

2020

## Firearm Restriction and its Impact in Reducing Violent Crimes in California

Sampson C. Onwuka  
*Walden University*

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# Walden University

College of Social and Behavioral Sciences

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Sampson C. Onwuka

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## Review Committee

Dr. Raj Singh, Committee Chairperson,  
Public Policy and Administration Faculty

Dr. Ernesto Escobedo, Committee Member,  
Public Policy and Administration Faculty

Dr. Olivia Yu, University Research Reviewer,  
Public Policy and Administration Faculty

Chief Academic Officer and Provost  
Sue Subocz, Ph.D.

Walden University

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Abstract

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by

Sampson C. Onwuka,

MPhil, Walden University, 2020

M.Sc., Imo State University, 2009

B.Sc., University of Uyo, 2003

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Policy and Administration

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August 2020

## Abstract

There have been recurring incidents of gun violence, murder, and mass shootings that have raised public concern on the dangers of guns, and people have demanded government regulation on firearms usage. Studies have attributed these incidents to non-strict laws on guns; however, it was unclear whether firearm restrictions affected California's violent crime reduction. This quasi-experimental, quantitative study was focused on finding out the impact of gun violence restraining orders (GVROs) on violent crime reduction in California. Four research questions addressed the changes in the variables after the establishment of the GVRO. Secondary data from the California Department of Justice were processed and analyzed with the Statistical Package for the Social Sciences. The social contract theory developed by Thomas Hobbes and the institutional theory expanded by W. R. Scott were utilized to synthesize how citizens' contractual agreements with the sovereign authority reflected on the firearm restriction policies. Three analytical models were also used to examine the data: Independent sample *t*-test, analysis of variance, and a simple linear regression model. A significant impact on gun violence rates in the years following the GVRO was found, however, there was no significant impact on gun violence rates following the initial years of GVRO either by law enforcement or family orders. Policy on firearm recommendations offers solutions to gun violence and positively contributes to social change by creating a dialogue on the declining firearm policies to safeguard U.S. cities from the gun problem.

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## Dedication

This doctoral (Ph.D.) dissertation is solely dedicated to authorities in academics worldwide, particularly to my instructors right from my zealous time and pursuit of higher learning to the present date. God almighty used them to achieve the set objectives.

The apex dedication is to God. Also, I recognize those in authority that stands for socio-political justice to effect practical positive social change around the globe.

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At this point, I wholeheartedly expressed the undiluted gratitude to all the persons who supported me in any form to actualize this dissertation research objective. Among them is the Committee Chairman, Dr. Raj K. Singh, for his exceptional encouragement and imaginable support that he rendered throughout the entire milestone—more unusually, for the timely responses to questions. Dr. Singh is a professor in public policy administration and the research methodologist who evaluated this dissertation. He exhibited his sound knowledge, which was reflected in the discussion posts, assignments, and the residencies that I undertook that were all academically inspirational. His methodological explanations and approach to discussion questions portrayed him as a more like-minded researcher when I attended his presentations at the San Diego California Residency. He is a professional with similar chemistry to work with when I approached him to become the research chair after the exit of Dr. Ron Hirschbein, the initial faculty member, and is also worth commendation. Professor Singh, I am ever grateful for having you as a professional scholar to supervise this dissertation and the concord mentorship that you have displayed.

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## Chapter 1:

### **Introduction to the Study**

The Federal Bureau of Investigation report (FBI, 2016) has captured unusual occurrences and increased violent crime rates across the United States. The repeated incidences of violent crimes with firearms across the United States have raised public concern on the right to bear arms (ProCon, 2016; U.S. Constitution, n.d). The gun law debate has been politically polarized for decades (Edwards & Sheptycki, 2009; La Valle & Glover, 2012).

Some studies have portrayed that the United States has the highest percentage (40.0%) of households that possessed firearms in the home compared to other Western nations (Azrael et al., 2001; La Valle & Glover, 2012). Further, gun prevalence has been 35% in the Pacific region from 1979 to 1997 (Azrael et al., 2001). California falls in this geographic area, which has its rules to address gun violence (Barnhorst, 2015; California Courts, 2018; Frattaroli et al., 2015; Harris, 2016; Rand, 2018; Wintemute et al.; 2016) that includes gun violence restraining orders (GVROs).

Additionally, the latest report from the Centers for Disease Control and Prevention (CDC, 2018) stated that firearms are found to be the leading cause of death in California; thus, the California Department of Justice (DOJ) enacted the Armed Persons Prohibition System (APPS) statute on December 11th, 2015, which has prohibited about 13,305 people from owning a firearm (Lopez, 2015; Wintemute et al., 2016). However, a study on the effects of Canadian firearms legislation on homicide from 1974–2008 showed no strong significant associations between firearms laws and homicides rates

after the enactment of the bills except for Bill C-68, though there were conflicting data (Langmann, 2012). Therefore, this quantitative research was conducted to investigate the impact of GVROs on violent crime reduction in California. I aimed to understand whether firearms restrictions (i.e., GVROs) facilitated or undermined the reduction in violent firearm crimes in California. This study may help to understand the contributions of the GVROs to violent crimes decrease in California.

The findings might also strengthen policy dialogue on the way forward to reduce the rate of frequent gun violence incidents. The study by implications can lead to advances in public policy administration and the criminal justice system in California (see Walden University, 2010). This study significantly supports the reinforcement of the practical, positive social change ideology. This chapter includes a background that provides a general view of the problem. The next section profiles the problem statement that was the benchmark of the investigation. I then identify the purpose of the study that explains the research's essence before addressing the research questions and hypotheses. The next section includes the two theoretical frameworks of the study.

The nature of the study and the rationale for the chosen design follow. Some key terms not familiar in the literature are also reviewed. Then I present the assumptions, scope and delimitations, and limitations centered on the internal and external validity issues that concerned the research design. The next section focuses on the study's significance, which iterates the research's potential contributions to the advancement of public policy administration and criminal justice. Chapter 1 concludes with a summary of the highlighted sections.

### **Background of the Problem**

The public has been concerned about weapon incidents and the associated violent crimes that result in the increased percentage of injuries, massacres, deaths, and mass murder of innocent people (CDC, 2013; Hendrik, 2013; Lemieux, 2014; ProCon, 2016; Walsh, 2013). There are several debates from varied groups on gun law review issues in California's State to checkmate gun violence (ProCon, 2016). Some researchers have argued that firearms regulation remains a critical initiative to control gun violence and mass shootings (Anestis & Anestis, 2015; Lemieux, 2014). Some have attributed the effect of non-restricted laws on guns to the increases in deaths by firearms (Lemieux, 2014); however, others have argued that bad guys with guns kill people and not the gun (ProCon, 2016; Walsh, 2013; Zornick, 2014).

For California, records from the CDC revealed that the state recorded 11.8% of deaths by firearms, which is one of the significant causes of mortality deaths (CDC, 2018). The agency maintained that guns' death are more apparent between the ages of 10 to 24 years (CDC, 2013). Data have indicated that the City of Los Angeles has 18,547, reported violent crime cases, and Oakland City has 7,963 cases second to top the cities' chart (FBI, 2016).

However, considering the vast population ratio of those cities and their associated crime rates could support the claim that high metropolitan society is likely to be associated with high crime rates if one juxtaposes the analogy critically. However, the public questioned and demanded answers on the Congressional gun laws review (Walsh,

2013) due to repeated gun violent crimes. This implies is that firearms crime rates alone can cause many deaths; therefore, a remedy is essential.

The use of a gun to engage in violent gun crimes are often linked to mental illness (Blau et al., 2016). This means that the restriction of guns in the hands of people with mental illness is likely to reduce the frequency of gun-related violence incidents in California. The gun restriction also calls for policy action to support initiatives to reduce depression in people.

Other tabulations of available data have indicated that the misuse of alcohol in America affects violence (Wintemute, 2015). Alcohol misuse is often associated with firearm ownership, access to a gun, and crimes commissioned with firearms (Wintemute, 2015). In a month, binge drinking by gun owners, who number is approximately 8.9 to 11.7 million (Wintemute, 2015). Thus, gun restriction on persons with evidence of a documented history or the track record of alcohol misuse can significantly prevent violent crimes (Wintemute, 2015).

California has not been silent in finding lasting solutions to the problems of gun violence and its similar offenses (Barnhorst, 2015; California Courts, 2018; Frattaroli et al., 2015; Harris, 2016; Rand, 2018; Wintemute et al.; 2016). The state has endeavored to move beyond the gun incident in Newton by providing laws guiding guns (Fox & DeLateur, 2014). There are various pathways provided in California to address the problems of firearm violence. Some of the efforts are the court orders to restrain someone from having a gun or ammunition, referred to as GVROs (California Courts, 2018). The legislative directions are taken by the state to hinder potential persons with an increased

risk of violence are restraint from owning a firearm (Barnhorst, 2015). Those in this category have a restriction from possessing firearms irrespective of whether mental illness is a factor (Barnhorst, 2015). The GVROs bill was introduced in 2014 as AB1014 following the gun violence committed in Isla Vista in Santa Barbara, California (Frattaroli et al., 2015; Lopez, 2015; Rand, 2018). In addition to the restrictive measures on firearms, the California Welfare and Institution Code 5150 prohibit a mentally ill person with involuntary detention to receive psychiatric treatment from acquiring a firearm (Barnhorst, 2015; Harris, 2016).

Though critics of the statute, mainly from the pro-gun groups, have raised some questions about the law conflicting with civil liberties (Blau et al., 2016; Lopez, 2015; ProCon, 2016; Walsh, 2013; Zornick, 2014), GVROs remain a useful tool to keep gun violence in check (Frattaroli et al., 2015). The policy is different from the traditional method of a prohibition on gun possession and purchase, which was formerly based on the current criminal justice decision or by the mental health bodies for preventive intervention (Frattaroli et al., 2015).

However, researchers have inquired whether a GVRO is an alternative or adjunct restriction on firearms-related to mental health issues (Frattaroli et al., 2015). The GVRO order allowed an intimate or immediate family member who observed a partner with dangerous behavior to seek for the GVRO request through civil justice (Frattaroli et al., 2015). If granted by the court, the law enforcement would retrieve the firearms from the respondent, and such person would get prohibition from acquiring a new gun until cleared by the law (Frattaroli et al., 2015; Harris, 2016; Wintemute et al., 2016).

California was among the initial states to enact a GVRO (Frattaroli et al., 2015) and New York. After the Sandy Hook Elementary School unjust mass shooting in Newton, Connecticut, on January 15th, 2013, New York enacted the SAFE Act (Bill/S2230-2013) to prevent and reduce further killings (Eells, 2013). It implies that California and New York were among the first states to apply the policy restriction measures on gun violence against self or others following the rapid mass shootings that underscored the need for legislative restrictions to curtail firearms problems (Eells, 2013; & Frattaroli et al., 2015; Schildkraut & Hernandez, 2014).

In addition to GVROs, researchers have discussed how California's APPS would help prevent firearm violence (Wintemute et al., 2016). In APPS, the law enforcement intervention involves retrieving firearms purchased lawfully, and later the individual gets prohibition from accessing firearms due to the potential high risk observed for future violence (Wintemute et al., 2016). The DOJ's APPS method was applied in a cluster-randomized trial on a population of 20,000 in 1,041 communities grouped into early and late intervention, stratified by religion, population, and violent offense rate (Wintemute et al., 2016). Although about 10,000 illegal guns were seized from the owners, the research may not cover the small isolated northern California in the Sierra Nevada area because there may be unperceived violent crimes outside of metropolitan areas (Wintemute et al., 2016). It points to questions about GVRO rules. For instance, a suspected shooter may have no criminal record that would prompt a restraining order.

As a result of the changes in gun violence issues, the California Senate also approved a new bill by 26-12 voted to increase the age limit from 18 to 21 years for

purchasing assault weapons like AR-15 to tighten gun control (Rand, 2018). If the governor signed the bill into law, it would create a stricter restriction on gun violence, making California joining Florida, Nevada, and others on the more stringent gun policy (Rand, 2018). However, those against the bill argued that the enactment would relatively be valid, as only a small percentage of the mass shooting offenders are below 21 years of age (Rand, 2018).

Nevertheless, in the discussion of the California firearms laws summary, Harris (2016) explained how a person would get prohibition from the acquirement, safe movement, and possession of firearms in California. This is elaborated in the Penal Code, §§ 29800-29825, 29900 under the Welfare and Institution Code, §§ 8100, 8103 as a convicted person of any felony listed in PC Section 29905; 23515 (Harris, 2016). Alternatively, in violation of two or more in PC Section 417, subdivision (a) (2) under the (Welfare & Inst. Code, § 8103), and subdivision (a) (1) a person found mentally unstable sex offenders would get restrained from possessing a firearm (Harris, 2016). These restrictions also include the eligibility check, the safety possession of personal firearms, the requirements for sales, transportation, and transfer of guns are enshrined in the penal codes (Harris, 2016).

Policy regulation or law review on guns remains the solution to gun violence (Anestis & Anestis, 2015; Lemieux, 2014). Control on the use of firearms can support in reducing the high propensity of casualties or crimes, homicides, and suicide rates (Anestis & Anestis, 2015; Siegel & Rothman, 2016) including mass murder and shootings (Langmann, 2012; La Valle & Glover, 2011; Lemieux, 2014). Weak laws on



firearms significantly increase the chances of deaths caused by guns (Espinosa & Finley, 2014; Hendrik, 2013; Langmann, 2012; La Valle & Glover, 2011; Lemieux, 2014; Walsh, 2013). However, a study has not quantitatively focused attention on investigating the impact of GVROs in reducing violent crimes in California. The question I asked in this study is whether there is a significant reduction in gun violence due to the introduction of GVROs in California?

There are several debates from varied groups on gun law review issues in California's State to checkmate gun violence (ProCon, 2016). Some researchers argued that firearms regulation remains a critical initiative to control gun violence and mass shootings (Lemieux, 2014; Anestis & Anestis, 2015). Subsequently, research like (Lemieux, 2014) attributed the effect of non-restricted laws on guns to the increases in the propensity of more deaths by firearms while the others (pro-gun) argued otherwise that wrong persons with guns kill people and not the gun (Zornick, 2014; Walsh, 2013; ProCon, 2016).

Recalling the policy initiatives to control individual gun ownership, Rand (2018) noted that the California Senate had passed a bill to raise the age level to purchase an assault rifle from 18 years to 21 years old. Besides the fact that typical articles and journals researched firearms violence, a particular dissertation study has not quantitatively focused attention on investigating the impact of gun violence restraining orders in reducing violent crimes in California.

Furthermore, worried about the prevalence and dangers of gun violence, the research uncovered that the public was concerned about weapon incidents and the

associated violent gun crimes. That seems to result in the increased percentage of injuries, massacres, killings, and mass murder of innocent individuals (CDC, 2013; Hendrik, 2013; Lemieux, 2014; ProCon, 2016; Walsh, 2013). The use of a gun to engage in violent gun crimes are often links to mental illness (Blau et al., 2016). The researchers found that mental health has a positive correlation with gun violence (Blau et al., 2016). Among the variables examined, the effect of mental health on violent gun incidents is highly significant (Blau et al., 2016). It then means that the restriction of guns in the hands of the mental health people is likely to reduce the frequency of gun-related violence incidents in California. The gun restriction also calls for policy action to support initiatives to reduce depression in mental health people (see Blau et al., 2016).

Firearm restriction policy by my understanding of the State of California means providing enabling laws that regulate the use of guns and ammunition with specific prohibitions on individuals for the possession or acquirement of weapons. Firearm restriction, in other words, is referred to as gun violent restraint orders (California Courts, 2018). The gun violence restraining orders (GVRO) bill was first initiated in 2014 as AB1014 as a result of the murderous rampage of Isla Vista in Santa Barbara, California (Lopez, 2015). However, some critics of the statute, mostly from the pro-gun groups, raised some questions about the law conflicting with citizens' civil liberties (Blau et al., 2016; Lopez, 2015; ProCon, 2016; Walsh, 2013, Zornick, 2014).

Subsequent upon those explanations, Wintemute (2015), in the historical study supported by new tabulations of available data from the public surveyed, indicated the misuse of alcohol, firearm violence, and the perpetration with public policy in America

affects violence. The author noted that violence remains a significant and paramount public health challenge in the U.S in which alcohol misuse is often involved and is associated with firearm ownership, access to a gun, and crimes commissioned with firearms (Wintemute, 2015) - adding that in a month, the binge drink is approximately 8.9 to 11.7 million by gun owners (Wintemute, 2015). The research concluded that gun restriction on persons with evidence of a documented history or the track record of alcohol misuse would significantly prevent violent crimes (Wintemute, 2015).

For California, records from the CDC- Center for Disease Control and Prevention revealed that the state recorded 11.8% of deaths by firearms, which is one of the significant causes of mortality deaths (CDC, 2018). The agency maintained that deaths by guns are more apparent among the youths, mostly between the ages of 10 to 24 years (CDC, 2013). What that implies is that such percentage level remains high as firearms crime rates alone could cause many deaths. Therefore, remedying that gap is essential.

Again, in the fight against crimes in the nation and California to be specific, one of the leading agencies in recording the national crimes incident-based reporting system defined violent crime as those offenses that are commissioned by force or the threat of force (FBI, 2016). The FBI categorized violent crimes in the hierarchy of the top violent crimes; it listed offenses like murder (Non-negligent manslaughter), forcible rape, robbery, aggravated assault, and property crime. Others are burglary, larceny-theft, motor vehicle theft, and arson (FBI, 2016). The crime report substantiated the facts with records of the 2012 Uniform Crime Report - UCR data of the FBI, which indicated that the City of Los Angeles alone has 18,547, reported cases. More so, in Californian violent crime

data, Oakland City has recorded 7,963 cases second to top the cities' chart (FBI, 2016) on violent crimes. However, considering the population ratio of those cities and their associated crime rates could support one's claim that a high metropolitan society is associated with high crime rates if one juxtaposes the facts critically. However, the public questioned and demanded answers on the Congressional gun laws review (Walsh, 2013) due to repeated gun violent crimes in the state.

California has been making significant moves in finding solutions to the challenges of gun violence and the related offenses (Barnhorst, 2015; California Courts, 2018; Frattaroli et al., 2015; Harris, 2016; Rand, 2018; Wintemute et al.; 2016). The state has endeavored to move beyond the gun incident in Newton by providing laws guiding guns (Fox & DeLateur, 2014). There are various pathways provided in California to address the problems of firearm violence. Some of the efforts are the court orders to restrain someone from having a gun or ammunition, referred to as GVROs (California Courts, 2018).

The legislative directions are taken by the state to hinder potential persons with an increased risk of violence are restraint from owning a firearm (Barnhorst, 2015). Those in this category have a restriction from possessing firearms irrespective of whether mental illness is a factor (Barnhorst, 2015). The GVROs bill is another paramount restriction order that was introduced in 2014 as AB1014 following the gun violence committed in Isla Vista in Santa Barbara, California (Frattaroli et al., 2015; Lopez, 2015; Rand, 2018). In addition to the restrictive measures on firearms, the California Welfare

and Institution Code 5150 prohibit a mentally ill person who has involuntary detention to receive psychiatric treatment from acquiring a firearm (Barnhorst, 2015; Harris, 2016).

Though critics of the statute, mainly from the pro-gun groups, have raised some questions about the law conflicting with peoples' civil liberties (Blau et al., 2016; Lopez, 2015; ProCon, 2016; Walsh, 2013; Zornick, 2014), GVROs remain a useful tool to keep gun violence in check (Frattaroli et al., 2015). The policy varied from the traditional approach of a prohibition on gun possession and purchase, which was previously based on the current criminal justice system or by the mental health bodies for preventive intervention (Frattaroli et al., 2015).

However, researchers have inquired whether a GVRO is an alternative or adjunct restriction on firearms-related to mental health issues (Frattaroli et al., 2015). The GVRO order allowed an intimate or immediate family member who observed a partner with dangerous behavior to seek for the GVRO request through civil justice (Frattaroli et al., 2015). If granted by the court, the law enforcement would retrieve the firearms from the respondent, and such person would get prohibition from acquiring a new gun until cleared by the law (Frattaroli et al., 2015; Harris, 2016; Wintemute et al., 2016).

California was among one of the initial states to enact a GVRO (Frattaroli et al., 2015) along with the State of New York. After the unjust Sandy Hook Elementary School mass murder shooting in Newton, Connecticut, on January 15th, 2013. The New York State enacted the SAFE Act (Bill/S2230-2013) to prevent and reduce further killings (Eells, 2013). It implies that California and New York were among the first states to apply the policy restriction measures on gun violence against self or others following the

rapid mass shootings that underscored the need for legislative restrictions to curtail firearms problems (Eells, 2013; & Frattaroli et al., 2015; Schildkraut & Hernandez, 2014).

