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July 27, 2020

Jennifer Lambert
New Venture Fund

Dear Ms. Lambert:

The University of Washington is pleased to submit this letter in support of the application entitled, "Risk of Subsequent Firearm-Related Crime Among Individuals with Prior Misdemeanor Conviction." This application was prepared by Ali Rowhani-Rahbar.

We present this application for your review and request support in the amount of \$188,748 for the period October 01, 2020 through September 30, 2022.

The University of Washington reserves the right to negotiate the terms and conditions of the award should this application be funded.

We certify that we have in place a written and enforced financial conflict of interest policy at least as rigorous as that mandated by the NIH at 42 CFR Part 50, Subpart F or 45 CR Part 94, and that our financial conflict of interest policy will apply to our project director, principal investigator, and any other individual responsible for the design, conduct, or reporting of the budgeted activities.

Thank you for your consideration.

Sincerely,

**Diane
Wentz**

Digitally signed by
Diane Wentz
Date: 2020.07.28
10:00:05 -07'00'

Diane Wentz, Ph.D.
Grant & Contract Analyst
Authorized Signing Official
Office of Sponsored Programs

Please reference our **#A160738** on all correspondence concerning this application.

Executive Summary

Under federal law, individuals who are convicted of felonies of any type, or misdemeanors of domestic abuse, are generally prohibited from purchasing and possessing firearms. These federal policies have been shown to reduce the risk of perpetrating firearm-related crime among convicted felons by 20-25%. With the exception of those who are convicted of domestic violence misdemeanors, these federal firearm prohibitions do not extend to individuals who are convicted of other types of misdemeanors. Additionally, an estimated 12% of individuals initially *charged* with felonies are ultimately *convicted* of misdemeanors and are therefore not prohibited from accessing firearms. Legal research by our team indicates that only nine states have laws that prohibit individuals convicted of violent misdemeanors *other than domestic violence* from purchasing and possessing firearms. Other states do not pose these restrictions. Thus, building evidence on whether prior conviction for violent misdemeanors is associated with subsequent perpetration of firearm-related crime remains an important research priority. Additionally, understanding which *non-violent* misdemeanors, if any, are associated with subsequent perpetration of firearm-related crime has important implications for policy and practice. The point at which a person is arrested for a non-violent misdemeanor represents an intervention opportunity for connection to social service programs (e.g., substance use treatment) that in conjunction with legal interventions may reduce the risk of perpetrating firearm-related crime.

In Washington State, individuals convicted of misdemeanors other than domestic violence are not prohibited from accessing firearms, making this state a suitable setting for evaluating which types of misdemeanors are associated with subsequent perpetration of firearm-related crime. This project seeks to address this overarching goal by addressing the following specific aims:

Aim 1. Examine the overall association of prior convictions for violent misdemeanors, and non-violent misdemeanors, with subsequent perpetration of firearm-related crime.

Aim 2. Assess the aforementioned associations by specific types of prior misdemeanors (e.g., assault, robbery, controlled substance possession) as well as violent and non-violent firearm-related crime.

Aim 3. Evaluate the association of prior convictions for violent misdemeanors that were initially charged as felonies, and non-violent misdemeanors that were initially charged as felonies, with subsequent perpetration of firearm-related crime.

We propose a state-wide, retrospective cohort study that utilizes administrative data from a number of criminal justice system entities in Washington. The study cohort will consist of individuals aged 18 or older who were convicted of misdemeanors or infractions in Washington anytime from January 1st, 2015 through December 31st, 2019. These individuals will be identified using data from the Washington State Administrative Office of the Courts (AOC). These data include the charge (e.g. theft, assault, loitering), whether or not the case involved domestic violence, the disposition (e.g. dismissed, guilty), and applicable sentencing information for each case. After identifying the study cohort, we will determine which cohort members went on to be convicted of a subsequent crime. An important analytic consideration in this project is the time during which a member of the study cohort was “at risk” of perpetrating a subsequent

crime (i.e., alive and in the community). To ensure that we correctly measure time at risk, we will link AOC data for the study cohort to jail booking data and to death certificate data.

Our primary exposure of interest will be the first conviction for a misdemeanor crime or infraction in Washington (i.e., index crime) during the study period. We will classify each misdemeanor crime into one of four categories: (1) firearm-related violent crime; (2) non-firearm-related, violent crime; (3) firearm-related, non-violent crime; and (4) non-firearm-related, non-violent crime. Our primary outcome of interest is subsequent conviction for firearm-related crime. Our secondary outcomes of interest include charges (using AOC data) and arrests (using Washington State Patrol data) for subsequent firearm-related crime. Covariates will include age, sex, number of prior misdemeanor convictions, number of prior infractions, and prior prison or jail sentences. Moderators include race and prior convictions for felony offenses.

