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Profiling Beyond Race: Characteristics Associated with Traffic Stop Outcomes

A thesis

presented to

the faculty of the Department of Criminal Justice and Criminology

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Master of Arts in Criminal Justice and Criminology

by

Megan Anderson

May 2021

Chris Rush, Ph.D., Chair

Larry Miller, Ph.D.

Dustin Osborne, Ph.D.

Keywords: profiling, policing, labeling theory, characteristics

ABSTRACT

Profiling Beyond Race: Characteristics Associated with Traffic Stop Outcomes

by

Megan Anderson

Research related to profiling and the outcome of traffic stops has generally focused on the race of the individuals involved. Little research has examined other characteristics, such as age and socioeconomic status, that may also play a role in traffic stop outcomes. The current study sought to address this limitation in two ways: (1) determine whether the characteristics of age, sex, race, social class, and demeanor are profiled during traffic stops and (2) whether these characteristics influenced the outcome of the traffic stops with regard to tickets and vehicle searches. Secondary data were utilized from the 2015 Police-Public Contact Survey. Findings revealed that not only race, but age, sex, social class, and demeanor of both the officer and the driver had an affect on the outcome of a traffic stops.

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TABLE OF CONTENTS

ABSTRACT.....	2
ACKNOWLEDGMENTS	3
TABLE OF CONTENTS.....	4
LIST OF TABLES	6
Chapter 1. Introduction	7
Current Study	10
Research Questions.....	11
Definition of Terms	12
Chapter Summary	13
Chapter 2. Literature Review	15
Changes that Occurred Through the History of Policing	15
Problems that Could Lead to Profiling.....	19
Court Cases that Show Profiling.....	25
Traffic Stops	28
Age Characteristic.....	29
Sex Characteristic	30
Social Class Characteristic.....	31
Race Characteristic	32
Demeanor Characteristic.....	34
Labeling Theory.....	35
Labeling Theory in Relation to Profiling.....	36
Current Study	37
Chapter Summary	38
Chapter 3. Methodology.....	40
Primary Research Question	40
Secondary Research Questions.....	42
Data.....	47
Independent Variables	48
Driver's Variables	48
Police Officer's Variables	50

Dependent Variables.....	51
Analyses.....	52
Limitations.....	55
Chapter Summary.....	56
Chapter 4. Results.....	57
Descriptive and Frequency Statistics.....	57
Driver's Descriptive Statistics.....	57
Police Officer's Descriptive Statistics.....	58
Reliability Scale.....	60
Results for Research Questions One and Two.....	61
Results for Research Questions Three through Six.....	61
Results for Research Questions Seven through Ten.....	62
Results for Research Questions Eleven and Twelve.....	62
Results for Research Questions Thirteen through Sixteen.....	63
Chapter Summary.....	66
Chapter 5. Discussion.....	67
Past Knowledge of Traffic Stops and Profiling.....	67
Hypotheses One and Two.....	69
Hypotheses Three through Six.....	70
Hypotheses Seven through Ten.....	71
Hypotheses Eleven and Twelve.....	73
Hypotheses Thirteen through Sixteen.....	74
Policy Implications.....	75
Future Research.....	76
Conclusion.....	77
References.....	79
VITA.....	86

LIST OF TABLES

Table 1. Research Questions and Hypotheses	54
Table 2. Driver Characteristics	59
Table 3. Police Officer Characteristics	59
Table 4. Frequencies	59
Table 5. Traffic Ticket Regression	63
Table 6. Vehicle Search Regression	63
Table 7. Traffic Ticket and Demeanor Chi-Square	65
Table 8. Vehicle Search and Demeanor Chi-Square	65

Chapter 1. Introduction

Policing incorporated instances of profiling and discrimination from the early 1600's up to date (Brandl, 2018). For example, the beginning of policing had slave patrols, whose main focus was to arrest African Americans not working on plantations or who had any free will and thinking, such as reading or writing (Hadden, 2003). Policing continued to be involved in discriminating individuals even after slavery ended with incidents such as the rise in prison population of minorities, lack of minority representation within police forces, riots and protests that concerned minorities, and lawsuits against the police (Brandl, 2018; Kelling & Moore, 1988; Williams & Murphy, 1990). To date, policing tactics were meant to address the issues such as the rise in prison population of minorities, lack of minority representation within police forces, riots and protests that concerned minorities, and lawsuits against the police by creating better relationships between the public and the police (Kelling & Moore, 1988; Goldstein, 1979).

However, the previous issues were still present to date as follows. During the 1980s, the incarceration rate drastically rose for prisons, specifically minorities incarcerated. The influx in minority representation in prisons occurred because of the war on drugs, in which police profiled African Americans as drug traffickers and overzealously arrested individuals involved with drugs (Engel & Calnon, 2004; Harris, 1999; Kennedy, 1997). Most commonly, African Americans, increased the prison population (Engel & Calnon, 2004; Harris, 1999; Kennedy, 1997). The disparity between minorities and whites within the prison population was still true to date. Most current data showed 1096 per 100,000 African Americans imprisoned compared to 214 per 100,000 whites (Carson, 2020). Interestingly, the rise in the prison population still rose with the inflation of minorities within the police force. Minorities started less than 10% a part of police officers then rose to 27% by 2013, which is a 17% inflation rate (Brandl, 2018).

Additionally, the available data for minorities in policing consisted of a 1% inflation rate by 2016 to 28.6% minorities being sworn officers compared to 71.4% white officers (Hyland & Davis, 2019).

In addition, the riots and protests that occurred throughout history and to date further represent discrimination instances that lead to profiling within policing. Several riots and protests occurred during the 1950s and 1960s, which started the movements to abolish discrimination and profiling against minorities. A few critical protests and riots were the Montgomery Bus Boycott, The Sit-Ins, The Freedom Ride, Birmingham, the March on Washington, and the assassination of Martin Luther King Jr. (Constitutional Rights Foundation, 2021). During the civil rights movements, the protests were by African Americans and generally peaceful (Constitutional Rights Foundation, 2021). However, during the protests, the riots were from the whites disagreeing with equality for minorities (Constitutional Rights Foundation, 2021). African Americans were tired of being beaten, discriminated against, and ignored which continued to show to date with the “Black Lives Matter” movement (Constitutional Rights Foundation, 2020; History.com Editors, 2021).

The Black Lives Matter movement was enacted after the fatal shooting of a young African American, Trayvon Martin, by George Zimmerman in 2012 (History.com Editors, 2021). Another case that caused the “Black Lives Matter” movement to occur happened six years before Floyd’s case. In 2014, Michael Brown, an 18-year-old African American, was shot 12 times and killed by a white officer even after Brown said, “Don’t Shoot” (History.com Editors, 2020). The most recent case that Black Lives Matter was involved with was the killing of African American George Floyd by a white officer (Hill et al., 2020). Each of the previous instances appeared to divide the community and police further.

Further, legislation changes occurred, which caused discord between the police and minorities by giving more opportunities for minorities to be discriminated against by the police. One change was the Terry v. Ohio (1968) case. The Terry v. Ohio (1968) court case involved the rulings over whether it was justifiable and legal for police officers to perform informal investigatory stop and seizures. The Supreme Court ruled that it was legal for officers to stop and frisk the clothing of potentially suspicious suspects based off their experience and having reasonable cause that the individual was carrying a weapon. Based on the rulings in Terry v. Ohio (1968), the case initiated the possibility of unjustly profiling among specific characteristics of drivers, by making it legal for officers to search and frisk individuals they deem to be suspicious.

Another law that furthered discrimination opportunities was Floyd v. City of New York (2013). Police officers twisted their power of stop and frisk given by the Terry v. Ohio (1968) case, by stopping and frisking minorities double what whites were stopped. In Floyd v. City of New York (2013), African Americans were stopped 52% of the time, Hispanics 31% of the time, and whites only 10% of the time. The case Floyd v. City of New York (2013) showed profiling existed against African Americans even though the hit rates for finding weapons or contraband on African Americans were significantly lower than whites.

The rise in prison populations for minorities and the lack of minorities within policing could misconstrue to minority communities that the police are discriminating, leading minorities to distrust the police. Additionally, the riots and protests that had occurred instigated that profiling race might still be an issue within policing. Lastly, the lawsuits further referenced profiling and discrimination within the criminal justice system and policing by minorities being the main target.

Events such as the rise in prison populations, lack of minority representation in policing, riots and protests, and lawsuits against the police were evidence that race played a role in profiling. However, other characteristics might play a role as well. A significant portion of past research had focused on the race aspect of profiling during traffic stops without comparing whether other characteristics were profiled, such as age, sex, social class, or demeanor (Close & Mason, 2007; Engel & Calnon, 2004; Lundman & Kaufman, 2003; Novak & Chamlin, 2008; Pickerill et al., 2008; Regoeczi & Kent, 2014; Ritter, 2017; Rojek et al., 2012; Smith et al., 2006; Weitzer & Tuch, 2002). The purpose of the current study was to explore if profiling within policing went beyond race by examining if other characteristics could be profiled when it comes to traffic stops, tickets, and searches. It is important to explore other characteristics because then policing could change in the future through training techniques, management promotions, or the hiring process to limit profiling. The current research gap focused on race and no other characteristics that could influence police to profile individuals, not the crime committed.

Current Study

The problem to be addressed during the current study was whether profiling during traffic stops went beyond race. Further research was needed to address whether other individuals' characteristics besides race were related to being profiled by the police during traffic stops. Very little research existed that focused on other characteristics concerning profiling and traffic stops, which was the focus of this study.

This study focused on comparing whether individual's characteristics of age, sex, social class, demeanor, and along with race affected the outcome of traffic stops. The two outcomes chosen to be the focus of the current study was receiving a ticket or receiving a vehicle search. In addition to those outcomes being associated with either the drivers age, sex, social class,

demeanor, or race. This study was important because the data used were from the most recently collected data on individuals in association with each of the mentioned aspects using the data set *Police-public contact survey, 2015* (United States Department of Justice et al., 2015). Showing that profiling among policing still existed and at a significant level was important because it could help police departments determine where profiling exists in traffic stops and what characteristics were likely to be profiled.

Once this is found, police departments can find ways to reduce profiling within traffic stops, possibly by creating new training on handling traffic stops or training on how to keep labels such as stereotypes out of police work. Additionally, more extensive and thorough processes could be enacted when police departments hire new applicants or promote who is chief. Further, personality and mental health evaluations could be enacted more frequently over the officers. Overall, this study was important in hopes of reducing the profiling rate among traffic stops, addressing other characteristics besides race that were likely to be profiled during traffic stops, and enact advancements within policing to address their issues with profiling better. The following sections addressed the research questions for the current study and then the definition of terms that were used within the study.

Research Questions

A primary research question was asked to address whether other characteristics affect traffic stops in tickets and vehicle searches. Also, sixteen secondary research questions were asked to explore further whether other characteristics affect traffic stop outcomes. The primary and secondary research questions were as follows:

PQ: During a traffic stop, what characteristics are more likely to occur in a ticket or a vehicle search?

RI: Will the driver's age affect whether a ticket is received during a traffic stop?

- R2: Will the driver's age affect whether a search occurs during a traffic stop?
- R3: Will the driver's sex affect whether a ticket is received during a traffic stop?
- R4: Will the driver's sex affect whether a search occurs during a traffic stop?
- R5: Will the police officer's sex affect whether a ticket is given during a traffic stop?
- R6: Will the police officer's sex affect whether a search occurs during a traffic stop?
- R7: Will the driver's race affect whether a ticket is received during a traffic stop?
- R8: Will the driver's race affect whether a search occurs during a traffic stop?
- R9: Will the police officer's race affect whether a ticket is given during a traffic stop?
- R10: Will the police officer's race affect whether a search occurs during a traffic stop?
- R11: Will the driver's social class affect whether a ticket is received during a traffic stop?
- R12: Will the driver's social class affect whether a search occurs during a traffic stop?
- R13: Will the driver's demeanor affect whether a ticket is received during a traffic stop?
- R14: Will the driver's demeanor affect whether a search occurs during a traffic stop?
- R15: Will the police officer's demeanor affect whether a ticket is given during a traffic stop?
- R16: Will the police officer's demeanor affect whether a search occurs during a traffic stop?

Definition of Terms

There will be several terms used throughout the following chapters that should be referenced for a better understanding: profiling, suspicion, logistic regression, chi-square, phi-coefficient, and reliability test.

Profiling - the act of suspecting or targeting a person on the basis of observed characteristics or behavior" (Merriam-Webster, n.d.a)

Suspicion(s) - the act or an instance of suspecting something wrong without proof or on slight evidence" (Merriam-Webster, n.d.b)

Logistic regression - a statistical model used to determine if an independent variable has an effect on a dependent variable that has two categories” (Field, 2016)

Independent variable - a variable that is manipulated by the experimenter and effects the outcome of the dependent variable” (Field, 2016)

Dependent variable - a variable not manipulated by the experimenter and is effected by the independent variables” (Field, 2016)

Chi-square test - measures whether two categorical variables are associated”, but it cannot measure the strength of the two variables relationship (Field, 2016)

Phi-coefficient - testing the strength of two variables relationship (Field, 2016)

Reliability test - the ability of a measure to produce consistent results when the same entities are measured under different conditions” (Field, 2016)

Chapter Summary

The current chapter addressed the history of policing and how overtime, profiling became a significant aspect of police work, especially during traffic stops. Profiling was referenced through the history of policing by the rise in the prison population, lack of minority representation within police forces, lawsuits against the police, and the riots and protests. The purpose of the current study was to explore if profiling within policing went beyond race by examining if other characteristics could be profiled when it comes to traffic stops, tickets, and searches. Additionally, chapter two further discussed the issues that policing had in profiling individuals. Specifically by discussing the history of policing and profiling in more detail, addressing the past research over profiling using the characteristics of age, sex, social class, demeanor, and race, addressing how labeling theory relates to profiling within policing, and discussing the primary and secondary research questions that will address the current studies

objective. Chapter three discussed the methodology used in the study in operationalizing the research questions and variables while discussing which statistical analyses were used to compare whether the characteristics of age, sex, social class, demeanor, and race affect the outcomes of receiving a ticket or search during traffic stops. Chapter four discussed the results found from the statistical analyses. Chapter five concluded the current study by explaining the results found in chapter four and the primary and secondary research questions results. The following chapter to be discussed was chapter two, the literature review.