In addition to GVROs, researchers have discussed how California's APPS would help prevent firearm violence (Wintemute et al., 2016). In APPS, the law enforcement intervention involves retrieving firearms purchased lawfully, and later the individual gets prohibition from accessing firearms due to the potential high risk observed for future violence (Wintemute et al., 2016). The DOJ's APPS method was applied in a cluster-randomized trial on a population of 20,000 in 1,041 communities grouped into early and late intervention, stratified by religion, population, and violent offense rate (Wintemute et al., 2016). Although about 10,000 prohibited guns were seized from the owners, the research may not cover the small isolated northern California in the Sierra Nevada area because there may be unperceived violent crimes outside of metropolitan areas (Wintemute et al., 2016). It points to questions about GVRO rules. For instance, a suspected shooter may have no criminal record that would prompt a restraining order.

As a result of the changes in gun violence issues, the California Senate also approved a new bill by 26-12 voted to raise the age limit from 18 to 21 years for purchasing assault weapons like AR-15 to tighten gun control (Rand, 2018). If the governor signs the bill into law, it will create a stricter restriction on gun violence, making California joining Florida, Nevada, and others on the more stringent gun policy (Rand, 2018). However, those against the bill argued that the enactment would relatively

be valid, as only a small percentage of the mass shooting offenders are below 21 years of age (Rand, 2018).

Nevertheless, in the discussion of the California firearms laws summary, Harris (2016) explained how a person would get prohibition from the acquirement, safe movement, and possession of firearms in California. This prohibition is elaborated in the Penal Code, §§ 29800-29825, 29900 under the Welfare and Institution Code, §§ 8100, 8103 as a convicted person of any felony listed in PC Section 29905; 23515 (Harris, 2016). Put differently, in violation of two or more in PC Section 417, subdivision (a) (2) under the (Welfare & Inst. Code, § 8103), and subdivision (a) (1) any person found mentally unstable sex offenders would get restrained from owning or acquiring a firearm (Harris, 2016). These restrictions also include the eligibility check, the safety possession of personal firearms, the requirements for the sale of arms, the transportation of guns, and the transfer of guns are enshrined in the penal codes (Harris, 2016).

Policy regulation on guns remains the panacea to gun violence (Anestis & Anestis, 2015; Lemieux, 2014). Control on the use of firearms can support in reducing the propensity of casualties or crimes, homicides, and suicide rates (Anestis & Anestis, 2015; Siegel & Rothman, 2016) including mass murder, shootings, and killing of people (Langmann, 2012; La Valle & Glover, 2011; Lemieux, 2014). Weak laws on firearms significantly increase the chances of deaths caused by guns (Espinosa & Finley, 2014; Lemieux, 2014; Walsh, 2013). However, a study has not quantitatively investigated the impact of GVROs in reducing violent crimes in California due to the introduction of the orders.

### **Problem Statement**

The problem was a lack of research about the impact of GVROs on violent gun crime reduction in California. It was unclear whether firearms restrictions (i.e., GVROs) facilitated or undermined the impact of reducing violent gun crimes in California. This study can help increase understanding of the contributions of GVROs on reducing violent gun crime in California. The findings might also strengthen policy dialogue on the way forward to reduce the rate of frequent gun violence incidents in California.

Studies have shown that policy regulation tends to reduce the level of firearm violence, and California has developed public policies to reduce violent crimes rates (Barnhorst, 2015; California Courts, 2018; Espinosa & Finley; Fox & DeLateur, 2014; Harris, 2016; Lemieux, 2014; Lopez, 2015; Rand, 2018).

Nonetheless, there are reports on the problems of violent crimes in California. Most gun violence arguments claim that there is a weak restriction on firearm laws to reduce violent gun crimes in California (ProCon, 2016), so some groups have called for a stricter restriction on gun laws, though the opposing group argued that guns are not the problems; instead, the wrong person with a gun remains the challenge (ProCon, 2016). However, a legislative proposal is safer and has accounted for the decrease in gun violence than the cultural proposition compared with other world democracies with regulations on guns (Lemieux, 2014). Based on these dispositions, this dissertation explored the GVRO firearm restriction and its impact on reducing violent gun crimes in California.



### **Purpose of the Study**

This quantitative study was conducted to determine the impact of GVROs on California's violent gun crimes. To ascertain whether policy restrictions on firearms have a significant impact, I focused on the GVRO categories of emergency orders-21 days (EGV), temporary orders-21 days (TGV), and orders after hearing-1 year (OGV). The groups also included active and inactive orders filed by a family member and law enforcement.

This research closed the gap found in the literature by exploring whether there is any significant impact of firearm restriction (i.e., GVROs) in reducing violent gun crimes in California. The study also adds more value to traditional scholarly knowledge. The research results, its findings, and the recommendations also supported positive social change (see Walden University, 2010). Good dialogue and policy initiatives can help to significantly reduce gun problems in the cities and restrict criminals with illegal guns off the streets of California. This research supported to develop substantive policy ideas to minimize the prevalence of gun violence and tighten the illicit firearm loopholes.

### **Research Questions and Hypotheses**

The research questions were framed to address the repeated problems of firearm violence in California. I investigated the extent of the impact of active and inactive GVROs (family and law enforcement EGV, OGV, and TGV) on reducing gun violence in California. The primary research questions and the hypotheses are:

Research Question 1: What is the impact on gun violence rates in the years following the GVROs in California for the active and inactive orders on EGV, OGV, and TGV?

$H_01$ : There is no significant impact on gun violence rates in the years following the GVROs in California for the active and inactive orders on EGV, OGV, and TGV.

$H_11$ : There is a significant impact on gun violence rates in the years following the GVROs in California for the active and inactive orders on EGV, OGV, and TGV.

Research Question 2: To what extent has GVROs by law enforcement impacted gun violence rates in California following the initial years of the law?

$H_02$ : GVROs by law enforcement has not impacted gun violence rates in California following the initial years of the law.

$H_12$ : GVROs by law enforcement has impacted gun violence rates in California following the initial years of the law.

Research Question 3: Is there any significant impact of family GVROs on gun violence rates in California in the years after the order became effective?

$H_03$ : There is no significant impact of family GVROs on gun violence rates in California in the years after the order became effective.

$H_13$ : There is a significant impact of family GVROs on gun violence rates in California in the years after the order became effective.

Research Question 4: Does the impact on gun violence rates in the years following GVROs in California for law enforcement active and inactive orders (EGV, OGV, and TGV) have an upward or downward movement?

*H<sub>0</sub>4*: The impact on gun violence rates in the years following GVROs in California for active and inactive (EGV, OGV, and TGV) has no upward or downward movement.

*H<sub>1</sub>4*: The impact on gun violence rates in the years following GVROs in California for active and inactive (EGV, OGV, and TGV) has an upward or downward movement.

In the upcoming section, the attention focused on the two theoretical frameworks. One developed by Thomas Hobbes on social contract theory and the other is the institutional theory expanded by W. R. Scott. They are the baseline theoretical frameworks upon which the study aligned with the research questions enunciated above significantly by looking into how citizens of the state conformed to the policies and the guiding principles on guns. Through the social contract ideology, the state government's agency in modern democracy faces the expectation of serving and protecting its people via qualitative policies and enforced by the state (Scott, 2008).

Hence, the citizens have submitted certain individual rights to the sovereign government with the hope for adequate protection by actions and policy enactments. With these theories, the study assessed variables from the public policy perspective rather than the political perception as others might think. The discussion of the theoretical research frameworks is next in the section below.

### **The Theoretical Frameworks for the Study**

Theoretical frameworks are from an already established body of theory or theories in the literature confirmed and tested previously as valid and generally accepted by other scholars in the area of that scholarly literature (Grant & Osanloo, 2014). Likewise, the theoretical framework is the researcher's lens that he/she uses to view the world (Merriam, 2009, as cited in Grant & Osanloo, 2014). The framework serves as a guide in conducting research investigation (Ravitch & Carl, 2016) by linking it with the context of the study; hence, all knowledge is theory-laden, and the method is theory-driven (Mitchell & Cody, 1993).

This study utilized the social contract theory and the institutional theory as the theoretical frameworks to investigate how firearm restriction has impacted the reduction of violent gun crimes in California. In consideration of the existence of the social contract relations between the government and the governed, Californians have to comply with the strong public policy restriction idea on the firearm by submitting to Scott's view on institutional theory and the Hobbes's social contractual principle (see Scott, 2008; Uzgalis, 2012). The theories recognize the significant role that state institutions play in shaping people's behavior to conform to the state's rules despite challenges at other levels (see California Courts, 2018; FBI, 2016).

#### **Social Contract Theory of Thomas Hobbes**

The social contract theory was one of the benchmark theoretical frameworks for this study. Thomas Hobbes, John Locke, and Jean-Jacques Rousseau were known for their famous postulations on social contract theory. These earlier political philosophers

propounded some thoughts on social contract theory such as how members of a state should relate to cooperate or how the leadership administration performs in a contractual society (Duignan & Cranston, 2018; Editors of Encyclopedia Britannica, n.d.; Elahi, 2005; Sorell, 2018). Based on Hobbes's 1651 *Leviathan*, the social contract theory emphasizes the voluntary or willingness to agree among the people of an organized democratic society (Editors of Encyclopedia Britannica, n.d.). This cooperation was the focus on assessing California on the firearms public policy objectives to impede violent gun crimes.

Hobbes (as cited in Elahi, 2005) added that the absence of civil obedience to the statutes, laws, and rules would return society to a state of nature where human life was in a solitarily poor condition. Hobbes's explanation of the social contract theory resonates with the Federalists Papers after the declaration of independence on the effects of good governance (The Library of Congress, n.d. a-c). The U.S. founding fathers' Federalist papers shaped the United States today, which has transcended or decentralized to the California government system (Bindebir et al., 2003; Boyd, 1997). Further, a critical juxtaposition on the facts like liberty, law, minority, and majority rights of recognitions consists of the universal declaration of human rights to live, which draws closer points on the need to review firearms laws (see The United Nations, 1948).

Although there are demarcations among the schools of thought on social contract theory, Verschoor (2018) explained the common boundary problem and social contract theory's view on the political voluntarism of the Lockeans, contractarianism of the Hobbeans, and the Rawleans' contractualism. By distinguishing the boundaries between

three schools of thought with reinterpretations to provide a democratic solution to the boundary problems, Verschoor maintained that the state of nature is when individuals are not in a cooperative interaction to agree on a political order that is required to achieve legitimacy. Thus, Verschoor's view was critical in defense of the Rawlsian contractualist solutions on the ground of its in-depth democratic features and morally superior to the other rival schools of thought with the implicative premise over a specific natural duty to justice. Nevertheless, a critical assessment of this postulation is comparing it with the problems with violent gun crimes.

Furthermore, Locke (as cited in the Editors of Encyclopedia Britannica, n.d.) had a contrary postulation on the social contract theory. Locke described political power as the right to make laws backed with the authority that executes the enactments and for the punishment of the offenders with an impartial judge (Uzgalis, 2012). He further maintained that the absence of civil government is in a state of nature without a legitimate government where people have no common political authority (Uzgalis, 2012). Locke underscored that legitimate government with the firm policy is the one that preserved the health, property, liberty, and lives of the citizens as well as prosecuted the violators on the rights of other fellow citizens.

Locke inferred that obedience to the civil government becomes a conditional contract subject to the government's overthrow if it rules contrary to the terms of the social contract (Editors of Encyclopedia Britannica, n.d.). It implies that the state of nature is a natural right to life and property. Natural law requires protection for the insecurity that might arise from the enforcement of the rights. The individual obligation

to the civic obedience of the social contract is conditional and subject to protecting both persons and private property through sound public policy (Uzgalis, 2012).

Following the advancement in a progressive civilization, society has moved to envision Rousseau's thoughts on the collectivity and the aggregate of individual wills, where people have renounced their natural rights to form a sovereign government upon which modern democracy is founded (Editors of Encyclopedia Britannica, n.d.). This is the essential moral power of reasoning upon which government policy has to be administered by the general will (Editors of Encyclopedia Britannica, n.d.). Though the second amendment granted the citizens the right to bear arms, and subsequently the rights to private property (The U.S Constitution, n.d.), the impacts of firearms violent crimes in recent times might warrant a dialogue to review the statutes.

For instance, Locke's ideas on the inalienable rights of private property are contrary to the current excess amasses of capital (Machan, 2005; Waldron, 2004). Further, the current sophisticated weapons like the AK-47 and AR-15s include other semi-automatic rifles subject to conversion to a militarized machine gun, which supports the points for the substantial policy restrictions on civilians' types of firearm use (Klein, 2006). Based on these notions, research is essential to investigate the impact of the GVROs on reducing violent gun crimes in California. It is necessary to critically examine how the state firearms policy is posed to care for public safety concerns and the public yearnings on protection against the increased gun violence.

The other theoretical framework is described in the following section as a backup for this exploration and study synthesis. The social contract theory might appear more

fitting for political studies by looking at the individual conditional obligation to submit to the social contract agreement. Even though politics and public policy are interwoven and interrelated, for this study, this theory was used purely academic research without an element of political undertone. Therefore, I perceived it imperative to introduce the institutional theory in the next section to support the study.

### **The Institutional Theory Developed by Scott**

The two dominating schools of thought in the institutional theory doctrine are the old and new institutionalism. In 1991, Powell and DiMaggio observed that the new institutionalism is the emerging aspect of the socio-organizational theory, which rejects the rational models of classical economics. This is known better as the neoclassical criticism of the mainstream economy noted by Rustem Nureev in the evolution of the institutional theory and its structure.

Further, there is no clear definition of institutional theory, as there are many scholars in the discipline of social sciences with varied definitions (Scott, 1995). However, Scott (1995, 2004) noted that institutional theory centered on “rational myths, isomorphism, and legitimacy” (p. 2), researchers who perceived it from this direction emphasized the in-depth understanding of the imitation of institutional theory rather than important optimization of their decisions, the practice, and the structures.

Additionally, Scott described how institutions remain social structures with a high level of resilience. These degrees of resilience can appear in the form of cultural-cognitive, regulative, and normative, which are contingent on providing stability and quality meaning to social life in the use of firearms in California. In this respect, the



regulative institution reflects this research's concern and agrees with the public policy that emphasized that institutional theory is the government structures that are formal and legal forms (see Kraft et al., 2007). The Californian institutions are capable of shaping the rules to fit these concepts.

Additionally, Scott (2008) maintained that social institutions could operate at many levels, both the global systems to interpersonal levels, corporations, national, and local levels, with the connotation to create stability. He added that stability is subject to be changed gradually—the incrementalism approach or be discontinuous.

However, rules establish social attitudes, and organizations respond to the change processes in their unique research compositions on institutional theory and institutional change (Dacin et al., 2002; Scott, 2005). For example, organizations depend on their peers for signals on acceptable behavior (Scott, 2008), and for organizations to survive; they must conform to the existing environmental rules (DiMaggio & Powell, 1983; Scott, 1995).

Hence, conforming to the prevailing rules would earn the organization legitimacy as a result of institutional isomorphism (Scott, 2004, 2008; Suchman, 1995), including formal and procedural aspects. However, the formal structure has been criticized as a myth and ceremony in the others' perception of institutionalized organizations (Meyer & Rowan, 1977). Regardless, organizations tend to flourish in businesses when they received efficient institutional supports from the state (Marquis & Tilcsik, 2016). Thus, policy initiatives shape how people behave, reflecting California gun law review.

### **Nature of the Study**

A quasi-experimental research design with an independent sample *t*-test, a one-way analysis of variance (ANOVA), and the simple linear regression model gave this research a robust phenomenal explanation. The dataset's source was the California DOJ statewide yearly reports on GVRO crimes (California Courts, 2018). The minimum sample size of data in statistical tests is three (Boos & Hughes-Oliver, 2000; Bradley, 1980; Rhie & Chaffin, 1996), which the GVRO dataset for this study met with the four-sample size.

Considering the nature of the resource dataset as a purposive sampling dataset, the independent sample *t*-test, a one-way ANOVA, and simple linear regression analyses were useful in conducting this investigation on the California populations. These ensured clarity on the differences in the years and types of orders for understanding the impact of the GVROs since their introduction (see California Courts, 2018; Minitab, 2011; Wagner, 2017).

In this exploratory dissertation, the year under study is the independent variable (predictors: constant), and GVRO is the dependent variable (see Babbie, 2017; O'Sullivan et al., 2017; Warner, 2013). I determined whether the result is statistically significant or otherwise on the changes since the enactment of the GVROs. In this survey, I utilized software from the Minitab and the Statistical Package for the Social Sciences (Minitab, 2011; Wagner, 2017) to analyze the data. The research outcome on the current threshold is detailed in Chapters 3 and 4.

## **Definitions of Key Terms**

In this research, some terminologies in the profession of public policy and criminal justice are precisely defined in this section for more understanding to readers.

### **Active Orders**

Active orders mean the number of the given type of active orders in the county for the given year (California Courts, 2018). It entails the number of active GVROs issued in the particular year, which means the active number of the reported GVROs to hinder gun violence.

### **Active Policy on Firearms**

The active policy on firearms (APOFs) centers on policy management officials being more proactive in effecting rules on firearms. Stricter restrictions on firearms can militate repeated violent gun crimes in California. The indexes I observed on the reported rates of violent crimes in California (see FBI, 2016) created the motive to develop the APOF terminology. APOF is about effecting procedural policy in the management of gun rules, so the repeated violent gun crimes will stay at the lowest minimum level. It would improve the protection of every citizen and be the best fit of the state.

APOF applies to violent crimes in California and beyond. APOF is an analysis of the public policy measures against the repeat of violent crimes linked to guns. The practical application of the concept by relevant agencies to militate gun violence can reduce violence in states (see Anestis & Anestis, 2015; La Valle & Glover, 2011; Lemieux, 2014). Having observed in the literature that a proper policy regulation via

“active policy implementations” can reduce violent crimes, APOFs support a dialogue initiative and solution to the needed positive change.

### **Aggravated Assault**

Aggravated assault is the intent or attempts to cause serious bodily injury or harm to a person with a weapon that may include a firearm. The charge pressed on the offender is determined by the degree of the injury or intent (Criminal Law, 2019). Aggravated assault mostly begins with cruelty to animals if not controlled, which can lead to aggravated assault to human beings as well as violent crimes like rape, murder, and robbery (Overton et al., 2012).

### **Arms Prohibited Persons System**

APPS is the California DOJ intervention policy initiated in 2015 to restrict those found mentally unstable gets restriction from possessing a firearm enforced by the law enforcement agents to retrieve the gun from the suspected person (Wintemute et al., 2016).

### **Emergency Orders-21 Day**

In the GVRO policy, EGV is obtainable under the California Penal Code 18125, and they are publishable in the California Restraining and Protective Order System, where law enforcement officers see the stored restrictions placed on an individual (California Courts, 2018). The EGV order is usually requested by the law enforcement officers to stop a person from carrying a weapon.

**Family Filed Orders**

This implied the family group of cases given per county and petitioned by a family member in a given year (California Courts, 2018).

**Gun Violence Restraining Orders**

GVROs were first initiated in 2014 as AB 1014 Bill to limit those who violated the policy to acquire guns (Harris, 2016; Lopez, 2015). GVRO policy maintains that persons who are incapable of possessing guns are denied the privilege of owning or acquiring guns because of the perceived problems to harm one or others, primarily when mental health challenges occur (Frattaroli et al., 2015). Restrictions can be lifted or removed if cleared ok by the court to regain the firearm (California Courts, 2018).

**Inactive Orders**

Inactive orders represent the number of inactive orders in the county for the given year (California Courts, 2018). GVROs can be inactive after the court determined the restriction placed on the respondent and found them not guilty, then the court returns the firearm.

**Law Enforcement Filed Orders**

The term entails the law enforcement group of cases that represent the established number of order types filed by law enforcement officers for that particular year (California Courts, 2018).

**Mass Shooting**

Mass shooting involves the killing, murder, and act of homicide on four or more persons with a firearm. However, there is no universally accepted definition of the

incident that meets mass shooting classification or mass murder (Smart, 2019). The FBI classifies mass murder when four deaths of the victims, excluding the shooter, happen, which occurred in a location with a firearm used in commission the crime (FBI, 2016).

### **Militarize Machine Gun**

A machine gun's militarization entails using a high capacity caliber gun that is convertible to a semi-automatic weapon. Militarizing a firearm is some form of a weapon made for a war zone or like the military type (Brown, 2012).

### **Murder (Non-Negligent Manslaughter)**

Murder or non-negligent manslaughter is killing a person unlawfully, especially a premeditated killing of another person with malice or no legal justification (Wikipedia, 2019). The impact of murder is costly to the country, affecting both the victim and society (Wikipedia, 2019). Researchers have indicated that the consequential monetization cost of murder crimes exceeds \$17.25 million to the state with devastating effects on both the victims' families and the communities (DeLisi et al., 2010).

