agreed with it in 1997, indicating that within five years of adopting it, community policing had 23% growth.

- *We considered adopting a* community policing *approach but rejected the idea because it was not appropriate for the agency.* 3% of police departments indicated they agree with this sentence in 1992 while only 2% of them agreed with the same sentence five years later.
- *We considered a* community policing *approach and liked the idea but it is not practical here at this time.* 18% of agencies agreed with this idea in 1992 while only 8% of them agreed with it in 1997.
- *We are now in the process of planning or implementing a community policing approach.* 31% said yes to this concept in 1992 and another 21% adopted it five years later.
- *We have implemented community policing.* 20% of agencies agreed with this concept in 1992 while the result of the 1997 survey shows that 58% of departments implemented CP.

These results show the significant changes over only five years in the practice of community policing (Fridell, 2004). Therefore, one can conclude that the community-policing philosophy experienced a positive growth from 1992 to 1997, and had been implemented widely in the U.S.

In another article, using data from Virginia police chiefs, Chappell and Gibson (2009) tried to examine the chiefs' attitudes at the time of Homeland Security. Their results showed not only that many police chiefs believed that, because of Homeland Security, the emphasis on community policing had been reduced, but also that they viewed HS and CP as "*complimentary strategies*". Researchers also proved that department chiefs with the full implication of community policing are less likely to accept reducing the role of CP. Their funding also shows that chiefs from departments with fewer than 5,000 citizens also do not see community policing waning. It is interesting to note that the authors' findings indicate that chiefs with at least four years of college are less likely to accept that the role of community policing has been reduced after the Homeland

Security era. In fact, they view these two types of policing as complementary (Chappell & Gibson, 2009).

However, none of the above surveys were associated with examining the budgets and grants that were devoted to community policing. It is clear that it is not possible to conduct research without funding; therefore, funds must have existed, but the amount of any granted funds has not been studied thus far. If police agencies have received federal funds to implement the practice of community policing, it would be impossible to use those grants for any other purposes.

Therefore, expansion of the practice might be due to available funds. Previous researches have not examined the association of federal grants with the expansion of the community policing practice. This requires new research to fill the existing gap. In contrast, this research aims to inspect the grant funds of each year for community policing to see if such granted money had been increased or decreased following the events of September 11.

B) Community Policing National Survey in 2002 Compared to the Last Two Surveys

The Police Executive Research Forum (PERF) decided to modify the survey that was used for the aforementioned two studies in order to collect additional information and to track any change in the practice of community policing. To do so, PERF targeted only those agencies that had responded to the first two surveys and reported that they had practiced community policing. 282 agencies were identified. Among them, 240 responded to the new survey (Fridell, 2004). 90% of police agencies in all three surveys reported that community policing: 1) improved cooperation between citizens and police; 2) increased citizen involvement; 3) increased information exchanged between citizens and police; 4) improved citizens' attitudes toward police; and 5) it reduced citizens' fear of crime. Fridell also mentions that between 1992 and 2002,

survey agencies reported that the community policing practice resulted in: 1) less physical conflict between police and citizens; 2) job satisfaction of officers along with an increase in the voluntary activities of citizens; and 3) a decrease in violent and property crimes (Fridell, 2004). However, the 2002 survey did not include an examination of grant money deriving from the Federal Government to community policing in order to have a more comprehensive view. Agencies that expanded the practice of community policing might have done so because of the grant money and vice versa. This research will shed light in that area to provide a more comprehensive view.

D) Research on Funding Community Policing

Zhao, Scheider, and Quint (2002) studied the effect of community policing grants on violent and property crimes from 1995 to 1999. Their analysis shows COPS hiring and innovative grant programs significantly reduced the crime rates in cities with populations of 10,000 and more. Researchers also showed that adding one-dollar for innovative grants for each resident of cities with populations of 10,000 and more will result in a 12.93% decrease in violent crimes and also a reduction in property crimes by 45.53% per 100,000 residents. Furthermore, their funding proved community policing grants for cities with populations of 10,000 and less have no negative impact (Zaho et al., 2002). According to the authors, "*up to the year of 2002 there was no comprehensive national study of the overall effects of COPS grants (specially designed to support this community policing efforts) on crime in the United States*" (Zaho et al., 2002, p. 12).

Their research was the first that tried to establish a link between the dollar amounts (grant) devoted to community policing and decreasing crimes. However, the study did not compare and contrast each year's grant to other years to see if there were any differences.

Under the policy recommendations researchers suggested that federal grants should be made directly to police departments to promote innovations and also the hiring of more officers in order to reduce property and violent crime rates (Zaho et al., 2002). However, it is not clear whether or not the recommended policy has been implemented. In fact, the current research aims to clarify this issue and ascertain as to whether or not the recommended policy has been implemented.

Even and Owns (2007) focused on money from grants that were received from Community Oriented Policing Service (COPS) to increase the size of police forces in order to see if this increase resulted in lower crime rates. They noticed the crime rate reduction of four out of eight index crimes (auto theft, burglary, robbery, and aggravated assault) for those areas that received COPS money to hire more officers. The researchers also found agencies that used COPS grants to increase police technology also resulted in drops in the aforementioned four crime categories as well as in larcenies (Even & Owens, 2007).

In a different study, Zhao, Zhang, and Thurman (2011) also found that there is a positive relationship between COPS hiring grants and all types of police arrests. Additionally, they claimed not only that the hiring grant was a significant predictor of arrests, but also that more manpower is also related to police arrests (Zhao et al., 2011).

However, not only are the literature findings not consistent, but in some instances they are potentially confusing. Worrall and Kovandzic (2007) claim that all of the aforementioned findings are not consistent with the results of their study. They claim that some eight billion of taxpayers' money to be spent by COPS is not connected to crime reduction. Since their results show that "COPS spending had little to no effect on crime" (Worrall and Kovandzic, 2007,

p.159), they believe allocating federal money for local police is not the best policy for reducing crime.

Therefore, there are two different scenarios to consider: a) if COPS money resulted in lower crime rates, then we know that adding more money to community policing will translate to the reduction of crime rates; and b) if the COPS money is not correlated to crime reduction, then all of the granted federal money to COPS program was wasted, and it is imperative to have policy change considerations. For both scenarios, we do not know how much money was devoted to community policing prior to and after September 11. Due to the lack of research, it is also unknown whether or not the event of September 11 had a positive or negative impact on grant money allocated for community policing. Consequently, further study is needed to examine the allocation of grants to community policing, which is the main goal of this current study.

The Impact of September 11, 2001

Since the national survey of 2002 (mentioned in section B) was conducted after September 11, it seems appropriate to design some questions in this new survey in order to measure the impact of September 11 on community policing.

Police Executive Research Forum (PERF) also noted the aforementioned need and asked the agencies the following questions:

> *"To what extent do you think the events of September 11, 2001 will impact your agency's community policing efforts?"* (Fridell, 2004, p. 55).

Not surprisingly, 58% of agencies believed that the attack would affect their practice of community policing to *some extent*. Another 11% reported that the impact would be to *"a great*

extent", and about 1/3 of agencies believed that the event would not impact their practices at all. Therefore, the majority of the agencies (61%) reported that September 11 would have a negative impact on community policing. They assumed so because they believed officers have other priorities, since: 1) the moving of line officers from patrol to security assignments; 2) the need to fight against domestic terrorism might take time and resources away from community policing; 3) giving military assignment to the officers, thus creating many holes in schedules; and 4) a higher level of routine patrol would take away the number of officers that should be devoted to community policing (Fridell, 2004).

There are some issues regarding the 2002 survey that should be addressed. First, agencies were asked: *What do you think about community policing after September 11?* It is obvious that researchers were trying to measure the agencies' perception toward community policing after the September 11 event. However, the real impact of the event might have been far from what agencies presumed it to be. To measure the real impacts, different studies should be conducted, including examining the budgets devoted to community policing each year, or reviewing the grant money that should have been spent on community policing. Such studies have yet to be conducted.

Second, the study was done in 2002, only one year after the September 11 event, whereas community policing practices have existed since. If one wants to examine the true impact of September 11, it is more appropriate to conduct a pre-experimental study to examine both long and short-term impacts.

Homeland Security and Community Policing

Immediately after the September 11 attack, police agencies at all levels shifted their focus to the old practice of policing to fortify the U.S. All domestic flights were canceled, international flights were diverted, and immigration officials and U.S. Customs prevented the flow of traffic across the borders. Furthermore, both political parties united to pass an antiterrorism Act, which resulted in passing the U.S.A. PATRIOT Act. In addition, following the event, the reorganization of federal law enforcement agencies took place, which created the Department of Homeland Security and Transportation Security Administration (Brown, 2007).

Notably, those counterterrorism provisions violated the basic requirement of community policing. For instance, community policing tries to bridge the gap between the police and society by building trust between them, but the PATRIOT Act permits wiretapping phones, arresting people without warrants, etc. Not only are these policies contrary to community policing practice, but they also might be considered anti-Constitutional as well.

Brown's conception of the effects of September 11 on community policing is:

> *In sum, the war on terrorism has taken a toll on the community policing movement. There has been an increase in aggressive security measures such as proactive patrols around national landmarks, an increase in technologically enhanced investigative tactics such as bugging homes, and a decrease in Federal funding for community policing efforts. However, there is little evidence to suggest that the decrease in support for community policing or the increased use of aggressive tactics and invasive technology will either reduce the threat of terrorism or be an effective means of controlling crime and disorder* (Brown 2007, p. 242).

Brown claimed that the Federal Government cut the amount of funds of community policing, but he had not evaluated the grants money allocated to both HS and CP to see whether or not community policing funds decreased. Therefore, there is a need to investigate this further.

Lee (2010) showed that the practice of CP and HS are in fact compatible. He also believes that his data proves that it is possible to have HS policing associated with community policing programs. This indicates that the Homeland Security approach is not necessarily at odds with community policing. Furthermore, Lee suggests that more data is needed to conduct further studies (Lee, 2010) but such data has yet to be collected.

Shortcomings of prior research

Previously mentioned research projects that in some extent community policing was negatively affected by the events of September 11 (Friedmann & Cannon, 2007; DeSimone, 2003; Geraghty 2003; Zaho et al., 2002). However, it is obvious that the full impact of September 11 on community policing is still unclear. Most of the aforementioned research studies show only a snapshot of a single wave. These studies are known as *cross-sectional* studies, which have an essential problem. While the goal of conducting such studies is to explore causal processes over time, the inferences being made are only based on a single observation (Maxfield & Babbie, 2012). To have a better overview and assess the full impact of 9/11, a *pre-experimental design* is suggested in this study in order to enable the establishment of a causal relationship between the September 11 event and changes in community policing funding. There are a number of ways to measure the effects of September 11 on community policing. One way is to follow the federal grants on both community policing and public safety programs related to Homeland Security in order to measure the impacts over a period of many years rather than limiting it to one year.

Reviewing the scholarly literature indicates that such a study has yet to be conducted. Accordingly, the purpose of this research is to examine federal funds granted to both community policing and HS from the date they were established. In addition, the research will investigate the allocation of money for these two institutions in order to find out how the events of September 11 affected the practice of community policing with the shifting of funds.

Prior studies (Fridell, 2004) show the practice of community policing was associated with many positive issues. Some of them are as follows: better cooperation between police and people, increased citizen involvement, improvement of peoples' attitudes towards police, less conflict between citizens and police, etc.

However, such studies did not present a comprehensive view of the problem since they did not contain an examination of grant money derived from the Federal Government for community policing. Agencies that expanded the practice might have done so because of the grant money and vice versa.

Chapter 4: Methodology

The purpose of this research:

As mentioned before, studies related to community policing have established that it is valuable for both law enforcement and society to have a good relationship between the police and the community.

This relationship has been damaged by the September 11 attacks. Aggressive policing has been expanded to fight against terrorism. Some scholars agree that aggressive policing will fail (Brown, 2007); others believe that community policing should be stopped in favor of the war against terrorism and "intrusive patrolling and investigative methods" (De Guzman, 2001). *The gap between the two is not only a philosophical debate. These ideologies shape the policies, which dictate the direction of financial resources* (Brown, 2007). Implementing the idea of curtailing community policing will be in favor of the traditional practice of policing, which consequently will allocate funds in the same direction. Some believe that community policing and Homeland Security have many things in common and can complement one another (Friedmann & Cannon, 2007). Therefore, to accept the provisions of Homeland Security without rejecting community policing practice, we need to adopt a new version of community policing with the approach on *Community Oriented Counter Terrorism* (Brown, 2007). However, statistically speaking, it is not proven that community policing has been rejected as a major practice for agencies. One way to examine such a shift in practices is to examine the level of federal support in terms of grant allocation to community policing versus Homeland Security.

To date, there has not been a comprehensive study regarding this issue. Scholars have argued that federal funds have been reduced for community policing (De Simone, 2003; Geraghty, 2003) but these researches only show a snapshot of a specific time period. The entire picture must be revealed by conducting research to show the amount and direction of federal funds allocated to both community and Homeland Security from the date they were established. Consequently, the current research aims to examine shifts in policy that are measured by the allocation of grant-funded research. More specifically, the research will study federal funding as it pertains to community policing and Homeland Security. This process will shed light on the extension of grants on community policing prior to and after September 11 as well as examine the same process for Homeland Security. Accordingly, four specific research questions will guide this study.

Research questions:

The study has four research questions. The first two are designed to evaluate community policing grants at the macro level (nationwide); and the third question is designed to have an assessment at the micro level (New York City).

1: *What effect did the September 11 attacks have on the allocation of Community Policing funding?*

There are several possible answers to this question. One might consider examining annual budgets devoted to community policing since such were established to detect any positive/negative change. Another way is to follow federal grants allocated to both community policing and Homeland Security prior to and after the September 11 attacks to learn whether or not funds were reduced following the attacks. The current study aims to explore these issues by examining the allocation of grant money before and after the terror attack of Sep. 11. As

mentioned before, some studies show that in a particular year grant money was reduced for community policing in favor of Homeland Security. However, no research has been done documenting the entire grants' picture for both Homeland Security and community policing, and general policing since 1995. To present a more comprehensive view, this research will examine these issues for three different aspects: a) providing the total amount of grants for each year for both programs since their establishment; b) narrowing down the funds of both programs to New York City; and c) examining the funds of community policing, general policing, and Homeland Security prior to and after the September 11 attacks.

2: *What effect did the September 11events have on the allocation of Homeland Security funds in comparison to those for community policing?*

3: *What effect did the events of September 11 have on the allocation of the general policing funds?*

Although it has been established that some negative impacts occurred during specific years that reduced the role of community policing (funds were shifted to Homeland Security instead of being allocated to community policing), whether or not such negative effects occurred anew each following year is not known. Do we have an example of increasing grant money for the purpose of community policing after the attacks? Or, was the money that was granted for community policing redirected to a new destination (Homeland Security) in the years following the attacks?

4: *How did the events of September 11 affect funding related to community policing, Homeland Security, and general policing in New York City?*

Since one of the major September 11 attacks happened in New York City, and the attacks resulted in many policy changes at both state and federal levels, it is reasonable to assess the community policing grants on New York City as well.