Chapter 2. Literature Review

The purpose of the current study was to explore whether profiling within traffic stops went beyond race by examining if other characteristics could be profiled when it comes to traffic stops, tickets, and vehicle searches. Characteristics such as age, sex, social class, demeanor, and race. Further, the study hoped to limit future profiling through improvement of training, management, the hiring process, and personality and mental health checks over officers. The current chapter discussed the changes that policing in America went through and incidents of profiling that occurred as an issue in law enforcement. Then, court cases that involved incidents of profiling and characteristics that possibly affect traffic stop outcomes was discussed. Lastly, an overview of labeling theory was provided with how the framework related to possible profiling in traffic stops.

Changes that Occurred Through the History of Policing

Policing, protecting the public and asserting the laws, had been a part of America for centuries, going back to the 1600s with constant changes to the organization of policing up to date (Brandl, 2018). There were four era periods that demonstrated the changes that occurred within policing: the colonial era, the political era, the reform era, and the community problem-solving era (Brandl, 2018). Each of these policing eras were discussed to set the foundation of policing in America to better understand the complexes of police work and how profiling developed.

The first era of policing was the colonial era (1600 - 1700s), which consisted of four entities that controlled all aspects of police work: constables, watches, slave patrols, and sheriffs (Brandl, 2018). Constables were the first law enforcement appointed during the colonial times, but had a small team called the watch, who helped watch over and protect the villages through

fire watching, patrolling the streets, and watching out for suspicious individuals (Brandl, 2018; Weaver, 1901). The constable's job depended on their location, for example, some constables in smaller villages had little to enforce and worked alone, enforcing such rules as church attendance (Weaver, 1901) Constables jobs in larger villages were to work with and control the watch to make sure the rules were being correctly enforced (Weaver, 1901). During 1704 of the colonial era, slave patrols erupted, which consisted of white American landowners patrolling the villages for African Americans (Hadden, 2003). The slave patrol had the power to arrest African Americans out in public after a certain time, away from their plantations without consent, and African Americans found worshipping or having writing and reading utensils (Hadden, 2003). Finally, towards the end of the 1700s, the entity of a sheriff was appointed (Ball, 1978). A sheriff was like a constable, except they were appointed by the Governor and had more responsibilities, such as apprehend criminals, assist the justice of the peace, collect taxes, and supervise elections (Ball, 1978). Additionally, deputy sheriffs became a part of the colonial era with sheriffs, and their main jobs were to assist the sheriff (Ball,1978). Each of these entities were the start of building police departments, but during the 1800s was when the first organized police department arose (Brandl, 2018).

The political era (1800s) consisted of major changes for America. Cities were growing with the Industrial Revolution, slavery was abolished, and the first police department was officially organized (Williams & Murphy, 1990). During this era, the police were under the control of politicians, which left them with less freedom and control over their work than the colonial era police entities (Kelling & Moore, 1988). The main responsibility of the police during the political era was helping the politicians first, then caring for the citizens (Weaver, 1901). Further, the police were utilized as a military force rather than a force that supports and protects

communities (Kelling & Moore, 1988). A few positives about the political era was the abolishment of slavery and a change in diversity among police officers, specifically African Americans and women (Kelling & Moore, 1988; Williams & Murphy, 1990). Despite these advancements African Americans and women were still treated differently from the white officers. Such as having different titles besides policeman or policewoman, which every white officer had (Williams & Murphy, 1990). For instance, African American officers were called patrolmen and less likely to be assigned to non-minority neighborhoods or have a uniform (Williams & Murphy, 1990). In addition, female officers were called police matrons with no power of arrest and could only handle female prisoners (Williams & Murphy, 1990). However, this diversity ended after the Civil Rights Act of 1875 because of “separate but equal” laws, which caused African American officers to lose their jobs (Williams & Murphy, 1990). The “separate but equal” laws enforced African Americans to not indulge in anything whites were because they were not considered equal to whites (Williams & Murphy, 1990). The final outcome from the political era involved the creation of the police detective and criminal identification systems, such as rogues’ galleries and the Bertillonage system, which both helped identify criminals through pictures or physical measurements (Dilworth, 1977; Lane, 1967).

The third era of policing, the reform era (1900s to 1960s), was attempting to change how the police were in the colonial and political eras (Brandl, 2018). This era saw great advancements in technology and vehicles, which rose the crime rates and opportunities (Kelling & Moore, 1988). This resulted in more responsibility for the police (Kelling & Moore, 1988). As such, the police were able to patrol easier with vehicles and communicate better through telephones (Kelling & Moore, 1988). Further, federal and state law enforcement agencies arose, such as the Federal Bureau of Investigation (FBI), which brought advances to policing with

training and criminal identifications (Kelling & Moore, 1988). Lastly, diversity among policing started to grow again with African Americans joining the force more than females (Kelling & Moore, 1988). Even though the reform era was attempting to improve policing by moving from under politicians' rule, from being a military force, and the lack of diversity among the police, the entire era involved several crises such as the Civil Rights Movement involving riots and protests, inflation in crime rates, shootings of influential leaders, lawsuits against the police because of unjust treatment towards arrestees, etcetera (Kelling & Moore, 1988). Results from the reform era showcased that the organization of policing was not effective, which was what led to the current policing era, the community problem-solving era.

The final era of policing involved changes to better help the police and lessen the crises that occurred during previous eras. The community problem-solving era (1970s – present) focused on creating better relationships between the public and the police in hopes of reducing crime and increasing community support (Kelling & Moore, 1988). Community policing involved the police being available for the public and the citizens cooperating with the police in bettering the community, such as having community meetings, neighborhood watches, and foot patrols (Kelling & Moore, 1988). Another significant change that occurred during this era was the development of problem-oriented policing which identified at risk communities, such as run-down communities with higher crime rates (Goldstein, 1979). Problem-oriented policing drove the police to identify problems around communities and address them before crimes occurred (Goldstein, 1979). This type of policing was a way for the police to become progressive in preventing crime before it occurs, instead of reacting after a crime occurred (Goldstein, 1979). Lastly, advancements in technology, such as body cameras, less lethal weapons (tasers), body

armor, license plate readers, and automated fingerprint identification systems helped to make the duties of police officer's easier and safer (Platt et al., 1982).

Discussing the history of policing helped to build a foundation of how profiling became an aspect of policing. The changes the police had to adapt to during the different eras attempted to create better relationships between the community and police. In addition, the police officers attempted to be less discriminating towards minorities and women. However, those attempts were not without faults because profiling was still a problem as referenced in the following incidents.

Problems That Could Lead to Profiling

Despite the advancements policing had gone through, problems within policing still existed. Such problems were the use of police suspicion and discretion, the rise in the prison populations concerning African Americans, lack of diversity among police forces, and the riots and protests from the public. The role that suspicion plays in the field of policing was significant because it is a part of the police officer's training to be able to identify possible suspects based off certain characteristics, behaviors, and settings in order to protect themselves, the public, and prevent crimes (Brandl, 2018; Crank, 2004; Quinton et al., 2000; Smith et al., 2006).

Unfortunately, officers can twist their suspicions towards profiling, such as race, as shown in the court cases of *Terry v. Ohio* (1968), *Wilkins v. Maryland* (1993), *Soto v. New Jersey* (1996), *Whren v. United States* (1996), and *Floyd v. City of New York* (2013). Suspicion was a concept understood by cognitive theorists that was connected to characteristics in individuals lives and developed the more times the individual was exposed to such characteristics that made them suspicious (Good & Brophy, 1990). Respectively, police develop suspicion profiling certain individuals based off the repeated encounters with them (Smith et al., 2006). Depending on the

type of encounter, stereotypes and suspicions start to evolve within that officer, which can result in generalizing those suspicions and stereotypes onto other similar individuals (Smith et al., 2006).

In addition to suspicion, the use of discretion by the police was another important factor that could lead to profiling. For instance, police officers have an abundance of power when it comes to discretion because they could decide whether to sanction, ticket, or search, individuals or to let the individual off the hook (Brandl, 2018; Ramirez et al., 2003). Within this power of discretion comes the possibility of citizens believing the police used their discretion to discriminate against certain individuals (Brandl, 2018; Ramirez et al., 2003). Overall, suspicion and discretion could lead to profiling individuals if not used properly, as seen through the following problems with the rise in the prison populations concerning African Americans, lack of diversity among police forces, and the riots and protests from the public.

A significant reason the rise of minorities in prison populations occurred was because of the war on drugs during the 1980s (Engel & Calnon, 2004; Harris, 1999; Kennedy, 1997). The war on drugs involved the police cracking down on the supply, distribution, and use of drugs, which raised the incarceration rate worldwide (Engel & Calnon, 2004; Kennedy, 1997). Incarceration and stops, both non-traffic and traffic, majorly increased for young male minorities when the war on drug policies were enacted (Engel & Calnon, 2004; Harris, 1999; Kennedy, 1997). Tactics, such as the use of suspicion and the Terry Stop and Frisks were used in targeting minorities and became common within the culture of policing across the U.S. when conducted on traffic stops (Engel & Calnon, 2004; Harris, 1999, Terry v. Ohio, 1968). Respectively, African Americans were deemed more likely to be in the drug business, so they were stopped and arrested more, which increased the prison populations with minorities (Engel & Calnon, 2004;

Harris, 1999; Kennedy, 1997). To date, minorities were still deemed suspicious as shown by the prison populations being 1096 per 100,000 African Americans imprisoned compared to 214 per 100,000 whites (Carson, 2020).

Discrimination towards certain genders and races had always been present within police departments and public interaction, but over time it had gotten better through the culture (Brandl, 2018; Capps, 2014; FBI: UCR, 2019; Hyland & Davis, 2019; Kelling & Moore, 1988; Williams & Murphy, 1990). During the 1970s, women on the force consisted of 2% but by 2014 11.9% were sworn officers (Capps, 2014). Most current data on sworn female officers were from 2019 at 12.8%, a .9% inflation from 2014 (FBI: UCR, 2019). With only 12.8% women in policing, that leaves 87.2% male officer's, leaving a wide gap between women and men being police officers. Additionally, minorities in policing increased over the years as shown in 1967, minorities consisted of less than 10% of officers, but by 2013, 27% were sworn officers (Brandl, 2018). Most current data for minority sworn officers were from 2016 and at local level consisted of 11.4% African Americans, 12.5% Hispanics, 3.6% other races (Asians, Native Hawaiians, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races), and 1.1% unknown comparatively to 71.5% white officers (Hyland & Davis, 2019). Respectively, 28.6% were minorities with a 42.8% difference between white officers at 71.4% (Hyland & Davis, 2019). Accordingly, the diversity among police officers are consistent with the size of the jurisdictions, the larger the jurisdiction the more diverse police are among women and minorities, similar with the smaller jurisdictions having less diversity (Brandl, 2018).

Even with the rise in diversity among police forces, there was still a significant difference between minorities and women on police forces. Thus, creating the possibility of minority communities and women to distrust the police. Distrust in the police could be that minority and

women citizens being less likely to help the police when it seems they were being discriminated against. Specifically, African Americans if they saw their race occupying most of the prison populations, being unjustly killed by white officers, and being targeted the most during traffic stops. Distrust between the police and communities does not compliment the community-problem solving tactic the police were supposed to use. Further, it has a possibility to make the police seem prejudice against minorities and women if police forces are sparsely diverse.

The riots and protests that occurred throughout history, specifically during the civil rights movement, helped show how discrimination and profiling was within policing. Further, the killings of African Americans by white police officers helped show profiling was still present to date. A few riots and protests that occurred during the civil rights movement was the Montgomery Bus Boycott, The Sit-Ins, The Freedom Ride, Birmingham, the March on Washington, and the assassination of Martin Luther King Jr. (Constitutional Rights Foundation, 2021). The Montgomery Bus Boycott of 1955 was the trademark event of Rosa Parks not giving up her bus seat to a white person and being arrested for it (Constitutional Rights Foundation, 2021). This result ended with African Americans peacefully protesting for the unfair treatment of Rosa and other African Americans (Constitutional Rights Foundation, 2021). The Sit-Ins were another peaceful protest by African Americans, specifically college students (Constitutional Rights Foundation, 2021). The Sit-Ins of 1960 were college students protesting about not being served when at a restaurant (Constitutional Rights Foundation, 2021). Students who participated were usually arrested, taunted, or even beaten by white officers or other citizens (Constitutional Rights Foundation, 2021).

Continuing, the Freedom Riders of 1961 involved both African American and white individuals boarding segregated buses and traveling towards the South states to enter their

segregated bus areas (Constitutional Rights Foundation, 2021). This was a peaceful protest but was met with white supremacists who beat the freedom riders and the police who jailed them (Constitutional Rights Foundation, 2021). The Birmingham and March on Washington protests were both peaceful from African Americans but resulted in violence from white citizens and police officers (Constitutional Rights Foundation, 2021). Birmingham and the March on Washington was an attempt to get public facilities desegregated and equal job opportunities for minorities (Constitutional Rights Foundation, 2021). Lastly, the longer the civil rights movement continued with little results benefiting African Americans and them being brutalized, the riots started to come from African Americans towards white citizens and police officers (Constitutional Rights Foundation, 2021). Especially after the 1968 assassination of Martin Luther King Jr. (Constitutional Rights Foundation, 2021).