The United States has had approximately 18,022 homicides (murders) with 6.2 adjusted annual rates per 100,000 populations (Dahlberg & Simon, 2006). Criminal statistics in the United States have shown that drug abuse is responsible for the crime increase rate (Magnuson et al., 1981). Other significant factors are school influence, family, and the community that influences young people engaged in violent crimes (Dahlberg & Simon, 2006; see also DeLisi & Conis, 2012).

**Orders After Hearing-1 Year**

When the court has determined the respondent's status. The restriction is obtained under the California Penal Code 18170, and it counts data values on the highest level (California Courts, 2018).

**Rape**

The recent uniform crime report of the FBI (2016) defines rape as the forceful penetration of the vagina or anus using the body part or object, or oral penetration of the victim's sex organ without consents. According to FBI (2016), sexual attempts or assault on the underage person are categorized as rape offense. That has accounted for approximately 7.7% of these offenses in the United States.

**Robbery**

Robbery pertains to the forceful taking or attempting to take something of value from a person's possession, custody, care, and control by threatening to put the victim in a fear condition (FBI, 2016). Robbery incidents frequently occurred in areas with high population density, mostly from visitors who carry cash and other valuable items (Jarrel & Howsen, 1990). These crimes happen because the violators think that they can avoid apprehension in the act (DeLisi & Conis, 2012).

**Stronger Restriction Policy**

A stronger restriction policy is explained as a more stringent regulatory law or legislation by government institutions to prohibit, restrain, and hinder an unwarranted person from the possession of a weapon. In other words, it refers to the stricter guiding

rule on a firearm (Barnhorst, 2015; California Courts, 2018; Harris, 2016), which is what I termed as APOF.

### **Temporary Orders-21 Days**

The order is placed on a respondent under PC 18150 pending in the law court until after the final hearing. The condition of the order is subject to change in status for or against the respondent's favor to acquire a gun (California Courts, 2018).

### **Violent Crime**

Research has defined violent crime as the offenses commissioned by force or threat of force that inflicts harm and injury (FBI, 2015, 2016; Rayirala et al., 2018; Rosenfeld, 2017). Violent crime entails an offense that involved the use of force or threat that inflicted harm or injured one. For this investigation, four categories of violent crimes included murder, aggravated assault, robbery, and rape, which may be more associated with firearms.

## **Assumptions, Scope and Delimitations, and Limitations**

### **Assumptions**

I tested three major assumptions to investigate whether substantial policy restrictions of GVROs significantly facilitated or undermined the reduction of firearms violent crimes. I assumed that the GVRO data obtained from a government agency is accurate to determine whether GVROs facilitated or undermined the reduction in violent gun crimes in California. I also assumed that there is a consistency of every county's data reported to the California DOJ on GVROs. Finally, I assumed that stricter laws and active



public policy on firearms restriction orders are significant for mitigating violent gun crimes.

### **Scope and Delimitations**

This study aimed to assess whether there is any impact of the GVROs in reducing violent gun crime in California. The research scope focused on California from 2016–2019 for the available datasets obtained from the California DOJ after the passage of the bill on GVROs. The 2014–2015 datasets for the 2 years were unreleased for this research as part of the DOJ's restriction policy. Based on the Californian DOJ management instructions given to the research center officials, only the specific years of the datasets are given to me. The managers in authority agreed to provide the GVRO statistical datasets that came in two batches to me as their organizational policy could allow. That gap in the statistical records (2014-2015) creates room for further research.

The research used two theories—the social contract theory by Thomas Hobbes and the institutional theory developed by W. R. Scott—to approach the study as drawn from other literature reviewed (Duignan & Cranston, 2018; Elahi, 2005; Scott, 1995, 2008; Sorell, 2018). No other investigation has tackled the problem from this theoretical angle, creating the difficulty in locating related peer-reviewed articles.

I applied an independent sample *t*-test, a simple linear regression model, and a one-way ANOVA to understand the impact of the GVRO in reducing violent gun crime phenomenon. The key variables are years (predictors: constant) of the reported GVROs, and the GVRO grouped variables are family and law enforcement, active and inactive cases on the given order categories of EGV, TGV, and OGV. The variables are valid with

the necessary standard to measure the known GVRO reports by the Research Center of the California DOJ.

### **Limitations**

One of the challenges that confront a social researcher is research reliability and validity. The reliability-centered on whether the study is replicable, and the research attributes or findings could be repeated on the targeted phenomenal populations surveyed (Babbie, 2017; Bryman, 2008; Frankfort-Nachmias & Leon-Guerrero, 2015; Warner, 2017). Validity focused on the quality concerns of the variables utilized to construct the research, a reliable source of data from the California DOJ. Because I based the research data from the secondary source, certain information is limited to definitions. Updated records on the exact each county statistics are also limited to me, as I was not the source of the record.

Further, validity questions how applicable the study model is and the conclusion made on the findings (Frankfort-Nachmias & Leon-Guerrero, 2015). In other words, the data are subject to a review or changes as the retrieval agency (DOJ) updates yearly on its GVRO data for the current statistics of California under investigation. Some of the variables are limited to a definition, but in-depth quality literature reviewed made a significant understanding of the social phenomenon. Finally, the investigation was limited to examining California counties from 2016-2019 due to the DOJ's provision and availability of statistical datasets.

### **The Significance of the Study**

This research exploration provides in-depth factors that support lasting solutions to gun violence and aids to reduce the increasing violent crime rates in California. In so doing, policy may address offenders' loopholes of illegal gun operations, which helps in stopping widespread murder as (Truesdell, 2015) for instance, recent past mass shootings and murders would have been avoided if a strict gun policy existed. Critical analyses produced a convincing on the dangers of weak regulation on firearms (Elliot, 2016; Milligan, 2012).

This study also contributes to scholarly knowledge on the impact of firearm restrictions in reducing violent crimes in California and substantially supports other data. Invariably, this survey also adds to practical, positive social change (Thomas et al., 2009; Walden University, 2010) ideology to reduce the level of violent crime cases significantly. This can provide a risk reduction for the police while curbing gun violence. The findings may strengthen the policy dialogue on the way forward to reduce the rate of frequent gun violence incidents in California, which affects victims and their close family members. The impact also involves economic consequences that affect many people.

### **Summary**

This chapter explained some of the existing laws covering the use and possession of firearms in California. There are noted incidents of gun violence and violent crimes commissioned with firearms (FBI, 2016). However, it is unclear whether GVRO restrictions on firearms facilitated or undermined the impact of violent gun crimes. Therefore, the study investigated whether stricter restrictions on firearm might

significantly affect violent crime rates. Because I considered the phenomenal sociocultural problems of firearms, I opted for two theoretical frameworks—the institutional theory by W. R. Scott and the social contract theory by Thomas Hobbes—that emphasized how a functional cooperate state should exist under policy regulation. I used an independent sample *t*-test, simple linear regression, and a one-way ANOVA analysis to analyze data.

## Chapter 2: Literature Review

### **Introduction**

In California, firearms lead to a recorded 11.8% rate of deaths, which is a significant cause of mortality deaths (CDC, 2018). However, it remains unclear whether GVROs as policy restrictions on firearms have impacted California's violent crime reduction. The literature reviewed indicated that policy regulation has a higher chance of reducing violent gun crimes, including murder and mass shootings (Anestis & Anestis, 2015; La Valle & Glover, 2011; Lemieux, 2014).

However, most violent crimes carried out with firearms lead to claims that the existing gun laws are weak restriction policies to curtail the phenomenon. This research aimed to discover the impact of GVROs on the reduction of violent crimes in California by considering the levels of violent crime re-occurrences since the establishment of public policies to control the phenomenon. Firearm violence incidences have reoccurred, which was assumed to undermine or facilitate social activities in the state by the way guns are applied.

This chapter addresses the literature search strategy associated with the research variables. The next section covers the two theoretical foundations of social contract theory and the institutional theory. A literature review related to the variables and concepts is the next following section. Relevant resources were surveyed to have an in-depth understanding of current discussions on firearms policies and its related violent crimes, which are detailed in the subsequent sections. The chapter ends with an integral summary and conclusions of the chapter.

### The Literature Search Strategy

For me to obtain the relevant literature from Walden's databases, core concepts were input that supported the research variables linked to the problem statement:

- Domestic violence restraining orders.
- GVROs.
- Violent crimes: (a) murder (non-negligent manslaughter), (b) aggravated assault, (c) rape, and (d) robbery.
- Firearm restriction policies.
- Families and law enforcement as victims or actors in reporting of a suspect.

I conducted a first systematic literature search in the Walden University Library utilizing the following keywords/terms: *firearms restrictions, violent crimes, gun violence, firearm regulations, mass shootings, and violent crime rates in California*. These terms were combined in the EBSCOhost, Science Direct, Psychological, Psychiatric Journals, and government databases such as the FBI, the CDC, and the California government.

Other sources were the California DOJ, National Criminal Justice Reference Service, National Crime Victimization Survey, and Bureau of Justice Statistics, which I critically reviewed to suit the research area's complexity. Over 800 articles were found and narrowed to 120 current related peer-reviewed articles. The next section further explains the theoretical foundations of the study.

### **Theoretical Foundations**

The institutional theory by W. R. Scott is one of the theories I utilized to synthesize this study. The social contract theory developed by Hobbes is also part of the foundation for this study and cuts across multi-disciplines such as history, politics, law, public administration, policy, and development administration. The social contract theory pertains to how people in a state need to relate for cooperating existence under a democratic civil government, which is referred to as a contractual society (Duignan & Cranston, 2018; Elahi, 2005; Editors of Encyclopedia Britannica, n.d.; Sorell, 2018). Hobbes theorized on the voluntary or willingness of people in a society to cooperate to secure their invested rights and regulate welfare mutually (Editors of Encyclopedia Britannica, n.d.).

Relating guns law to institutional theory, regulatory public policy on a firearm is needed to safeguard society and reduce the frequency of violent crime rates in California. There are types of models that involve substantive, regulatory, and constituent public policies that work in collaboration to achieve government objectives in public policy models. However, the institutional model focused on the regulatory plan, which works for the government to reach the judicial goals, safety concerns, and welfare list of the state, was the focus of this study. The institutional structure on regulation is similar to Scott's work (1995, 2004), emphasizing the dominant level of resilience that the government or organizational social structure possesses to implement stability. The stability in the current study refers to the control of firearm violence in California.

Further, based on Hobbes's theory, the absence of civil obedience to the statutes would return the society to a state of nature (Elijah, 2005). Statutes may be viewed as the fundamental guiding principles in a state that includes orders, rules, laws, statutes, and public policies that protect the state. Expounding on Hobbes's argument, anything shortchanging these would make human nature be perceived or portrayed as being in a state of war (Zagorin, 2007). That is consistent with the argument that society or a state without rules and legal establishments to govern the activities of the members would be fearful to live in (Verschoor, 2018). In other words, a society in California without the legitimacy and public policy to address the activities with firearms that leads to violent crime increase would be a safety concern.

Using the theoretical foundation, I investigated the impact of GVRO firearm restriction on violent crimes in California, looking into the violent crime cases since the bill became law on the offenses of the GVROs. These categorized orders (EGV, TGV, & OGV) are the most reported offenses and are the most outstanding violations described by (California Courts, 2018). The offenses are perceived to be associated with firearms crimes reported by family and law enforcement to understand the contributions of the GVROs in reducing violent crimes.

The presumption was that weak public policy on firearms regulations; slow public reporting of suspects, and lower restriction policy on guns results in gun violence, culminating in the demand for policy change. Thus, I investigated whether GVRO policy restriction facilitated or undermined the impacts of reducing violent crimes in California. In the subsequent section, I focus on the key concepts and the variables in the literature.



### **Literature Review Related to Key Variables and Concepts**

The literature related to the essential variables on GVRO, firearms discussion, and the restriction policies to reduce California's violent crimes are significant for discussion. For any government to improve its performances in the private sector, public, or civic life, it most likely depends on the leadership's meaningful actions with recognition of collaboration, participation, and cooperation of the people (Nweke, 2018). The institutional or organizational leadership structures are no exception to attain quality stability in California on the use of firearms to address the increasing gun-related violent crimes. It means that the Californian public must be actively involved in securing the state from the occurrences of violent crimes. However, effective leadership needs to engage the public (Nweke, 2018).

Therefore, compliance with the firearm restriction laws in California involves the prompt and adequate public reporting to the law enforcement agencies on incidents of violent gun crimes. That includes reporting intimate partner violence and those observed to commit violent crimes and own a gun (Harris, 2016; Novisky & Peralta, 2015; Wintemute et al., 2016). The public engagement can improve the effectiveness and efficiency required in the implementation of public policy restrictions on firearms. In that, prevention and reduction of violent crimes in California can be evident.

### **Right to Bear Arms and Gun Debate**

Even though a clause in the U.S. Constitution gave citizens the right to bear arms was established in the Second Amendment, there have been debates over why would there be the infringement on their rights to bear arms (ProCon, 2016). The U.S. Congress

passed the legislation to bear arms on September 25, 1789, and ratified the guarantee on December 15, 1791, which explained that a well-monitored militia, being essential to secure and protect a free state, means the people have the liberty to own and bear arms—a right that shall never be infringed (Lund & Winkler, 2016). This amendment remains one of the bases of the gun control dichotomy.

The Bill of Rights gives citizens the power for protection and the right to safeguard and secure oneself against any militia, invasion, or intrusion at his or her residence (The U.S. National Archives & Records Administration, n.d.a; U.S. Senate, n.d). The U.S. Constitution also stipulated the functions of every arm of government that left the Congress and the Senate with the enactment of laws (U.S. Constitution, n.d; U.S. Senate, 1994). Therefore, this constitutional backing, cultural notions, and other points are some of the core claims on gun control by pro-gun groups (Lemieux, 2014; ProCon, 2016).

At the peak of gun violence arguments, the pro-gun groups attributed gun usage to a cultural phenomenon (Lemieux, 2014), ascribed to the founding fathers that drafted the U.S. Constitution (Harpine, 2016). The pro-gun groups argued that the suggestion for gun law review is an indirect form of denying citizens their constitutional right for self-protection against militias (Harpine, 2016). However, researchers have indicated that pro-gun control advocates have misattributed or made up quotations from the founding fathers used to support gun usage (Harpine, 2016). Instead, the right to keep, own, or bear arms is as the last option to protect them against a tyrannical government (Harpine, 2016). Further, Greer argued whether the power rhetoric on gun control between the pro-

life and the guidance of the cultural tradition has any valid evidence to support the claims on the opinions (Greer, 2013, as cited in Harpine, 2016). But these incorrect attributions were designed by pro-gun enthusiasts to divert the gun debate's real deliberation (Harpine, 2016).

Similarly, scholars have accounted for the gun violence incidents that occurred at the Sandy Hook Elementary School, which significantly highlighted the role played by the NRA (Hendrik, 2013; Zornick, 2014). Another study explained that gun enthusiasts had made conclusive suggestions to provide armed guards in schools to deter mass shootings (Zornick, 2014). That was objected to by the anti-gun groups on the ground that such proposals were observing to be fiscally expensive and another form of promoting the NRA's gun business interest (Zornick, 2014).

As the debate on the use of firearms in states raised more concerns among citizens on whether they would compromise their right to be armed or not prompted analyst Shropshire in 2012 to survey the intensifying gun review discussions (Esposito & Finley, 2014). The Gallup poll showed that 74 % of Americans opposed any legislative proposal that would compromise their rights to own guns (Esposito & Finley, 2014). The high percentage indicated the difficulty of reaching a compromise to dialogue on gun law debate in America. However, (Esposito & Finley, 2014) indicated that gun dealers made significant sales, especially for AR-15s, which Adam Lanza used in the December 2012 Sandy Hook Elementary school mass shooting that reinvigorated debates on gun control in America. Therefore, citizens chose to obtain their firearm at the peak of the gun debate due to the speculation of an intending executive order to ban certain weapons.

## **Public Policy and Gun Debate**

Many researchers have written on the efforts of President Obama's administration in response to gun review following the repeated mass shootings in the United States (Blau et al., 2016; Schildkraut & Henandez, 2014; Walsh, 2013). Expanding on the attempts of the Obama administration to repeal gun laws, a study addressed the efforts of former Vice President Joe Biden as a Washington insider with the capacity to bargain with gun debate stakeholders after the Newton Connecticut mass shooting (Walsh, 2013).

However, a survey in 2013 indicated that as a result of lack of compromise, bi-partisan policy, or absence to reach to a consensus, many bills introduced for the gun law review could not pass the first reading at the initial stage in Congress (Schildkraut & Henandez, 2014). Only a few bills were passed into laws in reaction to the effects of mass shootings complaints in the United States (Schildkraut & Henandez, 2014).

Part of the debate on policy for gun control relates to mental health. People have heard that the impact of gun violence from the media is over-emphasized and, most times, misattributed to mental health. For example, Swanson et al. (2015) researched epidemiologic policy on the challenges of mental illness and the reduction of gun violence problems and suicide, suggesting that those with severe mental illness are never as violent as suggested but do have a high propensity of suicide that has accounted for half of the U.S. firearms-related cases. From another perspective, 50% of the accounted gun problems would be somewhat substantial to combat if a comparison is made with other endemic diseases.

Additionally, Florida 2014 gun laws drew significant attention over psychiatrists being forbidden from asking patients routine questions like whether they possessed firearms in the home (Candilis et al., 2015). The aim was to protect patients' privacy and maintain professional obligations, so the doctor must obtain patients' informed consent to answer those questions (Candilis et al., 2015). The different policies of both epidemiological and informed consent have posed a limitation of effecting restrictions like the APPS and the GVRs, which called for policy solutions on the concealed carry bans in the U.S. schools (Arrigo & Acheson, 2016).

Despite the debate around mental health, mass shootings and gun violence in the United States have led to public concerns and morality questions on the solutions to the firearms problems, increasing the demand for a legislative review of gun laws (Sanburn et al., 2015). But the rhetoric of gun rights and the logic on the gun dichotomy results in the absence of legislative progress on gun control legislation, which benefits a few interlocutors and some gun lobby groups (Duerringer & Justus, 2016). Research has suggested that Neoliberalists ideology played a significant role in the market system from the 1980s, promoting customs, values, and behaviors that are central to the American pro-gun politics (Esposito & Finley, 2014). Thus, designing actions toward gun control against any Neoliberalists' ideology that corrodes Americans' social bonding is paramount (Esposito & Finley, 2014). The implication is that intervention in the impact of the focused gun law programming could effect changes (Ridgeway et al., 2011).

## **Gun Regulation**

It is uncertain about the number of weapons in America and whether additional gun regulation could subside the violent gun crimes in the society, as approximately 300 million guns are in circulation in the United States (Esposito & Finley, 2014; ProCon, 2016). In California, there was a recorded approximate of 33,081,513 guns for a population of 37,253,956 (Brandon, 2016). This report was based on the 2007 small arms survey on guns and the city published by a research group in Switzerland (Brandon, 2016).

Further, a study observed that the United States recorded approximately 270,000,000 guns, which is the highest total per capita figure in the globe, with 22% population owning one or more guns (ProCon, 2016). The research further maintained that 35% of males and 12% of females owned firearms due to a long-time gun culture from U.S. colonial history supported by arguments regarding the second amendment (ProCon, 2016). Therefore, proper control techniques are required from a holistic perspective to address the undiminishing number of firearms (Esposito & Finley, 2014). However, others have argued for control techniques consistent with the safely kept weapon explanations for the prompt reporting of a suspected person at high risk to possess a weapon (see California Courts, 2018; Harris, 2016).

Following the problems associated with gun regulation controversy, 85% of Americans have also supported a background check for everyone to purchase a firearm (Sanburn et al., 2015). However, a bill to that effect failed in Congress, which suggested future aggressive efforts to regulate firearm sales. But 12 states have enacted laws to

expand on the background check policy, and five states have tightened the restriction policy on assault weapons (Sanburn et al., 2015). Moreover, citizens concerned about the dangers of guns have resorted to relocating to different states with controlled gun laws (Sanburn et al., 2015). Since 2013, approximately 50% population of Americans have chosen to reside in a state that strengthened gun policies, while other states would go to the ballot poll on gun laws (Sanburn et al., 2015). For instance, veterans like to live in states without handgun policies than in the states with gun regulations due to their choice to stay armed (Anestis & Capron, 2016).

However, the pros and cons arguments on gun controversy to repeal the gun laws, (ProCon, 2016) underscored that those against the idea of policy regulations (Pro-gun group) objected to it on the basis that the Second Amendment protects the individual rights to own and bear arms. The author further observed that the policy served against intrusion and invasion (ProCon, 2016). Noting that gun scared and deterred criminals and served for self-defense. Nevertheless, the anti-gun group claimed that regulation controls gun violence in states (ProCon, 2016).