Sample:

Usually research tries to draw a sample from a larger population by developing a list that serves as an approximation of all of the cases for an entire population; this is known as a sampling frame (Kraska & Neuman, 2011). However, the focus of this experiment is to examine and document any change in federal grants allocated at both the state and national levels. As such, the unit of analysis of the study is comprised of **all** federal grants awarded to community policing using federal budgets before and after September 11, 2001. The research will focus particularly on collecting related data from January 1995 to December 2010. This data will be obtained from the U.S. Census (Consolidated Federal Funds Report). Using the aforementioned census, all eligible elements (all federal grants both solicited and awarded) will be examined from the unit of analysis. Hence, the researcher will use the entire population (N=29,711). As such, no sampling error is anticipated, and thus the study will have high external validity. For example, public safety partnership and community policing grants for the year 1995 amounted to $945,838,671. In contrast, the same type of grants for the year of 1996 was $880,839,937, which is $64,998,734 less than that of the prior year. However, in 1999, the amount of community policing grants was $1,012,659,659, which is more than each of the previous years. To answer the research questions, the study aims to collect similar grants devoted to community policing for 15 years (1995 to 2010) as its sample.

Data collection:

Description of the Data:

The data provided in the Consolidated Federal Funds Report (CFFR) covers federal expenditures and/or obligations for the following categories: grants, salaries, and wages,

procurement contracts, direct payments for individuals, other direct payments, direct loans, guaranteed or insured loans, and insurance.

This data is in an aggregated form, which also includes all other data not related to community policing and Homeland Security. To enhance the data depth and enable further understating, the CFFR data will be supplemented by raw data available from the U.S. Census. To that extent, the researcher created a database from the U.S. Census. The researcher had reviewed grants appropriated for all programs from 1995 to 2010 (16 years) in order to extract relevant funds that were devoted to policing, community policing, and Homeland Security. The chosen data will be used to create a new set of databases for the study.

All data submitted to CFFR is assigned a program identification code, an object code, and an agency identification code. The Program Identification Code is patterned after the Catalog of Federal Domestic Assistance (CFDA). CFDA contains detailed program descriptions for **2,239** federal assistance programs (CFDA, 2012), which means federal grants have been awarded to 2,239 different programs. Only some of them are related to the current research.

For example: Code 16.710 belongs to the Department of Justice / Office of Community Oriented Policing Services for Public Safety Partnership and Community Policing Grants. The above code remains the same for the program every single year. Therefore, the money granted under the above mentioned code for each year has to be extracted in order to generate the database. The amount of money devoted to community policing and Homeland Security for each year has to be entered separately.

Therefore, a database has been created to supplement the information from the U.S. Census. The data related to policing, community policing, and Homeland Security has been entered separately for the U.S. and New York City for analysis.

For the purpose of this study CFFR codes were extracted from the Catalog of Federal Domestic Assistance. The complete CFDA has five digits, where the first two digits represent the Funding Agency and the second three digits represent the program (CFDA, 2012). Using agencies listed on the website enabled the researcher to identify all codes associated with the agency. This method has been used to interpret the U.S. Census data. 29,711 Federal Assistance Programs belonging to 66 different institutions for sixteen years have been examined. Among them, the researcher identified all programs and related funds to policing, community policing, and also counter terrorism. Fifty different programs and the amount of grants they received have been identified throughout the years of 1995 to 2010.

Finding the related agency does not mean that all grants that have been given to them are related to community policing or Homeland Security. For instance, the Department of Homeland Security has received 101 different types of grants. Only some of them are related to public safety. The researcher, therefore, has to examine all of the 101 grants money by name, then categorize and narrow them down under community policing or Homeland Security. For instance, number 97.106, is a CFDA code for securing cities. Hence, it has to be classified under Homeland Security grants.

The other related issue is types of assistance. There are fourteen different types of assistance being provided by the federal government to different types of programs. Among them, two types of grants can be provided: A) formula grants: when States or their subdivisions

receive funds from the federal government by law or administrative regulation; B) project grants: when the funds are being allocated for fixed or known periods (CFDA, 2014). The current study uses formula grants for analysis, because all grants devoted to general law enforcement, community policing, or Homeland Security are being funded to the States or their components.

Table 1 shows the number of grants from 1995 to 2010, which were downloaded and counted for each year. The number of grants has been downloaded separately for each year to create the following chart.

Table 1: U.S. number of grants for each for all programs

Year	Number of Grants
1995	1049
1996	990
1997	1010
1998	1030
1999	1014
2000	1027
2001	1035
2002	1059
2003	1105
2004	1131
2005	1126
2006	1135
2007	1264
2008	13000
2009	1347
2010	1389
Total	29,711

Therefore, the total of 29,711 different types of grants were reviewed in order to extract funds related to policing, community policing, and Homeland Security. After this extensive review, 52 different related grants of sixteen different years were identified and added to a separate dataset. This set of data belongs to the entire country. The process has resulted in identifying 50 related grants to policing, community policing, and Homeland Security, plus adding 2 grants related to the economy, which made for a total of 52.

The aforementioned data were entered into a separate table (table 2), which can be found in Appendix III. Table 2 also provides the program code of each grant, which remains the same throughout the years.

The extracted information from the above mentioned tables (table 1 and 2) allowed the researcher to examine only the related grants that belong to the programs that interest the current study and create new and comprehensive separate tables for both the U.S. and NYC, which consist of the underlying data for the study.

The related data to the U.S. is being displayed in table 3 which can be found in Appendix III, and the NYC related data (table 5) could be found in Appendix III.

Intervening Variables

The research used the economy as a control variable. Macroeconomic data was used to control for three variables. Therefore, different groups of data were added to the primary data to examine whether the possible annual increase in grants is associated with deflation (GDP deflator), or overall government spending.

GDP deflator: The total market value of all products and services in any given country each year is known as the Gross Domestic Product or GDP. Gross stands for total, domestic means within that country, and product is an indication of goods or services (Lupus, 2014). In the first adjustment a correction was made for inflation utilizing the GDP deflator. This placed all grant dollars on a constant dollar basis, and corrects for any upward drift in grants that might occur due to inflation. GPD deflator from 1995 to 2010 was extracted from Economic Research, Federal Reserve Bank of St. Louis (2014). The related adjusted data is displayed respectively under the U.S. and NYC data.

U.S. Spending: The second adjustment was made to account for the possibility that grants may be driven by overall government spending. Grants may increase or decrease, not due to any policy change, but simply because they are a relatively fixed percentage of a fluctuation in the government spending level. Therefore, the possible increase of funds may be due to the increase of government spending. To account for this, constant dollar grants were divided by real government spending and normalized. The relevant data for U.S. spending was extracted from The Heritage Foundation (2014). The final data series is the constant dollar grants as a percentage of real government spending times 10000.

Moving average: The third adjustment utilizes a three-year centered moving average to reduce the volatility of the data. Plots of the data continue to show very high volatility from year to year, even after adjusting for government spending. Part of this volatility derives from the nature of the raw data. Each grant year data point represents new obligations provided by the federal government for that particular program. Negative numbers represent reductions in obligations for funding. This introduces greater volatility in the raw data than would likely be seen by a series that measured spending by these programs. This volatility makes it difficult to

discern trends or turning points in the data. Utilization of a centered moving average maintains that time validity of the data while reducing excess variance.

Importance of Intervening Variables:

Failure to address control variables in any experiment will affect the internal validity of the study. Intervening variables sometimes might be even more important than independent variables. Therefore, not isolating control variables will seriously compromise the internal validity of study (Shuttleworth, 2008). The current study aims to examine the impact of 9/11 on policing grants. Hence, all other possible variables must be also measured to conclude whether or not they have any possible impact on the policing grants money. As a result, the study included all of the above mentioned intervening variables to increase the experiment's reliability.

The study aims to determine whether 9/11 was the actual independent variable in regards to increasing/decreasing of the grants, and if not, what other possible variable/s played a role, if any, in grants appropriated to community policing and Homeland Security.

Data aggregation:

Data for both the U.S. and New York City were aggregated using the category variables. The aggregated data was used to create new separate tables for both the U.S. and NYC, which consists of the underlying data for the study. The two tables are separately explained and displayed below under the U.S. and New York City data sections.

United States' Data and Data Aggregation

After extracting the needed programs for the analysis they were entered separately into a different table for each year for the entire country, which was followed by adding the grants money they received each year for different grant accounts listed in the Federal Census data. The data represents the funding of each grant for each year. The identified 52 related grants that serve as the underlying data for the study were reviewed separately for 16 years to identify the funds they have been receiving for each year. The procedure resulted in the creation of table 3 (Appendix IV), which represents the funding of each grant for each year between 1995 and 2010 (dollar amounts are displayed in millions. However, full accuracy figures were used in the analysis). In addition, the mentioned grant programs and funds of table 3 were aggregated into four different programs, because different grants are being devoted to similar programs. For instance, there are several grants under Homeland Security, and since they are all related to one category and its related policies, they were aggregated into one name (Homeland Security). This process was replicated for every other category as well. Hence, similar funds of similar program grants also were aggregated into one category. These aggregated categories and funds are as follows: a) Policing; b) Community Policing; c) Homeland Security.

The data was then aggregated based on the above category types for each year in the data set. The process generated table 4, which is displayed below:

Table 4: U.S. aggregated data by category ($ millions)

Year	Policing	Community Policing	Homeland Security
1995	289.1	945.8	2.1
1996	580.2	880.8	.05
1997	587.6	784.7	1.1
1998	608.8	1237.0	2.0
1999	552.3	1012.7	3.9
2000	704.4	461.1	3.9
2001	691.7	531.8	.03
2002	825.3	607.1	74.6
2003	633.7	502.7	10.4
2004	476.8	747.0	897.3
2005	295.9	214.2	2745.3
2006	322.3	140.3	2159.0
2007	(293.1)	(51.1)	(2551.0)
2008	136.3	290.8	3520.9
2009	(27.5)	1249.1	3422.7
2010	70.4	557.5	488.9

As mentioned before, in the case of negative or positive change in the amount of grants prior to or after the September 11 attack, other factors should be excluded to make sure they are not responsible for the change. Four economical elements have been identified for possible alternative explanations. Therefore, we should add them into the analysis to examine their impact. These factors are as follows: a) GDP deflator; b) National GDP; c) Real GDP; d) Real government spending. The information about the aforementioned variables has been collected for sixteen years (1995–2010), which generated the following table (4-1).

Table 4-1[1], U.S. Aggregated Transformed Data (after being associated with control variable/constant dollar/government spending)

	Policing	Community policing	Homeland Security
1995	380.7	1,245.40	2.8
1996	743.4	1,128.60	0.6
1997	735.3	982	1.4
1998	738.7	1,500.80	2.4
1999	649.8	1,191.50	4.6
2000	785.7	514.3	4.4
2001	743.1	571.2	0.3
2002	820.5	603.5	74.2
2003	587.1	465.8	9.7
2004	415.2	650.4	781.3
2005	238.8	172.9	2,215.70
2006	243.6	106	1,631.80
2007	-216.4	-37.7	-1,883.20
2008	92.4	197	2,385.20
2009	-15.9	722.7	1,980.40
2010	41.2	326.3	286.1

[1]- Policing in constant dollars / (government spending index/100)
- Community policing in constant dollars / (government spending index/100)
- Homeland Sec. in constant dollars / (government spending index/100)

New York City's Data and Data Aggregation

After identifying the needed sample for the analysis (table 2) the same process that was used to generate the required data for the entire country has been used to create the required information for New York City. Therefore, grants were entered separately into different tables for each year (sixteen years total) for NYC. The processes have been displayed in table 5 (Appendix III).

Furthermore, the listed grant programs and funds in table 5 were aggregated into four different programs, because different grants are being devoted to similar programs. This is the replication of the same process that was used to aggregate the U.S. data. As a result, data was aggregated into four categories: A) Policing; b) Community Policing; c) Homeland Security; D) Economic. The data was then aggregated based on the above category types for each year in the data set. The process generated table 5, which is displayed below.

Table 5[2]: New York Aggregated Data and Transformed Data (after being associated with control variable/constant dollar/government spending)

Year	Policing	Community policing	Homeland Security
1995	3.8	0	0
1996	46.9	0	0
1997	43.5	97.3	0
1998	50.3	100.5	0
1999	649.8	1191.5	0
2000	30.2	117.3	0
2001	29.2	1.1	0
2002	74.2	58.5	0
2003	33.4	19.3	0
2004	27.1	1.9	52.1
2005	27.7	-0.1	1.2
2006	8.2	2.7	14.6
2007	3.6	-20.6	-8
2008	0	-0.1	68.3
2009	1.2	0	185.2
2010	2.2	1.4	10.1

[2]- Policing in constant dollars / (government spending index/100)
- Community policing in constant dollars / (government spending index/100)
- Homeland Sec. in constant dollars / (government spending index/100)

Research Design and Data Analysis:

The study used a natural pre-experimental design, which is also known as the "Before-and-After Design" study. Using this design, the collected data related to the dependent variable are being compared to the data after it was exposed to an independent variable manipulation, particularly if the same group is the subject of the study before and after an independent variable is introduced to it (Gideon, 2012). Since the current study seeks to compare and identify trends in federal grant allocation pre- and post-September 11, such design provides an ultimate setting to calculate dollar amounts given in grants (the dependent variable in this study) before and after the mobilizing event of September 11 (the independent variable in this study). In the case of any change/s in the amount of grants after the event, one might argue that the change might have occurred because of an alternative explanation, rather than due to September 11. The alternative explanation might be recession. If the finding shows there is a decrease in policing funds, and the reduction is due to recession, we should therefore observe the same pattern in the programs that are related to the economy. Hence, research uses economical elements (such as GDP deflator, Government spending, and grants related to the economy) as control variables. There are few grants related to the economy. Two of which are added to the data set as control variables: A) Grants for Public Works and Economic Development Facilities; b) Economic Development Support for Planning Organizations.

Most policy related studies use natural and quasi-experimental or pre-experimental designs since they allow an examination of a large scale of cases. Natural and quasi-experiments

are different ranges of studies that have the characteristic of randomization; however, researchers have no control over assigning the randomization to the experiment. Hence researchers do *not* create natural experiments; they find them (Remler & Ryzin, 2010).

As was discussed earlier, this study also discusses a large number of cases (sixteen years of the entire grants on community policing and also Homeland Security as a unit of analysis). Natural pre-experimental designs (before-and-after designs) are important for several reasons: a) practical or ethical concerns might make the randomization impossible; b) natural and quasi-experiment designs can be used in a bigger population, plus they have more realistic settings compared to randomized experiments, thus enabling researchers to have a much better generalization, and increasing the external validity of the results; and c) practitioners can carry out these studies easily in their own programs (Remler & Ryzin, 2010). Thus, such design is highly appropriate for policy studies such as the current one.

In natural experiments, independent variable/s of the study will occur naturally without any plan or intention to influence the outcome. Consequently, the unplanned event of 9/11 offers the unique opportunity of a natural before and after design where we can compare grant decisions before and after the occurrence of a major event. For example, Kirk (2009) examined the effects of Hurricane Katrina on residential change and the recidivism of those released from prison. Using such major events, Kirk was able to isolate the exogenous source of variation that influences recidivism to find that displacement reduces recidivism. This is very similar to the case of Sep. 11, where a major event that is exogenous has the ability to affect funding priorities and thus policy decisions.

The data that is needed to compare federal grants before and after the 9/11 event exist in the U.S. census database. By comparing the changes in funding before and after the event, the current study enables us to infer the effect of the terrorist attacks of Sep. 11 on community policing and Homeland Security funding, and thus we can also learn about how such extreme events affect national priorities and research policies to address such priorities.

Furthermore, natural experiments are known to have an acceptably high internal validity because researchers have clear evidence of cause and effect (Remler & Ryzin, 2010). Thus, using such designs increases the validity of the research.