In addition, the killings of African Americans by white police officers, to date, furthered showed incidents that could lead to profiling. Three African Americans, Trayvon Martin, Michael Brown, and George Floyd were each killed by white police officers, which created the Black Lives Matter movement (Hill et al., 2020; History.com Editorsa, 2021; History.com Editorsb, 2020). The Black Lives Matter movement was created to bring groups of individuals together to protest the mistreatment of minorities (History.com Editorsb, 2020). The movement was created after the killing of Trayvon Martin by George Zimmerman in 2012 (History.com Editorsa, 2021). Martin was walking home in a hooded sweatshirt when Zimmerman saw him and considered him suspicious and threatening (History.com Editorsa, 2021). Zimmerman was a part of the neighborhood watch and followed Martin which lead to an altercation between the two (History.com Editorsa, 2021). Zimmerman fatally shot Martin and told it was in self-defense which led the police in not arresting Zimmerman (History.com Editorsa, 2021). Zimmerman

being let free caused an uproar through America of the racial injustice, which was when protests of millions of individuals wearing hoodies occurred to bring justice for Trayvon Martin (History.com Editorsa, 2021). In the end, Zimmerman was considered not guilty (History.com Editorsa, 2021).

Martin's case was but one that showed discrimination against minorities. Two years later in 2014, Michael Brown was shot and killed by a white police officer named Wilson (History.com Editorsb, 2020). Brown and his friend were walking in the street when officer Wilson demanded them to get on the sidewalk (History.com Editorsb, 2020). Brown and his friend refused to which resulted in Wilson stopping his vehicle in front of them where Brown and he confronted one another (History.com Editorsb, 2020). Wilson fired shots at the boys, they ran, and Wilson pursued them when Brown decided to stop, face Wilson with his hands up, and unarmed said, "Don't Shoot," when Wilson fired 12 shots with six hitting Brown killing him (History.com Editorsb, 2020). Brown's case erupted in riots and protests centered around the movement "Black Lives Matter" (History.com Editorsb, 2020).

The most current case involved with the Black Lives Matter movement was the killing of George Floyd by white officer Derek Chauvin in 2020 (Hill et al., 2020). Floyd was arrested after he paid for cigarettes from a convenience store with a counterfeit \$20 bill (Hill et al., 2020). During the arrest, officer Chauvin pinned Floyd to the ground and knelt on his neck for approximately eight minutes and 15 seconds resulting in Floyd to stop breathing (Hill et al., 2020). Officers Chauvin was prosecuted for the murder of Floyd, but this does not always happen, as referenced by Martin's case (Hill et al., 2020; History.com Editorsa, 2021). Each case represented discrimination against minorities by white officer's, which caused riots and protests to erupt across America in the form of Black Lives Matter to address the prejudices against

African Americans. Instances such as Martin's, Brown's, and Floyd's cases further the distrust between minority citizens and the police by making minorities fear and not help the police because it might come back to harm them.

Based on the incidents discussed, it was shown how such problems could lead to profiling. The use of suspicion, discretion, the rise in the prison populations concerning African Americans, lack of diversity among police forces, and the riots and protests from the public each helped lead towards profiling within policing. Each circumstance created discord between minorities and the police, which was further shown through several lawsuits against the police. The following section discussed court cases that were lawsuits against the police because of profiling minorities.

Court Cases that Show Profiling

A definition for the term "profiling" consisted of "the police practice viewing certain characteristics as indicators of criminal behavior" (Ramirez et al., 2003). Several problems previously discussed suggested that profiling was used mainly towards minorities and by white individuals (Brandl, 2018; Carson, 2020; Constitutional Rights Foundation, 2021; Engel & Calnon, 2004; Harris, 1999; Hill et al., 2020; History.com Editorsa, 2021; History.com Editorsb, 2020; Hyland & Davis, 2019; Kennedy, 1997). In addition to those problems leading to profiling, lawsuits against the police supported that profiling existed within policing. The following information showed the history of profiling by discussing lawsuits that were because of racial discrimination.

A significant court case that originally had great intentions for the police force but then turned into a tool for racial profiling was Terry v. Ohio (1968). The Terry v. Ohio (1968) court case involved the rulings over whether it was justifiable and legal for police officers to preform

informal investigatory stop and seizures. *Terry v. Ohio* (1968) revolved around an experienced officer spotting three men, two being African American, casing out a store front (Jones, 2018). The officer felt he had reasonable cause to believe the men were acting suspicious and going to rob the store, so he went over to investigate and ended up searching the men without their consent and finding guns (Jones, 2018; *Terry v. Ohio*, 1968). The men sued the police of Ohio stating it was unlawful for them to have been searched for no prior reasoning, seeing as how they were doing nothing wrong (Jones, 2018; *Terry v. Ohio*, 1968). However, the Supreme Court ruled in *Terry v. Ohio* (1968) that it was legal for officers to stop and frisk the clothing of potentially suspicious suspects based off their experience and having reasonable cause that the individual was carrying a weapon and about to commit a crime or harm someone.

Another court case was *Wilkins v. Maryland* (1993), which revealed racial biases existed in police traffic stops. The data from the traffic stops on Maryland highways consisted of violating the speed limit, with results of 74.7% whites speeding and 17.5% African Americans speeding (Ramirez et al., 2003; *Wilkins v. Maryland*, 1993). The disparity was seen from the African Americans that were pulled over because they were searched about 80% of the time even though they were stopped significantly less than whites (Ramirez et al., 2003; *Wilkins v. Maryland*, 1993).

Further, the court cases *Soto v. New Jersey* (1996) and *Whren v. United States* (1996) continued to reveal racial profiling in police traffic stops. The traffic stop results for speeding on the New Jersey highways consisted of 15% African Americans, but their population represented 13.5% (Ramirez et al., 2003; *Soto v. New Jersey*, 1996). In addition to overall traffic stops, African Americans were 35% of those stopped and 73.2% arrested (Ramirez et al., 2003; *Soto v. New Jersey*, 1996). *Whren v. United States* (1996) constituted that any traffic violation could

support a reason for a stop, not mattering if the police officer used the stop as pretext to investigate the driver or vehicle (Brandl, 2018; Harris, 1997; Ramirez et al., 2003). Respectively, *Whren v. United States* (1996) authorized any citizen as fair game for the police to stop with little reasoning (Brandl, 2018; Harris, 1997; Ramirez et al., 2003). According to the case, it became constitutional for police to make illegitimate stops with very little probable cause (Brandl, 2018; Harris, 1997; Ramirez et al., 2003). The results from *Whren v. United States* (1996) revealed significant profiling against minorities, specifically African Americans and Hispanics (Harris, 1997). Researchers have suggested that laws, such as *Whren v. United States* (1996), enacted America in keeping whites as the dominant race and profiling minorities as only criminals that are not equal to the white race (Harris, 1997).

A final court case that exploited the Terry Stop and Frisks from the *Terry v. Ohio* (1968) case was the *Floyd v. City of New York* (2013) court case. The court case *Floyd v. City of New York* (2013) involved the citizens of New York insisting that the New York police were racially profiling African Americans and Hispanics during unjustified Terry Stop and Frisks (Jones, 2018). Respectively, in nine years, from 2004 to 2012, the New York Police Department initiated 4.4 million Terry Stops (Jones, 2018). Within these stops, frisks and searches for weapons were enacted 52% of the time, with a hit rate of 1.5%, compared to 98.5% frisks being missed hits (*Floyd v. City of New York*, 2013). Concerning race, 52% of the 4.4 million stops were African Americans, 31% Hispanics, and 10% whites (*Floyd v. City of New York*, 2013). Concerning the hit rate for weapons, 1.0% African Americans had a weapon, 1.1% Hispanics had a weapon, and 1.4% whites had a weapon (*Floyd v. City of New York*, 2013). Lastly, contraband hit rate was 1.8% for African Americans, 1.7% for Hispanics, and 2.3% for whites (*Floyd v. City of New York*, 2013). Respectively, African Americans represented 23% of New York's population,

Hispanics represented 29%, and whites represented 33% (Floyd v. City of New York, 2013).

Based on these results, the New York Police department was profiling minorities based their race and suspicion that African Americans were more dangerous and in the drug business, as referenced with the war on drugs (Engel & Calnon, 2004; Floyd v. City of New York, 2013; Harris, 1999; Kennedy, 1997).

The current section discussed court cases that displayed incidents of profiling towards minorities. The court cases mentioned further supported that profiling was still an issue within policing and police traffic stops. The next section discussed research over profiling the characteristics of age, sex, social class, race, and demeanor in traffic stops.

Traffic Stops

Law enforcement incorporated profiling within many different aspects of their work, such as when using discretion on decisions of giving a ticket or warning, whether to stop a vehicle for minor traffic violations or not, whether to search a vehicle or not, or even during the previously mentioned court cases of Terry v. Ohio (1968), Wilkins v. Maryland (1993), Soto v. New Jersey (1996), Whren v. United States (1996), and Floyd v. City of New York (2013), and the policies such as the war on drugs (Engel & Calnon, 2004; Harris, 1999; Kennedy, 1997; Ramirez et al., 2003). Further, various characteristics play a role in the decision to make traffic stops, such as the age, sex, race, social class, and demeanor of the driver and the sex, race, and demeanor of the police officer (Brown & Frank, 2005; Close & Mason, 2007; Day & Ross, 2011; Engel & Calnon, 2004; Engel et al., 2012; Lundman, 1979; Lundman, 1994; Lundman & Kaufman, 2003; Mastrofski et al., 1996; Novak & Chamlin, 2008; Pickerill et al., 2008; Regoeczi & Kent, 2014; Ritter, 2017; Rojek et al., 2012; Smith et al., 2006; Weitzer & Tuch, 2002; Worden & Shepard,

1996). The following section discussed how the driver's age affected the outcome of traffic stops.

Age Characteristic

Previous research on the driver's age found positive relationships with receiving tickets and searches (Brown & Frank, 2005; Engel & Calnon, 2004; Lundman & Kaufman, 2003; Pickerill et al., 2008; Regoeczi & Kent, 2014; Smith et al., 2006; Weitzer & Tuch, 2002). Weitzer and Tuch (2002) found that drivers between the ages of 18 to 34 years were more likely to be profiled and ticketed. Additionally, Rojek et al. (2012) found that drivers around 30 and younger were likely to be stopped 56% of the time. Further, many researchers found that adolescent drivers were more likely to be stopped and issued a ticket or searched because the police were more suspicious (Brown & Frank, 2005; Engel & Calnon, 2004; Lundman & Kaufman, 2003; Smith et al., 2006; Regoeczi & Kent, 2014). As previously stated, police create profiles against individuals they repeatedly come in contact with and start being suspicious of similar individuals (Brandl, 2018; Crank, 2004; Good & Brophy, 1990; Quinton et al., 2000; Smith et al., 2006). So, with younger drivers being stopped more often than adult drivers, the police had created a profile against young drivers based off the term of suspicion, which resulted in giving tickets or searching vehicles of young drivers.

Further, if the driver's age was combined with either their race or sex, officers were more likely to profile them, increasing the likelihood of receiving a ticket or search (Engel & Calnon, 2004; Pickerill et al., 2008). Specifically, combining the age and race of the driver showed that young Hispanic drivers were more likely to receive low discretion searches, whereas older Native American drivers were more likely to receive high discretion searches (Pickerill et al., 2008). Low discretion searches required the officer to conduct the search but high discretion

searches gave the officer an option to search or not (Pickerill et al., 2008). However, the chances of being searched for all races and both male and females, were significantly low when the age of the driver increases, reintegrating that younger drivers were searched significantly more (Brown & Frank, 2005; Engel & Calnon, 2004; Lundman & Kaufman, 2003; Smith et al., 2006; Regoeczi & Kent, 2014; Rojek et al., 2012; Pickerill et al., 2008). The following section discussed how the sex of the driver and officer affected the outcome of traffic stops.

Sex Characteristic

Little research examined the relationship between the driver's sex and traffic stops. Researchers found that when females were pulled over, they received more warnings than men, whereas men received tickets (Lundman, 1979; Regoeczi & Kent, 2014). Further, researchers found that being male significantly increased the chances of receiving a ticket or search (Engel & Calnon, 2004; Pickerill et al., 2008). Pickerill et al. (2008) specifically found that women were less likely to be searched in general, but also in relation to high discretion searches compared to men (Pickerill et al., 2008). As discussed, high discretion searches were when the police had the option to search the vehicle or not (Pickerill et al., 2008). Lastly, Rojek et al. (2012) found male drivers to be stopped 76% of the time compared to female drivers. In addition to the relationship of the driver's sex and traffic stops, little research was examined between the police officer's sex and traffic stops.

However, a few researchers, such as Pickerill et al. (2008) and Rojek et al. (2012) found a relationship between the officer's sex and traffic stops. Pickerill et al. (2008) found female officers conducted low discretion searches, whereas men conducted more high discretion searches. So, female officers conducted more required searches but men conducted more optionable searches (Pickerill et al., 2008). Further, Rojek et al. (2012) found that male police

officers conducted searches more than half of the time compared to female officers. In addition, men were profiled more commonly than females by females being stopped less than males, coinciding with the police being less suspicious of women (Brown & Frank, 2005; Lundman & Kaufman, 2003; Smith et al., 2006). As discussed, police create suspicions based off repeated encounters with a certain type of individual and projecting profiles to similar individuals (Brandl, 2018; Crank, 2004; Good & Brophy, 1990; Quinton et al., 2000; Smith et al., 2006). The following section discussed how the driver's social class affected the outcome of traffic stops.

Social Class Characteristic

The driver's social class may also be related to traffic stops. Weitzer and Tuch (2002) found that there were differences in being stopped when it comes to social class, such as with middle- and lower-class African Americans compared to Whites in general. The middle class were more likely to be stopped by the police because they had more mobility opportunities than the lower-class (Engel & Calnon, 2004; Lundman & Kaufman, 2003; Weitzer & Tuch, 2002). Additionally, African Americans who seem to be affluent in wealth were believed to be suspicious because stereotypes suggested they were only of the lower income society crimes (Engel & Calnon, 2004; Lundman & Kaufman, 2003; Smith et al., 2006; Weitzer & Tuch, 2002). So, if seen with newer vehicles, African Americans were under suspicion since lower income individuals were expected by police to commit more crimes (Engel & Calnon, 2004; Lundman & Kaufman, 2003; Smith et al., 2006; Weitzer & Tuch, 2002). Lastly, social class was found to be influential in traffic stops because individuals with average to above-average income were more favorable towards the police because they received better treatment in the outcomes during traffic stops, compared to the middle and lower-level income citizens who received less favorable outcomes (Engel & Calnon, 2004; Lundman & Kaufman, 2003; Weitzer & Tuch,

2002). The following section discussed how the race of the driver and officer affected the outcome of traffic stops.