In addition to those postulations, the recent past mass murders in California and Las Vegas, Nevada in October 2017, Florida 2018, and Pittsburgh October 2018 are possible instances supporting the claim on the perils of a gun. Studies uncovered that shots and mass shootings in America remain a hot topic, and it sprang up during the 2016 U.S presidential election mostly between the two major political parties (Elliot, 2016; Fox & DeLateur, 2014; Milligan, 2012).

After the Oregon State shots fire, then the Democratic presidential candidate, Hillary R. Clinton, stated that if elected the president, she would utilize the executive power to close gun loopholes that avoid background checks (Elliot, 2016). Some analysts, however, observed such a statement as a political shift on gun laws by Democrats rather than seeing the five controversial ideas in stopping the mass shootings, as the shooter wants to gain notoriety, not fame - infamous by their attempts to achieve that by other means (Elliot, 2016; Fox & DeLateur, 2014). The scholars advised that the media should not name the attacker (Elliot, 2016; Fox & DeLateur, 2014), as that would positively deny attackers the infamy that they craved could be removed.

Due to the contemporary phenomenon on incidents of guns in America, (Elliot, 2016) argued that in the 2016 peak of the presidential election, while the Democrats were leaning in on gun law debate, the Republicans talked compromise. The author noted that such manifested on the dilemma and imbalance Ellen Bryan faced by supporting Senator Kelly Ayotte of New Hampshire (Elliot, 2016). That Sen. Ayotte voted against gun control after the 2012 mass shooting against her Democratic challenger, Governor Maggie Hassan, who has twice vetoed the measures that permitted unlicensed concealed carry in the State of New Hampshire with the motto - Live free or die (Elliot, 2016).

On the contemporary issues with firearms and its complex nature in America as a whole and California to be specific has been the central focus of the study. The controversial gun debate appeared to link to Karl Marx 1818-1883 theory on the relationship with the base (substructure) and the superstructure concerning the means of production. If one juxtaposes the issues of firearm violence with the effects of the U.S.



Patriot Act after the 9/11 attacks, that solidly helps protect the nation, gun law review or a conceptualized stricter firearm regulation (APOF) would be deemed proper — thereby bridging the discrepancy among the groups. Against the Democrats, that staged a rare but very significant sit-in protest for guns (Phillips, 2016) on the legislative floor.

Furthermore, Elliot uncovered that the 64 years Bryan does not fan for a gun, and despite that Gov. Hassan vetoes; her approval rating did not tank with the Republicans controlling the state legislature that could not override her vetoes. The author emphasized that Hassan was slightly leading Senator Ayotte in the polls that cheered Democrats intends to regain control of the white house with the target to win four senatorial seats in the U.S legislature (Elliot, 2016).

Likewise, Zornick (2014) analysis on a lawmaker, Elizabeth Esty, faced challenges with her re-election campaign after the mass shooting at Sandy Hook that occurred in her district, while she was away at Harvard's Kennedy School of Government in Massachusetts. Zornick revealed that the lawmaker was undergoing training on the use of social media in Boston, Massachusetts, by the time a staffer of the school tipped her about the ugly incident that made Esty leave for Newton immediately in tears. The author maintained that the incident and Esty's defense of Cheshire murder contributed to the vetoed capital punishment by Gov. M. Jodi Rell (R) that made Esty lose her seat by two points.

Zornick (2014) noted that based on the Sandy Hook massacre, the lawmaker became a firm supporter of stricter gun laws in Congress. That made her the vice-chair of the Congressional Gun Violence Prevention Task Force. Again, the pushing on the gun

lobby to effect changes in the law review increased. Elliot (2016) further discussed that Democrats like Gabby Giffords and her husband, Mark Kelly of the group from Americans for Responsible Solutions, including Michael Bloomberg, the New York City former Mayor, was among the super political action committees had involved funds for the gun lobby.

That notwithstanding, the events that took the lives of students and those in the movie theater, Milligan (2012) accounted that the Colorado movie theater rampage could not move the policymakers to look device a rethink on the gun violence. Instead, the shooting of a constituent member in the head at shopping plaza could not affect a rethink, and that what shocked Congress were the 20 small gaskets of the school children in Newton, Connecticut.

Adding that the small number of the legislative members of both the GOP and the Democrats had a rethink to address gun control (Milligan, 2012) as the violence has killed many Americans. That event made the former President, B. H. Obama, reassure the people (Milligan, 2012) that he would use his right office to push for gun control even though it would be tough and that he would try his best.

Thus, to narrow down on the State of California as the research focus, Milligan (2012) further noted that other Democrats like Senator Dianne Feinstein of California and two West Virginia Democratic Senators, Joe Manchin, and Mark Warner favored gun control. The writer explained that two Senators, Lindsey Graham of South Carolina and John McCain (R) of Arizona, objected to the view with varied opinions as Milligan detailed in the wake-up calls on guns.

At the zenith of the gun debate before the 2016 election, Lemieux (2014) tested gun culture and firearm statutes on gun violence and mass shootings in America, utilizing a multi-level quantitative analysis to test for two propositions. One proposition was the gun enthusiast perspective, which views gun violence and mass shootings as cultural artifacts.

However, the other perspective was (Legislative) that gun violence and mass shootings are more predominant as a result of lax regulations (Lemieux, 2014). In the investigation, the study applied three cross-sectional approaches to evaluate the relations between the variables of gun culture and gun laws on deaths and mass shootings caused by guns, which recorded both foreign and domestic incidents in the U.S (Lemieux, 2014).

The research found that both the two variables' cultural and legislative propositions have significant impacts on guns (Lemieux, 2014). The cultural result seems to have increasing impacts on deaths by guns compared to the legislative perspective that has a significant decrease in gun violence and mass shootings (Lemieux, 2014).

That finding by implications, therefore, called for further research to address firearms policy to control violent gun crimes. Besides (Lemieux, 2014), as underscored, I hold that most of the incidences of gun violence are attributed to the non-strict restrictions on the application of firearms laws to impact the profound reduction in violent crimes commissioned with guns.

The concerned question that begged for a hard answer is that if the Lemieux study found a correlation between the variables and has worked in national and transnationals' like Canada and Australia, why not replicate the policy of firearms regulations in

California and perhaps in the U.S? I argued that policy regulation perhaps would counterbalance U.S cultural gun violence. A critical assessment of the (Lemieux, 2014) study on the gun as a cultural artifacts perspective not only in the U.S events but including the North American - Canadian gun usage by boys supports the claim that gun use is a cultural phenomenon.

In another related study on the cultural issues, Brown (2012) researched English Canada about every boy should learn how to shoot and obey orders admitted that boys and young peoples' use of weapons apprehended social problems. Contrast to the masculine virtue asserted to firearms inculcation to boys supported by businesses producing cheap mass gun products. Brown argued that such involves accidental gun discharge-shootings, young boys' militarization, and destructive environmental degradations.

In their naturalistic quasi-experimental multivariate-pooled time-series research, La Valle and Glover's (2011) study also found that the right to carry a licensed gun in Canada increases the rate of homicides than shall carry right law. Similar to the logic of regulated policy on gun laws, (Langmann, 2012; Candilis et al., 2015); studies subscribe to the assertion of policy regulation on firearms to reduce violent crimes. Part of the argument culminated in the researchers' (La Valle & Glover, 2011) integral development on firearm research. In that regulated legislation reduces the prognosis and propensity of gun violence, homicides, and deaths linked to guns.

Compared to the practices in Australia, Britain, Canada, and European countries, gun laws regulating gun violence and its associated crimes decrease gun violence

(Langmann, 2012; Klieve et al., 2009). Laws controlling firearms in most states that applied policy regulations indicated a more explicit significant reduction in the rate of suicides experienced after the policy reformation.

According to Klieve et al. (2009) research the Australians' control of firearms use since the 1996 National Firearms Agreement. The scholars noted that gun law repealed experienced a decreasing rate of suicides among the males in Australia before the 1997 National Firearms Agreement initiation. The Klieve et al. research utilized the regression approach to examine data obtained from the Queensland suicide registry between 1968-2004 and other resources from official government sources.

In addition to the restrictive studies on firearms, I inferred that prohibition and core restriction of illegal gun acquisition, reporting psychological, and mental health challenged patients who own a firearm to the law enforcement, would limit gun possession problems. Moreover, it will as well close the loopholes for criminals to acquire illegal guns. These facts would significantly reduce gun crimes than increasing the rates of associated gun violent crimes and mass shootings in California.

Again, training more mental health professionals as (Slovak & Brewer, 2010) noted would make a significant percentage difference in reducing suicide and firearms problems. That consists of the views of (Williamson et al., 2014), who noted that despite gun storage and other precautionary measures maintained, the authors argued that health and mental health care practitioners should endeavor to educate families in pediatric forms in preventing youths' gun violence.

Compare those explanations on firearms restrictions with Gagne et al. (2010) analysis that examined the effect of significant changes in firearms regulation enacted in 1991 in Quebec to ascertain whether the strict law influenced the rate of firearms and total suicide rates among men within the specified age. The result found that since 1996, the male suicide rates declined under the introduction of Bill C-17. Gagne et al. posit that men between the ages of 15-34 had two times greater pace of decline at 11.1% than those between the ages of 35-64 at 5.6%.

However, by implication, the research failed to discuss the population surveyed rather than the percentage of the Annual Percentage Change - APC of the men (Gagne et al., 2010). Besides, the study did not include women, and subsequently, there was no casual relationship observed in the research due to the method used that called for further studies (see Gagne et al., 2010). Though the authors used the Joint point theories to assess the rates of suicides before and after the implementation of Bill C-17, for that implication does it mean that women are not involved in firearms violent crimes could call for more empirical observations.

In Canada, the national firearm control initiative was enacted in 1991 to assess whether strengthening regulation would influence the rates of firearms suicides or a shift to other methods that could affect significant change. Gagne et al. (2010) assessed the variation in the total suicide rates on pre and post-test of the firearms regulations. Bill C-17 used an interrupted time-series technique known for evaluating intervention studies.

However, the study suggested that regulation contributed neither downward firearms suicides rates nor an upward reduction in the whole trend in firearm suicides

(Gagne et al., 2010). Thus, the research failed to critically recognize that compliance with the regulation policy would not be immediate as the implementation could be gradual or applied by a piece-meal approach- (Incrementalism).

Having observed that there are limited resources that treated firearms violence and violent crimes in the State of California called for this research investigation, as I have previously noted. Meanwhile, a significant study was concerned about the effects of arms prohibition that Wintemute et al. (2016) evaluated the effects of APPS in Californian communities. According to Wintemute et al. (2016), the survey's essence was to ascertain the APPS program's significant effect on preventing and reducing the rate of domestic violence restraining order on the eligible population 1041 out of the estimated 20,000 individuals.

The research utilized a clustered randomized trial of subsets of two groups in the regions with the help of the DOJ before and after the APPS (Wintemute et al., 2016). That accounted for the unique effect of recovering firearms from persons prohibited from owning guns in reducing the risk of gun violence (Wintemute et al., 2016).

However, the evaluation of the law for intervention implementation based on published records showed inconclusively. The authors underscored that the enforcement of the domestic violence restraining orders is active and is likely to be generalizable without the challenges imposed on the APPS randomization (Wintemute et al., 2016). Hence it effectively reduces and spare persons of self-injuries, lower the cost of health care, the criminal justice system, and substantial cost that would have been incurred with the enforcement of the domestic violence restraining order (Wintemute et al., 2016).

On the other hand, a critical assessment of the study could vindicate those posits that sufficient and adequate regulations, including prompt reporting of at high-risk suspects to the law enforcement agents, might significantly support combating firearms violent crimes in California. In the 2015 Journal of psychiatric research, two scholars from the University of Southern Mississippi researched whether the association exists between state veteran population rates (per 100,000), handgun legislation, and statewide suicide rates in the U.S. More resource data relevant to the study indicates that many state laws regulate handguns ownership, which links to lower suicide (Anestis & Capron, 2016).

Anestis and Capron (2016) noted that indexes on the veteran population rates in the U.S statewide per 100,000 predicted the overall lower suicide rates, firearm suicide levels, and the degree of suicide by guns. While states with a high veteran population exhibit the suicide rate by firearms, supporting the claim that association exists between the veteran population and the total suicide rate in those states with a high veteran population.

Thus, the writers argued that states without the legislative policy on a handgun in place showed the higher propensity of veteran populations, which attracts the tendency for veterans to domicile in those states due to their fantasy method to stay or sleep with a loaded gun in the home (Anestis & Capron, 2016). In other words, that exacerbated the gun violence phenomenon (Anestis & Capron, 2016), which demonstrated that many states with firearms regulations on handgun ownership are frequently associated with the rate of suicide rates reductions.



That finding is consistent with another (see Anestis & Anestis, 2015) that studied states' suicide rates and the laws regulating the access and exposure to handguns impacts on four handgun laws:

1. The waiting periods,
2. The universal background checks,
3. Gunlock protections, and
4. The open carry policy.

The two authors used statewide laws from public data to examine suicide rates, and the demographic features, which found that each law has a significant association in the proportion of lowering firearm suicide rates (Anestis & Anestis, 2015). Besides the waiting period that links with a reduced overall suicide rate by firearms, it attributes to fewer suicide attempts, smaller handguns in the house, attempted suicide by less-lethal force, and perhaps a combination of these factors (Anestis & Anestis, 2015).

That means states that affected these regulation policies experienced a decreased suicide rate in the following years as against those that repealed one of the laws observed the increase in the suicide rate. However, it is paramount to see another study that noted that women who are non-compliant to report their intimate partner's violence could fear losing child custody and the mandatory arrest of their partners. They are more likely to experience higher domestic violence than women who report their men for police intervention (Novisky & Peralta, 2015).

In other words, women with low propensity to report their intimate partners to the police or law enforcement agents. Out of the fear of arrest and loss of child custody, they

tend to encounter more domestic violence challenges than their counterparts that report their partners to the police for domestic abuse solutions (Novisky & Peralta, 2015).

It compared the above emphases with (Ranapurwala et al., 2016), longitudinal research on the essence of reporting crime victimizations, and the future incidence to the law enforcement officers. Could militate the occurrences of more crimes. Vis-à-vis connects those with the quantitative criminal study by (Sutton et al., 2011) that measured the reliability and validity of prisoner self-reports, which utilized the life event calendar approach.

Those claimed premises align with the Novisky and Peralta (2015) research that surveyed a large population of women protected in domestic violence shelters. For victims of intimate partner violence to understand the factors related to police notification for assistance. The authors' utilization of a logistic regression analysis on three perceptions of intimate partner violence report:

1. Mandatory arrest laws in the state,
2. The Intimate Partners Violence perpetrator use of a substance, and
3. In the home with children present are found linked to the decisions that called for police intervention.

Nevertheless, the scholars hold that the offender's use of substances significantly increased police notification probability (Novisky & Peralta, 2015). That victim (the abused) support for the mandatory arrest policies increases for those in support of the compulsory arrest policies. Nonetheless, it decreased by those against the laws to report their partner, which reduces the intimate partner violence. That is also, as such, increases

the odd of law enforcement notification or tip of the abuse (Novisky & Peralta, 2015). The authors added that women victims refused to report their victimization. These arise for women's fear of loss of child custody, disruption in marriage, and disunity (Novisky & Peralta, 2015).

Based on those premises and facts in the related literature, I deem it relevant to research firearm restriction (i.e., GVROs) and its impact on reducing violent crimes in California. That explained that I found it significant to address the summary and conclusions of the related literature reviewed in the upcoming section.

### **Summary and Conclusions**

The literature review indicated that empirical studies have concentrated on gun violence, firearms rules, little research has been done on GVROs, and limited resources on violent crimes. More studies have underscored that public policy on guns significantly reduces violent offenses (Anestis & Anestis, 2015; Lemieux, 2014). Most of the literature utilized different theoretical frameworks and methodology - mostly qualitative approaches to studying the phenomenon rather than the quantitative approach (see Esposito & Finley, 2014). This investigation measured the GVROs in California to ascertain whether the presumption that stricter policy restrictions on firearms facilitated or undermined the reduction of violent crimes since the GVRO order enactment.

The investigation had chosen similar nexus quantitatively using the institutional theory and the social contract theory. The expected crime reduction to ensure institutional stability, organizational resilience, and threatens the peaceful co-existence if there were a lack of healthy and robust public policy to restrict the loophole of firearm operations

(gap) that endanger lives (Scott, 2008). Inadequate public policy might throw the state into the old status quo – the state of nature without the inhabitants’ cooperative existence that social contract theory posited – one of the theoretical foundations of this study (see Elahi, 2005). Chapter three discussed the research design and the rationale for the chosen methodological approach, which explained firearms restrictions (i.e., GVROs) and their impact on reducing violent crimes in California, unlike previous studies (articles) concentrating on gun violence.

## Chapter 3: Research Methodology

### **Introduction**

For this quantitative study, the purpose was to determine the impact of GVROs on violent crimes in California. This chapter consists of the non-experimental research design (see Frankfort-Nachmias & Leon-Guerrero, 2015) and a discussion of a rationale for chosen the research approach. In the subsequent sections are the discussions of the estimated California population, and the method of data collection, which also has the explanations of the research construction and its operationalization. The ending parts of the chapter highlight how the data were analyzed. The chapter also addresses the test of research validity paramount in any study for replication and reliability (see Frankfort-Nachmias & Leon-Guerrero, 2015). This investigation endeavored to comply with the ethical research standard, as narrated in the ethical procedures section (see Walden University, 2010). Chapter 3 concludes with a summary of all the chapter sections.

### **Research Design and Rationale**

This study engaged three statistical tools, namely the independent sample *t*-test, a one-way ANOVA, and a simple linear regression analysis of data that targeted statewide Californian larger populations reported by the California DOJ on GVRO crimes (California Courts, 2018). The GVRO dataset from the Research Center of the California DOJ on firearms restriction order is the prime source from which I developed the research variables. Though there were resource constraints and limitations that arose by the agency restriction to release the dataset, the institution is a reputable government agency that documented violent crime incidents. Going by the available GVRO dataset

on California, I analyzed the 2016-2019 movement's changes in the GVRO violent crime orders. The GVRO was a secondary source of data, so I employed a non-experimental research design (quasi-experimental) to conduct the analysis (see California Courts, 2018; Wagner, 2017). This research relied more on the mentioned statistical tools to analyze the research variables for interpretation understanding and observations, figuring out the significant interactions to ensure that the conclusions demonstrate generalization (see Wagner, 2017). The engagements of the three tools were imperative for the study. Because the datasets were reported in years (2016-2019) to understand the changes in the GVRO impacts on violent crimes (see California Courts, 2018; Minitab, 2011; Wagner, 2017).

Some researchers in statistics have explained how to calculate a one-sample *t*-test or two tests and the one-way ANOVA model for essential robustness in research analysis (see Boos & Hughes-Oliver, 2000; Bradley, 1980; Rhiel & Chaffin, 1996). They assert that the minimum sample size of the data is three (see Boos & Hughes-Oliver, 2000; Bradley, 1980; Rhiel & Chaffin, 1996). That supports the claim that the GVRO sample size and the techniques engaged in analyzing this study met the requirement for the measurement.

The study employed the variable years of the reported GVRO and the group variables of family and law enforcement, active and inactive given orders (cases) in the categories of EGV, TGV, and OGV (see California Courts, 2018; Minitab, 2011; Wagner, 2017). In other words, the year is the independent variable, and GVRO (family

and law enforcement) are the dependent variables (see California Court, 2018; Criminal Law, 2019; Minitab, 2011). In the group statistics, GVRO has active and inactive orders.

The essence of selecting the quantitative research methodology and the statistical tools was for robust research identification (see Boos & Hughes-Oliver, 2000; Bradley, 1980; California Courts, 2018; Rhiel & Chaffin, 1996; Wagner, 2017). These methods ensured research alignment upon the complexity of the focused phenomenon. Thus, the research supports the readers' understanding of whether there is any significant difference in the change in violent gun crimes and order types since the introduction of the GVROs in California.

### **Methodology: The Quantitative Research Model**

To conduct an empirical study requires developing the method that supports answering the research questions. Research design focuses the study in the form of a research blueprint (Walden University, 2010). It entails an indication of the methodology, and the research design utilized stabilizes the alignment of all the sections.

A critical review of the problems of violent crime rates in California and the lack of quantitative studies in the literature inspired me to use the quantitative method. The independent-sample *t*-test, one-way ANOVA, and the simple linear regression model supported the application of technical details (see California Courts, 2018; Wagner, 2017) in looking at the changes in the large numbers dealing with violent crimes in California. The descriptive explanation of the data helped in understanding the relevant characteristics, summary, or distribution of the research variables. The approach ensured

a clearer understanding of GVRO regulation's impact on reducing the problems of violent gun crimes.