Specifically, the current study examined the history of federal grants received by both community policing and Homeland Security, and measured the grants' trends prior to and post exposure to an independent variable (September 11 attacks) by using inferential statistics, such as *T-test* and multivariate methods, (Segmented and Stepwise Regression analysis in particular) to examine the effect of independent variables (manipulation) and their interaction on the dependent variables (changes in funding).

T-test can be used when a single unit of analysis has to be studied under two different conditions (Salkind, 2011). The current study aims to examine funds allocated to community policing, prior to and after September 11. Because of the fact that this study is using pre-experimental design, *T-test* is a valid statistic that is not only appropriate, but also useful to examine the funding of community policing under two different conditions (prior to and after the attack). Accordingly, independent *T-tests* are calculated before 9/11 versus after 9/11 data series. A separate *T-test* was calculated for: 1) the raw data; 2) data after inflation related variables; 3)

constant dollar data as a percentage of real GDP; and 4) constant dollar data as a percentage of real government spending.

According to some researchers, the interrupted time series design is one of the strongest approaches for evaluating interventions. To make such an evaluation, Segment Regression analysis is being used as a powerful statistical tool for estimating intervention effects in interrupted time series (Wagner et al., 2002). Therefore, Segmented Regression analysis was used to try to isolate the effects of 9/11 on constant dollar grants as a percentage of real government spending. The analysis used three variables: Time (a continuous number of years since the first year of the data), Intervention (a dummy variable measuring before vs. after 9/11), and Time After (a continuous number of years after 9/11). This design attempts to estimate three parameters. The coefficient of time measures the pre 9/11 trend slope in grants. The coefficient of intervention measures the change in the level of grants immediately after 9/11. The coefficient of time after the event attempts to measure the new post 9/11-trend slope.

Therefore, the regression breaks up the data into the following components:

1) The beginning level of spending in 1995;
2) The trend line of the data between 1995 and 2011;
3) Immediate change of level right after 9/11; and
4) The difference in the trend line after 9/11.

Chapter 5: Results

Plots for the graphical aggregated data, *T-tests,* and the results of regression models in the U.S. and NYC are shown here in two different sections. Each section measures the allocated grant funds of all three types of policing and examines their association with intervening variables. Each section also tries to answer different research questions as follows.

Results related to the U.S. analysis correspond to research questions 1-3, and results related to NYC correspond to research question 4.

U.S. Results

This section examines community policing, Homeland Security, general policing at the macro level (entire country), and grant money given. This section of the study tries to answer the following research questions:

1: What effect did the September 11 attacks have on the allocation of community policing funding?

2: What effect did the events of September 11 have on the allocation of general policing funds?

3: What effect did the events of September 11 have on the allocation of Homeland Security funds in comparison to community policing?

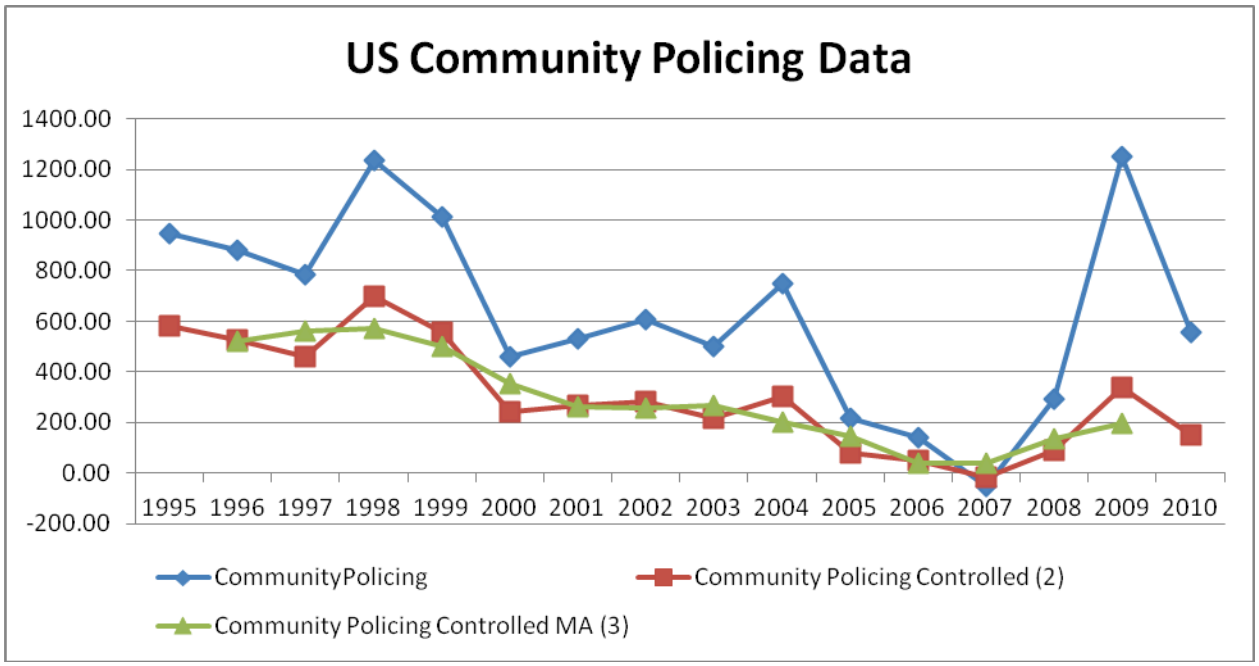
A) U.S. Community Policing Results, research question 1:

The experiment tried to answer this question in three different ways: 1) using plain graphical displays, 2) utilizing *T-tests*, 3) regression analysis.

1) Graphical Display

The following chart displays community policing funds in the form of raw aggregated data, aggregated data controlled for inflation and government spending, and aggregated data with a three-year moving average.

Figure 1: U.S. community policing aggregated raw, controlled, and three-year moving average:



The U.S. data for community policing show a consistently downward trend from before 9/11 to after 9/11. The September 11 terror attack does not appear, from this plot, to have a major impact on the funding of community policing. The above graph indicates that community policing was not at the center of attention even before the terror attacks. However, the trends also show that before the attack and up to the year 2002 (when Homeland Security was established), the grant funds appear to be stationary; whereas for the years after the attack, especially 2004, there is a sharp decline in funding before it picks up again. This can be justified because of the establishment of Homeland Security, which changed the policy. As a result, community policing received less funds. The related trend to the three-year moving average of community policing shows less variation because it controls for two variables that have nothing to do with 9/11.

2) T-test Analysis of U.S. Community Policing

This section uses independent *T-test* analysis to examine the mean differences between grant funds prior to and after the terrorist attacks of 9/11 for community policing. The following table displays the related *T-test* data.

Table 6: Mean differences, *T-tests* and confidence intervals of U.S. Community Policing variables[3].

Variable	Mean Difference	T statistic	Sig
Community Policing	-363.22	-2.209	0.044**
Comm. Policing controlled (1)	--662.82	-4.23	0.001**
Comm. Policing controlled MA (2)	-647.49	-5.345	<0.001**

[3] (1) Variables transformed to control for inflation and changes in overall government spending. Transformed variable equals untransformed variable converted to constant dollar basis by dividing by GDP deflator and then indexed to real government spending by dividing by real government spending index
(2) 3 year centered moving average of controlled variables

** Significant at .05 level
*One-tailed test significant at .05 level

T-test analysis of U.S. Community Policing Aggregated Data after Controlling for Inflation, Government Spending, and a Three-Year Centered Moving Average

Mean funding levels after 9/11 were down $363 million from pre-9/11 levels. This difference in means produces a *t* statistic of -2.209, which has a corresponding *p* level of .044 and is significant at the .05 alpha level.

In regard to the research question, this difference in mean is significant (*t*=2.209, *p*=.044). For the years after the 9/11 attacks, community policing received about $363 million less than in the years before the attack. This shows the change in policy following the establishment of Homeland Security.

Examining the same data with control variables shows the mean level of post 9/11 funding was down 663 from pre-9/11 levels. This difference produces a *t* statistic of -4.23 with a corresponding *p* level of .001, which is statistically significant at the .05 alpha level. Thereby, even stronger results are found when U.S. community policing data are controlled for inflation and government spending (*t*=--4.23, *p*=.001), and using a three-year moving average (t=-5.345, p=.001). Clearly, this is evidence of a shift in policy and shows U.S. community policing funds were reduced after the terrorist attacks, due to the policy change.

3) Regression Analysis of U.S. Community Policing Aggregated Data Controlling for Inflation, Government Spending, and a Three-Year Centered Moving Average

This section utilizes an analysis of segmented regression to examine grant funds prior to and after the terrorist attacks of 9/11 for community policing.

Table 7: Regression analysis of U.S. community policing. The effect of 9/11 (independent variable) on U.S. community policing grants (dependent variable)

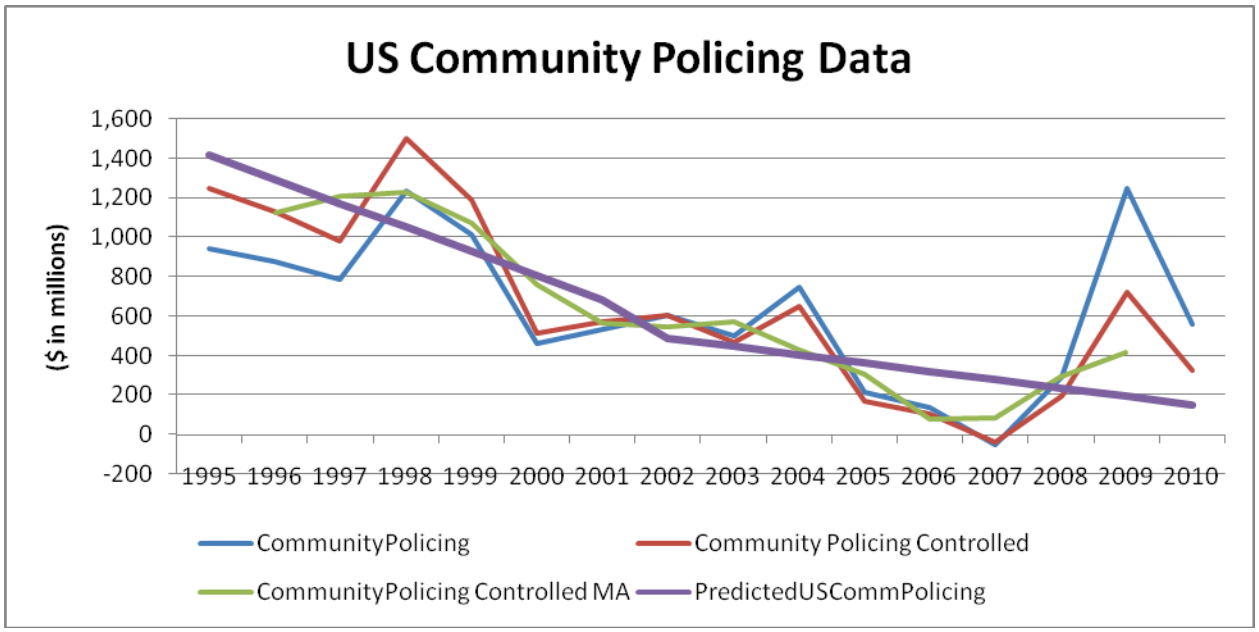
Variable	B	T statistic	Sig
Intercept	1538.526	8.173	<.001 **
Baseline trend variable (Year 1995=0 Increased by 1 for each year after)	-121.961	-3.118	0.011**
Level change after 9/11event	-151.345	-0.870	0.405
Trend change after 9/11 event	79.463	1.707	0.119

*p< .05. **p< .01.
Adjusted R^2=0.869
F statistic= 22.085

The regression model for U.S. community policing shows a relatively tight fit to the data after controlling for inflation, government spending, and a three-year moving average. Adjusted R squared of .869 means that the model accounts for 87% of the variance in the adjusted aggregate data. The F statistic of 22.85 is significant at the .001 level. Looking at the individual *t* statistics for the regression coefficients, it can be concluded that the constant term is significant. The *t* for time of -3.118 is significant at the .01 level.

This simply indicates we have evidence to support that there was a downward trend in funding levels prior to 9/11. The funds were already down prior to the event. Similarly we do not see a significant *t* statistic for the Years-After variable. The results again can be justified due to the fact that community policing funds were trending downward prior to the event. There was not much funding left to be cut because of the policy change.

Figure 2: U.S. community policing regression with aggregated raw data and control variables



The above regression plot shows that there was a downward trend in community policing funds prior to 9/11. The results are reasonable because they show that community policing was weakened even prior to the event. However, the event expedited the downward trend. That is why the prior *T-test* analysis proved the significant mean level.

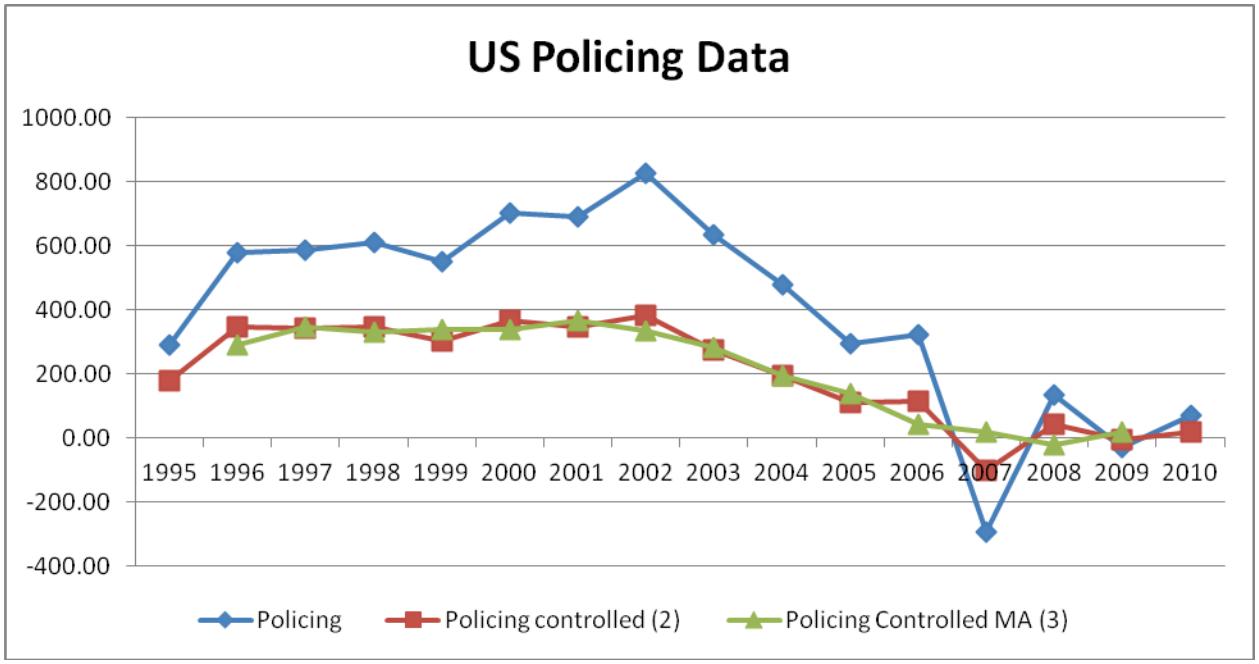
B) U.S. General Policing Results, research question 2

The experiment tried to answer this question in three different ways: 1) using plain graphical displays, 2) utilizing *T-tests*, and 3) regression analysis.

1) Graphical Display

The following charts displays the general policing funds in the form of raw aggregated data, aggregated data controlled for inflation and government spending, and a three-year moving average.