Race Characteristic

The most common characteristic researchers found to have a relationship with the outcome of traffic stops was the race of the driver and officer (Close & Mason, 2007; Engel & Calnon, 2004; Lundman & Kaufman, 2003; Novak & Chamlin, 2008; Pickerill et al., 2008; Regoeczi & Kent, 2014; Ritter, 2017; Rojek et al., 2012; Smith et al., 2006; Weitzer & Tuch, 2002). Receiving a ticket was found by research to have a relationship with the driver's race (Engel & Calnon, 2004; Regoeczi & Kent, 2014). Engel and Calnon (2004) found Hispanics to receive the most traffic tickets, then others, African Americans, and Whites. Additionally, Regoeczi and Kent (2014) found a slight difference such as African Americans were ticketed the most, then Whites, and Hispanics. Specifically, speeding and running a red light or stop sign were the main reasons Whites received tickets (Engel & Calnon, 2004; Regoeczi & Kent, 2014). Whereas, minorities had several reasons, such as not signaling, headlight violation, but the main one was a suspended license, which furthers the profiling aspect since minorities were stopped for minor reasons compared to Whites (Engel & Calnon, 2004; Regoeczi & Kent, 2014).

In addition, receiving a search was also found to have a relationship with the driver's race (Pickerill et al., 2008). Pickerill et al. (2008) found there to be significant differences between race and searches. Even so far has to show differences between low (required searches) and high (officer's option to search) discretion searches and hit rates of finding contraband during the searches. Pickerill et al. (2008) found the race most likely to be searched were Native Americans at 15%, then African Americans at 7.6%, Hispanics at 6.7%, Whites at 3%, and Asians at 2.5%. Respectively, low discretion searches revealed Native Americans were required to be searched

12.9% of the time, then African Americans 6.6%, Hispanics 5.7%, whites 2.6%, and Asians 2.2% (Pickerill et al., 2008). High discretion searches showed again, Native Americans being searched 2.1% of time from officer's decision, then African Americans 1%, Hispanics .9%, whites .4%, and Asians .3% (Pickerill et al., 2008). Broken up further, low discretion searches hit rates were highest for whites at 24.9%, then Native Americans at 22%, African Americans at 18.4%, Hispanics at 16.5%, and Asians at 10.7% (Pickerill et al., 2008). Comparatively, high discretion searches hit rates found whites at 24.1%, Asians at 22.4%, African Americans at 22.1%, Native Americans at 18.1%, and Hispanics at 17.6% (Pickerill et al., 2008). Pickerill et al.'s (2008) findings revealed that minorities were more likely to be searched but have lower hit rates for contraband, which supported that profiling existed towards certain individuals.

In addition to the driver's race having a relationship to traffic stops, the race of the police officer was also found to have a relationship towards traffic stops (Close & Mason, 2007; Novak & Chamlin, 2008; Rojek et al., 2012). Close and Mason (2007) found white police officers to conduct searches 88% of the time with a hit rate of 20%, Latino officers conducted 8% of the searches with a hit rate of 24%, and African American officers conducted 4% of searches with a hit rate of 26%. Close and Mason's (2007) findings revealed that officers who conducted the most searches did not necessarily have successful hit rates, which could further support the belief among individuals that the police profile individuals. Further relating to searches, Rojek et al. (2012) found white officers stopping and searching African American drivers significantly more than other race combinations. However, when Rojek et al. (2012) examined representation of races among population, the results yielded that low representation of African Americans resulted in white officers stopping and searching African American drivers the most. Middle African American representations resulted in white officers stopping and searching white drivers

the most. Lastly, high African American representation resulted in white officers stopping and searching white drivers the most. Rojek et al.'s (2012) and Novak and Chamlin (2008) expressed how profiling could be directed towards the white race when it commonly was not, because if a race was considered a minority in an area compared to the majority of the population, the police were more likely to notice those minorities.

Lastly, a few researchers found a general relationship between race and traffic stops (Lundman & Kaufman, 2003; Ritter, 2017; Smith et al., 2006; Weitzer & Tuch, 2002). Weitzer and Tuch (2002) found that African Americans disapproved significantly more than Whites, of police profiling as part of their job because it puts them at a greater risk. Lundman and Kaufman (2003) and Smith et al. (2006) support Weitzer and Tuch (2002) with their findings that African Americans were the main targets of profiling, followed by Hispanics, then others because of the police's suspicions. Further, Ritter (2017) found that despite African Americans having a lower population in Minneapolis, they were frequently stopped more compared to whites. The following section discussed how the demeanor of the driver and officer affected the outcome of traffic stops.

Demeanor Characteristic

Many researchers found a relationship to exist between demeanor of the driver and traffic stops (Day & Ross, 2011; Engel et al., 2012; Lundman, 1994; Mastrofski et al., 1996; Regoeczi & Kent, 2014; Worden & Shepard, 1996). Worden and Shepard (1996) found that being disrespectful, detached from the situation, non-compliant, and verbally resisting the officer raised the chances of receiving a ticket. In addition, Lundman (1994) found that impoliteness and hostile demeanors were likely to occur in a harsher outcome than a ticket. According to Day and Ross (2011), apologies, excuses, justifications, denials, and no response were behaviors drivers

had when interacting with the police during a traffic stop. Between each of these behaviors, remorse was the strongest behavior to bring out better odds from the stop, specifically, lowering ticket costs or receiving a warning instead (Day & Ross, 2011).

Further, Mastrofski et al. (1996) found that minority drivers were more likely to not comply with white officers during a traffic stop. Later, researchers Engel et al. (2012) found new research against Mastrofski et al. (1996) which showed no matter the officer's race, African American drivers were disrespectful, non-compliant, and resistant towards officers during traffic stops. However, Mastrofski et al. (1996) found some main reasons for resistance were if the driver thought the stop was illegitimate, when the vehicle search was perceived as illegitimate, when believed the police acted improperly, and when respondents reported the police acted disrespectfully. Most current researchers, Regoeczi and Kent (2014), found support for past researchers Day and Ross (2011), Engel et al. (2012), Lundman (1994), Mastrofski et al. (1996), and Worden and Shepard (1996), that having a positive demeanor, such as apologizing and complying with the officer, was more likely to result in a warning or lower penalty, a negative demeanor could lead to a ticket or worse outcome, and no demeanor would likely receive a ticket. The following section discussed labeling theory and how the framework related to profiling and traffic stops.

Labeling Theory

Labeling theory arose during the 1960s and 1970s, which incorporated past aspects, such as the progressive movement and criminologists, who believed criminals were born and their characteristics as a person led them to be deviant (Berk, 2015; Lilly et al., 2015). However, labeling theorists rejected criminologist's beliefs that it was the criminal's fault for obtaining the label put upon them (Becker, 1991; Berk, 2015; Cohen, 1972; Lemert, 1951; Lilly et al., 2015;

Tannenbaum, 1938). Labeling theorists focused more on how society was at fault for labeling the citizen and the adverse effects that came from such labels (Becker, 1991; Berk, 2015; Cohen, 1972; Lemert, 1951; Lilly et al., 2015; Tannenbaum, 1938). Such theorists as Frank Tannenbaum (1938), Edwin Lemert (1951), Howard Becker (1991), and Stanley Cohen (1972) summed up what labeling theory suggested and the effects that come from labeling individuals. Once a label was put towards an individual, that individual becomes an outsider which could lead to deviant acts but also cause harm upon their lives or others by the rest of society grouping similar individuals as deviant (Becker, 1991; Cohen, 1972; Lemert, 1951; Tannenbaum, 1938). Ultimately, labeling theory addressed what the dominant social groups responses were towards social groups deemed as deviant and a risk, while suggesting the label put upon the deviant social groups could further their deviance or have harmful effects upon their lives (Berk, 2015; Lilly et al., 2015; Plummer, 2001; Taylor, 2003). The following section discussed how labeling theory was a framework for profiling.

Labeling Theory in Relation to Profiling

According to labeling theory, the dominant social group would be in control of traffic stops and their outcomes based on the label put upon drivers with specific characteristics (Becker, 1991; Berk, 2015; Cohen, 1972; Lemert, 1951; Lilly et al., 2015; Plummer, 2001; Tannenbaum, 1938; Taylor, 2003). Respectively, the police officers would be considered the dominant individuals during traffic stops who determines the outcome of giving a ticket or search. However, the label and stereotype put upon the driver based off their characteristics, which could be their age, sex, social class, race, or even demeanor, would influence the decision of the officer. As Smith and Alpert (2007) discussed, police officers learn and create stereotypes on the job and from their surrounding society. Once the stereotypes were formed the police

would start profiling other individuals with the same characteristics from previous encounters based on their learned stereotypes (Smith & Alpert, 2007). The theorists of labeling theory correctly predicted that drivers with particular characteristics would be profiled based on the rest of societies beliefs, which can come from the media or the dominant group, that pushes those of specific characteristics away from the rest of society and as outsiders (Becker, 1991; Cohen, 1972; Lemert, 1951; Tannenbaum, 1938).

An example that encompasses labeling theory within traffic stops is the war on drugs. During that time, minorities were stopped significantly more than whites because they were deemed suspicious, dangerous, and most likely to be involved in drugs (Engel & Calnon, 2004; Harris, 1999; Kennedy, 1997). Minorities were labeled as dangerous and drug traffickers by society and the media, which put them as outsiders and shunned from society (Becker, 1991; Cohen, 1972; Engel & Calnon, 2004; Harris, 1999; Kennedy, 1997; Lemert, 1951; Tannenbaum, 1938). Once minorities were labeled as drug users and traffickers the police targeted them during stop and frisks under the assumption almost all minorities were involved in drugs (Becker, 1991; Cohen, 1972; Engel & Calnon, 2004; Floyd v. City of New York, 2013; Harris, 1999; Kennedy, 1997; Lemert, 1951; Tannenbaum, 1938). Labeling theory could be considered the framework that encompassed how profiling was associated with traffic stops. The following section discussed the current study.

Current Study

The current study hoped to determine if profiling was still present in traffic stops but not solely towards African Americans, but drivers with other characteristics. Past research focused significantly on race as the aspect police profiled during traffic stops, without factoring in other characteristics, such as age, sex, social class, or demeanor. This study was looking to fill that gap

from past research, to explore other characteristics besides race that could play a role in traffic stop outcomes. This topic must be researched because as discussed, profiling still existed within policing and traffic stops. So, determining whether other characteristics were profiled during traffic stops could then decrease future incidents of profiling.

Chapter Summary

This chapter provided knowledge of past research over profiling and the prevalence of profiling during traffic stops concerning specific characteristics such as age, sex, race, social class, and demeanor. Past research had shown that each of the previous characteristics had a relation to the outcome of traffic stops (Brown & Frank, 2005; Close & Mason, 2007; Day & Ross, 2011; Engel & Calnon, 2004; Engel et al., 2012; Lundman, 1979; Lundman, 1994; Lundman & Kaufman, 2003; Mastrofski et al., 1996; Novak & Chamlin, 2008; Pickerill et al., 2008; Regoeczi & Kent, 2014; Ritter, 2017; Rojek et al., 2012; Smith et al., 2006; Weitzer & Tuch, 2002; Worden & Shepard, 1996). Additionally, a theoretical background over labeling theory was discussed to support how profiling had adverse effects on those outside the dominant social group. Lastly, the reason for the current study was discussed.

Reintegrating why this topic was important and needed further research was based off the past research found in this chapter. The research over traffic stops showed profiling was an issue, but not based solely off race. Being able to understand where the issues of profiling exist within traffic stops, such as with characteristics of age, sex, social class, demeanor, and race, police departments could create additional training programs, hiring techniques, promotion requirements, or personality and mental health checks to reduce the profiling rate. This study was important because it could change aspects of policing and reduce profiling among certain

individuals. The next chapter discussed which variables and statistics were used to answer the main point of this research project.

Chapter 3. Methodology

The previous chapter provided an overview of past literature regarding the eras of policing in America, the incidents that could lead to profiling, court cases that showed profiling, and characteristics that could affect the outcomes of traffic stops. Additionally, a theoretical framework was discussed using labeling theory in relation to profiling drivers during traffic stops. The current study sought to examine whether the characteristics of age, sex, social class, demeanor, and race had an effect on whether a ticket or a search occurred during traffic stops. The purpose of this study was to determine whether profiling went beyond the race characteristic during traffic stops. Further, this study's purpose was to help initiate change within policing to reduce the rate which profiling occurs in law enforcement. This chapter addressed the current study's primary and secondary research questions and the data utilized to answer these questions. Moreover, the statistical analyses used, and the limitations of the current study was also presented. The following section addressed the primary research question and the concepts applied.

Primary Research Question

The primary research question for this study was: *During a traffic stop, what characteristics are more likely to occur in a ticket or a search?* Past research had shown that specific characteristics can affect the outcome of a traffic stop, which related to profiling drivers such as young, male, average to lower income, minorities, and having negative demeanors (Brown & Frank, 2005; Close & Mason, 2007; Day & Ross, 2011; Engel & Calnon, 2004; Engel et al., 2012; Lundman, 1979; Lundman, 1994; Lundman & Kaufman, 2003; Mastrofski et al., 1996; Novak & Chamlin, 2008; Pickerill et al., 2008; Regoeczi & Kent, 2014; Ritter, 2017; Rojek et al., 2012; Smith et al., 2006; Weitzer & Tuch, 2002; Worden & Shepard, 1996). The

concepts associated with this research question were traffic stop, characteristics, ticket, and search.