The datasets were input into the IBM-SPSS and Minitab software (see Wagner, 2017). The procedure includes running descriptive statistics to understand the SPSS output on the variables (see Wagner, 2017). It involves analyzing the mean, which is the average of every group. The square root of the sample variance (standard deviation) and the standard error is the standard deviation (*SD*) divided by the square root (*SR*) of the sample size. I set the confidence interval level at the range of 95%, and the *p*-value at 0.05. Other relevant boxes were checked accordingly for running the line and graph plots to interpret the research findings (see Wagner, 2017). The following section addresses the targeted larger California population for the study.

### **Population**

The population of California is estimated at 39,250,017 million (FBI, 2016). The violent crime rate report is as per 100,000 inhabitants among the state counties that recorded the rates of violent crime incidents. This Californian population estimate used the population growth from 2010 to the 2014 U.S. Census Bureau Statistics, which recognizes the state's average population growth rate for the agency to arrive at the 2015 population estimate. Additionally, the units of analysis were as metropolitan cities, outside the metropolitan cities, and non-metropolitan cities, representing the counties in the state (FBI, 2016). One of the constraints on using secondary data is because of the validity of the data; however, due to the reputation of the reporting agency, I assumed that the dataset given was accurate. Further, the GVRO 2016-2019 dataset reported was



purposive sampling data, which represented the entire state counties and was publishable under the California Penal Code Section 18115.

The DOJ statistical dataset retrieved was measured as EGV, TGV, and OGV. These orders are related to violations of violent gun crime laws (see California Courts, 2018; Wagner, 2017). The GVRO statistical data is substantive enough for quantitative research analysis of changes in the variables of interest. Furthermore, this study outcome demonstrated the data's strong capacity to answer the research questions. That is consistent with the critical analyses of a quantitative model's features (Babbie, 2017; O'Sullivan et al., 2017).

### **The Research Questions Discussed**

The research questions formulated by the secondary data features were analyzed through the independent sample *t*-test, a one-way ANOVA, and the simple linear regression model. These questions supported the study to determine the impact of GVROs on violent crime reduction in California:

1. What is the impact on gun violence rates in the years following the GVROs in California for the active and inactive orders on EGV, OGV, and TGV?
2. To what extent has GVROs by law enforcement impacted gun violence rates in California following the initial years of the law?
3. Is there any significant impact of family GVROs on gun violence rates in California in the years after the order became effective?

4. Does the impact on gun violence rates in the years following GVROs in California for law enforcement active and inactive orders (EGV, OGV, and TGV) have an upward or downward movement?

### **Types and Sources of Data**

Two organizations were officially contacted by e-mail before they made provision of the datasets for this study. Therefore, relevant permission was granted to use the datasets. The primary dataset for this study was obtained from a reputable organization, the California DOJ. The Uniform Crime Report also captured the violent crime index in California. The Uniform Crime Report dataset is publicly available online, and the agency also supported the research by providing the web link to download the document in response to the request letter for research dataset information. However, the DOJ committee staff members officially facilitated data collection by holding a conference call when I explained the importance of their dataset to complete this study (see California Courts, 2018; Minitab, 2011). However, though GVROs came into law in 2014, the DOJ office was unable to provide datasets reported from 2014-2015. Instead, it provided the records of 2016-2019, as directed by the DOJ office manager. When questioned on the constraint on the missing years (2014-2015), the officials explained that they were restricted by the DOJ policy to release only datasets from the year 2016.

The record of the datasets came in two batches, 2016-2018 then 2019. The DOJ e-mailed me the 2019 dataset after February 2020, because according to the official, the department usually makes the GVRO yearly update available after the 9th of February. After that, the DOJ management approved the release of the record, and I got the 2019

GVRO dataset to continue the research (see California Courts, 2018; Minitab, 2011). Subsequent follow-up conversation calls, e-mail communications, and downloadable documents from the office also explained the dataset characteristics in its declaration section (see California Courts, 2018). At the beginning of the quest for statistical data, the Bureau of Firearms' coordinator was the initial contact for the research data. After that, she forwarded the e-mail to the appropriate DOJ Research Center official who supported retrieving the datasets on GVROs for the entire California population.

Although reporting violent crimes in the United States started before 1999, due to the complexity of this study, the analysis is based on the data from the most recent years (2016-2019) after California introduced GVROs in 2014. It was done for the proper understanding of the changes in violent crimes, ascertaining whether there is any significant impact of the GVROs on the California violent gun crime reduction. As stated, the dataset is on GVRO violent crime cases reported yearly statewide on every county over a specific period. These data were quantitatively measured and recorded by the California DOJ to maintain this study's statistical research data (see California Courts, 2018; Wagner, 2017).

### **The Variables and Measurement**

**Gun violence restraining orders.** In this study, a firearm restraining policy was referred to as a GVRO, limiting a person found incapable of owning or using a firearm as a result of the policy violation (California Courts, 2018). The policy of the GVROs ensures that unfit individuals receive the denial of access to acquire guns due to the perceived danger to harm self or others, mostly on mental health (Frattaroli et al., 2015).

The AB 1014 bill became an adequate policy in California in 2014 (Lopez, 2015) that empowers the police to retrieve arms bored by the violators of the bill. Pending the determination of the case, if the law clears the accused ok, then the person could regain the firearm (California Courts, 2018). The timeline for the analysis is the four years of impact movement estimation from 2016-2019. That focused on four years of movement of the GVROs after the law came into effect in California. Compare that emphasis to (Wintemute et al., 2016) analysis of the domestic violence restraining order on an individual found going contrary to the state APPS law. GVRO entails the provision of the law prohibiting one from acquiring a firearm mostly on mental health issues or a person perceived to have the probable cause to harm one and others (California Courts, 2018; Frattaroli et al., 2015).

**Emergency orders-21 day.** The emergency-21 day orders are the type of orders obtained under the California Penal Code 18125 that are publishable in the California Restraining and Protective Order System. The (DOJ, 2018, as cited in California Courts, 2018) discussed that California Restraining and Protective Order System is a link where restraining orders are stored, and it will be seen all over California by the law-enforcement officers noticing that there is a restraint order in place on an individual.

It further explained that the law-enforcement officers usually request every emergency-21 day order (California Courts, 2018). The study indicated that it was only the Sacramento County that has an order with a missing value due to the discrepancy in the relationship of the petitioner to the restraint person (California Courts, 2018).

**Temporary orders-21 day.** In 2018, in its GVRO research context, the California DOJ described that temporary orders are subject to change after the court hearing, which results in the change of the California Restraining and Protective Order System, reported case value (California Courts, 2018). This order is obtainable under PC 18150 (California Courts, 2018). Except for a case of the Trinity County that had a continual court hearing stemming from 2016.

**Orders after hearing-1 year.** The Penal Code 18170 is the basis upon which the GVRO OGV is obtaining too. This order applies after one year; the court determined the restraint petition. All counts in the dataset value rates on the highest level (California Courts, 2018).

**Law-enforcement filed orders.** The law enforcement group of cases entails the established number of given order types petitioned by law enforcement for a particular year (California Courts, 2018).

**The Family filed orders.** The (DOJ, 2018, as cited in California Courts, 2018) maintained that the family group cases are the number of GVRO orders of a given type in a county that was petitioned by a family member during the year.

### **Secondary Data: Gun Violence Restraining Order Impact on Violent Crimes**

In this quantitative study, I examined the dataset obtained to determine the impact of GVRO on violent crimes after the policy was institutionalized. The dataset sourced is a reliable statistical data established by a reputable government bureau—the California DOJ Research Center (see California Courts, 2018). That was extracted and inputted in the Minitab and SPSS. The IBM-SPSS procedure complied with the technical process of

running the independent sample *t*-test, the one-way ANOVA, and the simple linear regression analytical models (see Wagner, 2017; Warner, 2013; Minitab, 2011) to find out the output differences of the research variables.

In that, the study recognized (Patton, 2015) explanations on the importance of having quality sampling with excellent strategies for its selections and evaluations, especially when conducting qualitative studies. Below, the next section is a justification for the utilization of the planned data source for the survey.

### **Archival Data: The Data Sources Explained**

One of the baselines for the decision to engage in this research endeavor was the identified data sourced from a government agency on GVRO types of orders on violent crimes reported by the California DOJ. Where the State of California is the prime research focus. A significant dataset sourced from the California DOJ has been made available on the GVRO restriction policy (see California Courts, 2018). Perhaps a combination of the DOJ, the Bureau of Firearms, the FBI records, the California Courts Record, and the State of California DOJ databases are substantial data sources for the literature review.

Likewise, other resources supported building the literature review, including the National Crime Justice Reference Services, the U.S Bureau of Justice Statistics - BJS, and the CDC state statistical record (see CDC, 2016). Moreover, the National Crime Victimization Survey data statistics on violent crimes, in conjunction with the DOJ's research center data, helped immensely build the literature review on murder, aggravated assaults, and rape in California.

The California DOJ dataset specifically supported answering the hypothetical research questions, especially for the comprehensive understanding of the statistics tested in one single test using three different statistical models to back the survey while observed the changes (see Wagner, 2017). To examine the four years, GVRO orders whether the firearm restriction facilitated or undermined the impact on violent gun crimes in California. The next section below explained the second method of data collection derived from the State of California's institution of government.

### **Second Method of Data Collection**

One of the reasons for utilizing the second method of data collection from the California DOJ is based on the ground that the organizational resource is reliable and has an excellent reputation (see California Courts, 2018). The informational dataset has been analyzed and re-examined by experienced experts in the field. The agency dataset stands or assumed as an accurate resource dataset.

Walden University succinctly explained the need for choosing a reliable research method of data collection. For instance, the independent sample *t*-test, the one-way ANOVA, and the simple linear regression models stand in alignment to examine the record of GVRO type of orders on violent crimes reduction in California after the establishment of the GVROs (see California Courts, 2018; Ravitch & Carl, 2016; Warner, 2013). That supported the study to determine whether citizens comply with the regulatory laws (i.e., GVROs) or not, which examined the test of its significance, in other words, to understand the importance of GVROs on violent crimes reduction.

Picture display or the graphs of the study phenomenon conveys messages to the layman (Audience) to follow the research construction. The research revealed that in a proper investigation, one variable is constant and does not change or manipulate in the form of the independent variable (Babbie, 2017; Warner, 2013). On the other hand, I referred to the year in this survey as the independent variable. The dependent variables are GVRO and its types of orders: EGV, TGV, OGV, active, and inactive orders (cases; see Appendices A-M). That is not exactly as it is but changes due to the surveyor's independent variables, while the third research variable (as in other studies) is the control variable (Babbie, 2017; O'Sullivan et al., 2017; Warner, 2013). The next section discussed the analysis plan that aligned with other elements of the research.

### **Data Analysis Plan**

This study employed the independent sample *t*-test, a one-way ANOVA, and simple linear regression analysis. I applied all their technical skills that measured the variables in the (Y & X) axis to understand the nature of the phenomenon under investigation. I ran in the IBM-SPSS and Minitab statistical software by following the due steps (American Statistical Association, 2016; Minitab, 2011; Wagner, 2017).

The formula used to calculate the test statistics:  $t = \frac{\bar{d}}{\sqrt{s^2/n}}$ . Two Sample *t*-test:

$$t_{cal} = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}. \text{ One } t\text{-test: } t = \frac{\bar{x} - u_0}{s/\sqrt{n}}.$$

This research outcome has no manipulation. As (Onwuegbuzie et al., 2009) narrated in their studies, nor was the research moved contrary to the institutional review



board (IRB) guidelines. Instead, this dissertation construct was within the research guiding principles (American Statistical Association, 2016; Walden University, 2017). Proper academic stipulations, methodology, and research design, as enunciated above, were adhered to minimize threats and bias.

### **Threats to Validity**

In research, threats to validity could emerge from two angles, such as internal and external threats. McDavid et al. (as cited in Nweke, 2018) noted that internal threat to validity could lead to research bias and raised the questions of research reliability. The bias questions might not arise due to the pattern the variables are measured, the statistical measurement procedure, the statistical regression, and the outcome of the research construction is proper for this study (see Minitab, 2011; Wagner, 2017). However, the external threat to validity encompasses the constellation of the factors that warrant peer scholars to reject research results as accurate or worth generalizability.

In the other form, the evaluating researchers questioned the conclusion drawn from the study. A thorough researcher identifies those errors that could impede the reliability and generalizability of the conclusive results (Warner, 2013). This research is purely for academic research and might not face possible threats to validity based on the research construct and the applied statistical methods (see Boos & Hughes-Oliver, 2000; Bradley, 1980; Rhiel & Chaffin, 1996; Warner, 2013).

Thus, there was an insufficient definition of the GVRO variables in the data declaration by the Californian DOJ organization, where the dataset was retrieved. Unless such is properly defined and, therefore, subject to the author's ratifications as he

progressively sojourns the study more to a peer-reviewed article. Similarly, a firearm definition was not vivid or more lucid whether the listed violent crimes occur with a gun. Also, the agency at present is unclear on the GVRO temporary condition of some instances in a county during the data collation. For the avoidance of statistical errors, (McDavid et al., 2013, as cited in Nweke, 2018) maintained that both the independent and the dependent errors would be defined and differentiated in a dissertation. To ensure the avert of possible outliers of the multicollinearity (Frankfort-Nachmias et al., 2015). This study engages the descriptive statistics to correct any emerging errors. The upcoming section emphasized more on research ethics.

### **Ethical Procedures**

Improvement of the firearm policy and the empowerment of the people through active research to safeguard the state from the prevalence of violent crime is one of the premieres of this dissertation. Thus, the study captured the law enforcement agency's reports on GVRO violent crime types in California. Some values, as stated above, are computed, and it is subject to be updated (Changed) on pending cases as the reporting agency described in its data declaration section.

At the present stage of this constructive dissertation, there has not been any ethical violation encountered. By email, I obtained the dataset from the California DOJ, and the IRB has the proper information with copies of the research authorization letters and communications forwarded to the IRB. The research number by the IRB that approves this study is 01-21-20-0631822. The procedure for obtaining research data, which is a secondary source, was adequately followed. The IRB of the Walden

University was in communication with this research chairman, the committee members, and this scholarly research author.

The student author of this survey maintained the reassurance and commitment to the height of ethical research standard orders in protecting the research dataset retrieved from the California DOJ by putting encryption and a strong password to avoid any intrusion. The datasets obtained I ran in the IBM-SPSS software (Wagner, 2017) for the independent sample *t*-test, the one-way ANOVA, and the simple linear regression analyses. The preceding section highlighted the pertinent summary of chapter three.

### **Summary**

This chapter identified GVRO variables used to analyze the research. Although violent crime outcome was presumed despicable, violent firearm crime was assumed to have links to the research variables, like EGV, TGV, and OGV (California Courts, 2018).

The choice of the independent sample *t*-test, a one-way ANOVA, and the simple linear regression model are for the robust alignment of the study parts. I recognized that a quantitative study such as this fits the text of the three analytical tools already mentioned (Warner, 2013) to explain the research features. Likewise, the quantifiable population of 100,000 per inhabitants' index on California violent crimes reported by the law enforcement agencies in the Uniform Crime Report, as I have accessed in the previous study.

The GVRO dataset population is a purposive sampling data and is deemed quantitatively measurable. This dissertation-utilized dataset from the DOJ California I

processed in the Minitab and IBM-SPSS software (Minitab, 2011; Wagner, 2017) for the statistical data analysis to achieve the results.

At present, there are no ethical, procedural faults identified. Hence, I have made more commitments to protect ethical research standards at a higher height by keeping to the institutional review board forms of compliance with the procedures of obtaining secondary research data. However, the study has assumed no possible threats to validity tests, in which I have positioned the modalities to correct any potential questions on the threats to validity addressed in Chapter 4.

## Chapter 4: Results

### **Introduction**

This research investigation aimed to determine the impact of GVROs on violent crimes in California. In considering the existing policies to checkmate violent crimes, there are repeated cases of violent crimes, and most of the offenses are committed with firearms after the enactment of GVROs (see California Courts, 2018; FBI, 2015, 2016). Thus, I investigated whether GVROs impact facilitated or undermined the reduction of violent crimes in the State of California.

I developed four primary research questions that addressed the impact of GVROs (active and inactive EGV, OGV, and TGV) had on gun violence rates in California. The extent of this impact, whether family GVROs had a significant impact on gun violence rates in the years after the order became effective, and whether the impact of law enforcement GVROs (active and inactive EGV, OGV, and TGV) had upward or downward movement. I employed the mean and standard deviation in answering the research questions. ANOVA tested hypotheses 2 and 3, Hypothesis 4 was tested with simple linear regression, and Hypothesis 1 was tested with an independent-sample *t*-test (see Minitab, 2011; Wagner, 2017).

In this chapter 4, the results are presented in tables and figures. The next section discusses the results. The chapter concludes with a concise summary after the result analysis.

## Results

Dataset for the 4 years of GVROs by the California DOJ took about a year to receive because of the yearly data report on GVROs by the DOJ organization. I used this data to examine firearm restriction and its impact in reducing violent crimes in California. The mean and standard deviation were deployed in answering the research questions, whereas the Hypothesis 1 was tested with an independent sample *t*-test. An ANOVA was engaged to test Hypotheses 2 and 3. I deployed a simple linear regression model for Hypothesis 4, which is consistent with the analytical techniques to run the models (see Minitab, 2011; Wagner, 2017). These models were the best techniques to tackle the research problems quantitatively based on the available dataset obtained from the California DOJ Research Center Office (see California Courts, 2018; see also Bradley, 1980; Boos & Hughes-Oliver, 2000; Rhiel & Chaffin, 1996).

### **Model 1: Independent Sample *T* Test for the Types of Orders**

Research Question 1: What is the impact on gun violence rates in the years following the GVROs in California for active and inactive on EGV, OGV, and TGV?

$H_0$ 1: There is no significant impact on gun violence rates in the years following the GVROs in California for the active and inactive EGV, OGV, and TGV.

$H_1$ 1: There is a significant impact on gun violence rates in the years following the GVROs in California for the active and inactive EGV, OGV, and TGV.

For the overall EGV type, inactive EGV had higher values ( $M = 6.68$ ,  $SE = 1.10$ ) than active EGV ( $M = 0.05$ ,  $SE = 0.04$ ). The difference is statistically significant:  $t(188) = -6.00$ ,  $p = 0.00$ . For the OGV, active OGV had higher values ( $M = 7.08$ ,  $SE =$

2.66) than inactive OGV ( $M = 1.04$ ,  $SE = 0.3$ ). The difference is statistically significant:  $t(98) = 2.25$ ,  $p = 0.03$ . For the TGV, inactive TGV had higher values ( $M = 8.75$ ,  $SE = 3.31$ ) than active TGV ( $M = 0.53$ ,  $SE = 0.23$ ). The difference is statistically significant:  $t(144) = -2.48$ ,  $p = 0.01$  (see Minitab, 2011). See Tables 1 and 2 for the data.

Table 1

*Descriptive Analysis of Type of Orders in Years Following Gun Violence Restraining Order Initiation (N = 95)*

	GVRO Types of Order					
	Emergency Orders-21 Days		Orders After Hearing-1 Year		Temporary Orders-21 Days	
	Active Orders	Inactive Orders	Active Orders	Inactive Orders	Active Orders	Inactive Orders
	<b>N = 95</b>		<b>N=50</b>		<b>N=73</b>	
$\bar{X}$	0.05	6.68	7.08	1.04	0.53	8.75
SD	0.34	10.76	18.81	2.36	1.92	28.24
MD	<b>6.63</b>		<b>6.04</b>		<b>8.22</b>	

Note. N = Number of Orders,  $\bar{X}$  = Mean, SD = Standard Deviation, MD = Mean Difference.

Table 2

*Independent Sample T Test for Types of Orders*

Year	Description/Types of Orders	Active Orders	Inactive Orders	t-value	n	df	P
2016	Emergency-21 days	0.000 ± 0.000	2.750 ± 0.571	-4.819*	20	(38)	0.00
	Order After Hearing 1yr	0.000 ± 0.000	1.667 ± 0.422	-3.953*	6	(10)	0.00
	Temporary-21 days	0.083 ± 0.083	1.667 ± 0.355	-4.338*	12	(22)	0.00
2017	Emergency-21 days	0.000 ± 0.000	3.550 ± 0.776	-4.574*	20	(38)	0.00
	Order After Hearing 1yr	0.833 ± 0.167	0.500 ± 0.342	0.877	6	(10)	0.40
	Temporary-21 days	0.000 ± 0.000	1.923 ± 0.473	-4.064*	13	(24)	0.00
2018	Emergency-21 days	0.042 ± 0.042	5.333 ± 1.251	-4.229*	24	(46)	0.00
	Order After Hearing 1yr	7.182 ± 4.118	1.273 ± 0.915	1.401	11	(20)	0.18
	Temporary-21 days	1.000 ± 0.655	12.467 ± 7.504	-1.522	15	(28)	0.14
2019	Emergency-21 days	0.129 ± 0.101	12.290 ± 2.960	-4.107*	31	(60)	0.00
	Order After Hearing 1yr	10.000 ± 4.578	0.926 ± 0.486	1.971	27	(52)	0.05
	Temporary-21 days	0.697 ± 0.395	12.333 ± 6.435	-1.805	33	(64)	0.08
Overall	Emergency-21 days	0.053 ± 0.035	6.684 ± 1.104	-6.003*	95	(188)	0.00
	Order After Hearing 1yr	7.080 ± 2.661	1.040 ± 0.333	2.253*	50	(98)	0.03
	Temporary-21 days	0.534 ± 0.225	8.753 ± 3.306	-2.480*	73	(144)	0.01

Note. The mean difference is significant if \* t value,  $p < 0.05$ .