To address Aims 1 and 2, we will match individuals convicted of misdemeanors to those convicted of infractions (reference group) in a 1:4 ratio on age and sex and compare them with regard to the risk of outcomes. To address Aim 3, we will restrict our analysis to members of our cohort whose index crimes were misdemeanors, and compare those whose index crime had been originally charged as a felony with those whose index crime had been originally charged as a misdemeanor (reference group) with regard to the risk of outcomes. We will use the sub-distribution method described by Fine and Gray to model sub-hazard ratios for subsequent risk for perpetrating firearm-related crimes while treating death and incarceration as competing risks. In all analyses, we will examine the risk of any firearm-related convictions as well as separately by whether it was due to a violent or non-violent crime. For all three aims, our analyses are powered to detect an increased rate of subsequent firearm-related crime as small as 5%.

Information on firearm involvement in violent crimes is often not included in the administrative databases maintained by state courts. As a result, some investigators have combined violent and firearm-related crime into a single outcome variable in the past. Data on firearm involvement in violent crimes are not available in AOC data. To address this issue, we will travel to courthouses across Washington to review the original case files for each crime to ascertain if a firearm was involved. An important consideration in our study is the need for a thoughtful interpretation of findings that is sensitive to the challenges faced by communities of color and those who are disproportionately exposed to, or are involved with, the criminal justice system. As such, we will work closely with experts in the community and members of the study Advisory Board to ensure that our findings are accurately presented, and their implications are appropriately interpreted.

Results will be disseminated through public presentations in diverse community settings and publications in high impact academic journals. We will leverage the electronic bulletins, newsletters, and social network accounts of the School of Public Health and Harborview Injury Prevention and Research Center at the University of Washington to disseminate the findings. We will share the findings with colleagues at the Regional Firearms Enforcement Unit at the King County Prosecuting Attorney's Office. This project will make an important empirical contribution to the scant extant literature on the relationship between prior misdemeanor convictions and subsequent firearm-related crime and can bolster the state-level and national dialogue on firearm prohibition and social service intervention strategies that can prevent firearm-related crime and promote the health, safety, and well-being of diverse communities.

Project Narrative

Research Questions

In this study, we propose to evaluate the association between prior convictions for misdemeanors and subsequent perpetration of firearm-related crime. The United States is unique among its peers in that firearm ownership is a constitutional right. In light of this unique legal landscape, the Consortium for Risk-Based Firearm Policy has encouraged the development of further evidence to inform firearm access restrictions based on dangerous behavior.^{1,2} Such behavior may include actions that indicate a high risk of inflicting harm to others using firearms. However, there is a notable dearth of contemporary, scientific evidence as to which individuals pose a high risk of perpetrating firearm-related crime.

Federal law generally prohibits the purchase and possession of firearms by individuals who are convicted of felonies of any type, or misdemeanors of domestic abuse.³ These federal policies have been shown to reduce the risk of perpetrating firearm-related crime among convicted felons by 20-25%.⁴ With the exception of those who are convicted of domestic violence misdemeanors, federal law does not prohibit individuals who are convicted of other types of misdemeanors from purchasing and possessing firearms.³ Additionally, an estimated 12% of individuals initially *charged* with felonies are ultimately *convicted* of misdemeanors (e.g., through plea bargaining) and are therefore not prohibited from accessing firearms.⁵ Legal research by our team indicates that only nine states have laws that prohibit individuals convicted of violent misdemeanors *other than domestic violence* from purchasing and possessing firearms. Other states do not pose these restrictions. Thus, building evidence on whether prior conviction for violent misdemeanors is associated with subsequent perpetration of firearm-related crime remains an important research priority to inform policy and practice in public health and public safety.

Additionally, understanding which *non-violent* misdemeanors, if any, are associated with subsequent perpetration of firearm-related crime has important implications for policy and practice. Research on this association could direct the more targeted and nuanced use of the law to protect others from firearm violence as well as using it as an opportunity for diversion and treatment programs. For example, the point at which a person is arrested for a non-violent misdemeanor represents an intervention opportunity for connection to social service programs (e.g., substance use treatment) that in conjunction with legal interventions may reduce the risk of perpetrating firearm-related crime.

In Washington State, individuals convicted of misdemeanors other than domestic violence are not prohibited from purchasing and possessing firearms, making this state a suitable setting for evaluating which types of misdemeanors are associated with subsequent perpetration of firearm-related crime. Evidence from this study will provide valuable insight into whether specific expansions of firearm access prohibitions to individuals convicted of certain misdemeanors could reduce the risk of perpetrating firearm-related crime. This project seeks to address this overarching goal by addressing the following specific aims:

Aim 1. Examine the overall association of prior convictions for violent misdemeanors, and non-violent misdemeanors, with subsequent perpetration of firearm-related crime.