Traffic stop was operationalized as a driver and their vehicle being pulled over by a police officer. There were numerous reasons a driver may be stopped by law enforcement such as, speeding, record check, roadside check, seatbelt violation, illegal lane, stop sign or light violation, cellphone use, or other such as headlight violation, driving too slowly, following too closely, obstructed license plate, or noise violation (United States Department of Justice et al., 2015). Along with minor and major traffic violations, other reasons related to potential profiling such as age, sex, social class, demeanor, and race may contribute to traffic stops.

Characteristics were operationalized as the demographics and behaviors of both the driver and police officer. The demographic characteristics for the driver were age, sex, social class, and race. *Age* was operationalized as how many years old the driver was at the time the data were collected. *Sex* was operationalized as the physical characteristic the driver was born with. *Social class* was operationalized as the driver's income level. Lastly, *race* was operationalized as the physical characteristics of skin color among the drivers. Concerning the behavioral characteristic, *demeanor* of the driver was operationalized as the physical or emotional behavior, such as attitude, expressed towards the police officer from the driver.

Further, the police officer's demographic characteristics were sex and race. *Sex* was operationalized as the physical characteristic the officer was born with. *Race* was operationalized as the physical characteristics of skin color among the officers. Additionally, the behavioral characteristic *demeanor* was operationalized as the physical or emotional behavior, such as attitude, expressed towards the driver from the police officer.

Ticket was operationalized as a written reason for the traffic stop given to the driver from the police officer, which usually involves a fine or court appearance. Numerous reasons for receiving a ticket exist, such as suspended license, drinking under the influence (DUI), no insurance or proof, reckless driving, tinted windows, cellphone use, and many others (United States Department of Justice et al., 2015). Further, the reasons for a ticket could be affected by the previously mentioned characteristics relating to profiling. An example is Regoezi and Kent (2014) finding that a positive demeanor resulted in a warning or lower penalty, a negative demeanor resulted in a ticket or worse outcome, and no demeanor resulted in a ticket.

The last concept for the primary research question was search. *Search* was operationalized as the police officer having pulled the driver of the vehicle over and looked around inside for evidence. An example of how the concept search related to characteristics of profiling was with the war on drugs. During this time, police were stopping minorities and searching their vehicles based off suspicion of drug trafficking, which ended in lawsuits previously mentioned in chapter two (Engel & Calnon, 2004; Harris, 1999; Kennedy, 1997). Next, the secondary research questions were discussed.

Secondary Research Questions

To answer the primary research question, sixteen secondary research questions were examined which focused on five characteristics: age, sex, social class, demeanor, and race. Each secondary research question had coinciding hypotheses and then variables from the data set, *Police-public contact survey (2015)*, to answer each question. Research question one asked: *Will the driver's age affect whether a ticket is received during a traffic stop?* The new concept associated with this question was driver. *Driver* was operationalized as the person driving the vehicle at the time of the stop. The hypothesis associated with this question stated: *The younger*

the driver is the more likely a ticket will be given. Research question two asked: *Will the driver's age affect whether a search occurs during a traffic stop?* The hypothesis associated with this question stated: *The younger the driver is the more likely a search will occur.* Further, the variables to answer secondary research question one and its hypothesis were *age* and *V249 (Were you given traffic ticket (not including a warning))* (United States Department of Justice et al., 2015). Lastly, the variables to answer secondary research question two and its hypothesis were *age* and *V325 (Did officer conduct vehicle search)* (United States Department of Justice et al., 2015).

Research questions three, four, five, and six related to the sex of the driver and police officer. Research question three asked: *Will the driver's sex affect whether a ticket is received during a traffic stop?* The hypothesis associated with this question stated: *A male driver is more likely to receive tickets.* Variables to answer secondary research question three and its hypothesis were *sex* and *V249 (Were you given traffic ticket (not including a warning))* (United States Department of Justice et al., 2015). Research question four asked: *Will the driver's sex affect whether a search occurs during a traffic stop?* The hypothesis associated with this question stated: *A male driver is more likely to receive a search.* Variables to answer secondary research question four and its hypothesis were *sex* and *V325 (Did officer conduct vehicle search)* (United States Department of Justice et al., 2015). Further, research question five asked: *Will the police officer's sex affect whether a ticket is given during a traffic stop?* The new concept associated with this question was police officer. *Police Officer* was operationalized as a sworn in law enforcement officer that pulled over the driver and vehicle. The hypothesis associated with this question stated: *A male police officer is more likely to give tickets.* Variables to answer secondary research question five and its hypothesis were *V189A (Was the police officer male or female)* and

V249 (Were you given traffic ticket (not including a warning)) (United States Department of Justice et al., 2015). Lastly, research question six asked: *Will the police officer's sex affect whether a search occurs during a traffic stop?* The hypothesis associated with this question stated: *A male police officer is more likely to give a search.* Variables to answer secondary research question six and its hypothesis were *V189A (Was the police officer male or female)* and *V325 (Did officer conduct vehicle search)* (United States Department of Justice et al., 2015).

Additionally, research questions seven, eight, nine, and ten related to the race of the driver and police officer. Research question seven asked: *Will the driver's race affect whether a ticket is received during a traffic stop?* The hypothesis associated with this question stated: *Non-white drivers are more likely to receive a ticket.* Variables to answer secondary research question seven and its hypothesis were *race* and *V249 (Were you given traffic ticket (not including a warning))* (United States Department of Justice et al., 2015). Research question eight asked: *Will the driver's race affect whether a search occurs during a traffic stop?* The hypothesis associated with this question stated: *Non-white drivers are more likely to receive a search.* Variables to answer secondary research question eight were *race* and *V325 (Did officer conduct vehicle search)* (United States Department of Justice et al., 2015). Further, research question nine asked: *Will the police officer's race affect whether a ticket is given during a traffic stop?* The hypothesis associated with this question stated: *White police officers are more likely to give tickets.* Variables to answer secondary research question nine and its hypothesis were *V191 (Officer race 1)* and *V249 (Were you given traffic ticket (not including a warning))* (United States Department of Justice et al., 2015). Lastly, secondary research question ten asked: *Will the police officer's race affect whether a search occurs during a traffic stop?* The hypothesis associated with this question stated: *White police officers are more likely to give a search.* Variables to answer

secondary research question ten and its hypothesis were *V191 (Officer race 1)* and *V325 (Did officer conduct vehicle search)* (United States Department of Justice et al., 2015).

Continuing, research questions eleven and twelve related to the social class of the driver. Research question eleven asked: *Will the driver's social class affect whether a ticket is received during a traffic stop?* The hypothesis associated with this question stated: *Higher income level drivers are more likely to receive a ticket.* Variables to answer secondary research question eleven and its hypothesis were *income* and *V249 (Were you given traffic ticket (not including a warning))* (United States Department of Justice et al., 2015). Research question twelve asked: *Will the driver's social class affect whether a search occurs during a traffic stop?* The hypothesis associated with this question stated: *Lower income level drivers are more likely to receive a search.* Variables to answer secondary research question twelve and its hypothesis were *income* and *V325 (Did officer conduct vehicle search)* (United States Department of Justice et al., 2015).

Lastly, research questions thirteen, fourteen, fifteen, and sixteen related to the demeanor of the driver and police officer. Research question thirteen asked: *Will the driver's demeanor affect whether a ticket is received during a traffic stop?* The hypothesis associated with this question stated: *A negative demeanor from the driver is more likely to result in a ticket.* Variables to answer secondary research question thirteen and its hypothesis were *V306 (Did respondent disobey officer)*, *V308 (Respondent try to leave)*, *V310 (Respondent push, grab, or hit officer)*, *V314 (Respondent complain)*, *V316 (Respondent argue with officer)*, *V318 (Respondent curse at, insult, or verbally threaten officer)*, and *V249 (Were you given traffic ticket (not including a warning))* (United States Department of Justice et al., 2015). Research question fourteen asked: *Will the driver's demeanor affect whether a search occurs during a traffic stop?*

The hypothesis associated with this question stated: *A negative demeanor from the driver is more likely to result in a search.* Variables to answer secondary research question fourteen and its hypothesis were *V306 (Did respondent disobey officer), V308 (Respondent try to leave), V310 (Respondent push, grab, or hit officer), V314 (Respondent complain), V316 (Respondent argue with officer), V318 (Respondent curse at, insult, or verbally threaten officer), and V325 (Did officer conduct vehicle search)* (United States Department of Justice et al., 2015).

Continuing, research question fifteen asked: *Will the police officer's demeanor affect whether a ticket is given during a traffic stop?* The hypothesis associated with this question stated: *A negative demeanor from the police officer is more likely to result in a ticket.* Variables to answer secondary research question fifteen and its hypothesis were *V279 (Did police shout), V281 (Police curse), V283 (Police threaten arrest), V287 (Police threaten force), V289 (Police push or grab), V293 (Police kick or hit) and V249 (Were you given traffic ticket (not including a warning))* (United States Department of Justice et al., 2015). The final research question sixteen asked: *Will the police officer's demeanor affect whether a search occurs during a traffic stop?* The hypothesis associated with this question stated: *A negative demeanor from the police officer is more likely to result in a search.* Variables to answer secondary research question sixteen and its hypothesis were *V279 (Did police shout), V281 (Police curse), V283 (Police threaten arrest), V287 (Police threaten force), V289 (Police push or grab), V293 (Police kick or hit) and V325 (Did officer conduct vehicle search)* (United States Department of Justice et al., 2015). Each of the previously discussed primary and secondary research questions will be answered using the data discussed below.

Data

The data used for this study were secondary data obtained from Inter-University Consortium for Political and Social Research (ICPSR). The title of the secondary data chosen were *Police-public contact survey, 2015*, which focused on the contact the public had with the police, whether it was initiated or forced (United States Department of Justice et al., 2015). The data collected were a range of contacts the police and public had, such as non-emergency related encounters, crime related encounters, and traffic related encounters (United States Department of Justice et al., 2015). This data collection had been reoccurring every 3 years since 1996, but the data set used for this study were the 2015 survey (United States Department of Justice et al., 2015). The type of instrument used for the data collection were either a computer assisted survey or telephone survey, which were collected from July 1, 2015 up until December 31, 2015 (United States Department of Justice et al., 2015). This survey was a supplement to the National Crime Victimization Survey (NCVS), which interviews individuals 12 and older (United States Department of Justice et al., 2015). Using the NCVS sample population, was how the *Police-public contact survey* chose their individuals to interview (United States Department of Justice et al., 2015). The total sample used was 90,719 with a 64% response rate received of the survey, and 423 variables in the data set (United States Department of Justice et al., 2015).

In accordance with the research questions for this study, the entire secondary data set were not needed. The focus of this study was to determine which characteristics affect a traffic stop outcome, from both the driver and police officer's point of view. Concluding, the sample population was narrowed down to individuals who had contact with the police only through traffic stops, which gave a sample population of 4,372 individuals. The variable used to obtain the sample population for this study was *Check_Item_I* (Was the Respondent the Driver During

a Traffic Stop) (United States Department of Justice et al., 2015). *Check_Item_I* was measured dichotomously as (1) Yes and (2) No but was recoded as (0) No and (1) Yes. This recoding resulted in giving only the drivers who reported being a part of a traffic stop. The variable name was changed to *Driver_Of_Traffic_Stops_Recoded*.

Independent Variables

This study had a total of 20 variables that were used to help answer the primary and secondary research questions. Each of the variables were discussed broken up between the driver and then the police officer. The driver's independent variables were discussed first.

Driver's Variables

Numerous independent variables were assessed within this study relating to the driver's characteristics of age, sex, social class, race, and demeanor. The variable *sex* was measured on a categorical level and dichotomized with (1) Male and (2) Female. The measure *sex* was recoded to match the officers recode of sex which was (0) Male and (1) Female, and renamed *Driver_Sex_Recoded*. *Age* was measured on a continuous level and open-ended with years ranging from 16 to 90. *Race* was measured on categorical level with (1) White only, (2) Black only, (3) American Indian, Alaskan Native Only, (4) Asian only, (5) Hawaiian/Pacific Islander only, (6) White-Black, (7) White-American Indian, (8) White-Asian, (9) White-Hawaiian, (10) Black-American Indian, (11) Black-Asian, (12) Black-Hawaiian/Pacific Islander, (13) American Indian-Asian, (14) Asian-Hawaiian/Pacific Islander, (15) White-Black-American Indian, (16) White-Black-Asian, (17) White-American Indian-Asian, (18) White-Asian-Hawaiian, (19) 2 or 3 Races, and (20) 4 or 5 Races. Since the number of respondents who reported as a mixed race were low and race was not the characteristic wanting to be focused on, the measure was recoded as dichotomous (0) White and (1) Non-White. Additionally, race was renamed as

Driver_Race_Recoded. Further, *Income* was measured on a categorical level with (1) less than \$24,999 or NA, (2) \$25,000 - \$49,999, (3) \$50,000 - \$74,999, and (4) \$75,000 or more. The last independent variable was demeanor and was measured using several variables discussed below.

The variable *V306 (Did Respondent Disobey Officer)* was measured categorically as (1) Yes, (2) No, (8) Residue, (98) Refused, and (99) Don't Know. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Additionally, the variable name was changed during the recode to *Driver_Demeanor_1_Recoded*. *V308 (Respondent Try To Leave)* was measured categorically as (1) Yes, (2) No, (8) Residue, (98) Refused, and (99) Don't Know. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Additionally, the variable name was changed during the recode to *Driver_Demeanor_2_Recoded*. *V310 (Respondent Push, Grab, or Hit Officer)* was measured categorically as (1) Yes, (2) No, (8) Residue, (98) Refused, and (99) Don't Know. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Additionally, the variable name was changed during the recode to *Driver_Demeanor_3_Recoded*.