Figure 3: U.S. general policing, raw, controlled, and three-year moving average



The U.S. data for policing appear to be relatively stationary (zero trend) prior to 9/11. After 9/11, the trend in the data appears to change and become negative. The pattern clearly shows the negative impact of the event on the general policing grant funds. The stationary trend before 9/11 and sharp decline after the event is a clear indication that general policing was negatively impacted because of the event. This trend thus provides further evidence of a shift in policy after the event.

2) T-test Analysis of U.S. General Policing

This section uses independent *T-test* analysis to examine the mean differences between grant funds prior to and after the terrorist attacks of 9/11, for general policing. The following table displays the related *T-test* data.

Table 8**:** Mean differences, T-tests and confidence intervals of U.S. general policing variables[4]

Variable	Mean Difference	T statistic	Sig
U.S Policing	-302.31	-2.397	0.035**
U.S. Policing controlled (1)	-437.21	-3.35	0.005**
U.S. Policing controlled MA (2)	-446.99	-4.312	0.003**

[4] (1) Variables transformed to control for inflation and changes in overall government spending. Transformed variable equals untransformed variable converted to constant dollar basis by dividing by GDP deflator and then indexed to real government spending by dividing by real government spending index
(2) 3 year centered moving average of controlled variables

** Significant at .05 level
*One-tailed test significant at .05 level

The table indicates that the mean funding level after 9/11 was $302 million lower than pre 9/11 level. This difference is significant (t=-2.397, p=. 035) and signals the change in policy, and thus provides more evidence that general policing funds have been reduced after the event.

T-test Analysis of U.S. General Policing Aggregated Data after Controlling for Inflation, Government Spending, and a Three-Year Centered Moving Average

The mean of the general policing funds after their association with a series of control variable was significant. Even stronger results were found when controlling U.S. policing data for inflation, government spending (t=-3.35, p=.005) and a three-year moving average (t=-4.312, p=.003). Using control variables proves not only that alternative variables have no impact on funding level but also that the event itself was the cause of the policy change, not other variables.

These findings provide further proof that U.S. general policing funds were reduced after the event. For different years before the attacks, the general policing grant funds were stable. However, the event caused a drastic reduction in the funds of general policing. This reduction had a negative impact on general policing and showed that the federal government was no longer focused on it. This is another indication of a shift in policy.

3) Regression Analysis of U.S. General Policing Aggregated Data Controlling for Inflation, Government Spending, and a Three-Year Centered Moving Average

This section utilizes an analysis of segmented regression to examine grant funds prior to and after the terrorist attacks of 9/11, for Homeland Security.

Table 9: Regression analysis of U.S. general policing. The effect of 9/11 (independent variable) on U.S. policing grants (dependent variable)

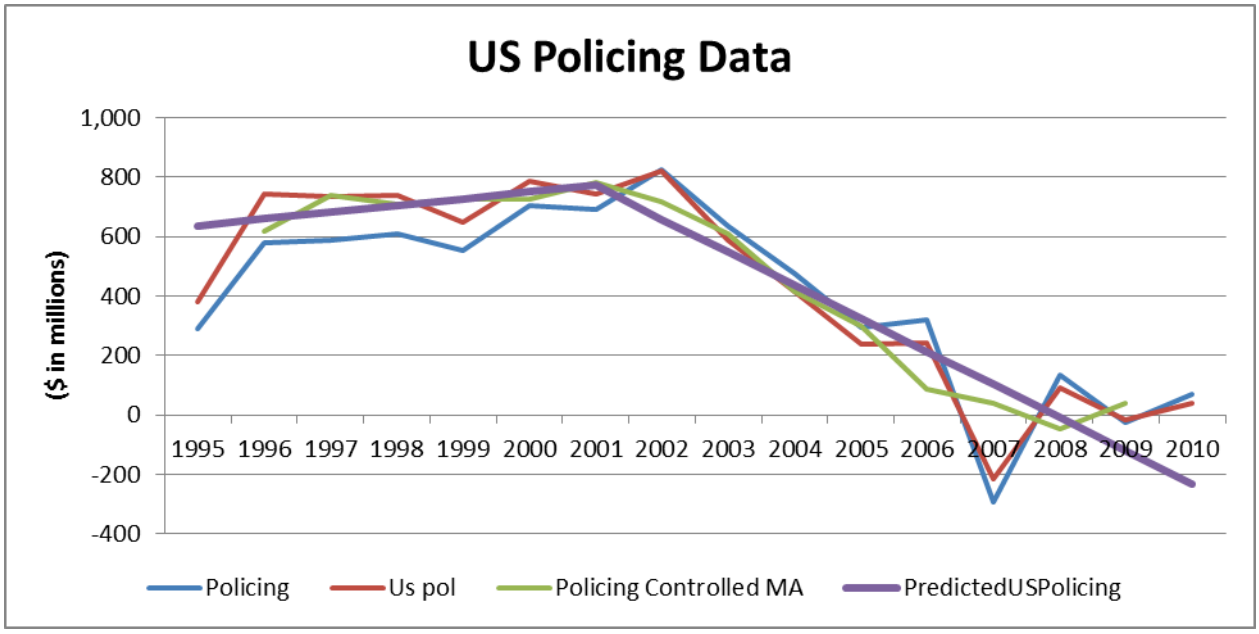
Variable	B	T statistic	Sig
Intercept	614.675	6.895	<.001 **
Baseline trend variable (Year 1995=0 Increased by 1 for each year after)	22.695	1.225	0.249
Level change after 9/11event	-3.003	-0.036	0.972
Trend change after 9/11 event	-133.967	-6.077	<.001**

*p< .05. **p< .01.
Adjusted R^2=0.939
F statistic= 67.412

The regression model for U.S. general policing shows a relatively tight fit to the adjusted data. Adjusted R squared of .939 means that the model accounts for 93.9% of the variance in the adjusted aggregate data. The F statistic of 67.42 is significant at better than the .001 level. Looking at the individual t statistics for the regression coefficients, we see that the constant term is significant, meaning there was a significantly non-zero amount of funding at the beginning of the observation period. The t for Time of 1.225 is not significant at the .05 level. Similarly, the intervention t of -.005 has a p value of .972, which is not significant. Finally, we do see a significant t statistic for the Years-After variable. This means that we can reject the

null hypothesis that 9/11 had no effect on the preexisting trend in police funding. Stated otherwise, we have evidence to suggest that 9/11 negatively impacted the trend of funding regular police grants in the U.S.

Figure 4: U.S. general policing regression with aggregated raw data and control variables



The regression plot clearly shows the stable trend of general policing in the entire country prior to the event, with a sharp decline after the attacks. The downward trend of U.S. policing grants after 9/11 supports the idea that 9/11 caused the change in policy.

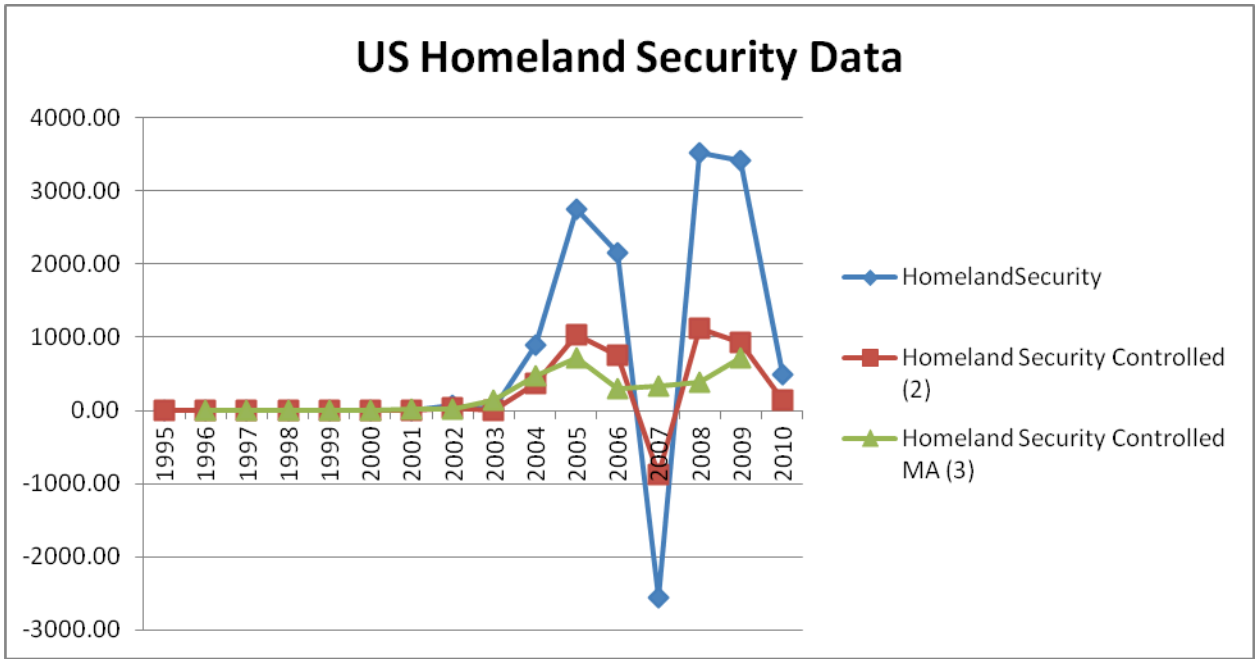
(C) U.S. Homeland Security Results, research question 3

The study tried to answer this question in three different ways: 1) using plain graphical displays, 2) utilizing *T-tests*, and 3) regression analysis.

1) Graphical display

The following chart displays Homeland Security funds in the form of raw aggregated data, aggregated data controlled for inflation and government spending, and aggregated data with a three-year moving average.

Figure: 5 U.S. Homeland Security aggregated raw, controlled, and three-year moving average



Although the Department of Homeland Security was not created until the end of 2002, some related programs existed before its establishment. Trend line analysis clearly shows an upward trend in the data after 9/11, but this trend is difficult to specify due to the extreme fluctuations in the data. The moving average shows a very modest upward movement in the series. This upward

trend can be justified only because of the change from a prior model of policing to a new model (Homeland Security). Funds were increased after the event, with the intention of making a stronger Department of Homeland Security. This increase indicates a clear shift in the policy.

2) *T-test* Analysis of U.S. Homeland Security

This section uses independent *T-test* analysis to examine the mean differences between grant funds prior to and after the terrorist attacks of 9/11, for Homeland Security. The following table displays the related *T-test* data.

Table 10**:** Mean differences, T-tests, and confidence intervals of U.S. Homeland Security variables[5]

Variable	Mean Difference	T statistic	Sig
Homeland Security	1194.48	1.821	0.106*
Homeland Sec. controlled (1)	828.88	1.803	0.109
Homeland Sec. controlled MA(2)	819.20	4.293	.004**

[5] (1) Variables transformed to control for inflation and changes in overall government spending. Transformed variable equals untransformed variable converted to constant dollar basis by dividing by GDP deflator and then indexed to real government spending by dividing by real government spending index
(2) 3 year centered moving average of controlled variables

** Significant at .05 level
* One-tailed test significant at .05 level

The mean level of post 9/11 grants of $1.2 billion for Homeland Security was drastically higher than the level prior to 9/11, which was nearly zero. The extreme variance of this time series results in a *t* statistic of only 1.821 with a P value of .106, which is not significant at the .05 level. However, the mean difference is significant when using a one-tailed *T-test.* (t=1.821 , one-tail P= .053). This result supplies more evidence of a change in the policy because it proves Homeland Security programs have been receiving more funds.

T-test Analysis of U.S. Homeland Security Aggregated Data after Controlling for Inflation, Government Spending, and a Three-Year Centered Moving Average

To reduce the issue of extreme variance, a three-year centered moving average was applied to the data. This allows us to statistically confirm the seemingly obvious idea that mean funding for the U.S. Department of Homeland Security was higher in the years after 9/11 than in the years prior to 9/11. The *t* statistic for the controlled data after applying a moving average was 4.293, which is significant at the .01 level. Taken together, these results demonstrate a change in policy toward higher funding for Homeland Security due to the impact of 9/11. The results indicate that a shift in policy has occurred and that U.S. policing has changed its direction to Homeland Security.

3) Regression Analysis of U.S. Homeland Security Aggregated Data Controlling for Inflation, Government Spending, and a Three-Year Centered Moving Average

This section utilizes an analysis of segmented and stepwise regression to examine grant funds prior to and after the terrorist attacks of 9/11 for Homeland Security.

Table 11: Regression analysis of U.S. Homeland Security. The effect of 9/11 (independent variable) on U.S. Homeland Security grants (dependent variable)

Variable	B	T statistic	Sig
Intercept	-10.098	-0.025	0.981
Baseline trend variable (Year 1995=0 Increased by 1 for each year after)	3.689	0.044	0.966
Level change after 9/11event	188.982	0.505	0.625
Trend change after 9/11 event	134.310	1.341	0.21*

* a stepwise regression procedure results in this variable being significant (t=5.327, P<.001)
Adjusted R^2=0.629
F statistic= 8.344

The segmented regression model for U.S. Homeland Security shows a moderately good fit to the adjusted data. An adjusted R squared of .629 means that the model accounts for 63% of the variance in the adjusted aggregate data. The F statistic of 8.344 is significant at better than the .01 level. Segmented regression result did not support a strong impact from 9/11. However, Stepwise Regression was utilized to further examine the issue. Its analysis is displayed below:

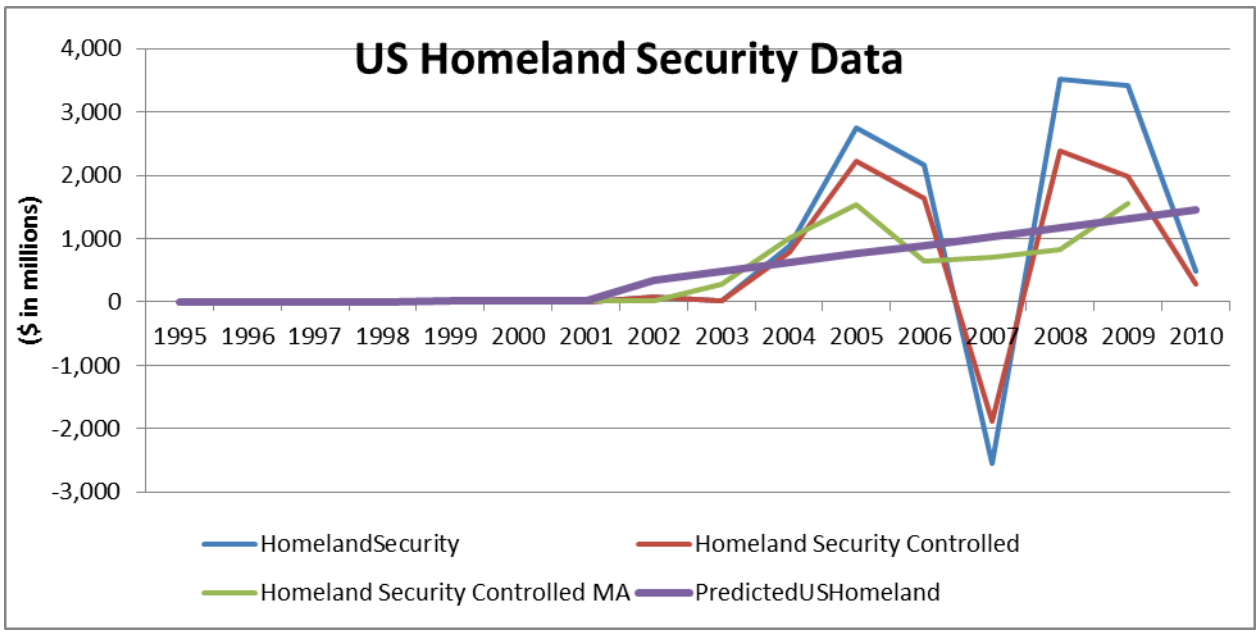
Table 11A: Stepwise Regression analysis of U.S. Homeland Security The effect of 9/11 (independent variable) on U.S. Homeland Security grants (dependent variable)

Variable	B	T statistic	Sig
Intercept	49.192	0.415	0.981
Trend change after 9/11 event	165.443	5.327	<.001 **

*p< .05. **p< .01.
Adjusted R^2= 0.678
F statistic= 28.377

An additional analysis was run on the U.S. Homeland Security data using a stepwise regression procedure. In this procedure the computer automatically selects variables to be included in the regression. This selection is based on the correlation with the dependent variable after controlling for all other independent variables. This procedure resulted in the variable Time-After being significant (t=5.327, p=.001). The coefficient of Time-After represents the change in the slope of the regression line from before the event to after the event. This provides evidence that the trend in Homeland Security funding became more positive after the event. This is another indication of a shift in policy and shows Homeland Security programs received more funds after the event.