Aim 2. Assess the aforementioned associations by specific types of prior misdemeanors (e.g., assault, robbery, controlled substance possession) as well as violent and non-violent firearm-related crime.

Aim 3. Evaluate the association of prior convictions for violent misdemeanors that were initially charged as felonies, and non-violent misdemeanors that were initially charged as felonies, with subsequent perpetration of firearm-related crime.

Significance

1. Burden of Firearm-Related Crime

Violent crime is a significant public health and public safety problem in the United States. The Federal Bureau of Investigation (FBI) estimates that 1,206,836 violent crimes and 7,196,045 property crimes were committed in 2018, the most recent year for which data are currently available.⁶ In the FBI's Uniform Crime Reporting (UCR) Program, violent crime is defined as an offense that involves force or threat of force consisting of four categories: [1] murder and nonnegligent manslaughter; [2] rape; [3] robbery; or [4] aggravated assault. Firearms were used in 73% of homicides, 38% of robberies, and 26% of aggravated assaults in 2018.⁷

The violent crime rate in Washington in 2018 was 311.5 per 100,000 residents.^{8,9} Of the 26,110 violent crimes perpetrated in Washington in 2018, 3,482 (13.4%) involved firearms.⁸ Of great concern is that the rate of violent crime perpetration in Washington has increased every year for the past several years from a low of 286.4 per 100,000 residents in 2015.⁹ The reasons for this increase in crime are multi-faceted suggesting that combined legal and social interventions will be necessary to save lives and reduce the burden of violent crime on communities.

2. Misdemeanor and Firearm-Related Crimes

Although limited, prior research from California suggests that certain misdemeanors are associated with subsequent perpetration of violent or firearm-related crime. In one of the only individual-level studies of that association conducted over two decades ago, Wintemute et al. found that among California residents who legally purchased a handgun in 1977 and were followed until 1992, those who had previously been convicted of one misdemeanor were five times more likely to commit subsequent violent crime than handgun purchasers with no criminal history.¹⁰ This association was even stronger among individuals whose prior convictions were for violent crimes, as they were nine times more likely to commit subsequent violent crime than handgun owners without prior convictions. The authors were not able to assess what proportion of these subsequent violent crimes involved firearms. Wintemute et al. also evaluated the effect of California's 1991 handgun purchasing prohibition for individuals convicted of violent misdemeanors. They found that among individuals with prior convictions for violent misdemeanors, those who purchased handguns prior to the law's enactment were 30% more likely to commit a subsequent firearm-related or violent crime than individuals who were unable to purchase handguns following the law's enactment.¹¹ Additionally, research involving two cohorts of California residents (the 1977 cohort of handgun purchasers and a more contemporary

cohort that purchased handguns from 2001-2013) has shown that individuals convicted of alcohol-related misdemeanors such as driving under the influence of alcohol are more likely to perpetrate subsequent violent or firearm-related crime than individuals without misdemeanor convictions.^{12,13} Given the paucity of contemporary research in this area in other parts of the country, a critical need exists to understand if prior misdemeanors, and of what types, constitute a risk factor for perpetrating firearm-related crime.

An estimated 12% of individuals who are charged with felonies are ultimately convicted of misdemeanors.¹⁴ Downgraded charges can happen for several reasons, though plea bargaining is the most common. In 2017, over 97% of federal and state criminal cases were resolved through plea bargains.¹⁵ Convictions for downgraded charges may have two very different effects on risk of perpetrating subsequent firearm-related crime. The first potential effect is that downgraded charges could be associated with an increased risk of perpetrating firearm-related crime as violent individuals would not be prohibited from purchasing or possessing firearms. However, limited evidence based on an evaluation of a cohort of 787 violent misdemeanants who purchased handguns in California from 1989 through 1991 suggests that downgraded charges may not be associated with increased risk of subsequent firearm-related or violent crime perpetration. Among this cohort, individuals charged with violent felonies who were convicted of violent misdemeanors were as likely to commit subsequent firearm-related or violent crimes as individuals charged with and convicted of violent misdemeanors.¹⁶ The second potential effect of downgraded charges is that they may reduce the risk of subsequent firearm-related crime by not restricting employment and housing opportunities, or the civil rights of convicted individuals. Poverty is among the greatest drivers of violence, and many convicted felons struggle to support themselves through legal means due to their criminal history. By limiting convicted felons' opportunities to legally participate in society and address their basic needs for survival, felony convictions may in turn increase the likelihood of subsequent firearm-related crime perpetration. Given these two conflicting pathways, additional, contemporary evidence is warranted to understand how downgraded charges may influence subsequent firearm-related crime.