To further examine the demeanor of the driver the variable *V314* was used. *V314 (Respondent Complain)* was measured categorically as (1) Yes, (2) No, (8) Residue, (98) Refused, and (99) Don't Know. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Additionally, the variable name was changed during the recode to *Driver_Demeanor_4_Recoded*. *V316 (Respondent Argue with Officer)* was measured categorically as (1) Yes, (2) No, (8) Residue, (98) Refused, and (99) Don't Know. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Additionally, the variable name was changed during the recode to

Driver_Demeanor_5_Recoded. The last variable associated with the driver's demeanor was *V318 (Respondent Curse at, Insult, or Verbally Threaten Officer)* and was measured categorically as (1) Yes, (2) No, (8) Residue, (98) Refused, and (99) Don't Know. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Lastly, the variable name was changed during the recode to Driver_Demeanor_6_Recoded. Next to be discussed were the independent variables associated with police officers' characteristics of sex, race, and demeanor.

Police Officer's Variables

The independent variables related to the characteristics of the police officer that could affect traffic stops were sex, race, and demeanor. Variable *V189A (Was the police officer male or female)* was measured categorically as (1) Male, (2) Female, (3) Don't Know, (8) Residue, and (98) Refused. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Additionally, the variable name was changed during the recoding to Police_Officer_Sex_Recoded. *V191 (Officer Race 1)* was measured categorically as (0) Not selected, (1) White, (3) Refused, and (8) Residue. The measure was recoded as dichotomous (0) White and (1) Non-White, with all else being treated as missing. Additionally, the variable name was changed during the recode to Police_Officer_Race_Recoded.

Further, the characteristic of demeanor for police officers had numerous independent variables. *V279 (Did Police Shout)* was measured categorically as (1) Yes, (2) No, (8) Residue, (98) Refused, and (99) Don't Know. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Additionally, the variable name was changed during the recode to Police_Demeanor_1_Recoded. *V281 (Police Curse)* was measured categorically as (1) Yes, (2) No, (8) Residue, (98) Refused, and (99) Don't Know. The measure was recoded as

dichotomous (0) No and (1) Yes, with all else being treated as missing. Additionally, the variable name was changed during the recode to *Police_Demeanor_2_Recoded*. *V283 (Police Threaten Arrest)* was measured categorically as (1) Yes, (2) No, (8) Residue, (98) Refused, and (99) Don't Know. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Additionally, the variable name was changed during recode to *Police_Deameanor_3_Recoded*.

To further examine the demeanor of the officer the variable *V287* was used. *V287 (Police Threaten Force)* was measured categorically as (1) Yes, (2) No, (8) Residue, (98) Refused, and (99) Don't Know. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Additionally, the variable name was changed during recode to *Police_Demeanor_4_Recoded*. *V289 (Police Push or Grab)* was measured categorically as (1) Yes, (2) No, (8) Residue, (98) Refused, and (99) Don't Know. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Additionally, the variable name was changed during recode to *Police_Demeanor_5_Recoded*. The last variable associated with the police officer's demeanor was *V293 (Police Kick or Hit)* and was measured categorically as (1) Yes, (2) No, (8) Residue, (98) Refused, and (99) Don't Know. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Lastly, the variable name was changed during recode to *Police_Demeanor_6_Recoded*. Next, the dependent variables that answered the primary and secondary research questions were discussed.

Dependent Variables

Two dependent variables were used in the study with the independent variables, *V249* and *V325*. The first dependent variable, *V249 (Were You Given Traffic Ticket (Not Including A Warning))* was measured categorically as (1) Yes, (2) No, (3) Don't know, (8) Residue, and (98)

Refused. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Additionally, the variable name was changed during recode to Traffic_Ticket_Recoded. The second dependent variable, *V325 (Did Officer Conduct Vehicle Search)* was measured categorically as (1) Yes, (2) No, (3) Don't know, (8) Residue, and (98) Refused. The measure was recoded as dichotomous (0) No and (1) Yes, with all else being treated as missing. Lastly, the variable name was changed during recode to Vehicle_Search_Recoded. The following section discussed the analyses used for this study.

Analyses

There were four statistical analyses used to answer the study's research questions, descriptive statistics, a logistic regression test, a chi-square test, and a reliability test. The first analysis used was descriptive statistics. Descriptive statistics described general statistics over the variables age, sex, race, and income for the driver and officer. Descriptive statistics were ran to give a better understanding of the level of variation between each variable's responses and the frequencies of each variable's categories. Descriptive statistics gave a general summary of the variables age, sex, race, and income for the driver and police officer.

The second analysis used was the Cronbach's Alpha reliability test. Since there were multiple variables being used in association with demeanor, a reliability test was used to determine whether each variable was truly capable of answering research questions thirteen through sixteen (refer to Table 1). A reliability test is the ability of a measure to produce consistent results when the same entities are measured under different conditions (Field, 2016). Respectively, if each demeanor variable for the drivers and officers produced consistent measures when ran together, then the variables could be used in relation to demeanor. This analysis was used before the chi-square test.

The third analysis used was a logistic regression test. A logistic regression test was used to answer secondary research questions one through twelve and their respective hypothesis (refer to Table 1). Respectively, a logistic regression model measures if an independent variable has an affect on a dependent variable that has two categories (Field, 2016). The independent variables used for this analysis were age, sex, social class, and race. The variable age was ran under logistic regression because it was continuous, the variable sex for the driver and officer was ran under logistic regression because the response options were dichotomous male or female, the variable social class was ran under logistic regression because it was categorical with multiple response choices, and the variable race for the driver and officer was ran under logistic regression because the response options were dichotomous white or non-white. Further, the dependent variables that could be impacted by the independent variables were ticket and search. Both the ticket and search variable were dichotomous responses of yes or no but was necessary to run under the logistic regression analysis to effectively compare whether the independent variables of age, sex, social class, or race affect the outcome of receiving a ticket or search.

The last statistical analysis used was the chi-square test, which was used to answer secondary research questions thirteen through sixteen and their respective hypotheses (refer to Table 1). A chi-square test measures whether two categorical variables are associated, but it cannot measure the strength of the two variables relationship (Field, 2016). So, a measure of association, phi-coefficient, was used to determine the strength of the two variables relationship (Field, 2016). The independent variables for this statistic will be the thirteen variables previously in the measures section, in association to demeanor for both the driver and the police officer. Since the variables for demeanor were dichotomous with limited responses of yes or no available, the chi-square test needed to be used. Lastly, the dependent variables used in the chi-

square model were ticket and search. The next section discussed was the limitations related to the current study.

Table 1

Research Questions and Hypotheses

Primary Question

During a traffic stop, what characteristics are more likely to occur in a ticket or a search?

Secondary Questions

1. Will the driver's age affect whether a ticket is received during a traffic stop?

H1: The younger the driver is the more likely a ticket will be given.

2. Will the driver's age affect whether a search occurs during a traffic stop?

H2: The younger the driver is the more likely a search will occur.

3. Will the driver's sex affect whether a ticket is received during a traffic stop?

H3: A male driver is more likely to receive tickets.

4. Will the driver's sex affect whether a search occurs during a traffic stop?

H4: A male driver is more likely to receive a search.

5. Will the police officer's sex affect whether a ticket is given during a traffic stop?

H5: A male police officer is more likely to give tickets.

6. Will the police officer's sex affect whether a search occurs during a traffic stop?

H6: A male police officer is more likely to give a search.

7. Will the driver's race affect whether a ticket is received during a traffic stop?

H7: Non-white drivers are more likely to receive a ticket.

8. Will the driver's race affect whether a search occurs during a traffic stop?

H8: Non-white drivers are more likely to receive a search

9. Will the police officer's race affect whether a ticket is given during a traffic stop?

H9: White police officers are more likely to give tickets.

10. Will the police officer's race affect whether a search occurs during a traffic stop?

H10: White police officers are more likely to give a search.

11. Will the driver's social class affect whether a ticket is received during a traffic stop?

H11: Higher income level drivers are more likely to receive a ticket.

12. Will the driver's social class affect whether a search occurs during a traffic stop?

H12: Lower income level drivers are more likely to receive a search.

13. Will the driver's demeanor affect whether a ticket is received during a traffic stop?

H13: A negative demeanor from the driver is more likely to result in a ticket.

14. Will the driver's demeanor affect whether a search occurs during a traffic stop?

H14: A negative demeanor from the driver is more likely to result in a search.

15. Will the police officer's demeanor affect whether a ticket is given during a traffic stop?

H15: A negative demeanor from the police officer is more likely to result in a ticket.

16. Will the police officer's demeanor affect whether a search occurs during a traffic stop?

H16: A negative demeanor from the police officer is more likely to result in a search.

Limitations

This study was not without limitations. First, this study examined secondary data which limited the options for research questions and variables relating to the current study. Concerning some of the variables, the response rates had low frequencies, which could result in less significant findings. Having less response rates on variables makes the results less generalizable to a larger population. Additionally, the secondary data were from 2015 which was not the most current data between the police and public if primary data could have been collected. The second limitation was that previous research was able to look at arrests and traffic stops but due to date, the current study could not (United States Department of Justice et al., 2015). Responses, from the *Police-public contact survey, 2015*, on arrest during a traffic stop were low with 8 people responding yes, whereas being searched during a traffic stop responses were higher with 100 people saying yes (United States Department of Justice et al., 2015). If the variable arrest were used, the results would be less significant and less generalizable in addressing which characteristics were more affective in influencing the outcome during a traffic stop. The third limitation was that the data set did not have two single variables specifically related to the driver's demeanor and the police officer's demeanor, which required a composite measure to be

used. The demeanor of both the driver and police officer had to be assessed using several different variables, which required more analyses to be used. Also, the results could be less significant and generalizable, whereas if the variables were combined into two single variables, driver demeanor and police demeanor. The last limitation involved the variables for demeanor being perceptions of the driver and officer. Both the driver and officer could have misunderstood each other's demeanors and the survey used was based off those perceptions. The last section to be discussed was a chapter summary.

Chapter Summary

The current chapter provided an overview of the study's methodology and how it was possible to answer the primary and secondary research questions related to the study. The chapter began with operationalizing the primary and secondary research questions, explaining the secondary data set and what sample population would be used from the data set for the current study. Additionally, the independent variables for both the driver and police officer were discussed, along with the dependent variables of the study. Finally, the analyses conducted to answer the research questions were discussed, following the limitations the current study possessed. The following chapter explained the results of the analyses conducted for the current study.

Chapter 4. Results

This chapter served to address the results of the statistical analyses that were detailed in the previous chapter. First, an overview of the univariate statistics for the independent variables of age, sex, income, and race were provided to better understand the samples used and their characteristics. Then, a discussion over the reliability of possible scales that would have been utilized were addressed. Next, the results from the multivariate logistic regression and bivariate chi-square analyses were addressed by their respective research questions. Lastly, a chapter summary was discussed.

Descriptive and Frequency Statistics

Drivers during traffic stops were used when examining the characteristics of age, sex, social class, race, and demeanor. In addition, the characteristics of sex, race, and demeanor were examined for police officers. Both driver and police officer characteristics were used to determine whether they affect the outcome of receiving or getting a traffic ticket or vehicle search. Descriptive statistics and frequencies were calculated to obtain a better understanding of the independent characteristics (refer to Tables 2, 3, and 4). The independent variables covered under the descriptive statistics were age, sex, social class, and race. The types of descriptive statistics ran were over the mean, median, mode, standard deviation, minimum, maximum, and frequencies of the independent variables discussed. First, the driver's descriptive statistics were discussed then the police officers.

Driver's Descriptive Statistics

According to the driver's characteristic statistics for age, the average age reported was 23 but with a wide variation of respondents included in the data ($SD = 16.048$), starting with the youngest age of 16 to the oldest age of 90 (Table 2). Results regarding the sex of the driver had

slight variation among the data with the most common responses being males (Table 2). Further, race of the driver resulted in slight variation among the data with white being the most common responses (Table 2). Lastly, statistics showed little variation among income of drivers with the most common response being \$75,000 or more (Table 2).

In addition to descriptive statistics, frequencies over the driver's characteristics were calculated to obtain a better understanding of the characteristics in detail (Table 4). The data revealed among driver's, 57.3% respondents were male, while 42.7% were female (Table 4). In relation to the driver's race, 82.1% were white with 17.9% being non-white (Table 4). The final measure pertained to the driver's income level in relation to their social class. Respectively, 17.5% of the respondent's reported being at the less than \$24,999 or NA income level, 25.5% reported being at the \$25,000 - \$49,999 income level, 19.1% reported being at the \$50,000 - \$74,999 income level, and 37.9% reported being at the \$75,000 or more income level (Table 4). The next section discussed the police officers descriptive and frequencies statistics.

Police Officer's Descriptive Statistics

Results regarding the officer's sex revealed little variation among responses (Table 3). In addition, the most common response reported was being male (Table 3). Further, the officers race revealed slight variation among the data (Table 3). The most common response reported among officer's race was being white (Tables 3). Additional diagnostics over the frequencies of the officer's characteristics were calculated to obtain a better understanding of the characteristics in detail (Table 4). Among the police officer's sex, 82.8% were male, while 4.2% were female (Table 4). Lastly, involving the police officer's race, 76.6% were white with 10.4% being non-white. The independent variables age, sex, social class, and race were discussed using descriptive statistics and frequencies to gather a better understanding of each variable. However, there was

another independent variable, demeanor, that was used in the study, but not ran under descriptive statistics and frequencies. The following section discussed the independent variable demeanor and the possibility of creating a composite measure using the Cronbach's Alpha reliability test.

Table 2

Driver Characteristics

Variable	N	Mean	Median	Mode	St. Dev.	Min	Max
Age	4372	42.57	41.00	23	16.048	16	90
Sex	4372	.4268	.0000	.00	.49467	.00	1.00
Race	4372	.1789	.0000	.00	.38328	.00	1.00
Income	4372	2.77	3.00	4	1.133	1	4

Note: Age: open ended. Sex: 0=male; 1=female. Race: 0=white; 1=non-white. Income: 1=less than \$24,999 or NA; 2=\$25,000 - \$49,999; 3=\$50,000 - \$74,999; 4=\$75,000 or more.

Table 3

Police Officer Characteristics

Variable	N	Mean	Median	Mode	St. Dev.	Min	Max
Sex	3803	.0481	.0000	.00	.21405	.00	1.00
Race	3803	.1196	.0000	.00	.32459	.00	1.00

Note: N missing was 569. Sex: 0=male; 1=female. Race: 0=white; 1=non-white.