Figure 6: U.S. Homeland Security regression with aggregated raw data and control variables



As it can be seen in the regression plot, the amount of funding for Homeland Security and its related programs was close to zero. However, the regression shows an upward trend after the event. This trend indicates that not only were related programs added to Homeland Security but also that more funds were devoted to the programs as well. This again is signals a shift in the policy.

New York Results

This section examines community policing, Homeland Security, general policing at a micro level (NYC), and funding. This part tries to answer research question 4:

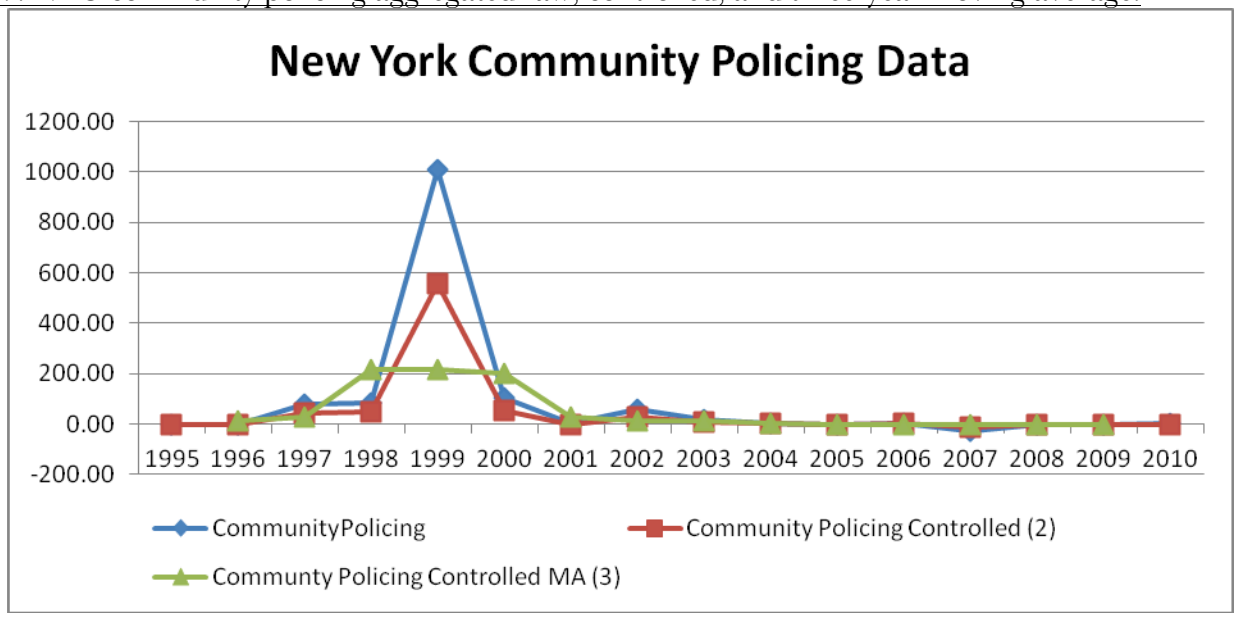
How did the events of September 11 affect funding related to community policing, Homeland Security, and general policing in New York City?

A) NYC Community Policing Results

1) Graphical display

The following charts displays community policing funds in the form of raw aggregated data, aggregated data controlled for inflation and government spending, and aggregated data with a three-year moving average.

Figure 7: NYC community policing aggregated raw, controlled, and three-year moving average:



New York community policing shows extreme variance in the community policing funds. One extremely high year makes it difficult to detect any other trends in the data. The three-year centered moving average line takes some of the extreme volatility out of the series. It is unclear from the plot whether or not 9/11 had any impact. The main increase and decrease appears to have happened prior to 9/11. These trends should not be generalized to the rest of the country because U.S. community policing results in general had a different pattern. The NYC results also look reasonable because funds devoted to community policing were already down. There were not a lot of funds left to be reduced by the event. We might have seen a huge cut in funds if they were at their highest level.

2) T-tests Analysis of NYC Community Policing

This section uses independent *T-test* analysis to examine the mean differences between grant funds prior to and after the terrorist attacks of 9/11, for community policing. The following table displays the related *T-test* data.

Table 12: Mean differences, *T-tests*, and confidence intervals of NYC community policing variables[6]

Variable	Mean Difference	T statistic	Sig
Community Policing	-176.14	-1.262	0.254
Comm. Policing controlled (1)	-208.37	-1.27	0.251
Comm. Policing controlled MA (2)	-249.10	-2.75	0.040**

[6] (1)Variables transformed to control for inflation and changes in overall government spending. Transformed variable equals untransformed variable converted to constant dollar basis by dividing by GDP deflator and then indexed to real government spending by dividing by real government spending index
(2) 3 year centered moving average of controlled variables

** Significant at .05 level
* One-tailed test significant at .05 level

The results of the *T-test* of New York aggregated raw data for community policing appear to show a large decline in the mean from $176 million prior to 9/11 to $7 million after 9/11. This difference, however, is obscured by the very high variance of the data. Note that the *t* statistic for this difference is only -1.262, which has a p value of .254.

However, the use of a three-year moving average shows a significant decline in community policing funding after 9/11 (t=-2.75, p=.040).

This significant decline after the event reinforces prior evidence; and thus further indicates that the event had a negative impact on community policing funds. Hence, less money was allocated to the community policing.

3) Regression Analysis of NYC Community Policing Aggregated Data Controlling for Inflation, Government Spending, and a Three-Year Centered Moving Average

This section utilizes analyses of segmented and stepwise regressions to examine grant funds prior to and after the terrorist attacks of 9/11 for NYC's community policing.

Table 13: Regression analysis of NYC's community policing. The effect of 9/11 (independent variable) on NYC community policing grants (dependent variable)

Variable	B	T statistic	Sig
Intercept	93.56	0.543	0.599
Baseline trend variable (Year 1995=0 Increased by 1 for each year after)	35.757	0.999	0.341
Level change after 9/11event	-317.336	-1.993	0.074*
Trend change after 9/11 event	-40.457	-0.950	0.365

* a stepwise regression procedure results in this variable being significant (t=-3.212, P=.007)

Adjusted R^2= 0.367
F statistic= 3.510

The regression model for New York City's community policing shows a relatively moderate fit to the adjusted data. An adjusted R squared of .367 means that the model accounts for only 37% of the variance in the adjusted aggregate data. The F statistic of 3.510 is not significant at the .05 level and thus indicates that the regression equation is no better than a prediction of the mean value. None of the variables in the regression equation show significant *t* statistics. We have moderate evidence that 9/11 impacted community policing in New York. The regression is significant at .08 level for one variable (level change after 9/11). Although this is not strong evidence, it does suggest that there was a temporary downward effect of 9/11 on New York community police funding. The mentioned trend can also be interpreted to reflect a shift in policy. We know from prior findings that community policing funds were reduced even before

the event. This reduction in community policing funding was further expedited by the 9/11 events, which resulted in an even greater reduction in grants; since funds were now needed for new programs, namely Homeland Security.

Stepwise Regression was also utilized to further examine the issue. Its analysis is displayed below:

Table 13-1: Stepwise Regression analysis of NYC's community. The effect of 9/11 (independent variable) on NYC community policing grants (dependent variable)

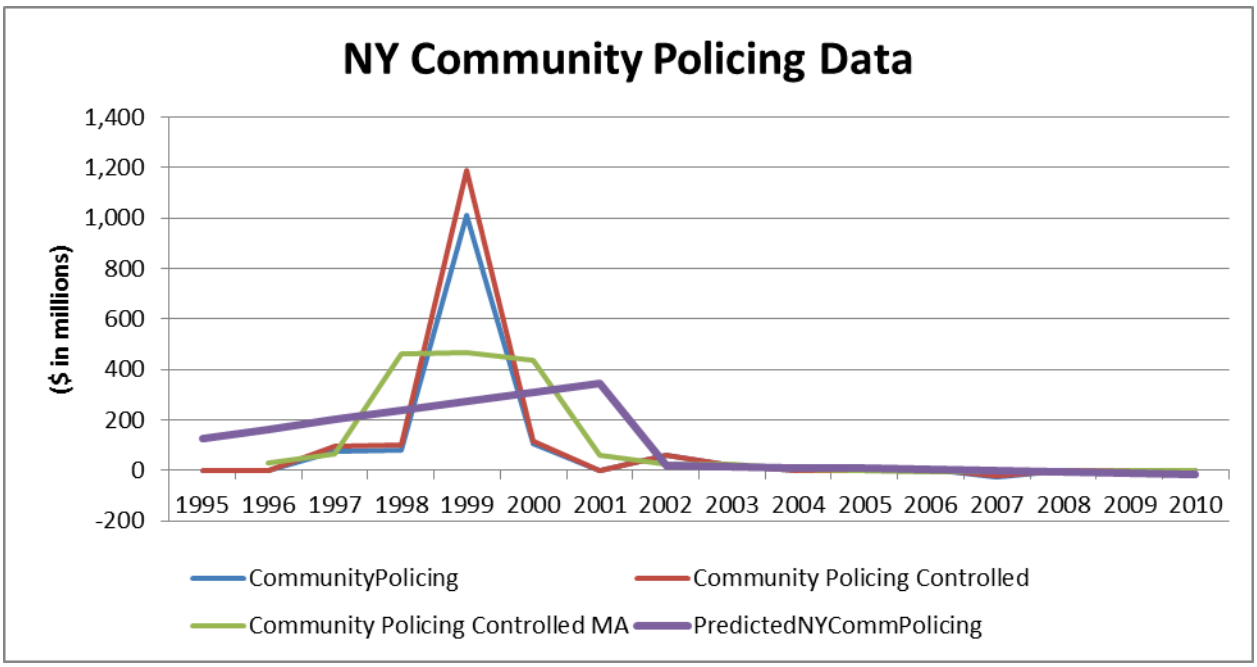
Variable	B	T statistic	Sig
Intercept	254.465	4.341	0.001 **
Trend change after 9/11 event	-249.095	-3.212	0.007 **

* a stepwise regression procedure results in this variable being significant (t=-3.212, P=.007)

** significant at the .01 level

An additional analysis was also run on the NYC community policing data using a stepwise regression procedure. In this procedure the software program automatically selects variables to be included in the regression based on their correlation with the dependent variable after controlling for all other independent variables. This procedure resulted in the intervention variable being significant (t=-3.212, p=.007). The coefficient of intervention represents the change in the level of funding from immediately before the event to immediately after the event. This provides further evidence that the level of NYC community policing funds declined immediately after the event and that the event changed funding policy.

Figure 8: NYC's community policing regression with aggregated raw data and control variables.



As can be seen from the regression plot, the community policing fund had its main extreme variances prior to the year 2001; however the time intervention of 2001 shows that immediate impact of the event was to create a downward trend that might have been upward otherwise. This further supports the shift in policy as a result of the 9/11 attacks.

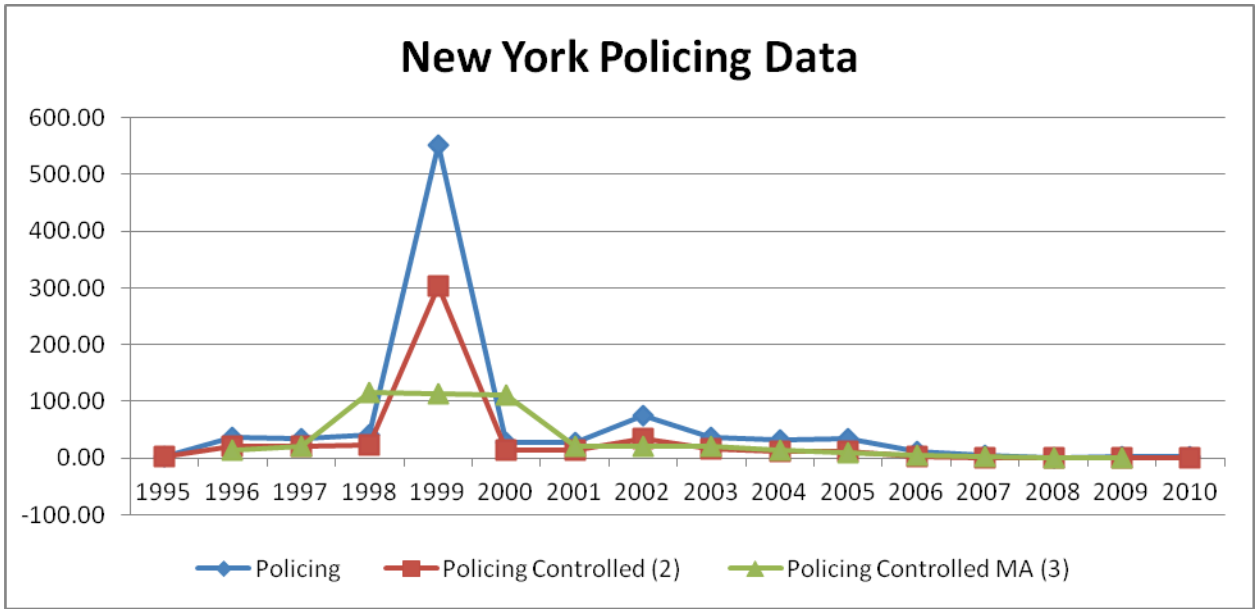
B) NYC General Policing Results

The experiment tried to answer this question in three different ways: 1) using plain graphical displays, 2) utilizing *T-tests,* and 3) regression analysis.

1) Graphical Display

The following chart displays general policing funds in the form of raw aggregated data, aggregated data controlled for inflation and government spending, and aggregated data with a three-year moving average.

Figure 9: NYC general policing aggregated raw, controlled, and three-year moving average



The New York data for general policing have been up and down mostly prior to the event. Funding increased in 1999 and fell back in 2000. A three-year moving average buffers out some of this swing. However, the downward trend stayed low and never came back up after the event, due to the shift in policy.

2) *T-test* Analysis of NYC's Homeland Security Funds

This section uses independent *T-test* analysis to examine the mean differences between grant funds prior to and after the terrorist attacks of 9/11 for NYC's general policing fund. The following table displays the related *T-test* data.