Based on the results, I rejected the null hypothesis. The overall mean is statistically significant, as the alpha value is  $p < .05$ . Thus, there is a significant impact



on gun violence rates in the years following the GVROs in California for the active and inactive EGV, OGV, and TGV. The impact of GVROs on gun violence rates creates a significant reduction in violent gun crimes in California. This study result supports the existing literature and the claims that regulation has a significant impact on reducing the level of violent gun crimes (see Esposito & Finley, 2014; Frattaroli, 2015; Gagne et al., 2010; Harris, 2016; Lemieux, 2014; Novisky & Peralta, 2015; Wintemute, 2015; Wintemute et al., 2016).

### **Model 2(A): One-Way Analysis of Variance for Law Enforcement Orders**

Research Question 2: To what extent has GVROs by law enforcement impacted gun violence rates in California following the initial years of the law?

$H_0$ : GVROs by law enforcement has not impacted gun violence rates in California following the initial years of the law.

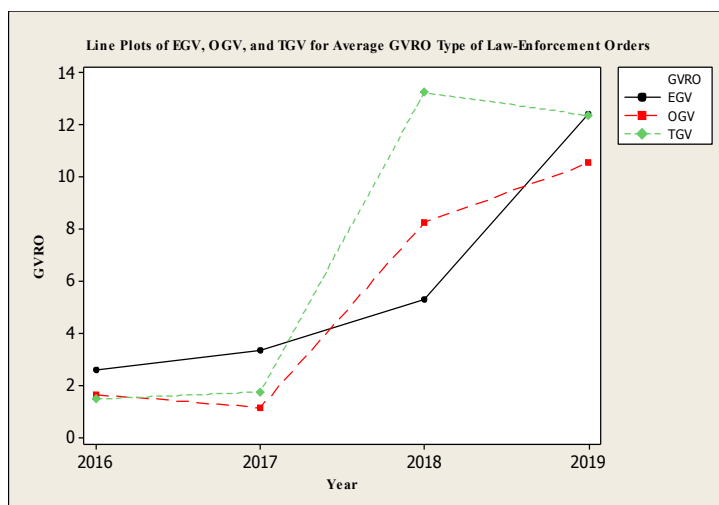
$H_1$ : GVROs by law enforcement has impacted gun violence rates in California following the initial years of the law.

I utilized an ANOVA to evaluate the null hypothesis that there is no extent difference in the GVROs by law enforcement impacted gun violence rates in California following the initial years of the law ( $N = 12$ ). The independent variables, GVRO types, include three groups: OGV was low ( $M = 5.42$ ,  $SD = 4.71$ ,  $n = 4$ ), EGV was moderate ( $M = 5.93$ ,  $SD = 4.48$ ,  $n = 4$ ), and TGV was high ( $M = 6.19$ ,  $SD = 4.86$ ,  $n = 4$ ).

The assumption of homogeneity of variance was tested and found tenable using Levene's test:  $F(2, 9) = 2.445$ ,  $p = .142$ . The ANOVA was not significant:  $F(2, 9) = .125$ ,  $p = .884$ . The evidence is not statistically significant, so the null hypothesis was not

rejected. However, the observed actual difference in the mean scores between groups remains small based on Cohen's (1988) conventions on how to interpret the effect size (see Cohen, as cited in Lakens, 2013; Cronk, 2012).

For the post hoc test to evaluate pairwise differences among the group means, the Tukey Honestly Significant Difference test shows equal variances were tenable. The observed difference in the mean scores of impact on gun violence reduction was not significant ( $p > .05$ ) between law enforcement orders with low, moderate, and high impact rates of reducing violent gun crimes. The difference was not significant ( $p > .05$ ) between the paired groups (EGV vs. OGV and TGV vs. EGV). Note that OGV was low, EGV was moderate, and TGV was high.



*Figure 1.* Line plots of the types of orders for average law enforcement following the years gun violence restraining order was initiated.

### **Model 2(B): One-Way Analysis of Variance for Family Orders**

Research Question 3: Is there any significant impact of family GVROs on gun violence rates in California in the years after the order became effective?

$H_03$ : There is no significant impact of family GVROs on gun violence rates in California in the years after the order became effective.

$H_13$ : There is a significant impact of family GVROs on gun violence rates in California in the years after the order became effective.

I engaged the same one-way ANOVA to evaluate the third null hypothesis that there would be no significant impact of the GVROs type of family on gun violence rates in California in the years after the order became effective ( $N = 12$ ). The independent variables, GVRO types, include three groups: OGV was low ( $M = .09$ ,  $SD = .09$ ,  $n = 4$ ), EGV was moderate ( $M = .18$ ,  $SD = .15$ ,  $n = 4$ ), and TGV was high ( $M = .31$ ,  $SD = .22$ ,  $n = 4$ ).

The assumption of homogeneity of variance that tests and found tenable using Levene's test:  $F(2, 9) = 1.191$ ,  $p = .348$ , the ANOVA was not significant:  $F(2, 9) = 1.902$ ,  $p = 0.205$ . The evidence is not statistically significant. Therefore, the null hypothesis ( $H_0$ ) fails to reject. However, the observed actual difference in the mean scores between groups appeared quite small based on Cohen's (1988) conventions for interpreting the effect size.

The post hoc test to evaluate pairwise differences among the group means I deployed Tukey Honestly Significant Difference test found that equal variances were tenable. The mean scores of impacts on gun violence rates were not significant ( $p > .05$ ) between family orders of low, moderate, and high impact rates of reducing violent gun crimes. The difference was not significant ( $p > .05$ ) between the paired

groups (EGV vs. OGV and TGV vs. EGV). Recall that OGV has low rates, EGV was moderate, and TGV has high rates.

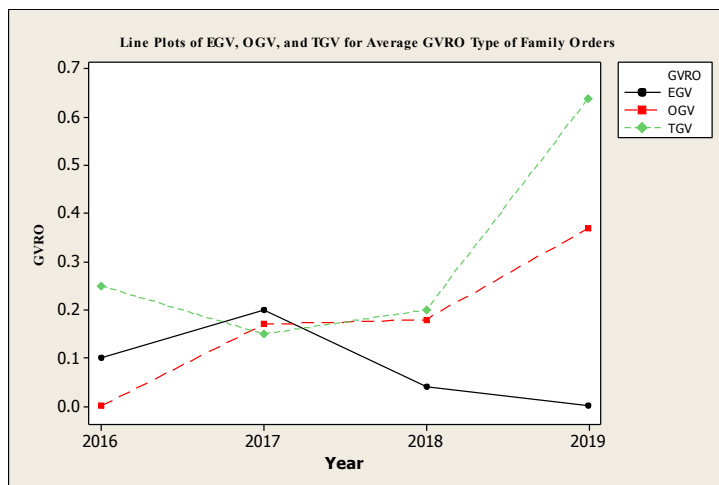


Figure 2. Line plots of the types of orders for average family orders in the years after the orders became effective.

### Model 3: Simple Linear Regression

Research Question 4: Does the impact on gun violence rates in the years following GVROs in California for the law enforcement active and inactive orders on EGV, OGV, and TGV have upward or downward movement?

$H_04$ : The impact on gun violence rates in the years following GVROs in California for the law enforcement active and inactive orders on EGV, OGV, and TGV have no upward or downward movement.

$H_14$ : The impact on gun violence rates in the years following GVROs in California for the law enforcement active and inactive orders on EGV, OGV, and TGV have upward or downward movement.

Test performance I carried out to determine if there was a movement in the years of the law enforcement types of GVRO orders. A simple linear regression I used to calculate the prediction of the law enforcement GVRO orders based on the year found a regression significant result with the equation  $F(1, 2) = 17.756, p = .052$ , with an  $R^2$  of .899. The study predicted year of the given GVRO orders are equal to  $-2.925 + 3.647$  (Crime numbers) when units of violent crime count violations measure in crime. The GVRO number of the type of violated order increased 3.647 for each given year. Although the  $p$ -value is  $> .05$ , the  $p = .052$  is not way too high and is accepted at 1% significant level.

The evidence is statistically significant with the conclusion for rejecting the null hypothesis. Hence, there is an upward movement observed on the GVROs given by law-enforcement for the years the restriction orders became law, which affects the rates of violent gun crimes in California. The test for normality shows that the  $p > 0.05$ . It implies that the assumption of normality-distributed errors is satisfied.

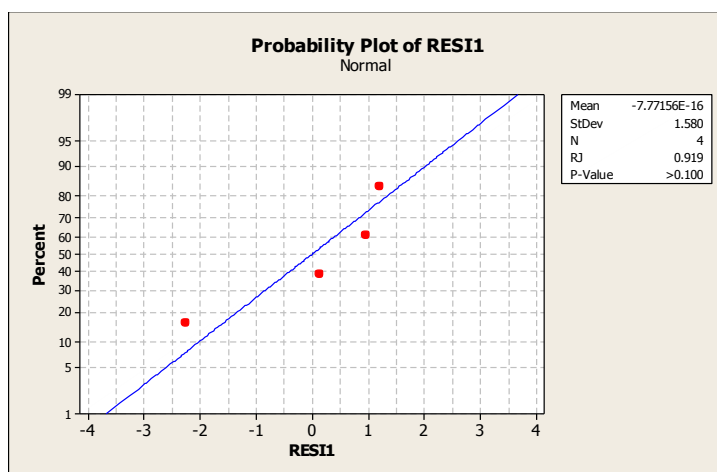
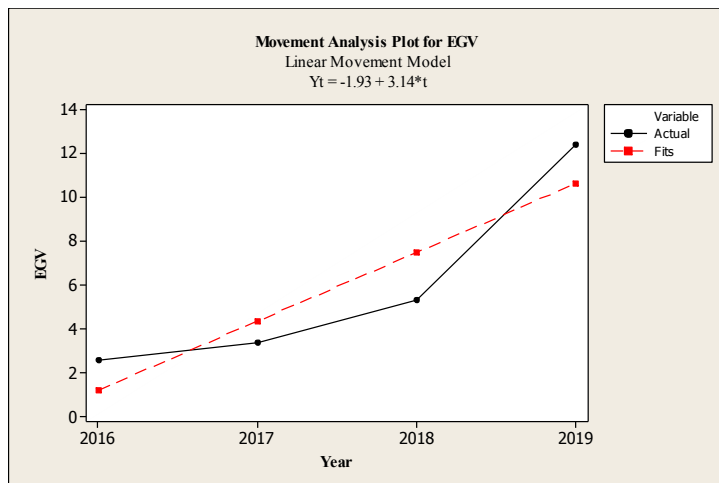
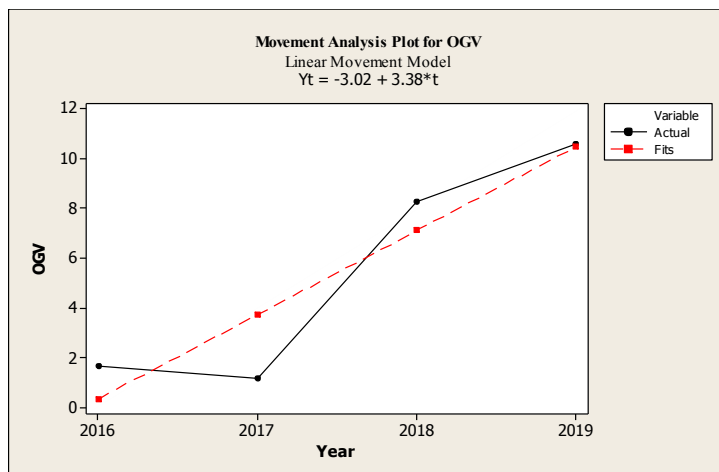


Figure 3. Test for normality.



*Figure 4.* Average law-enforcement orders for emergency orders-21 days with the movement analysis plot.



*Figure 5.* Average law enforcement orders for orders after hearing-1 year with the movement analysis plot.

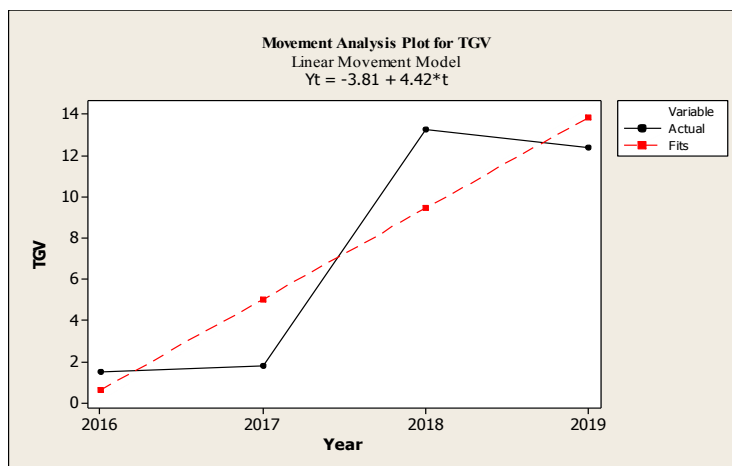


Figure 6. Average of law-enforcement orders for temporary orders with the movement analysis plot.

From the original plot of the incidence of law-enforcement and GVRO types for the years in figures 4, 5, and 6, it is a vivid observation that there was an upward movement of the time plot, which suggested the presence of an upward positively sloped movement.

### Summary

The first null hypothesis engaged the independent sample *t*-test, which I tested for the mean and standard deviation of gun violence rates in the years following the GVROs in California. For the active and inactive orders on EGV, OGV, and TGV? It proved that the overall difference in GVROs impacts on gun violence is statistically significant (see Minitab, 2011). I rejected the null hypothesis since the overall *p*-value is less than 0.05.

However, in respect of the second null hypothesis, the ANOVA result revealed that the *p*-value is greater than .05. Therefore, I further conducted the Levene's test of homogeneity of variance, which revealed that equal variance could be assumed,  $p > .05$

(see Minitab, 2011). In considering this outcome, the second null hypothesis fails to reject.

Similarly, the third null hypothesis fails to reject. It tested whether there would be no significant impact of the GVROs type of family on gun violence rates in California in the years after the order became effective. I engaged the same ANOVA model to test the result, and it shows that the  $p$  value = 0.205, which is greater than 0.05. Likewise, the Levene's test of homogeneity of variance revealed that equal variance could be assumed,  $p > .05$ . Based on the evidence, I fail to reject the third null hypothesis.

However, since the null hypotheses two and three were not significant, Tukey's Honestly Significant Difference post hoc comparisons were performed to evaluate pairwise differences among the group means for the second and third null hypotheses because the results have been observed not significant. These results support the view that the APOF concept's comprehensive application is essential (read more on page 39) to handle California's firearm problems. More strict regulations on gun violence issues are required to checkmate more the reduction of gun violence crimes in the state. Previous research (California Courts, 2018; Harris, 2016; Lemieux, 2014) supports the reiteration of gun regulation to reduce severe gun violence.

I conducted a simple linear regression estimate test to evaluate the fourth null hypothesis. The fourth null hypothesis is rejected. The test result is statistically acceptable at a 1% significant level; with the  $p$ -value little above 0.05 satisfied the test assumption of normality-distributed errors (see Minitab, 2011). The result indicated an upward, positively slope movement in the increasing number of law enforcement given



orders, which lowers the rates of gun violence crimes following the years the orders became lawful. The next discussion in chapter five addressed the conclusive findings of the study critically discussed in light of the audience's existing knowledge.

## Chapter 5: Discussion, Recommendations, and Conclusions

### **Introduction**

The study was aimed at understanding whether GVROs impacted California's violent crimes. I investigated the increasing problems of violent crimes associated with guns, even though there are laws regulating gun violence in California (see California Courts, 2018; Harris, 2016). I employed a quasi-experimental research design to examine whether GVROs facilitated or undermined a reduction in violent gun crimes in California following the years the GVROs were initiated.

Looking at the statistical dataset obtained from a government agency in the state, I engaged three analytical, statistical methods. I also related the study with the social contract theory and the institutional theory (see Scott, 2005, 2008). The state institutions like the DOJ and the law enforcement agencies are inclusive in forming a strong resilience in law and order protecting California on the issues with gun violence.

A concise summary of the key research findings is included in the following paragraphs. For overall EGV, inactive orders accounted for higher values on the mean and standard error than the active orders. The difference is statistically significant (see Minitab, 2011; Wagner, 2017). However, for the OGV, the active orders had higher values on the mean and standard errors than the inactive orders. The difference is also statistically significant (see Minitab, 2011; Wagner, 2017). Additionally, for TGV, the inactive orders had higher values on the mean and standard errors than the active orders, which also indicated a statistically significant result. Therefore, I rejected the first null

hypothesis because the overall mean and standard errors for the three types of order are statistically significant.

I utilized the one-way ANOVA analytical tool to test for the second null hypothesis. Results implied that among the GVRO order types for law enforcement, the OGV has low rates of impact on gun violence reduction, the EGV has moderate rates of impact, and the TGV holds high rates of impact (see Minitab, 2011; Wagner, 2017). However, the result was not statistically significant; thus, the second null hypothesis was not rejected.

The third null hypothesis was also not rejected. A one-way ANOVA was used to test the null hypothesis. The result for the null hypothesis three is statistically not significant because the  $p$ -value is greater than .05 (see Minitab, 2011; Wagner, 2017). For family GVROs, the OGV has low rates, the EGV shows moderate rates and the TGV indicates the high rates of impact on gun violence reduction in California since the initial years of the law. This outcome led me to perform a test of homogeneity of variance.

Nevertheless, the fourth null hypothesis tested witnessed a positive upward movement, and the null hypothesis was rejected. The result showcased that there was an upward positively slope movement with the  $p$ -value greater than 0.05, which is acceptable at a significant level of 1% (see Minitab, 2011; Wagner, 2017). This result signified that the law enforcement GVROs (active and inactive orders EGV, OGV, and TGV) have upward or downward movement and positively impacted the reduction of violent gun crimes in California. The next section includes an interpretation of the findings.

### **Interpretation of the Findings**

The dataset came from the California DOJ Research Center on the population of the given GVROs reported for 2016-2019. Three statistical tests were run considering the nature of the obtained dataset. I tested the four hypotheses, which showed the following results.

#### **First Null Hypothesis**

I rejected the first null hypothesis. The active values on the EGV had larger values than the inactive values. The OGV had larger values for active than the inactive orders. In some cases, the law courts have taken a decision on a case, and it either moved matter from the TGV or EGV. Therefore, more offenses are active in restriction of GVRO violations after 1-year determination of the substantive suits, which the law proffers what the GVRO orders, could do or not do (Harris, 2016).

Though I rejected the null hypothesis, the overall results proved statistically significant to the extent that the GVRO orders had impacted gun violence rates in California. It implies that the overall means of the GVROs facilitate a reduction in violent gun crimes in California following the years the GVROs were initiated. The results support previous research that noted that policy regulation on guns had contributed to reducing gun violence and mass shooting than the cultural perspective (Lemieux, 2014).

#### **Second Null Hypothesis**

Based on the one-way ANOVA result, the second null hypothesis fails to reject. I evaluated whether there is a difference in the impact law enforcement GVROs had on gun violence rates in California following the initial years of the law. The ANOVA result

indicated that OGV had a low impact, EGV had moderate, and TGV had a high impact on the rates of reducing gun violence in California. The mean scores of the impact rates were not significant between law enforcement orders of low, moderate, and high impact rates for reducing violent gun crime. The evidence supports previous studies that suggested for firm restriction policy on violent gun crimes, including the prompt reporting of gun-violent suspected family members and persons at high risk for gun violence to law enforcement agents to curtail gun problems in the United States (see California Courts, 2018, CDC, 2018; Lemieux, 2014; Wintemute et al., 2016). For fear of losing child custody and disruptions in the family over domestic violence arrest, some women have not reported their violent partners to the security agents and consequently experience domestic violence than those who promptly utilized the laws (Wintemute et al., 2016). Research uncovered the growing rate of violent gun crimes in California, especially among youth, causing more deaths (CDC, 2018; FBI, 2016). Remediating these facts would significantly impact GVROs (firearm restrictions) to reduce the rates of violent gun crimes in California.