Table 4

Frequencies

Variable	Frequency	Percentage
Driver Sex		
Male	2506	57.3
Female	1866	42.7
Total	4372	100.0
Police Officer Sex		
Male	3620	82.8
Female	183	4.2
Total	3803	87.0

Driver Race		
White	3590	82.1
Non-White	782	17.9
Total	4372	100.0
Police Officer Race		
White	3348	76.6
Non-White	455	10.4
Total	3803	87.0
Income		
Less than \$24,999 or NA	766	17.5
\$25,000 - \$49,999	1114	25.5
\$50,000 - \$74,999	835	19.1
\$75,000 or more	1657	37.9
Total	4372	100.0

Notes: Age was not included because it was open ended which resulted in 74 different ages being reported. Frequency missing for police officer sex is 569 and percentage missing is 13.0.

Frequency missing for police officer race is 569 and percentage missing is 13.0.

Reliability Scale

As stated in the previous chapter, a reliability test using Cronbach's Alpha was calculated in an attempt to combine the demeanor variables for the driver and officer into two composite variables. However, reliability diagnostics for both potential scales were below the .700 threshold of Cronbach's Alpha (α), indicating that creating composite measures were not suitable for the data. Accordingly, the Alpha statistic ($\alpha=.435$) for the driver's demeanor were under the .700 threshold, indicating these variables do not represent a suitable scale.

Additionally, the Alpha statistic ($\alpha=.613$) for the police officer's demeanor were below the .700 threshold indicating that these variables do not represent a suitable scale. Based on these results, the twelve demeanor variables for the driver and officer were each calculated separately during

the chi-square tests. The following section discussed the results found in relation to the research questions and hypotheses for the current study.

Results for Research Questions One and Two

Research question one focused on the relationship between the age of the driver and its affect in the outcome of receiving a ticket. The results showed a significance ($\rho=.000$) and a negative diagnostic ($\beta=-.009$) which supported the hypothesis that the younger a driver was the more likely they would receive a ticket (Table 5). Research question two focused on the relationship between the age of the driver and its affect in the outcome of receiving a search. Results showed a significance ($\rho=.000$) and a negative diagnostic ($\beta=-.046$) which supported the hypothesis that the younger a driver was the more likely a search would occur (Table 6).

Results for Research Questions Three through Six

Research question three focused on the relationship between the sex of the driver and its affect in the outcome of receiving a ticket. There was no significance found with the driver's sex affecting a ticket outcome (Table 5). However, research question four focused on the relationship between the sex of the driver and its affect in the outcome of receiving a search. Results showed a significance ($\rho=.007$) and a negative diagnostic ($\beta=-.983$) which supported the hypothesis that male drivers were more likely to be searched (Table 6). Research question five focused on the relationship between the sex of the officer and its affect in the outcome of giving a ticket. The results revealed no significance between the officer's sex and giving a ticket (Table 5). Lastly, research question six focused on the relationship between the sex of the officer and its affect in the outcome of giving a search. Results found no significance between the officer's sex and giving a search (Table 6).

Results for Research Questions Seven through Ten

Research question seven focused on the relationship between the race of the driver and its affect in the outcome of receiving a ticket. The results showed a significance ($\rho=.005$) and a positive diagnostic ($\beta=.250$) which supported the hypothesis that non-white drivers were more likely to receive tickets (Table 5). Research question eight focused on the relationship between the race of the driver and its affect in the outcome of receiving a search. Results found no significance towards the race of the driver affecting a search outcome (Table 6). Further, research question nine focused on the relationship between the race of the officer and its affect in the outcome of giving a ticket. The results showed a significance ($\rho=.020$) and a positive diagnostic ($\beta=.238$) which rejected the hypothesis that white officers were more likely to give tickets (Table 5). Lastly, research question ten focused on the relationship between the race of the officer and its affect in the outcome of giving a search. Results found no significance between the race of the officer and an outcome of a search (Table 6).

Results for Research Questions Eleven and Twelve

Research question eleven focused on the relationship between the social class of the driver and its affect in the outcome of receiving a ticket. The results showed a significance ($\rho=.002$) and a positive diagnostic ($\beta=.089$) which supported the hypothesis that higher income drivers were more likely to receive tickets (Table 5). Further, research question twelve focused on the relationship between the social class of the driver and its affect in the outcome of receiving a search. Results showed a significance ($\rho=.024$) and a negative diagnostic ($\beta=-.313$) which supported the hypothesis that lower income drivers were more likely to be searched (Table 6).

Table 5*Traffic Ticket Regression*

Variable	B	S.E.	Significance
Age of driver	-.009*	.002	.000
Income of driver	.089*	.029	.002
Sex of driver	-.002	.066	.970
Race of driver	.250*	.088	.005
Sex of Police Officer	-.192	.153	.211
Race of Police Officer	.238*	.102	.020

Note: *p < 0.05

Table 6*Vehicle Search Regression*

Variable	B	S.E.	Significance
Age of driver	-.046*	.012	.000
Income of driver	-.313*	.138	.024
Sex of driver	-.983*	.364	.007
Race of driver	-.314	.446	.482
Sex of Police Officer	.069	.734	.925
Race of Police Officer	-.319	.531	.548

Note: *p < 0.05

Results for Research Questions Thirteen through Sixteen

Research question thirteen focused on the relationship between the driver's demeanor and its affect in the outcome of receiving a ticket. The hypothesis associated with question thirteen asserted that a negative demeanor from the driver would affect whether a ticket was received. Two out of the six driver demeanors were significant below the .05 level. *Did the driver complain* and *Did driver argue with officer* showed a weak, positive relationship with *receiving a ticket* ($\phi=.103$; ($\phi=.041$) (Table 7). Based on these results, hypothesis thirteen was supported. Comparatively, research question fourteen focused on the relationship between the driver's

demeanor and its affect in the outcome of receiving a search. The hypothesis associated with question fourteen asserted that a negative demeanor from the driver would affect whether a search was given. Five out of the six driver demeanors were significant below the .05 level. *Did driver disobey officer*, *Did driver push, grab, or hit officer*, *Did driver complain*, *Did driver argue with officer*, and *Did driver curse at, insult or verbally threaten officer* all showed a weak, positive relationship with *receiving a search* ($\varphi=.089$; $\varphi=.068$; $\varphi=.123$; $\varphi=.132$; $\varphi=.131$) (Table 8). Based on these results, hypothesis fourteen was supported.

Further, research question fifteen focused on the relationship between the police officer's demeanor and its affect in the outcome of giving a ticket. The hypothesis associated with questions fifteen asserted that a negative demeanor from the police officer would affect whether a ticket was given to the driver or not. The results showed that none of the six police officer demeanors were significant towards giving a ticket (Table 7). The final question was research question sixteen which focused on the relationship between the police officer's demeanor and its affect in the outcome of giving a search. The hypothesis associated with question sixteen asserted that a negative demeanor from the police officer would affect whether a search was given or not. As with the driver's demeanors, five out of the six police officer demeanors were significant below the .05 level. *Did police shout*, *Did police curse*, *Did police threaten to use force*, and *Did police push or grab you* all showed a weak, positive relationship with *giving a search* ($\varphi=.140$; $\varphi=.086$; $\varphi=.147$; $\varphi=.162$) (Table 8). Lastly, *Did police threaten an arrest* showed a moderate, positive relationship with *giving a search* ($\varphi=.305$) (Table 8). Based on these results, hypothesis sixteen was supported. The last section discussed was a chapter summary.

Table 7*Traffic Ticket and Demeanor Chi-Square*

Variable	Value (χ^2)	Significance (ρ)	Phi (ϕ)
Police Officer Demeanor's			
Did police shout?	3.423	.064	.028
Did police curse?	.119	.730	-.005
Did police threaten an arrest?	3.888	.049	.30
Did police threaten to use force?	.298	.585	.008
Did police push or grab you?	.180	.671	.006
Did police kick or hit you?	.002	.966	.001
Driver Demeanor's			
Did driver disobey officer?	1.854	.173	.021
Did driver try to leave?	.277	.599	-.008
Did driver push, grab, or hit officer?	1.885	.170	-.021
Did driver complain?	46.372*	.000	.103
Did driver argue with officer?	7.493*	.006	.041
Did driver curse at, insult, or verbally threaten officer?	.146	.703	-.006

Notes: * $p < 0.05$. ϕ scale: .00 - .19 (weak association); .20 - .39 (moderate association); .40 - .59 (relatively strong association); .60 - .79 (strong association); .80 - 1.00 (very strong association)

Table 8*Vehicle Search and Demeanor Chi-Square*

Variable	Value (χ^2)	Significance (ρ)	Phi (ϕ)
Police Officer Demeanor's			
Did police shout?	85.186*	.000	.140
Did police curse?	31.935*	.000	.086
Did police threaten an arrest?	404.892*	.000	.305
Did police threaten to use force?	93.371*	.000	.147
Did police push or grab you?	113.861*	.000	.162
Did police kick or hit you?	.047	.828	-.003

Driver Demeanor's

Did driver disobey officer?	34.235*	.000	.089
Did driver try to leave?	.071	.790	-.004
Did driver push, grab, or hit officer?	20.266*	.000	.068
Did driver complain?	65.862*	.000	.123
Did driver argue with officer?	76.269*	.000	.132
Did driver curse at, insult, or verbally threaten officer?	74.186*	.000	.131

Notes: * $p < 0.05$. ϕ scale: .00 - .19 (weak association); .20 - .39 (moderate association); .40 - .59 (relatively strong association); .60 - .79 (strong association); .80 – 1.00 (very strong association)

Chapter Summary

This chapter served to provide a detailed description of the results from the various statistical analyses used for the current study. First, descriptive statistics and frequencies were addressed to further explain the variable characteristics. Next, a reliability test was discussed and expanded on why two composite variables of demeanor were not possible. Additionally, the results from the tests were discussed in relation to each research question and their hypothesis. The final chapter further explained these results and their importance, while addressing potential policy implications and needs of future research.

Chapter 5. Discussion

The current study aimed to identify characteristics that may be associated with profiling during traffic stops. In addition, the current study sought to determine whether those characteristics of age, sex, social class, race, and demeanor had an affect in receiving or getting a ticket or vehicle search. The previous chapter presented the results from the statistical analyses used to test the current study's research questions and their associated hypotheses. The current chapter discussed the significance of the results in relevance to the purpose of the current study. Additionally, the study's implications for policy and potential directions for future research were discussed.

Past Knowledge of Traffic Stops and Profiling

The primary research question for the current study asked: *During a traffic stop, what characteristics are more likely to occur in a ticket or a search?* Past research focused over race as the main characteristic to be profiled during traffic stops (Close & Mason, 2007; Engel & Calnon, 2004; Lundman & Kaufman, 2003; Novak & Chamlin, 2008; Pickerill et al., 2008; Regoeczi & Kent, 2014; Ritter, 2017; Rojek et al., 2012; Smith et al., 2006; Weitzer & Tuch, 2002). The gap from past research involved little information over other characteristics that could be profiled and influence the outcome of traffic stops. The current study sought to fill the gap in the previous literature by exploring whether other characteristics of the driver, as well as the police officer, affected the outcome of a traffic stop in a ticket or search. In addition, other characteristics examined were age, sex, social class, race, and demeanor of the driver and sex, race, and demeanor for the police officer.

As expressed in chapters one and two, profiling had caused problems, such as a rise in prison populations for minorities, lack of diversity within policing, riots and protests concerning

African Americans, and lawsuits against the police. Each of the referenced issues revealed incidents that could lead to profiling or ways in which profiling was used within policing. Profiling comes from stereotyping but they both are placing a label, generally derogatory in nature, on individuals (Becker, 1991; Berk, 2015; Cohen, 1972; Lemert, 1951; Lilly et al., 2015; Plummer, 2001; Tannenbaum, 1938; Taylor, 2003). Labeled individuals were deemed by the dominant society group as deviants or “outsiders,” which pushed them away from the rest of society (Becker, 1991; Berk, 2015; Cohen, 1972; Lemert, 1951; Lilly et al., 2015; Plummer, 2001; Tannenbaum, 1938; Taylor, 2003). In addition, profiling was found to exist within police traffic stops as referenced by the general findings discussed next.

General findings from the literature review supported the statement over why the current study was important to fill the gap of past research. Out of each characteristic that was explored relating to the driver and police officer, race was the significant factor found to initiate profiling within traffic stops (Close & Mason, 2007; Engel & Calnon, 2004; Lundman & Kaufman, 2003; Novak & Chamlin, 2008; Pickerill et al., 2008; Regoeczi & Kent, 2014; Ritter, 2017; Rojek et al., 2012; Smith et al., 2006; Weitzer & Tuch, 2002). Specifically, minority drivers were profiled and stopped more while receiving more tickets and searches (Engel & Calnon, 2004; Lundman & Kaufman, 2003; Pickerill et al., 2008; Regoeczi & Kent, 2014; Ritter, 2007; Smith et al., 2006; Weitzer & Tuch, 2002). The police and their race were found to influence traffic stop outcomes in searches with white officers conducting the most searches (Close & Mason, 2007; Rojek et al., 2012). The following characteristics were found by past research to have a slight affect on traffic stop outcomes, age, sex, social class, and demeanor (Brown & Frank, 2005; Day & Ross, 2011; Engel & Calnon, 2004; Engel et al., 2012; Lundman, 1979; Lundman, 1994; Lundman & Kaufman, 2003; Mastrofski et al., 1996; Pickerill et al., 2008; Regoeczi & Kent,

2014; Rojek et al., 2012; Smith et al., 2006; Weitzer & Tuch, 2002; Worden & Shepard, 1996). Age revealed younger drivers were stopped more and received more tickets and searches (Brown & Frank, 2005; Engel & Calnon, 2004; Lundman & Kaufman, 2003; Pickerill et al., 2008; Regoeczi & Kent, 2014; Rojek et al., 2012; Smith et al., 2006; Weitzer & Tuch, 2002). Sex revealed male drivers were stopped more and received more tickets and searches from male officers (Brown & Frank, 2005; Engel & Calnon, 2004; Lundman, 1979; Lundman & Kaufman, 2003; Pickerill et al., 2008; Regoeczi & Kent, 2014; Rojek et al., 2012; Smith et al., 2006). Social class revealed drivers in the lower-level income were stopped more but no research on the traffic stop ending in a ticket or search (Engel & Calnon, 2004; Lundman & Kaufman, 2003; Smith et al., 2006; Weitzer & Tuch, 2002). Lastly, demeanor revealed negative demeanors from drivers to influence a ticket outcome (Day & Ross, 2011; Engel et al., 2012; Lundman, 1994; Regoeczi & Kent, 2014; Worden & Shepard, 1996). However, no research was found over the driver's demeanor influencing a search outcome nor the officer's demeanor influencing giving a ticket or search. The following section discussed the examined the results found concerning the sixteen hypotheses.