Table 14: Mean differences *T-test*, and confidence intervals for New York City's policing variables

Variable	Mean Difference	T statistic	Sig
Policing	-81.19	-1.076	0.322
Policing controlled (1)	-102.20	-1.154	0.292
Policing controlled MA (2)	-121.64	-2.67	0.043**

(1)Variables transformed to control for inflation and changes in overall government spending. Transformed variable equals untransformed variable converted to constant dollar basis by dividing by GDP deflator and then indexed to real government spending by dividing by real government spending index
(2) 3 year centered moving average of controlled variables

** Significant at .05 level
* One-tailed test significant at .05 level

The mean funding level after 9/11 for NYC policing was $81 million lower than pre 9/11 levels, due to the extreme variance of data. This difference is not significant (t=-1.076, p=.322). Controlling for inflation and government spending also shows an insignificant change in funds.

However, using a three-year moving average shows a significant decline in police funding after 9/11 (t=-2.67, p=.043). This decline is due to the impact of the terrorist attacks and can be translated into the policy change.

3) Regression Analysis of NYC's General Policing Aggregated Data and Controlling for Inflation, Government Spending, and a Three-Year Centered Moving Average

This section utilizes analysis of segmented regression to examine grant funds prior to and after the terrorist attacks of 9/11, for NYC's general policing funds.

Table 15: Regression analysis of NYC's General Policing. The effect of 9/11 (independent variable) on NYC policing grants (dependent variable)

Variable	B	T statistic	Sig
Intercept	60.754	0.708	0.495
Baseline trend variable (Year 1995=0 Increased by 1 for each year after)	17.996	1.009	0.337
Level change after 9/11event	-133.842	-1.687	0.122*
Trend change after 9/11 event	-25.282	-1.191	0.261

** A stepwise regression procedure results in this variable being significant (t=-3.095, P=.009)*
Adjusted R^2= 0.367
F statistic= 3.511

The regression for New York general policing shows a moderate fit to the adjusted R squared of 0.367. This is an indication that the model accounts for about 37% of the variance. The F statistic of 3.511 is not significant at the .05 level. Stepwise Regression was also utilized to further examine the issue. Its analysis is displayed below:

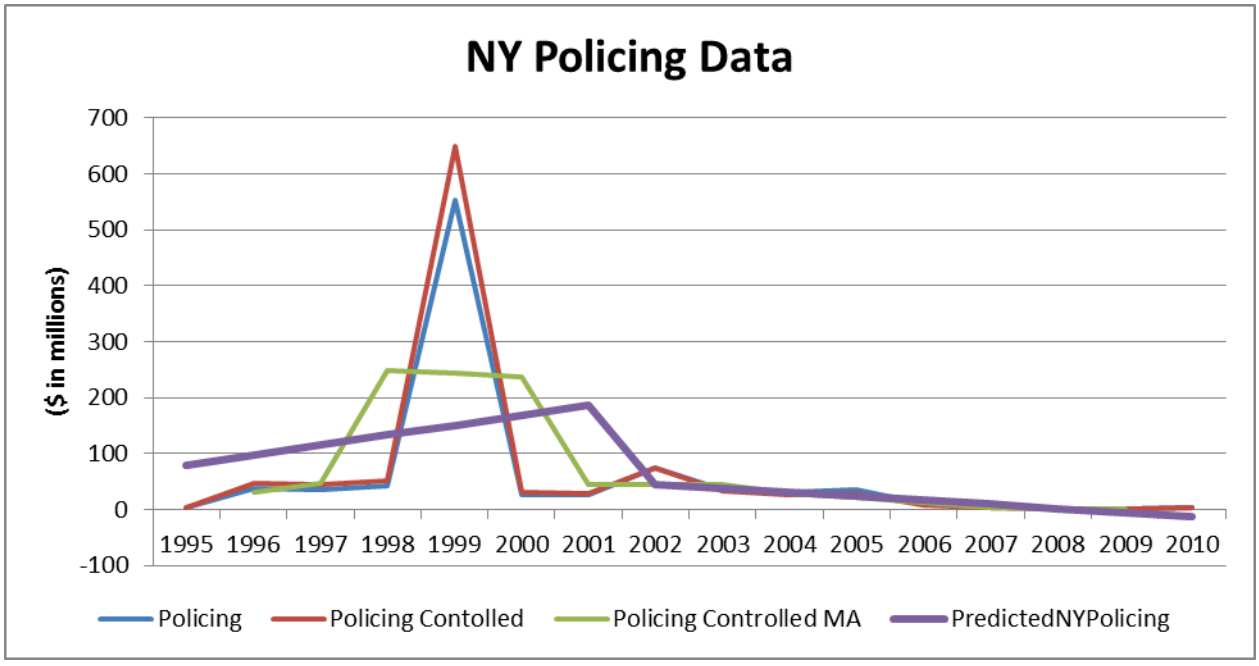
Table 15-1: Stepwise Regression analysis of NYC's General Policing. The effect of 9/11 (independent variable) on NYC policing grants (dependent variable)

Variable	B	T statistic	Sig
Intercept	141.736	4.771	<.001 **
Trend change after 9/11 event	-121.64	-3.095	0.009 **

*** Significant at the .01 level*

An additional analysis was run on the NY policing data using a stepwise regression procedure, in which the software automatically selected the variables to be included in the regression based on their correlation with the dependent variable after controlling for all other independent variables. This procedure resulted in the intervention variable being significant (t=-3.095, p=.009). The coefficient of intervention represents the change in the level of funding from immediately before the event to immediately after the event. This results provides evidence that the level in NYC general policing funding declined immediately after the event and that the event changed policy. This information furnished additional proof that the catastrophic events of 9/11 reduced the funding level of policing as a result of change in policy.

Figure 10: NYC's policing regression with aggregated raw data and control variables.



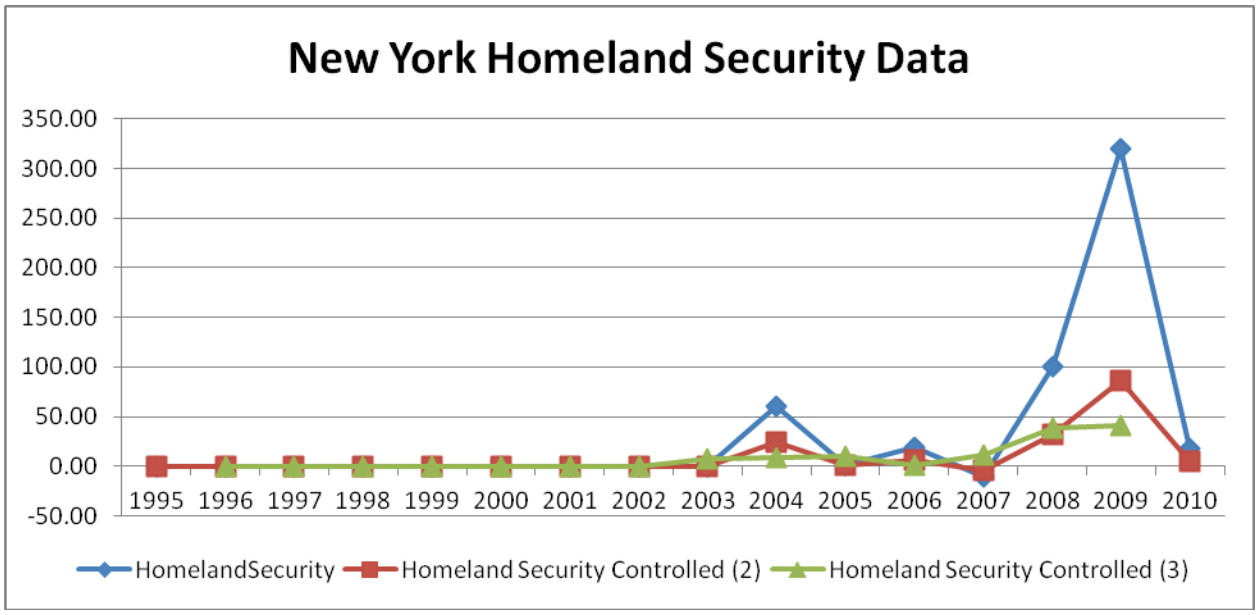
The regression plot also shows that we do have evidence to suggest that 9/11 impacted both the level and trend of funding for regular police grants in New York City.

(C) NYC's Homeland Security Results

1) Graphical Display

The following charts displays Homeland Security funds in the form of raw aggregated data, aggregated data controlled for inflation, government spending, and aggregated data with a three-year moving average.

Figure 11: NYC Homeland Security aggregated raw and controlled data and a three-year moving average



New York Homeland Security, like its U.S. counterpart, was virtually non-existent prior to 9/11. The data show some upward trend after 9/11. The upward trend of the data after the event is a clear indication of policy change. Adding prior findings into this shows that while general and community policing funds have been declining after the event, Homeland Security funds have been increasing. This is a clear indication of a shift in the policy toward Homeland Security.

2) T-test Analysis of NYC's Homeland Security's Funds

This section uses independent *T-test* analysis to examine the mean differences between grant funds prior to and after the terrorist attacks of 9/11, for Homeland Security's fund. The following table displays the related *T-test* data.

Table 16: Mean differences, t-tests, and confidence intervals for New York Homeland Security variables

Variable	Mean Difference	T statistic	Sig
Homeland Security	56.44	1.61	0.146
Homeland Sec. controlled (1)	35.75	1.75	0.119
Homeland Sec. controlled MA(2)	31.88	2.66	.032**

(1) Variables transformed to control for inflation and changes in overall government spending. Transformed variable equals untransformed variable converted to constant dollar basis by dividing by GDP deflator and then indexed to real government spending by dividing by real government spending index
(2) 3 year centered moving average of controlled variables

** *Significant at .05 level*
* *One-tailed test significant at .05 level*

The table shows that when aggregated data are controlled for inflation, government spending, and a three-year moving average, significant difference can be discerned. The data series increased from 0 prior to 9/11 to 15 after 9/11. This increase was significant as shown by the *t* statistic of 2.66, which has a p value of .032.

Aggregated New York Homeland Security data show an increase in mean funding from $0 prior to 9/11 to $56 million post 9/11. But due to the high variance of the data, this increase is not statistically significant. The *t* statistic of 1.61 has a p value of .146 and fails to be significant at the .05 level. However, using a three-year moving average allows a significant difference to be discerned. The three-year average data series increased from 0 prior to 9/11 to 15 after 9/11. This increase was significant as shown by the *t* statistic of 2.66, which has a p value of .032. These data provide further evidence that Homeland Security funds have been increasing since the years after the event, and thus an indication of policy change.

3) Regression Analysis of NYC's Homeland Security Aggregated Data Controlling for Inflation, Government Spending, and a Three-year Centered Moving Average

This section utilizes analysis of segmented regression to examine grant funds prior to and after the terrorist attacks of 9/11 for NYC's Homeland Security fund.

Table 17: Regression analysis of NYC's Homeland Security The effect of 9/11 (independent variable) on NYC Homeland grants (dependent variable)

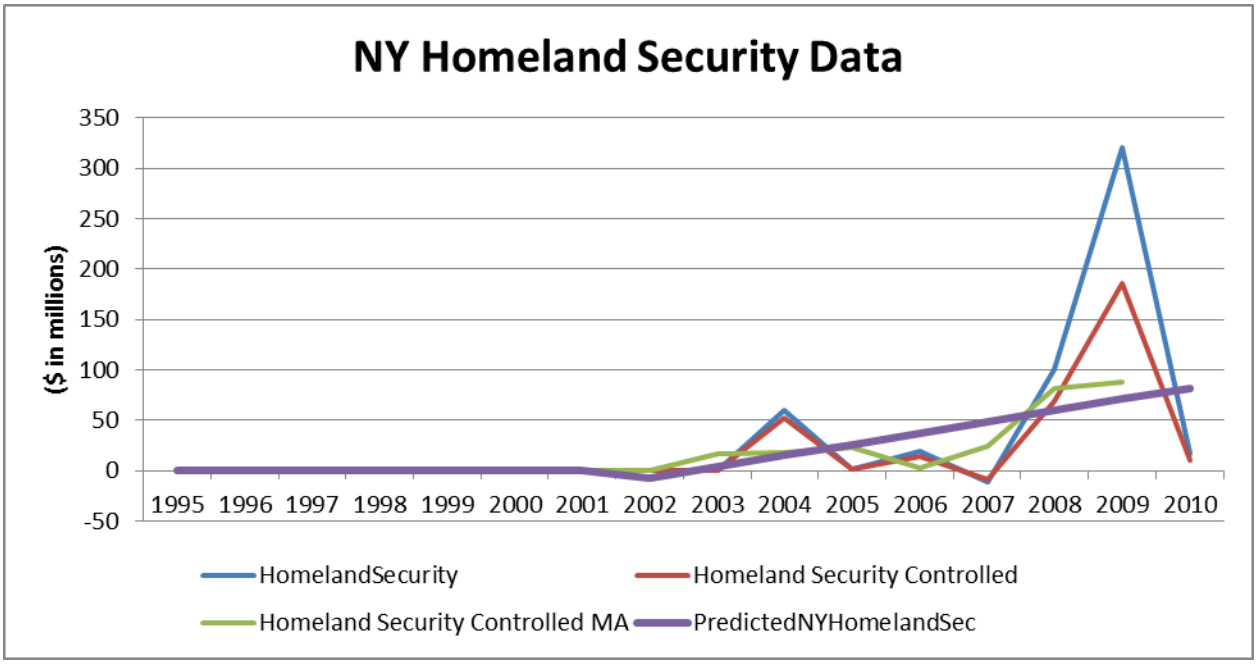
Variable	B	T statistic	Sig
Intercept	0.0000	0.000	1
Baseline trend variable (Year 1995=0 Increased by 1 for each year after)	0.0000	0.000	1
Level change after 9/11event	-18.4130	-1.035	0.325
Trend change after 9/11 event	11.1770	2.347	0.041*

** Significant at the .05 level*
Adjusted R^2= 0.684
F statistic= 10.392

The regression model for New York City Homeland Security shows a moderately tight fit to the adjusted data. An adjusted R squared of .684 means that the model accounts for 68% of the variance in the adjusted aggregate data. The F statistic of 10.392 is also significant at the .002 level. Looking at the individual *t* statistics for the regression coefficients, we see that none of the coefficients is significant except for Time-After. The *t* statistic for Time-After is 2.347, which is significant at the .05 level. This means that we can reject the null hypothesis that 9/11 had no effect on the pre-existing trend in the funding of policing. Stated otherwise, we can say that we do have evidence to suggest that 9/11 positively impacted the funding trend for Homeland Security grants in New York City.

Again, this provides further evidence of the change in policy to strengthen Homeland Security by providing more funds for its programs.

Figure 12: NYC's Homeland Security's regression aggregate data, the aggregate adjusted data, and the regression line is displayed below:



New York Homeland Security, like its U.S. counterpart, was virtually nonexistent prior to 9/11. The data show some upward trend after 9/11. This has two indications: first, the programs that were not in existence before now exist; second, programs received more funds compared to general and community policing. It can be concluded that a change in policy has been made, and the new direction of policing is toward Homeland Security.

Findings Summary

Macro Level Findings

U.S. community policing data appear to be consistently trending downward from before 9/11 to after the event. This information strongly supports the notion of decreased funding for community policing after the 9/11 terror attack. Specifically, a *T-test* analysis of community policing shows the statistical significance of the differences in mean funding levels. The funds appropriated to community policing after 9/11 are significantly lower than the same funds before the event.