### **Third Null Hypothesis**

The third null hypothesis fails to reject. I used a similar ANOVA analysis. The result showed that for the GVRO independent variables, OGV had low rates, EGV had moderate rates, and TGV had high rates of impact on reducing gun violence in California. The results were not significant between family orders with low, moderate, and high rates of impacting gun crimes.

The level of gun violent crimes in California is high, with a percentage of youths' deaths associated with gun violence (CDC, 2018). Even though the U.S. Constitution gave the citizens the right to bear arms, certain restrictions apply to individuals who violated the laws guiding safe handling of the gun (FBI, 2016; Harris, 2016). Illegal possession of firearms and unsafe kept of a gun is a violation and punishable under the California penal codes (California Courts, 2018). Someone may legally acquire guns but lose the right if found guilty of a felony offense or involved in an involuntary mental treatment until cleared by the court (California Courts, 2018). Due to the economic and legal challenges, few family members and partners are reluctant to complain about the abuse and mental problems faced by their members (Wintemute et al., 2016). The lack of reporting reduces the police's aim to engage the GVROs— as well as the stricter enforcement of the regulatory gun laws, domestic violence restraining orders, APPS, and prompt reporting of violators in the family. These can lead to significant positive change to impact violent gun crimes reduction in California.

#### **Fourth Null Hypothesis**

I rejected the fourth null hypothesis. The findings indicated the presence of a movement in the average law enforcement order. The types of GVROs are progressively contributing to the impediment of violent gun crimes since the law was initiated in California. The evidence supports previous studies that posit that gun regulation tends to minimize gun violence in the state (Frattaroli, 2015; Harris, 2016; Lemieux, 2014; Novisky & Peralta, 2015; Wintemute, 2015; Wintemute et al., 2016).

### **Limitations of the Study**

This exploratory study is more of a theoretical presumption than an empirical analysis of the findings due to the dataset. Thus, the correct models are applied and are generalizable to the California population. The research dataset is purposive sampling data. I engaged the independent sample *t*-test, a one-way ANOVA, and a simple linear regression model, which were appropriately applied to answer the questions that might arise for the study's trustworthiness and reliability (see Minitab, 2011; Wagner, 2017).

The California DOJ data declaration described that the information might not be substantial enough for inferential statistics (California Courts, 2018). The dataset was converted into an excel format and inputted into the IBM-SPSS and Minitab to ran those analytical models mentioned earlier, which are suitable for the three statistical tests discussed hereinbefore. Read more on the calculations of *t*-tests for effect size, minimum, and maximum sample sizes for ANOVA, and independent sample *t*-test in statistics (Boos & Hughes-Oliver, 2000; Bradley, 1980; Rhiel & Chaffin, 1996).

However, part of the immense questions that a social researcher faces is the problems of research reliability and validity. Notable studies underscored that research reliability's primary focus is whether a study is replicable (Frankfort-Nachmias & Leon-Guerrero, 2015). Researchers attributed that finding to be repeated on the surveyed populations (Babbie, 2017; Bryman, 2008; Warner, 2017). The models used in this survey are suitable for answering any validity questions.

Howbeit, validity questions focused on the quality concern of the variables utilized to construct the research, which is presumable as a reliable government source of

data (see DOJ, 2018, in California Courts, 2018). As a secondary data source, certain information has limitations to definitions, updated records on the exact each county statistics are also limited to the student author. Hence, I am not the primary source of the record, and that might not appear problematic.

Validity tends to inquire about how applicable the statistical models of the study and the conclusion are drawn (Wagner, 2017). The data is subject to review and changes as DOJ updates its record on the current GVRO statistics in California. Recall that some orders features might change in status over time, especially if the court has decided on the pending order. Although some of the variables are limited to definitions, in-depth quality literature review contributed significantly to the understanding of the research area.

Most studies focused on the qualitative model's research problem, other than the quantitative method that this dissertation deployed. The study does not engage a time series analysis of trend but is limited to the four years of data, in which the study is subject to further peer article research soon by the scholar.

### **Recommendations**

The empirical results examined and consequent upon the related literature review urged one to look into the question. Ever before the GVRO order, has rules and regulations been covering the use of a gun, and how effective are the laws in the protection of California against repeated gun violence and mass-murder?

This survey is consistent with previous studies that reiterated that gun law regulations have the propensity to reduce gun violence and related offenses (Lemieux, 2014; California Courts, 2018). The unusual consequential effects of gun dangers are



alarming with the (CDC, 2018) records that captured the high statistics of 11.8% deaths caused by guns in California. Wintemute et al. (2016) also noted that the prohibition of arms on violent domestic person works in the evaluation of APPS policy in California.

Family members of a suspected person who found that s/he is at high risk of wounding themselves or others with a gun required prompt reporting of the individual to the law enforcement agents, which would improve the GVRO orders. That supports the failure to reject the third null hypothesis. In cognizance of the research variables outcome, it is paramount to note that effective policy regulation on the issues with a gun needs to be comprehensively managed by the government institutions.

This research author suggested the APOF be part of the recommendations to safeguard gun violence in the state. APOF addresses the unusual cases of gun violence, despite the existing rules on a gun that includes GVRO, I developed the terminology for its implementation. It entails healthy policy management initiatives by the DOJ and government officials to become most proactive to impact the critical lead down orders on the gun. In that, more robust restrictions on gun usage would curb the reoccurring violent crimes with firearms in California. The concept is all about engaging in detail all the procedural policies to manage gun orders to ascertain that violent gun crimes are reducing significantly to the minimum. Dialogue initiatives on gun law dichotomy problems would proffer solutions and expand on the needed positive social change. The practical application of the APOF concept would ensure uncompromised safety protection of the California citizenry on mass shootings.

### **Implications for Social Change**

The results found in the research analysis that examined the impact of firearm restriction (i.e., GVROs) on violent crimes in California used purposive sampling data from the DOJ Research Center. Thus, the tested hypotheses one and four are statistically significant (see Minitab, 2011; Wagner, 2017)). The other hypotheses two and three I found not statistically significant. The grouped variables indicated that OGV was low, EGV was moderate, and TGV was high, impacting the rates of reducing violent gun crimes in California (see DOJ, 2018, in California Courts, 2018; Minitab, 2011).

The simple linear regression movement I estimated in respect of the fourth null hypothesis shows a positive upward slope. That indicates a movement line in the average law-enforcement type of orders for EGV, OGV, and TGV following the years GVRO impacts gun violence rates (see Minitab, 201; Wagner, 2017).

This study recognized the nature of the research that is more of an academic exploration of the population than an empirical investigation. It made this dissertation research to deployed a quantitative method with the chosen quasi-experimental research design as earlier discussed to survey the research problem (see Wagner, 2017).

Compliance with the established rules on gun and the citizens' positive social interactions with one another under a social contract order for institutional resilience are pertinent. The institutional theory centered its lens on rules, state orders for stability, legitimacy, and isomorphism (Scott, 2008).

More active supports to improve the GVROs are required to facilitate the needed reductions on gun violence rates in the State of California. Therefore, stating that there is

a significant difference in the impact of GVROs - for the active and inactive orders of EGV, OGV, and TGV on violent crime reduction following the initial years of GVROs in California is not out of place (see Minitab, 2011; Wagner, 2017).

The impact of GVRO orders on gun violence rates creates a significant reduction in violent gun crimes in California. However, a further examination from a different perspective may be required a robust study. Such engagement will substantially expand on the existing body of academic knowledge (see DOJ, 2018, in California Courts, 2018; Lemieux, 2014; Frattaroli, 2015; Harris, 2016; Novisky & Peralta, 2015; Wintemute, 2015; Wintemute et al., 2016).

This research finding might strengthen healthy policy dialogue for the panacea to gun problems. Its potentials will also contribute to advancing institutions of public policy administration and the criminal justice system in California. This survey critically adds to the reinforcement of the learned practical, positive social change (see Walden University, 2010) ideology on the dichotomous gun debates.

Also, by implications, the study suggests concept APOF and prompt reporting of violators of the GVRO will significantly reduce family cases of gun troubles and provide risk reductions to the police while curbing gun crimes. The media mostly emphasize on the recurring dangers of a gun. The conclusion drawn in the next section captured the relevant themes of the study.

### **Conclusions**

The reported incidences of violent crimes linked to guns are at an alarming rate captured in various studies (CDC, 2013, 2018; Wintemute et al., 2017), which caused

significant deaths at 11.8% in California. The problem is worse and disproportionately represented among the youths (CDC, 2013). Thus, there are rules and regulations covering gun usage (Harris, 2016; California Courts, 2018; FBI, 2016; Frattaroli et al., 2015), yet, the recorded cases of violent crimes commissioned with guns increases in the state. The problem was that previous studies have failed to address gun problems from this perspective, which lacked stringent regulation on the gun.

The research objectively aims to discover the impact of GVROs on violent crimes in California. For assertion, whether policy restrictions on firearms have a significant impact on reducing the rates of violent gun crimes in California. It used the three GVRO types of orders: EGV, TGV, and OGV with the grouped statistics as active and inactive orders for the family and law-enforcement.

This study utilized a quantitative model that surveyed the DOJ purposive sampling data with a quasi-experimental research design—strengthened with the social contract and institutional theories that synthesize how Californians supposed to relate to one another on the issues with the gun. To uphold the resilience (Scott, 2008) expected of the state's institutions to maintain law and order.

The study developed three assumptions. With the three statistical tools used to examine the research, the results found that the first and fourth null hypotheses were rejected (see Minitab, 2011; Wagner, 2017). The first null hypothetical test is statistically significant in reducing the rates of violent gun crimes in California. Based on the findings, there was a significant difference in the impact on gun violence rates in the

years following the GVROs in California for the active and inactive orders on EGV, OGV, and TGV.

The second and third null hypotheses fail to reject. Among the grouped variables tested for the orders of law-enforcement and family that impacts the rates of violent gun crimes reduction: OGV had low rates, EGV had moderate, and TGV had high rates (see Minitab, 2011; Wagner, 2017). The tests are not statistically significant.

In the simple linear regression line plotted, the estimate shows the presence of an upward moving line in the average law-enforcement types of orders for the EGV, OGV, and TGV observed in Figures 4, 5, and 6 respectively. That builds on the existing knowledge of (Frattaroli et al., 2015), who also maintains that GVRO remains one of the capable apparatus to curtail gun violence. However, recognition of the APOF terminology will be more practical to prompt the reporting of the high-risk family member. It remains essential to curb the challenges of gun violence among families in California.

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Appendix A: Original Dataset from the California Department of Justice 2016-  
2019

Year	County	Type	Description	Fam.	Law Enf.	Active	Inactive	Total
2016	Butte	EGV	Emergency-21 days	0	2	0	2	2
2016	Calaveras	EGV	Emergency-21 days	0	1	0	1	1
2016	Contra Costa	EGV	Emergency-21 days	0	3	0	3	3
2016	Glenn	EGV	Emergency-21 days	0	1	0	1	1
2016	Inyo	EGV	Emergency-21 days	0	1	0	1	1
2016	Los Angeles	EGV	Emergency-21 days	0	8	0	8	8
2016	Mendocino	EGV	Emergency-21 days	0	1	0	1	1
2016	Merced	EGV	Emergency-21 days	0	1	0	1	1
2016	Monterey	EGV	Emergency-21 days	0	1	0	1	1
2016	Orange	EGV	Emergency-21 days	1	2	0	3	3
2016	Riverside	EGV	Emergency-21 days	0	1	0	1	1
2016	Sacramento	EGV	Emergency-21 days	0	3	0	4	4
2016	San Bernardino	EGV	Emergency-21 days	0	1	0	1	1
2016	San Diego	EGV	Emergency-21 days	1	3	0	4	4
2016	San Joaquin	EGV	Emergency-21 days	0	4	0	4	4
2016	Santa Barbara	EGV	Emergency-21 days	0	9	0	9	9
2016	Santa Clara	EGV	Emergency-21 days	0	7	0	7	7
2016	Solano	EGV	Emergency-21 days	0	1	0	1	1
2016	Ventura	EGV	Emergency-21 days	0	1	0	1	1
2016	Yolo	EGV	Emergency-21 days	0	1	0	1	1
2016	Alameda	OGV	Order After Hearing 1yr	0	3	0	3	3
2016	Butte	OGV	Order After Hearing 1yr	0	1	0	1	1
2016	Calaveras	OGV	Order After Hearing 1yr	0	1	0	1	1
2016	Los Angeles	OGV	Order After Hearing 1yr	0	3	0	3	3
2016	Mendocino	OGV	Order After Hearing 1yr	0	1	0	1	1
2016	Santa Barbara	OGV	Order After Hearing 1yr	0	1	0	1	1
2016	Butte	TGV	Temporary-21 days	0	1	0	1	1
2016	Calaveras	TGV	Temporary-21 days	0	1	0	1	1
2016	Contra Costa	TGV	Temporary-21 days	1	1	0	2	2
2016	Kern	TGV	Temporary-21 days	0	1	0	1	1
2016	Los Angeles	TGV	Temporary-21 days	2	3	0	5	5
2016	Mendocino	TGV	Temporary-21 days	0	1	0	1	1
2016	Nevada	TGV	Temporary-21 days	0	1	0	1	1
2016	Placer	TGV	Temporary-21 days	0	1	0	1	1
2016	Riverside	TGV	Temporary-21 days	0	2	0	2	2
2016	Santa Barbara	TGV	Temporary-21 days	0	3	0	3	3
2016	Santa Cruz	TGV	Temporary-21 days	0	1	0	1	1
2016	Trinity	TGV	Temporary-21 days	0	2	1	1	2
2017	Contra Costa	EGV	Emergency-21 days	0	1	0	1	1
2017	Fresno	EGV	Emergency-21 days	0	2	0	2	2
2017	Glenn	EGV	Emergency-21 days	0	1	0	1	1
2017	Kern	EGV	Emergency-21 days	0	1	0	1	1
2017	Kings	EGV	Emergency-21 days	0	3	0	3	3
2017	Los Angeles	EGV	Emergency-21 days	1	14	0	15	15
2017	Marin	EGV	Emergency-21 days	0	1	0	1	1
2017	Orange	EGV	Emergency-21 days	0	5	0	5	5
2017	Riverside	EGV	Emergency-21 days	0	4	0	4	4
2017	Sacramento	EGV	Emergency-21 days	0	3	0	3	3

(table continues)

Year	County	Type	Description	Fam.	Law_Enf.	Active	Inactive	Total
2017	San Bernardino	EGV	Emergency-21 days	0	1	0	1	1
2017	San Diego	EGV	Emergency-21 days	2	2	0	4	4
2017	San Joaquin	EGV	Emergency-21 days	1	7	0	8	8
2017	San Luis Obispo	EGV	Emergency-21 days	0	1	0	1	1
2017	Santa Barbara	EGV	Emergency-21 days	0	8	0	8	8
2017	Santa Clara	EGV	Emergency-21 days	0	3	0	3	3
2017	Santa Cruz	EGV	Emergency-21 days	0	4	0	4	4
2017	Solano	EGV	Emergency-21 days	0	4	0	4	4
2017	Ventura	EGV	Emergency-21 days	0	1	0	1	1
2017	Yolo	EGV	Emergency-21 days	0	1	0	1	1
2017	Alameda	OGV	Order After Hearing 1yr	0	1	1	0	1
2017	Butte	OGV	Order After Hearing 1yr	0	1	0	1	1
2017	Monterey	OGV	Order After Hearing 1yr	0	1	1	0	1
2017	Sacramento	OGV	Order After Hearing 1yr	1	0	1	0	1
2017	San Diego	OGV	Order After Hearing 1yr	0	3	1	2	3
2017	Ventura	OGV	Order After Hearing 1yr	0	1	1	0	1
2017	Alameda	TGV	Temporary-21 days	0	2	0	2	2
2017	Contra Costa	TGV	Temporary-21 days	0	1	0	1	1
2017	Los Angeles	TGV	Temporary-21 days	1	0	0	1	1
2017	Monterey	TGV	Temporary-21 days	0	1	0	1	1
2017	Placer	TGV	Temporary-21 days	0	1	0	1	1
2017	Riverside	TGV	Temporary-21 days	0	3	0	3	3
2017	Sacramento	TGV	Temporary-21 days	1	0	0	1	1
2017	San Benito	TGV	Temporary-21 days	0	2	0	2	2
2017	San Bernardino	TGV	Temporary-21 days	0	1	0	1	1
2017	San Diego	TGV	Temporary-21 days	0	7	0	7	7
2017	Santa Clara	TGV	Temporary-21 days	0	1	0	1	1
2017	Tuolumne	TGV	Temporary-21 days	0	3	0	3	3
2017	Ventura	TGV	Temporary-21 days	0	1	0	1	1
2018	Alameda	EGV	Emergency-21 days	0	2	0	2	2
2018	Lake	EGV	Emergency-21 days	0	2	0	2	2
2018	Los Angeles	EGV	Emergency-21 days	1	20	0	21	21
2018	Madera	EGV	Emergency-21 days	0	1	0	1	1
2018	Marin	EGV	Emergency-21 days	0	1	0	1	1
2018	Napa	EGV	Emergency-21 days	0	1	0	1	1
2018	Orange	EGV	Emergency-21 days	0	17	0	17	17
2018	Placer	EGV	Emergency-21 days	0	3	0	3	3
2018	Riverside	EGV	Emergency-21 days	0	5	0	5	5
2018	Sacramento	EGV	Emergency-21 days	0	7	0	7	7
2018	San Bernardino	EGV	Emergency-21 days	0	4	0	4	4
2018	San Diego	EGV	Emergency-21 days	0	4	0	4	4
2018	San Francisco	EGV	Emergency-21 days	0	1	0	1	1
2018	San Joaquin	EGV	Emergency-21 days	0	2	0	2	2
2018	San Luis Obispo	EGV	Emergency-21 days	0	2	0	2	2
2018	Santa Barbara	EGV	Emergency-21 days	0	12	0	12	12
2018	Santa Clara	EGV	Emergency-21 days	0	22	1	21	22
2018	Santa Cruz	EGV	Emergency-21 days	0	5	0	5	5
2018	Solano	EGV	Emergency-21 days	0	6	0	6	6
2018	Sonoma	EGV	Emergency-21 days	0	1	0	1	1
2018	Tulare	EGV	Emergency-21 days	0	1	0	1	1
2018	Ventura	EGV	Emergency-21 days	0	5	0	5	5
2018	Alameda	OGV	Order After Hearing 1yr	0	1	0	1	1
2018	Los Angeles	OGV	Order After Hearing 1yr	1	3	4	0	4

(table continues)