Hypotheses One and Two

The results for the independent variable age were found to have a significant relationship towards the dependent variables of ticket and search. Results yielded that younger drivers were more likely to receive a ticket and a search during traffic stops. These findings were in support of hypotheses one (*the younger the driver is the more likely a ticket will be given*) and two (*the younger the driver is the more likely a search will occur*) while also supporting what past research had found in relation towards age and traffic stop outcomes. Past research had found that young drivers, aged 30s or less, were more likely to be stopped for various reasons, such as

suspicion and profiling, but also received a ticket or search (Brown & Frank, 2005; Engel & Calnon, 2004; Lundman & Kaufman, 2003; Pickerill et al., 2008; Regoeczi & Kent, 2014; Rojek et al., 2012; Smith et al., 2006; Weitzer & Tuch, 2002). A reason that younger drivers were ticketed, searched, and involved with traffic stops often could be because they are on the road more often to be stopped by the police. As shown by the common age group of 23 responding the most on the *Police-Public Contact Survey* of being involved in traffic stops (United States Department of Justice et al., 2015).

Hypotheses Three through Six

Based on the results, hypothesis three (*a male driver is more likely to receive tickets*) was rejected because sex of the driver was not found to have a significant relationship in receiving tickets. In comparison, hypothesis four (*a male driver is more likely to receive a search*) was supported by the findings. Hypothesis five (*a male police officer is more likely to give tickets*) was rejected because the sex of the officer was not found to have a significant relationship in giving tickets. Lastly, hypothesis six (*a male police officer is more likely to give a search*) was rejected because the sex of the officer was not found to have a significant relationship in giving searches.

Respectively, hypothesis three finding no significance supported the null hypothesis that no relationship existed between the sex of the driver and receiving a ticket. Further, hypotheses five and six finding no significance supported the null hypotheses that no relationship existed between the officer's sex and giving a ticket or search. The majority of these findings refuted past research, which found male drivers more likely to be ticketed and searched by male officers (Brown & Frank, 2005; Engel & Calnon, 2004; Lundman, 1979; Lundman & Kaufman, 2003; Pickerill et al., 2008; Regoeczi & Kent, 2014; Rojek et al., 2012; Smith et al., 2006). These

findings were interesting because more males for both drivers and officers responded on the *Police-Public Contact Survey* (United States Department of Justice et al., 2015). However, with missing respondents' answers for police officers' sex, it could have affected the results. Another reason the results were found nonsignificant might be that female drivers were receiving more tickets during 2015 when the data were collected, while female officers were giving the same amount of tickets or searches to go against the stereotype that females are softer and more lenient than males.

In addition, past research found that men were deemed more suspicious, less favorable towards the police, and stopped more than women in general (Brown & Frank, 2005; Lundman & Kaufman, 2003; Smith et al., 2006; Weitzer & Tuch, 2002). Thus, creating assumptions that the results would have been in support of male drivers and officers conducting outcomes of tickets and searches more than women. In addition, current statistics of males being imprisoned (141,208) compared to women (10,120) helped to show how imbalanced punishment was between males and females (Federal Bureau of Prisons, 2021). These statistics further support the assumption that males would have had an affect more than women towards tickets and searches.

Hypotheses Seven through Ten

Respectively, hypothesis seven (*non-white drivers are more likely to receive a ticket*) was supported by the findings. Past researchers were supported by these findings because non-white drivers were found to receive more tickets (Engel & Calnon, 2004; Regoeczi & Kent, 2014). Additionally, this supports researchers' findings that non-white drivers were more commonly under suspicion and stopped in general than whites (Lundman & Kaufman, 2003; Ritter, 2017; Smith et al., 2006; Weitzer & Tuch, 2002). In comparison, hypothesis eight (*non-white drivers*

are more likely to receive a search) was rejected because the race of the driver was not found to have a significant relationship to receiving searches. Further, hypothesis nine (*white police officers are more likely to give tickets*) was rejected because the findings suggested that non-white officers were more likely to give tickets. Lastly, hypothesis ten (*white police officers are more likely to give a search*) was rejected because the race of the officer was not found to have a significant relationship to giving searches. Hypothesis eight finding no significance supported the null hypothesis that no relationship existed between the race of the driver and receiving a search. Further, hypothesis ten finding no significance supported the null hypothesis that no relationship existed between the race of the officer and giving searches. Hypotheses eight and ten being rejected refuted findings from past research because it was found that non-white drivers were more commonly searched and white officers gave searches more often (Close & Mason, 2007; Pickerill et al., 2008; Rojek et al., 2012).

A reason no significance could have been found between searches and race was because the frequency of respondents who replied yes to being searched on the *Police-Public Contact Survey* were considerably low ($f=100$) (United States Department of Justice et al., 2015). The low response rate could have skewed the results towards non significance because the large diversity between the number of responders for race of drivers and officers. In addition to low responses on searches, there were missing responses for the officer's race, but also both driver and officer race for non-whites were largely lower responses than white (United States Department of Justice et al., 2015). Another reason no significance could have occurred was the police received better training during 2015 when the data were collected, which taught them to not search individuals based off their race. Further, the results which rejected hypothesis nine could have occurred because non-white officers wanted to show they do not discriminate, which

resulted in them giving more tickets than white officers. Lastly, no past research being available to refute or support the findings of hypothesis nine reintegrates why this study was important.

Hypotheses Eleven and Twelve

The results found income to be significant towards both the outcome of a ticket and search. Both hypotheses eleven (*higher income level drivers are more likely to receive a ticket*) and twelve (*lower income level drivers are more likely to receive a search*) were supported by the findings. Hypothesis eleven findings were based off the assumption that police officers believed drivers from higher social classes could afford tickets. In addition, middle to higher social class drivers had more mobility options and received better treatment from the police which ended in less severe outcomes, such as possibly a ticket over an arrest or a search that could lead to an arrest (Engel & Calnon, 2004; Lundman & Kaufman, 2003; Weitzer & Tuch, 2002). Further, hypothesis twelve findings were based off past researchers finding that lower-level income drivers were more known to be under suspicion, especially minorities, so if a minority driver was seen with a nice vehicle a search would become a possibility (Engel & Calnon, 2004; Lundman & Kaufman, 2003; Smith et al., 2006; Weitzer & Tuch, 2002). However, no past research was found that related social class towards specifically receiving a ticket or search during a traffic stop, which reinserts why these findings are significant and the study was important. Lastly, it should be known that even with the findings supporting a relationship exists between social class and a ticket or search occurring, income of the driver was only a perception from the officer. During a traffic stop the officer does not know the driver's income level, which would mean the officer is profiling the driver based off their perception of the driver's social class.

Hypotheses Thirteen through Sixteen

These results found were in support of hypothesis thirteen (*a negative demeanor from the driver is more likely to result in a ticket*). The results for demeanor of the driver were found to be significant in two out of the six demeanor variables. The demeanors were the driver complaining or arguing with the officer. This result was supported by past researchers finding that negative demeanors highly influenced the chances of receiving a ticket (Day & Ross, 2011; Engel et al., 2012; Lundman, 1994; Regoeczi & Kent, 2014; Worden & Shepard, 1996). Hypothesis fourteen (*a negative demeanor from the driver is more likely to result in a search*) was supported by five out of the six driver demeanors being significant towards receiving a search. Demeanors such as: disobeying, assaulting, complaining, arguing, or verbally assaulting the officer. However, no past research was found to support these findings towards a search outcome just towards lessening or increasing the punishment (Day & Ross, 2011; Lundman, 1994; Regoeczi & Kent, 2014; Worden & Shepard, 1996).

Further, hypothesis fifteen (*a negative demeanor from the police officer is more likely to result in a ticket*) was rejected by finding the officers demeanor having no affect on the outcome of a ticket. This finding was not surprising because no past research was found relating the officer's demeanor in influencing the outcome of a traffic stop. Lastly, hypothesis sixteen (*a negative demeanor from the police officer is more likely to result in a search*) was supported because five out of the six officer demeanors were found to be significant towards giving a search. Demeanors such as: shouting, cursing, threatening an arrest, threatening to use force, and pushing or grabbing the driver. This finding was not supported by past research because there were none over police officer's demeanor affecting a traffic stop outcome.

Hypotheses fourteen, fifteen, and sixteen had no past research to refute or support the findings, thus, making the current study important. In addition, a reason no past research was available over officer's demeanor affecting traffic stop outcomes could be that researchers believed officers always had positive demeanors during stops. Lastly, researchers could have not had access to collect data on officers' demeanors. The following section discussed what policies could be implicated to address the issue of profiling during traffic stops.

Policy Implications

The current study addressed that the issue of profiling did go beyond race during traffic stops. The results of a ticket or search as the outcome for the driver was expressed by significant findings for each characteristic of age, sex, race, social class, and demeanor. In addition, the results of a ticket or search as the outcome from the police officer was found significant for the characteristics of race and demeanor. Based on the results, new or more strict policies should be implemented for police officers. Such policies could be enforcing routine evaluations over the officers' ticket or search reports for each month, requiring officers to be knowledgeable over the individuals and their characteristics that were ticketed or searched the most each month, enforcing more mandatory training over how to keep prejudices out of work, and requiring a personality and mental health check every month to check if prejudices had evolved the longer the officer is on the job.

Evaluations over the officer's traffic stop reports each month could allow chances for the chief of police to spot biases towards certain individuals and fix the issue before the officer becomes more prejudice during their traffic stops. Further, having officers be more conscious of their statistics over who they ticketed or searched the most one month could bring their knowledge up on the types of individuals more likely to be profiled. While also stopping their

biases before the issue got worse. Enforcing more mandatory training over profiling and its issue in policing would keep the officers aware of what not to focus on from the individuals when on the job. Lastly, officer's may not go into their job having prejudices, but the longer they are on the job their minds might have changed through their experiences. Concluding, that if officers were required to take a personality and mental health test each month, prejudices that may have been adopted could be found and relinquished.

Currently, out of the four policy implications suggested, requiring more training for officers in keeping biases off the job was already in effect. However, based on the results from the current study, the training seemed less effective in its goals. This could be because some departments do not require bias training but have it as an optional course. A few trainings available to officers were child and youth safety, community policing, crime prevention, officer safety and wellness, and several others (U.S. Department of Justice, n.d.). Community policing training could possibly reduce profiling within policing because it was meant to build trust and better relationships between the police and communities (Kelling & Moore, 1988; U.S. Department of Justice, n.d.). However, further training needs to be incorporated specifically towards profiling individuals based off their characteristics not their crime. Additionally, these types of trainings need to be mandatory, not optional. If each of these policies were in place, the issue of profiling, not only in traffic stops, should hopefully show a decrease in police work.

Future Research

Future researchers should take into consideration the limitations of the current study and seek to explore if the characteristics of age and social class in reference towards the officer influences the outcome of traffic stops. This is because the current study was not able to look at the officers age or social class because of the data set used. In addition, researchers should look

to see if certain characteristics influence different outcomes during traffic stops besides just tickets or searches. Researching other outcomes could show whether profiling characteristics affect outcomes, such as arrests, as much as they influence the outcomes of tickets and searches. Further, researchers should explore whether policies already enacted, such as community policing training for officers, reduce or have no effect on the rate of profiling within policing. Future researchers should also consider researching how environmental situations, such as car models, time of day, or which months, could affect whether profiling occurs. The current study was not able to look at these types of variables because of the data set used but they could have a significant role in traffic stop outcomes. Lastly, exploring what characteristics of individuals in rural or urban areas are profiled could expand the knowledge of where profiling occurs the most so the problem could be addressed.

Conclusion

The current study sought to determine whether profiling within traffic stops went beyond race and was successful in answering that it does. The results from the study were able to fill the gap from past research over profiling characteristics that influence the outcome of the stop. Most research yielded little findings that characteristics besides race, such as age, sex, social class, and demeanor, influenced the stop towards a ticket or search. The current study's results could provide insight into new policies for police departments to increase awareness of profiling and the departments awareness of its employee's personality and mental health the longer they are on the job. Lastly, future research could be explored based on the study's results by researching whether the age and social class of the officer affects the outcome of the stop, whether other outcomes of traffic stops are influenced by individuals' characteristics, whether training already enacted is effective in reducing profiling, and whether profiling is more prevalent in rural or

urban areas. Concluding, this topic needed to be researched because to date, discrimination was still significant, and researchers seemed focused only on race. However, other individuals' characteristics could be discriminated against which was important to expose to bring to the public's knowledge. Thus, creating the possibility or reducing profiling individuals based off their characteristics.

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VITA

MEGAN ANDERSON

Education: M.A. Criminal Justice & Criminology, East Tennessee State
University, Johnson City, Tennessee, 2021
B.A. Criminal Justice & Criminology, East Tennessee State
University, Johnson City, Tennessee, 2019
B.A. Psychology, East Tennessee State University, Johnson City,
Tennessee, 2019
Chuckey-Doak High School, Greeneville, Tennessee, 2015

Professional Experience: Teachers Assistant, East Tennessee State University,
College of Arts and Sciences, 2019-2021