U.S. general policing data are relatively stationary prior to September 11, 2001, whereas the data appear to change and become negative after the event. This may be an indication of the negative impact of 9/11 on funds related to policing. *T-test* analysis shows there is a significant difference in mean levels prior to and after the event. The regression model provided further evidence that the event negatively impacted the funding trend. All of these factors can indicate a shift in policy.

U.S. Homeland Security data indicated an upward trend of funds after the event. This trend indicates a change in policy to strengthen Homeland Security policing. Using a three-year moving average method reduced the extreme variance of the time series and revealed a significant change prior to and after the event. While the trend of other types of policing models was going downward, the trend of U.S, Homeland Security has begun going upward. All of these statistics prove that a shift in policy has occurred and the U.S policing system is already in its new direction (Homeland Security).

Micro Level Findings

New York City community policing data reveal an extremely high amount of funds in the year 1999. This amount decreased the year after. The *T-test* for difference in means, however, shows a significant decline in post 9/11 funding compared to pre 9/11 funding. The regression model fairly proved that NYC policing funds were reduced after the event

New York City policing data show the same trend as community policing. One extremely high year was followed by a sharp downward trend before the event. This fact makes it difficult to conclude the impact of the events on the funds prior to and after the event. A regression model provides more support for the existence of a downward trend in funding immediately after 9/11 as a result of a shift in policy.

New York City Homeland Security data confirm an upward trend after the events, and this trend might be considered an indication of the events' impact. Running the *T-test* after using a three-year moving average reveals a significant level in mean prior to and after the event. Regression also confirms a statistically significant increase in the fund trend after the event. Taken all together, these findings conclude that the U.S. policing system is no longer on the path of general policing or community policing. The new path is Homeland Security.

Chapter 6: Discussion and limitations

Discussion:

While some scholars believe the fourth model of policing (Homeland Security) has already been started (Oliver, 2006), others are not sure whether Homeland Security can be considered a new model of policing. This perception is also included in some criminal justice text books (Cole et al., 2013). The shortcomings of prior research have further caused some scholars to hesitate over whether a new policing model has begun.

The uncertainty over whether the community policing era is over has a very justifiable reason, which is a gap in the literature. Little statistical research has been available to provide a better picture as to whether a shift in policing policy occurred.

Using federal grants appropriated for all types of policing models, the current study aimed to examine whether policing polices have changed due to the impact of the 9/11 attacks.

As well as reviewing other literatures, the study also used theoretical background information to explore whether such an experiment was worth conducting.

The findings relate to both of the above issues (theories and other literatures).

A) Theoretical issues: it appears that the results of the study are consistent with the theoretical framework (based on focusing events and moral panic theories).

1) Study's Findings and Focusing Events Theory:

A catastrophic incident will cause society to change the status quo to create better conditions that will prevent similar incidents from occurring. The focusing event can

therefore be the cause of a shift in policy. If this theory is correct, we could predict that the 9/11 terrorist attacks would be considered a major focusing event. According to the theory, we should expect a major policy change after the event. The results of the study are consistent with this theory. Overall, the outcome of the experiment proves that community and general policing received fewer grant funds after the event compared to their funds before the attacks. The decrease in funds was not due to the impact of other alternative explanations (government, recession, etc.). The study examined these mentioned variables to assure that they could be excluded from the conclusions. The cause of the declining funds was not the economy. Furthermore, the study identified a different group of programs that have been receiving more grant funds while others receive less. These programs are all under the Department of Homeland Security. Subsequently, the theory appears to be correct from the current research standpoint.

The current research predominately provided sold evidence related to two different aspects of the issue. First, the *focusing event* theory appears to be correct. The research aim was not to test the focusing event theory; but inevitably, the outcome of the experiment shows the theory is reliable, at least from the current study's view. Second, the shift in the policing model did occur and the Homeland Security model shoved other policing models away, as has been discussed.

2) Study's Findings and Moral Panic Theory:

This theory focuses on the acts of wrongdoer/s who might activate a series of events regarding an issue. They may make public demands that are exaggerated by the media to gain politicians' attention and to change policies or laws. From this view, *moral panic* can be the cause of shifts in policing policies. By reviewing the literature, one will

notice that all active elements of the moral panic theory occurred after the terrorist attacks. However, some doubts exist as to whether the policy change predicted by the theory took place as well. The findings of the present study address this uncertainty, since the results show the establishment of Homeland Security as a dominant model of policing. The results also show that other moderate systems (community and general policing) have been weakened.

The goal of the current research was not to test the *moral panic* theory. However, the results could not avoid showing that this theory is also correct. As was the study's aim to show, the policy change after the event became amplified. The change in allocation of money occurred because of moral panic theory rather than empirically based studies.

From multiple angles, the findings of the study reveal that Homeland Security prevailed over other types of policing.

B) Study's Findings and Other Literatures

As it was mentioned in "*Research on Funding Community Policing,"* other studies are not consistent with the outcome of the community policing model. Some studies claim that community policing grants significantly reduce both violent and property crime (Zaho et al., 2002), while others believe spending billions of dollars on community policing has little or no effect on crime reduction (Worrall & Kovandzic, 2007).

Findings of the current study can help scholars on both sides further examine their hypotheses. If community policing funds were the cause of crime reduction, we should now have more crimes, since the funds have been reduced dramatically. New opportunities are now available to test this hypothesis. The findings of the current study can be used to measure the crime rate and its possible relation to grant funds for each

year. The trends of sixteen years of community policing grant funds are now available for other researchers.

The present research also provides valuable data for those scholars who believe community policing programs funds have no impact on crime rate. If the mentioned researchers believe such programs are ineffective, they can now test the opposite version of community policing (Homeland Security) to see if its related funds lead to lower crime rates.

Providing the data for community policing grant funds was not the only objective of this research, however. The results provide a comprehensive view of grant funds for all policing model examined, which can be used for further studies.

Limitations:

The study relies on available data. In particular, the study used the Consolidated Federal Funds Report (CFFR) to create a database, thus assuming that the data available in this report have been collected and entered correctly.

Furthermore, there are two issues regarding the data:

1. The data used for the analyses were available only up to the year of 2010. Because of the financial crisis, not only has the federal government not provided related data for the years after 2010 but also the U.S. Census has stopped providing access to the entire database after the second half of 2013. Similar studies that aim to examine such data post 2010 may not be conducted due to the lack of accessibility. However, because the researcher prior to the

aforementioned date downloaded the raw data from CFFR, future replication studies may rely on such data.

2. Limitations of Analysis and Threats to Validity

Selection: Looking at the raw data in tables 1 and 2 makes it clear that the composition of the aggregate data series changes across the measurement periods. Grants that were not yet inexistence in 1995 might make up a significant part of the aggregate series in 2008. This inclusion and exclusion of particular data series threatens the internal validity of the analysis. The aggregates are composed of different items in different periods and may not be directly comparable.

Extraneous variables: It is possible but not likely that extraneous variables have a role in the policy change after 9/11. An attempt was made to control for inflation and government spending as intervening variables. However, it is possible that another factor that influences the data is at work. For example, perhaps the political party of the president makes a difference in the funding priorities as they relate to policing. We might hypothesize that Republican administrations may look more favorably on funding grants of the type investigated by this study. Therefore, Democrats versus Republicans and their influence on the grants' allocation should be studied as one possible explanation of the change.

Another potential variable that could affect funding of these types of grants is overall crime rates. Perhaps declines in funding stem from a perceived reduction in crime rates. These are possible variables that could confound our ability to attribute changes in the grant levels because of 9/11.

Statistical Validity: Both *T-tests* and regression analysis assume independent observations, which is clearly not the case with time series data. We need look no further than the aggregate data for

2007 to see the role of autocorrelation in the data. The negative numbers displayed in 2007 are a clear indication that funding in previous years was excessive. Negative numbers represent a return to previously granted funds. This establishes a clear autocorrelation. The negative trend of grant funding in 2007 should be a reason to be cautious when interpreting the data.

There is also a need to look at all the other grants, not just the ones that were allocated to policing, to see if the downward trend was just in policing or other programs received less money in 2007.

It is possible that personal interest of one individual in charge of the grant allocation can change the funding level. The possibility of one individual's interest and/or preference that influences the grants' allocation might be also the subject of further studies

Chapter 7: Potential Contribution and Policy Implication

This study created a comprehensive view of grant money allocated to general policing community policing, and Homeland Security. The researcher was able to identify trends of positive or negative changes in all three mentioned types of policing. Consequently, the shift in federal grant allocation from policing and community policing to Homeland Security is more visible, thus furthering researchers' understanding of the trends in community policing and counter terrorism. Identifying and understanding the trends in federal grant allocations will enable those who are interested in the field of policing to develop strategies to make policing programs more appealing for funding. In particular, adoption of a new version of community policing that focuses on counter terrorism is highly recommended. This recommendation will not only provide some support for the continuation of community policing strategies, but it will also address the main concerns of those who find traditional policing necessary when dealing with terrorism. Some scholars believe that many have failed to pay attention to the similarities between community policing and homeland security (Friedmann & Cannon, 2007). They also believe that these two styles of policing overlap in some principles; therefore integration of the two themes will make more sense in future research.

In order to implement this fusion, community policing funds that have been reduced or cut should be reallocated. The current study also provides useful information for other researchers to conduct further studies. For instance, now that it has been determined that community policing has been receiving less money even before the September 11 attacks, other

researchers might conduct further research examining the effects of such fund reductions on crime rate.

Findings of the study indicate that general policing also has been negatively affected as a result of 9/11 events. This scenario should ring the bell even for opponents of community policing. The negative trend of general policing means fewer grants for other police tasks that are not even related to community policing. Hence, if lowering policing strength is not the best option, policy makers should act to change the current situation.

The study's results also can be used to develop policies for the Homeland Security programs as well. For instance, because of the current research we know Homeland Security programs have been receiving more funds. Whether the extra funds have produced positive outcomes has yet to be confirmed by other research. Further research is also required to examine the militarization of police due to increasing Homeland Security's funds and to measure its impact. After all, Homeland Security has been established as a new policing model, hence, the success of its programs and policies has to be tested.

Another major contribution of the current research is the actual testing of two theories. As mentioned in the theoretical frameworks section, the current research is using the *focusing events* and *moral panic theories* to explain the conceptual background of the research.

As it was mentioned in the discussion part, negative trends in general policing after 9/11 in favor of an increase in Homeland Security funds can be explained by both of the above mentioned theories. The outcome of the study shows that policing was negatively affected from a federal grant standpoint; therefore the theories have been tested in the real world and shown to be valid in explaining the occurring changes.

Chapter 8:Appendices

Appendix I

Different Era of Policing

The American policing system borrows its roots from the English system of policing. The U.S. policing system has evolved throughout history by developing from one model to another. The following is a summary of this evolution:

Police in Colonial Time:

This era was the first stage of policing when U.S. policing followed the British model. Starting from the East Coast, the Sheriff, constable, and watch system were adopted by colonies. Prior to the Revolution, colonists believed that citizens were obligated to maintain order. To do this, the watch system was used. Each member of society was required to be a member of this system. After the establishment of the Federal Government (1789), states kept police power due to the fear of having a centralized policing system (Cole et al., 2012).

The Political Era:

Between 1840 and 1920, there were close ties between the police and political leaders. This is the reason for naming this period of policing as the "*political era*" since the police were working closely with the mayor's political party instead of the community. This dynamic had a mutual benefit for both parties in that politicians hired the police authorities, and in return, the police helped favored candidates to get the vote they needed (Walker, 1999). Furthermore, Walker mentions that police used force and had little respect for citizens. He also adds that most officers were corrupt (Walker, 1999). In 1845, New York City started the first full time police department. By

1850, most major U.S. cities had a police force in which the mayor and the city council had authority to appoint the police chief. Foot patrol and providing service were other characteristics of this period of policing (Cole et al., 2012).

The Professional Era:

The progressive movement had major effects on U.S policing as well. Progressives believed that government should be more efficient and also provide more services for the people. Their goal was reducing the influence of politicians and using new technology in order to make a professional force. Progressives also believed that officers should be trained and organized. The main police task also should be focused on fighting crime. This emphasis led to breaking of many ties between the police and the community (Cole et al., 2012).

Community Policing

In the 1970s, some ideas were developed for departing from the crime fighting aspect of the police for providing services to the community instead. Those ideas critiqued the professional model of policing by contending that the professional style isolated the police from society and reduced their knowledge at the neighborhood level. Patrolling town in a vehicle prevents the police from having personal contact with citizens. Therefore, the police should be on foot patrol in order to get to know the residents and assist them with their problems. The foot patrol was considered to be a better practice since it promoted more personal relations between the police and the community by allowing the police to be known by the citizens, who will help the police if needed. This new approach has been known as Community Policing (Cole et al., 2012).

There is no single definition of community policing by scholars (Maguire, 1997). However, the only official definition comes from the Community Policing Consortium (CPC), which was

created by the Bureau of Justice. Currently, CPC is a part of the Community Oriented Policing Service (COPS). Community policing has been defined by the CPC as: "a collaborative effort between the police and the community that identifies problems of crime and disorder and involves all elements of the community in the research for solutions to these problems" (Fridell & Wycoff 2004, p. 3).

Therefore, two main components are required for Community Policing to exist: a) partnership between the police and the community, where the police engage with members of the community to gain its cooperation in order to solve problems; and b) solving identified problems. Problem solving is where the police try to understand the cause of crimes in neighborhoods in order to reduce their impact. In this case, the police are not acting only as crime fighters but use society as a partner to prevent and solve crime. Using this scenario will not abolish the police role as crime fighter; however, it shifts the emphasis from reactive to proactive policing.

Kappeler and Gaines (2011, p. 4) state that the philosophy of Community Policing is "empowering the community rather than dictating to the community." In traditional policing, Law Enforcement Agents were using reactive policing by only responding to the crime. However, Community Policing mostly deals with proactive approaches when solving problems or controlling crime. In this approach, the police should consider themselves as part of a community, not an independent institution that requires having decision-making processes at the headquarters of police departments.

In reviewing the old British policing system, it becomes clear that there was no community policing such as we know of today; however, the importance of community engagement was indeed noted by Sir Robert Peel, the Home Secretary of England in 1822 (Kappeler & Gaines, 2011). Peel avowed that "the police are the public and public are the police" (Braiden, 1992, p.

108). This shows that public engagement has been the subject of interest even in the old British policing model. Engaging the community is also the key component of the community policing of the U.S. The police cannot be considered the sole element for fighting crime. To fight crime effectively, the police need a partner, the community. Researchers noticed that randomly patrolling neighborhoods does not deter crime (Kelling et al., 1974). Other findings showed that quick responses to citizen calls for service do not guarantee higher arrest rates (Spelman & Brown, 1984). Therefore, reactive policing as well as car patrolling severed the ties between the police and the people (Uchida, 2005).