Year	County	Type	Description	Fam.	Law	Enf.	Active	Inactive	Total
2018	Marin	OGV	Order After Hearing 1yr	0		1	1	0	1
2018	San Bernardino	OGV	Order After Hearing 1yr	0		16	13	3	16
2018	San Diego	OGV	Order After Hearing 1yr	0		57	47	10	57
2018	San Luis Obispo	OGV	Order After Hearing 1yr	0		1	1	0	1
2018	Santa Barbara	OGV	Order After Hearing 1yr	1		3	4	0	4
2018	Santa Clara	OGV	Order After Hearing 1yr	0		2	2	0	2
2018	Tuolumne	OGV	Order After Hearing 1yr	0		2	2	0	2
2018	Ventura	OGV	Order After Hearing 1yr	0		3	3	0	3
2018	Alameda	TGV	Temporary-21 days	0		1	0	1	1
2018	Contra Costa	TGV	Temporary-21 days	0		1	0	1	1
2018	Los Angeles	TGV	Temporary-21 days	2		4	0	6	6
2018	Marin	TGV	Temporary-21 days	0		3	1	2	3
2018	Napa	TGV	Temporary-21 days	0		1	0	1	1
2018	Orange	TGV	Temporary-21 days	0		1	0	1	1
2018	Placer	TGV	Temporary-21 days	0		6	0	6	6
2018	Riverside	TGV	Temporary-21 days	0		7	1	6	7
2018	San Bernardino	TGV	Temporary-21 days	0		32	1	31	32
2018	San Diego	TGV	Temporary-21 days	0		124	10	114	124
2018	Santa Barbara	TGV	Temporary-21 days	1		1	1	1	2
2018	Santa Clara	TGV	Temporary-21 days	0		7	0	7	7
2018	Santa Cruz	TGV	Temporary-21 days	0		4	1	3	4
2018	Tuolumne	TGV	Temporary-21 days	0		3	0	3	3
2018	Ventura	TGV	Temporary-21 days	0		4	0	4	4
2019	Alameda	EGV	Emergency-21 days	0		11	0	11	11
2019	Amador	EGV	Emergency-21 days	0		2	0	2	2
2019	Contra Costa	EGV	Emergency-21 days	0		5	0	5	5
2019	El Dorado	EGV	Emergency-21 days	0		1	0	1	1
2019	Fresno	EGV	Emergency-21 days	0		1	0	1	1
2019	Kern	EGV	Emergency-21 days	0		4	0	4	4
2019	Kings	EGV	Emergency-21 days	0		1	0	1	1
2019	Lake	EGV	Emergency-21 days	0		1	0	1	1
2019	Los Angeles	EGV	Emergency-21 days	0		32	1	31	32
2019	Marin	EGV	Emergency-21 days	0		5	0	5	5
2019	Mendocino	EGV	Emergency-21 days	0		1	0	1	1
2019	Merced	EGV	Emergency-21 days	0		1	0	1	1
2019	Monterey	EGV	Emergency-21 days	0		1	0	1	1
2019	Nevada	EGV	Emergency-21 days	0		1	0	1	1
2019	Orange	EGV	Emergency-21 days	0		66	3	63	66
2019	Placer	EGV	Emergency-21 days	0		3	0	3	3
2019	Riverside	EGV	Emergency-21 days	0		11	0	11	11
2019	Sacramento	EGV	Emergency-21 days	0		34	0	34	34
2019	San Bernardino	EGV	Emergency-21 days	0		9	0	9	9
2019	San Diego	EGV	Emergency-21 days	0		35	0	35	35
2019	San Francisco	EGV	Emergency-21 days	0		6	0	6	6
2019	San Joaquin	EGV	Emergency-21 days	0		8	0	8	8
2019	San Luis Obispo	EGV	Emergency-21 days	0		2	0	2	2
2019	San Mateo	EGV	Emergency-21 days	0		10	0	10	10
2019	Santa Barbara	EGV	Emergency-21 days	0		30	0	30	30
2019	Santa Clara	EGV	Emergency-21 days	0		57	0	57	57
2019	Santa Cruz	EGV	Emergency-21 days	0		25	0	25	25
2019	Solano	EGV	Emergency-21 days	0		5	0	5	5
2019	Sonoma	EGV	Emergency-21 days	0		4	0	4	4

(table continues)

Year	County	Type	Description	Fam.	Law_Enf.	Active	Inactive	Total
2019	Stanislaus	EGV	Emergency-21 days	0	5	0	5	5
2019	Ventura	EGV	Emergency-21 days	0	8	0	8	8
2019	Contra Costa	OGV	Order After Hearing 1yr	0	2	0	2	2
2019	Fresno	OGV	Order After Hearing 1yr	0	1	1	0	1
2019	Humboldt	OGV	Order After Hearing 1yr	0	1	1	0	1
2019	Lake	OGV	Order After Hearing 1yr	0	1	1	0	1
2019	Los Angeles	OGV	Order After Hearing 1yr	1	8	8	1	9
2019	Marin	OGV	Order After Hearing 1yr	0	2	2	0	2
2019	Mendocino	OGV	Order After Hearing 1yr	1	1	1	1	2
2019	Monterey	OGV	Order After Hearing 1yr	0	2	2	0	2
2019	Napa	OGV	Order After Hearing 1yr	0	2	2	0	2
2019	Orange	OGV	Order After Hearing 1yr	6	15	18	3	21
2019	Placer	OGV	Order After Hearing 1yr	0	1	1	0	1
2019	Riverside	OGV	Order After Hearing 1yr	0	10	9	1	10
2019	Sacramento	OGV	Order After Hearing 1yr	0	1	1	0	1
2019	San Bernardino	OGV	Order After Hearing 1yr	0	17	16	1	17
2019	San Diego	OGV	Order After Hearing 1yr	0	137	124	13	137
2019	San Francisco	OGV	Order After Hearing 1yr	0	3	3	0	3
2019	San Joaquin	OGV	Order After Hearing 1yr	0	1	1	0	1
2019	San Luis Obispo	OGV	Order After Hearing 1yr	0	2	2	0	2
2019	San Mateo	OGV	Order After Hearing 1yr	0	4	3	1	4
2019	Santa Barbara	OGV	Order After Hearing 1yr	1	3	4	0	4
2019	Santa Clara	OGV	Order After Hearing 1yr	0	21	20	1	21
2019	Santa Cruz	OGV	Order After Hearing 1yr	0	23	23	0	23
2019	Solano	OGV	Order After Hearing 1yr	0	5	5	0	5
2019	Sonoma	OGV	Order After Hearing 1yr	0	1	1	0	1
2019	Stanislaus	OGV	Order After Hearing 1yr	0	3	3	0	3
2019	Tehama	OGV	Order After Hearing 1yr	0	1	1	0	1
2019	Ventura	OGV	Order After Hearing 1yr	1	17	17	1	18
2019	Alameda	TGV	Temporary-21 days	0	10	0	10	10
2019	Butte	TGV	Temporary-21 days	0	1	0	1	1
2019	Contra Costa	TGV	Temporary-21 days	0	3	0	3	3

Note. Fam. = Family order, Law\_Enf = law enforcement order

## Appendix B: Average of Law-Enforcement and Gun Violence Restraining Orders

Following its Initiated Years

Type	Year			
	2016	2017	2018	2019
EGV	2.6	3.35	5.33	12.42
OGV	1.67	1.17	8.27	10.56
TGV	1.50	1.77	13.27	12.39

## Appendix C: SPSS Output for Orders in 2016

Tables include statistics for emergency orders-21 days, orders after hearing-1 year, and temporary orders -21 days for 2016 regarding gun violence restraining orders (active and inactive).

<b>Group Statistics</b>										
		GVRO	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>				
Given Orders 2016	Active		20	.0000	.00000	.00000				
	Inactive		20	2.7500	2.55209	.57066				

<b>Independent Samples T Test</b>										
Levene's Test for Equality of Variances				<i>T</i> test for equality of means						
				95% CI						
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> (2-tailed)	<i>MD</i>	<i>SED</i>	Lower	Upper
Given Orders 2016	Equal var. assumed	34.743	.000	-4.819	38	.000	-2.75000	.57066	-3.90525	-1.59475
	Equal var. not assumed			-4.819	19.000	.000	-2.75000	.57066	-3.94441	-1.55559

<b>Group Statistics</b>										
		GVRO	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>				
Given Orders 2016	Active		6	.0000	.00000	.00000				
	Inactive		6	1.6667	1.03280	.42164				

<b>Independent Samples T Test</b>										
Levene's Test for Equality of Variances				<i>T</i> test for equality of means						
				95% CI						
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> 2	<i>MD</i>	<i>SED</i>	Lower	Upper
Given Orders 2016	Equal var. assumed	40.000	.000	-3.953	10	.003	-1.66667	.42164	-2.60613	-.72720
	Equal var. not assumed			-3.953	5.000	.011	-1.66667	.42164	-2.75052	-.58281

**Group Statistics**

GVRO		<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>
Given Orders 2016	Active	12	.0833	.28868	.08333
	Inactive	12	1.6667	1.23091	.35533

**Independent Samples T Test**

		Levene's Test for Equality of Variances		<i>T</i> test for equality of means						
				95% CI						
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> <sup>2</sup>	<i>MD</i>	<i>SED</i>	Lower	Upper
Given Orders 2016	Equal var. assumed	9.144	.006	- 4.338	22	.000	-1.58333	.36498	-2.34025	-.82642
	Equal var. not assumed			- 4.338	12.206	.001	-1.58333	.36498	-2.37706	-.78961

## Appendix D: SPSS Output for Orders in 2017

Tables include statistics for emergency orders-21 days, orders after hearing-1 year, and temporary orders -21 days for 2017 regarding gun violence restraining orders (active and inactive).

**Group Statistics**

	GVRO	N	M	SD	SEM
Given Orders 2017	Active	20	.0000	.00000	.00000
	Inactive	20	3.5500	3.47131	.77621

**Independent Samples T Test**

		Levene's test for equality of variances				T test for equality of means				
		F	Sig.	t	df	Sig.2	MD	SED	95% CI	
Given Orders 2017	Equal var. assumed	18.003	.000	-4.574	38	.000	-3.55000	.77621	-5.12135	-1.97865
	Equal var. not assumed			-4.574	19.000	.000	-3.55000	.77621	-5.17462	-1.92538

**Group Statistics**

	GVRO	N	M	SD	SEM
Given Orders 2017	Active	6	.8333	.40825	.16667
	Inactive	6	.5000	.83666	.34157

**Independent Samples T Test**

		Levene's test for equality of variances				T test for equality of means				
		F	Sig.	t	df	Sig.2	MD	SED	95% CI	
									Lower	Upper
Given Orders 2017	Equal var. assumed	3.769	.081	.877	10	.401	.33333	.38006	-.51349	1.18016
	Equal var. not assumed			.877	7.253	.409	.33333	.38006	-.55904	1.22571



**Group Statistics**

	GVRO	N	M	SD	SEM
Given Orders 2017	Active	13	.0000	.00000	.00000
	Inactive	13	1.9231	1.70595	.47314

**Independent Samples T Test**

		Levene's test for equality of variances		T test for equality of means						
		F	Sig.	<i>t</i>	<i>df</i>	Sig.2	MD	SED	95% CI	
									Lower	Upper
Given Orders 2017	Equal var. assumed	11.097	.003	-4.064	24	.000	-1.92308	.47314	-2.89960	-.94655
	Equal var. not assumed			-4.064	12.000	.002	-1.92308	.47314	-2.95397	-.89218

## Appendix E: SPSS Output for Orders in 2018

Tables include statistics for emergency orders-21 days, orders after hearing-1 year, and temporary orders -21 days for 2018 regarding gun violence restraining orders (active and inactive).

**Group Statistics**

	GVRO	N	M	SD	SEM
Given Orders 2018	Active	24	.0417	.20412	.04167
	Inactive	24	5.3333	6.12668	1.25060

**Independent Samples T Test**

Levene's test for equality of variances		T test for equality of means								
		F	Sig.	t	df	Sig.2	MD	SED	95% CI	
									Lower	Upper
Given Orders 2018	Equal variances assumed	24.154	.000	-4.229	46	.000	-5.29167	1.25130	-7.81040	-2.77294
	Equal variances not assumed			-4.229	23.051	.000	-5.29167	1.25130	-7.87986	-2.70348

**Group Statistics**

	GVRO	N	M	SD	SEM
Given Orders 2018	Active	11	7.1818	13.65883	4.11829
	Inactive	11	1.2727	3.03615	.91543

**Independent Samples T Test**

Levene's test for equality of variances		T test for equality of means								
		F	Sig.	t	df	Sig.2	MD	SED	95% CI	
									Lower	Upper
Given Orders 2018	Equal variances assumed	3.878	.063	1.401	20	.177	5.90909	4.21881	-2.89119	14.70937
	Equal variances not assumed			1.401	10.986	.189	5.90909	4.21881	-3.37791	15.19609

**Group Statistics**

	GVRO	N	M	SD	SEM
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	GVRO	N	M	SD	SEM
Given Orders 2018	Active	15	1.0000	2.53546	.65465
	Inactive	15	12.4667	29.06364	7.50420

#### Independent Samples T Test

		Levene's test for equality of variances		T test for equality of means						
		F	Sig.	t	df	Sig. 2	MD	SED	95% CI	
									Lower	Upper
Given Orders 2018	Equal variances assumed	5.721	.024	-1.522	28	.139	-11.46667	7.53270	-26.89671	3.96337
	Equal variances not assumed			-1.522	14.213	.150	-11.46667	7.53270	-27.60001	4.66668

## Appendix F: SPSS Output for Orders in 2019

Tables include statistics for emergency orders-21 days, orders after hearing-1 year, and temporary orders -21 days for 2019 regarding gun violence restraining orders (active and inactive).

<b>Group Statistics</b>										
		GVRO	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>				
Given Orders 2019	Active		31	.1290	.56225	.10098				
	Inactive		31	12.2903	16.47866	2.95965				

<b>Independent Samples T Test</b>										
Levene's test for equality of variances						<i>T</i> test for equality of means				
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> <i>2</i>	<i>MD</i>	<i>SED</i>	95% <i>CI</i>	
									Lower	Upper
Given Orders 2019	Equal variances assumed	37.448	.000	-4.107	60	.000	-12.16129	2.96138	-18.08493	-6.23765
	Equal variances not assumed			-4.107	30.070	.000	-12.16129	2.96138	-18.20864	-6.11394

<b>Group Statistics</b>										
		GVRO	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>				
Given Orders 2019	Active		27	10.0000	23.78752	4.57791				
	Inactive		27	.9259	2.52565	.48606				

<b>Independent Samples T Test</b>										
Levene's Test for Equality of Variances						<i>T</i> test for equality of means				
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> <i>2</i>	<i>MD</i>	<i>SED</i>	95% <i>CI</i>	
									Lower	Upper
Given Orders 2019	Equal var. assumed	6.996	.011	1.971	52	.054	9.07407	4.60364	-.16381	18.31196
	Equal var. not assumed			1.971	26.586	.059	9.07407	4.60364	-.37870	18.52685

**Group Statistics**

	GVRO	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>
Given Orders 2019	Active	33	.6970	2.27053	.39525
	Inactive	33	12.3333	36.96507	6.43479

**Independent Samples *T* Test**

		Levene's test for equality of variances				<i>T</i> test for equality of means				
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> 2	<i>MD</i>	<i>SED</i>	95% <i>CI</i>	
									Lower	Upper
Given Orders 2019	Equal var. assumed	6.473	.013	-1.805	64	.076	-11.63636	6.44692	-24.51557	1.24284
	Equal var. not assumed			-1.805	32.241	.080	-11.63636	6.44692	-24.76446	1.49173

## Appendix G: SPSS Output for Overall Years

Tables include statistics for emergency orders-21 days, orders after hearing-1 year, and temporary orders -21 days for overall years regarding gun violence restraining orders (active and inactive).

Group Statistics					
	GVRO	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>
Given Orders 2019	Active	95	.0526	.33797	.03467
	Inactive	95	6.6842	10.76170	1.10413

Independent Samples <i>T</i> Test										
Levene's Test for Equality of Variances					<i>T</i> test for Equality of Means					
					95% CI					
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> <sup>2</sup>	<i>MD</i>	<i>SED</i>	Lower	Upper
Given Orders 2019	Equal var. assumed	50.869	.000	-6.003	188	.000	-6.63158	1.10467	-8.81072	-4.45244
	Equal var. not assumed			-6.003	94.185	.000	-6.63158	1.10467	-8.82487	-4.43828

Group Statistics					
	GVRO	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>
Given Orders 2019	Active	50	7.0800	18.81363	2.66065
	Inactive	50	1.0400	2.35571	.33315

Independent Samples <i>T</i> Test										
Levene's test for equality of variances					<i>T</i> test for equality of means					
					95% CI					
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> <sup>2</sup>	<i>MD</i>	<i>SED</i>	Lower	Upper
Given Orders 2019	Equal. Var. assumed	10.859	.001	2.253	98	.027	6.04000	2.68143	0.71880	11.36120
	Equal. Var. not assumed			2.253	50.536	.029	6.04000	2.68143	0.65561	11.42439

Group Statistics					
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	GVRO	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>
Given	Active	73	.5342	1.92269	.22503
Orders	Inactive	73	8.7534	28.24534	3.30587

**Independent Samples *T* Test**

		Levene's Test for Equality of Variances		<i>T</i> test for Equality of Means						
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> 2	<i>MD</i>	<i>SED</i>	95% <i>CI</i>	
								Lower	Upper	
Given Orders 2019	Equal var. assumed	11.944	.001	-2.480	144	.014	-8.21918	3.31352	-14.76859	-1.66976
	Equal var. not assumed			-2.480	72.667	.015	-8.21918	3.31352	-14.82352	-1.61484

## Appendix H: SPSS Output for Law Enforcement Orders Following the Years

They Were Initiated

One-Way ANOVA

**Descriptive Statistics**

Law- Enforcement	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>	95% CI for Mean			
					Lower Bound	Upper Bound	Minimu m	Maximu m
EGV	4	5.9250	4.48052	2.24026	-1.2045	13.0545	2.60	12.42
OGV	4	5.4175	4.71406	2.35703	-2.0836	12.9186	1.17	10.56
TGV	4	7.2325	6.47435	3.23718	-3.0696	17.5346	1.50	13.27
Total	12	6.1917	4.85854	1.40254	3.1047	9.2786	1.17	13.27

**Test of Homogeneity of Variances**

Law- Enforcement	<i>df1</i>	<i>df2</i>	<i>Sig</i>
Levene Statistic	2	9	.142

**ANOVA**

Law Enforcement	<i>SQ</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig</i>
Between Groups	7.015	2	3.508	.125	.884
Within Groups	252.644	9	28.072		
Total	259.659	11			



## Appendix I: SPSS Output for Family Orders After They Became Effective

## Average of Order Types in the Years After the Orders Became Effective

GVRO Type	Year			
	2016	2017	2018	2019
EGV	0.10	0.20	0.04	0.00
OGV	0.00	0.17	0.18	0.37
TGV	0.25	0.15	0.20	0.64

## Descriptive Statistics

95% CI for Mean								
Family	N	M	SD	SE	Lower Bound	Upper Bound	Minimum	Maximum
EGV	4	.0850	.08699	.04349	-.0534	.2234	.00	.20
OGV	4	.1800	.15122	.07561	-.0606	.4206	.00	.37
TGV	4	.3100	.22376	.11188	-.0460	.6660	.15	.64
Total	12	.1917	.17673	.05102	.0794	.3040	.00	.64

## Test of Homogeneity of Variances

Family			
Levene Statistic	df1	df2	Sig
1.191	2	9	.348

## ANOVA

Family	SS	df	MS	F	Sig
Between Groups	.102	2	.051	1.902	.205
Within Groups	.242	9	.027		
Total	.344	11			

## Appendix J: SPSS Output for Estimation on Orders Affecting the Rates of Gun

Violent Crime Following the Years the Restrictions Became law

## Simple Linear Regression

Descriptive Statistics			
	<i>M</i>	<i>SD</i>	<i>N</i>
GVRO	6.1925	4.96635	4
Year	2.5000	1.29099	4

Model Summary									
Model	<i>R</i>	RS	Adj. RS	SE of the Estimate	RS Chg.	Change Statistics			Sig. F Chg.
						F Chg.	df1	df2	
1	.948 <sup>a</sup>	.899	.848	1.93531	.899	17.756	1	2	.052

a. Predictors: (Constant), Year

ANOVA <sup>b</sup>						
Model		SS	<i>df</i>	MS	F	Sig
1	Regression	66.503	1	66.503	17.756	.052 <sup>a</sup>
	Residual	7.491	2	3.745		
	Total	73.994	3			

a. Predictors: (Constant), Year

b. Dependent Variable: GVRO

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig
		B	Std. Error	$\beta$		
1	(Constant)	-2.925	2.370		-1.234	.343
	Year	3.647	.865	.948	4.214	.052

a. Dependent Variable: GVRO

Appendix K: SPSS Output for Estimation of Gun Violence Restraining Order  
 Movement for Emergency Orders-21 Days Following the Years the Restrictions Became  
 Law

**Model Summary<sup>b</sup>**

Model	<i>R</i>	RS	Adjusted RS	SE of the Estimate
1	.906 <sup>a</sup>	.821	.731	2.32396

a. Predictors: (Constant), Years.

b. Dependent Variable: EGV.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig
		B	SE	$\beta$		
1	(Constant)	-1.935	2.846		-.680	.567
	Years	3.144	1.039	.906	3.025	.094

a. Dependent Variable: EGV

## Appendix L: SPSS Output for Estimation of Gun Violence Restraining Order

Movement for Order After Hearing-1 Year Following the Years the Restrictions Became

Law

**Model Summary<sup>b</sup>**

Model	R	RS	Adjusted RS	SE of the Estimate
1	.925 <sup>a</sup>	.855	.783	2.19618

a. Predictors: (Constant), Years

b. Dependent Variable: OGV.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig
		B	SE	$\beta$		
1	(Constant)	-3.025	2.690		-1.125	.378
	Years	3.377	.982	.925	3.438	.075

a. Dependent Variable: OGV.

Appendix M: SPSS Output for Estimation of Gun Violence Restraining Order  
Movement for Temporary Order-21 Days Following the Years the Restrictions Became  
Law

**Model Summary<sup>b</sup>**

Model	R	RS	Adjusted RS	SE of the Estimate
1	.881 <sup>a</sup>	.776	.664	3.75515

a. Predictors: (Constant), Years

b. Dependent Variable: TGV

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig		
	B	SE	$\beta$			
1	(Constant)	-3.810	4.599	.828	.495	
	Years	4.417	1.679	.881	2.630	.119

a. Dependent Variable: TGV