The community policing practice refuses to accept this and argues that the police and the public must interact with one another to build a relationship. The public can be involved in community policing in many ways. Patrols, neighborhood watches, sports and educational activities for underprivileged youth, and providing social services are some instances of community engagement. The police are required to inspire people to participate in their own society. This is not a one-way relationship. The police should also be involved in the community as well. In disorganized neighborhoods, the public has few resources to utilize for participating in their community. Here is where the police should engage with the people and their leaders, including religious leaders, and start building a relationship with them in order to maximize the level of "neighborhood governance" (Kappeler & Gaines, 2011). This cooperation must be the same even in communities with strong infrastructures. The accomplishment of community involvement will happen by implementing partnerships between the police and the public. However, this is not the sole task of the police when it comes to community policing. The police department must also work with other public and governmental agencies as well, specifically those who have not accepted the concept of community policing. The police must be pioneers in

identifying potential partners and agencies in order to inspire them to engage in solving public problems (Kappeler & Gaines, 2011). This partnership will empower the community to take responsibility for their neighborhoods (Fridell & Wycoff, 2004). Herman Goldstein is known for developing problem oriented policing. Although there are some differences between problem oriented policing (POP) and community policing, problem solving is a main component of both POP and community policing. Goldstein believes that:

"Smarter policing in this country requires a sustained effort within policing to research substantive problems, to make use of the mass of information and data on specific problems accumulated by individual police agencies, to experiment with different alternative responses, to evaluate these efforts and to share the result of these evaluations with police across the nation." (Goldstein, 1993, p. 5)

Goldstein noted that the U.S. police force is mostly using a reactive model when called for service and does little when responding to calls and only tries to deal with issues as quickly as possible. He refused this idea and argued: in order for the police to be effective, an officer should spend more time to understand the basic issues of the problem and also provide an essential and meaningful solution rather than a temporary one. This tactic is known as problem solving (Kipper & Gaines, 2011).

The partnership between the police and the public means nothing if they do not solve the community's problems via that partnership; therefore, problem solving is the main component of community policing. This is the police department's tool for unearthing problems of the community and can be used to reduce or eliminate those problematic situations. To apply the problem-solving element to community policing, first, the community should identify the problem via its partnership with the police. To do so, the community also gathers information and finds the cause and nature of the problem. Finally, the last step is the creation of a

partnership between the police and the community. Together, as partners, they will consider all possible responses and determine the best possible solution to address an issue or problem (Fridell & Wycoff, 2004). The effective response might need external resources due to the fact that some of the identified problems are ones that police authorities are not qualified to solve (i.e., those requiring trained psychologists, etc.). This is where the police need to use other public or private institutions and build a strong relationship for use in these types of situations (Sadd & Grime, 1995).

The Homeland Security Era:

When the World Trade Center and the Pentagon were attacked, Homeland Security became the first priority of the Federal Government and once again pushed the policing system into another direction. Funds changed direction from community policing to Homeland Security as well. The Homeland Security office identified four goals for its existence: a) Prevention of terrorist attacks; b) Protecting Americans, key resources, and critical infrastructure; c) responding to and recovering from incidents; and finally, d) to continuing to strengthen the foundation of Homeland Security to ensure long-term success (Kappeler & Gaines, 2011).

Appendix II

Research on Implementation of Community Policing

The Bureau of Justice Assistance Support established Innovative Neighborhood Oriented Policing (INOP) programs in eight cities in 1990 to reduce drug problems. Each site received between $100,000 and $200,000 in the first year of the program. INOP chose both small and big cities to implement CP and evaluated the results. Hayward, CA, Houston, TX, New York, NY, Norfolk, VA, Portland, OR, Prince George County, MD, and Tempe, Arizona were chosen for the study. These projects were evaluated by NIJ and the Vera Institute of Justice (Sadd & Grinc, 1996). The major finding of these studies was that it was difficult for officers in all of the above-mentioned districts to adopt new behavioral role as Community Policing Officers. Involving citizens was also a challenge for the program. Despite the fact that projects were associated with training, officers' resistance was the major problem when implementing community policing. Both trained and non-trained officers envisioned community outreach and new relationships between police and society, but only some of them mention problem solving as a major element of community policing. Most of them envisioned real police work as involving crime related issues. Because of the fact that INOP was a new experience of community policing for most of the agencies, the projects started as separate new units, which also led to conflicts between the traditional practice of policing and community policing. The study also found that most people believe that the police-public relationship has been improved, but the program had little effect on reducing drug problems (Sadd & Grinc, 1996). However, authors suggest that community policing required more resources for proper implementation and also transitions from traditional

policing to community policing. Whether or not this policy recommendation has been implemented is not clear. There is no comprehensive research following federal grants to see what percentage of the federal rewards was spent on community policing each year. Current research is examining this issue to see if the above recommendation has been implemented.

There is a partnership between the Bureau of Justice Statistics and the office of Community Oriented Policing Service. Hickman & Reaves (2001) collected both of these institutions' related data in 1997 and 1999. Their data shows that 34% of agencies used community policing in 1997, while 64% of agencies used community policing practices in 1999 (almost double the amount). The research also indicates that the number of community policing officers were 21,000 in 1997 compared to 113,000 in 1999, which means more than a fivefold increase in about two years (Hickman & Reaves, 2001). This research shows the practice of community policing has increased up to 1997. However, this study had been conducted prior to September 11. It is unclear whether or not the community policing practice was expanded after the event. The event might have affected community policing positively or negatively. Thus far, no study has been done to determine the effects. The current proposal intends to measure the aforementioned impacts following the federal grants money devoted to community policing to determine if September 11 had any correlation with the practice of community policing.

List of Tables

Table 2 (Related grants name and code for Policing, Community Policing, and Homeland Security)

	Program Code	Program name
1	12.CAC	NATIONAL SECURITY EDUCATION PROGRAM
2	15.BBF	LAW ENFORCEMENT
3	16.534	LAW ENFORCEMENT ASSISTANCE TRAINING
4	16.571	PUBLIC SAFETY OFFICERS' BENEFITS PROGRAM
5	12.902	INFORMATION SECURITY GRANT PROGRAM
6	16.577	EMERGENCY FEDERAL LAW ENFORCEMENT ASSISTANCE
7	16.592	LOCAL LAW ENFORCEMENT BLOCK GRANTS PROGRAM
8	16.580	16.580. BYRNE MEMORIAL STATE AND LOCAL LAW ENFORCE. ASSIST. DISCRETIONARY GRANT
9	16.530	GRANTS TO ENCOURAGE ARREST & POLICIES
10	16.590	GRANTS TO ENCOURAGE ARREST POLICIES & ENFORCEMENT OF PROTECTION ORDERS
11	15.DAU	LAW ENFORCEMENT COOPERATIVE AGREEMENTS (LECA)
12	10.304	HOMELAND SECURITY-AGRICULTURAL
13	15.BCQ	SECURITY OF DAMS, FACILITIES
14	66.477	VULNERABILITY ASSESS & RELATED SECURITY IMPROVEMENTS AT LARGE PRIVATE
15	66.478	WATER SECURITY TRAINING AND TECHNICAL ASSISTANCE GRANT PROGRAM
16	15.AAU	SAFETY/SECURITY
17	97.038	FIRST RESPONDER COUNTER-TERRORISM TRAINING ASSISTANCE
18	16.321	ANTITERRORISM AND EMERGENCY ASSISTANCE PROGRAM
19	97.061	CENTERS FOR HOMELAND SECURITY

20	97.008	URBAN AREAS SECURITY INITIATIVE
21	97.066	HOMELAND SECURITY INFORMATION TECHNOLOGY AND EVALUATION PROGRAM
22	97.67	HOMELAND SECURITY GRANT PROGRAM
23	97.059	TRUCK SECURITY PROGRAM
24	97.057	RAIL AND TRANSIT SECURITY GRANT PROGRAM
25	81.123	NATIONAL NUCLEAR SECURITY ADMIN. HISTORICALLY BLACK COLLEGES/UNIVERSITIES
26	97.056	PORT SECURITY GRANT PROGRAM FOR CRITICAL NATIONAL SEAPORTS
27	97.057	INTERCITY BUS SECURITY GRANTS
28	16.501	LAW ENFORCEMENT ASSISTANCE - DISCRETIONARY
29	99.077	HOMELAND TESTING, EVALUATION AND DEMONSTRATION OF TECHNOLOGIES
30	97.086	HOMELAND SECURITY OUTREACH, EDUCATION & TECHNICAL ASSISTANCE
31	97.091	HOMELAND SECURITY BIO-WATCH PROGRAM
32	16.000	HOMELAND SECURITY INFORMATION TECHNOLOGY ANDEVALUATION
33	16.712	POLICE CORPS
34	97.047	LAW ENFORCEMENT TERRORISM PREVENTION PROGRAM (LETPP)
35	16.565	NATIONAL INST. OF JUSTICE DOMESTIC ANTI-TERRORISM TECH. DEVELOP. PROGRAM
36	93.889	NATIONAL BIOTERRORISM HOSPITAL PREPAREDNESS PROGRAM
37	15.533	CALIFORNIA WATER SECURITY AND ENVIRONMENTAL ENHANCEMENT
38	97.06	PORT SECURITY RESEARCH AND DEVELOPMENT GRANT
39	97.073	STATE HOMELAND SECURITY PROGRAM (SHSP)
40	97.104	HOMELAND SECURITY-RELATED SCIENCE, TECH,

		ENGINEERING & MATH CAREER PROGRAM
41	97.108	HOMELAND SECURITY, RESEARCH, TESTING, EVALUATION, & DEMO OF TECHNOLOGIES
42	97.065	HOMELAND SECURITY ADVANCED RESEARCH PROJECTS AGENCY
43	16.809	RECOVERY ACT - STATE AND LOCAL LAW ENFORCEMENT ASSISTANCE PROGRAM
44	97.113	RAIL AND TRANSIT SECURITY GRANT PROGRAM (ARRA)
45	97.116	PORT SECURITY GRANT PROGRAM (ARRA)
46	16.614	STATE AND LOCAL ANTI-TERRORISM TRAINING
47	11.302	ECONOMIC DEVELOPMENT-SUPPORT FOR PLANNING ORGANIZATIONS
48	11.300	GRANTS FOR PUBLIC WORKS & ECONOMIC DEVELOPMENT FACILITIES
49	16.710	PUBLIC SAFETY PARTNERSHIP AND COMMUNITY POLICING GRANTS
50	97.106	SECURING THE CITIES

Table 3 the underlying data of U.S that was extracted from 50 different grant accounts listed in Federal Census data. The data in the table below represents funding for each grant for each year between 1995 and 2010. (Dollar amounts are displayed in millions but full accuracy figures were used in the analysis) In addition, each grant was classified into 4 categories (1=policing, 2=community policing, 3=homeland security, 4=funding for public works and general economic purposes)

Table 3: Aggregated U.S data

Year	Policing	Community Policing	Homeland Security
1995	289.1	945.8	2.1
1996	580.2	880.8	0.5
1997	587.6	784.7	1.1
1998	608.8	1,237.00	2
1999	552.3	1,012.70	3.9
2000	704.4	461.1	3.9
2001	691.7	531.8	0.3
2002	825.3	607.1	74.6
2003	633.7	502.7	10.4
2004	476.8	747	897.3
2005	295.9	214.2	2,745.30
2006	322.3	140.3	2,159.00
2007	-293.1	-51.1	-2,551.00
2008	136.3	290.8	3,520.90
2009	-27.5	1,249.10	3,422.70
2010	70.4	557.5	488.9

Table 3-1 Control Variables

Year	Gdp Deflator	Real Gov spending
1995	75.94	100
1996	77.25	101.03
1997	78.48	101.82
1998	79.31	103.92
1999	80.56	105.51
2000	82.6	108.54
2001	84.24	110.5
2002	85.67	117.41
2003	87.38	123.53
2004	90.08	127.5
2005	93.12	133.05
2006	95.58	138.42
2007	97.96	138.28
2008	99.81	147.9
2009	100.16	172.55
2010	101.94	167.6

Table 3-2Aggregated U.S data/constant dollar

Year	Policing	Community policing	Homeland Security
1995	380.7	1,245.40	2.8
1996	751	1,140.20	0.6
1997	748.7	999.9	1.4
1998	767.6	1,559.70	2.5
1999	685.6	1,257.10	4.9
2000	852.8	558.3	4.7
2001	821.1	631.2	0.3
2002	963.3	708.6	87.1
2003	725.3	575.3	11.9
2004	529.4	829.3	996.2
2005	317.7	230	2,948.10
2006	337.2	146.8	2,258.80
2007	-299.2	-52.2	-2,604.20
2008	136.6	291.4	3,527.70
2009	-27.5	1,247.00	3,417.10
2010	69.1	546.9	479.6

Table 3-3: Aggregated U.S data/constant dollar/government spending

Year	Policing	Community policing	Homeland Security
1995	380.7	1,245.40	2.8
1996	743.4	1,128.60	0.6
1997	735.3	982	1.4
1998	738.7	1,500.80	2.4
1999	649.8	1,191.50	4.6
2000	785.7	514.3	4.4
2001	743.1	571.2	0.3
2002	820.5	603.5	74.2
2003	587.1	465.8	9.7
2004	415.2	650.4	781.3
2005	238.8	172.9	2,215.70
2006	243.6	106	1,631.80
2007	-216.4	-37.7	-1,883.20
2008	92.4	197	2,385.20
2009	-15.9	722.7	1,980.40
2010	41.2	326.3	286.1

Table 5-1 Raw data of NYC that was extracted from 50 different grant accounts listed in Federal Census data. The data in the table below represents funding for each grant for each year between 1995 and 2010. ($ are displayed in millions but full accuracy figures were used in the analysis) In addition, each grant was classified into 4 categories (1=policing, 2=community policing, 3=homeland security, 4=funding for public works and general economic purposes)

Table 5-1: Aggregated NY data

Year	Policing	Community Policing	Homeland Security
1995	2.85	0	0
1996	36.6	0	0
1997	34.73	77.75	0
1998	41.43	82.8	0
1999	552.28	1012.66	0
2000	27.1	105.2	0
2001	27.14	1	0
2002	74.61	58.86	0
2003	36.09	20.78	0.03
2004	31.14	2.2	59.84
2005	34.32	-0.06	1.5
2006	10.88	3.55	19.29
2007	4.89	-27.85	-10.86
2008	-0.06	-0.2	100.81
2009	2.12	0.03	320.15
2010	3.76	2.41	17.24

Table 5-2: Control Variables

Year	Gdp Deflator	Real Gov spending
1995	75.94	100
1996	77.25	101
1997	78.48	101.8
1998	79.31	103.9
1999	80.56	105.5
2000	82.6	108.5
2001	84.24	110.5
2002	85.67	117.4
2003	87.38	123.5
2004	90.08	127.5
2005	93.12	133.1
2006	95.58	138.4
2007	97.96	138.3
2008	99.81	147.9
2009	100.16	172.5
2010	101.94	167.6

Table 5-3: Aggregated NY data/constant dollar

Year	Policing	Community policing	Homeland Security
1995	3.8	-	-
1996	47.4	-	-
1997	44.2	99.1	-
1998	52.2	104.4	-
1999	685.6	1,257.10	-
2000	32.8	127.4	-
2001	32.2	1.2	-
2002	87.1	68.7	-
2003	41.3	23.8	0
2004	34.6	2.4	66.4
2005	36.9	-0.1	1.6
2006	11.4	3.7	20.2
2007	5	-28.4	-11.1
2008	-0.1	-0.2	101
2009	2.1	0	319.6
2010	3.7	2.4	16.9

Table 5-4: Aggregated NY data/constant dollar/government spending

Year	Policing	Community policing	Homeland Security
1995	3.8	0	0
1996	46.9	0	0
1997	43.5	97.3	0
1998	50.3	100.5	0
1999	649.8	1191.5	0
2000	30.2	117.3	0
2001	29.2	1.1	0
2002	74.2	58.5	0
2003	33.4	19.3	0
2004	27.1	1.9	52.1
2005	27.7	-0.1	1.2
2006	8.2	2.7	14.6
2007	3.6	-20.6	-8
2008	0	-0.1	68.3
2009	1.2	0	185.2
2010	2.2	1.4	10.1

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