3. Policy and Public Health Implications

The Consortium for Risk-Based Firearm Policy has made recommendations for both federal and state firearm policy including the expansion of firearm prohibitions to persons who may be at increased risk of future violence perpetration.^{1,2} One such group is those who are convicted of violent misdemeanors. However, robust and contemporary evidence to support these recommendations is currently limited. The findings of this project will provide much-needed information to inform the development and refinement of risk-based firearm policies at the state level. States are increasingly adopting certain firearm purchase and possession prohibitions such as those related to Domestic Violence Protection Orders (DVPOs) and Extreme Risk Protection Orders (ERPOs). However, no single policy can reduce the heavy toll of firearm violence on its own. Crafting new risk-based firearm policies and refining existing ones require a continuous stream of robust and timely evidence to support it.

Findings from this study can also inform development of public health and social service interventions that may reduce the incidence of firearm-related violence among individuals convicted of non-violent misdemeanor crimes. A local example of one such divergence program

is Project LEAD (Leadership Effectiveness and Diversity). The goal of this community-based program is to treat the root causes of crime by providing intensive case management and social support services including housing and substance use treatment. Participants are diverted from the criminal justice system into the program by police officers at the point of arrest. An evaluation of this program found that participants were 58% less likely to commit a subsequent crime than similar individuals who went through the standard criminal justice process.¹⁷ Given the success of Project LEAD and other programs such as Community Passageways,¹⁸ it is likely that there are other individuals who would benefit from new and expanded divergence programs. Identification of such high-risk groups serves as the first step toward the development of programs that may reduce their subsequent involvement in the cycle of violence.

This project will make an important empirical contribution to the scant extant literature on the relationship between prior misdemeanor convictions and subsequent firearm-related crime. Its findings can also bolster the state-level and national dialogue on firearm prohibition and social service intervention strategies that may prevent firearm-related crime and promote the health, safety, and well-being of diverse communities.

Innovation and Priority Research Topics

This project contributes to three research topics indicated on the Request for Proposals by The Fund for a Safer Future: (1) Research on risk factors for fatal and non-fatal shootings; (2) Research that evaluates specific gun violence prevention policies; and (3) Research that evaluates policies and strategies for reducing gun violence in urban communities.

Methodologic Approach

1. Study Design, Setting, and Population

We propose a state-wide, retrospective cohort study that utilizes administrative data from a number of criminal justice system entities in Washington. In this state, individuals convicted of misdemeanors other than domestic violence are not prohibited from purchasing and possessing firearms, making it a suitable setting for conducting the proposed project. The study cohort will consist of individuals aged 18 or older who were convicted of misdemeanors or infractions in Washington anytime from January 1st, 2015 through December 31st, 2019. These individuals will be identified using data from the Washington State Administrative Office of the Courts (AOC). AOC maintains records on all court cases filed in Washington since 1957. These data include the charge (e.g. theft, assault, loitering), whether or not the case involved domestic violence, the disposition (e.g. dismissed, guilty), and applicable sentencing information for each case. After identifying the study cohort, we will determine which cohort members went on to be convicted of a subsequent crime. One limitation of AOC data is that for violent crimes, it is not possible to determine if a firearm was involved. Information on whether a firearm was involved in violent crimes, however, can be obtained by reviewing the original court documents associated with each case. To ascertain if a firearm was involved in the violent crime, we will travel to the courts across Washington where the cases were filed to review the records for first and subsequent violent crimes during the study period. We have traveled to courts across Washington and

successfully abstracted data from the records in a prior study.¹⁹ We will use similar successful strategies in this project.

An important analytic consideration in this project is the time during which a member of the study cohort was “at risk” of perpetrating a subsequent crime (i.e., alive and in the community). To ensure that we correctly measure time at risk, we will link AOC data for the study cohort to jail booking data, which we will obtain from the King County Department of Adult and Juvenile Detention (KCDAJ; King County Jails) and Washington Office of Financial Management (OFM; all jails in Washington except those in King County). We will also link AOC data to death certificate data, which we will request from the Washington State Department of Health (DOH). We will use identifiers (name, sex, and date of birth) to link AOC data to each of the other data sources. Consistent with our prior work in linking multiple administrative databases, we will use Link King, a program developed to link administrative datasets in Washington using both probabilistic and deterministic linkages, to conduct all data linkages.^{20–22}

2. Measures

2.1. Exposures

Our exposure of interest in this study will be the first conviction for a misdemeanor or infraction in Washington (i.e., index crime) during the study period. For Aims 1 and 2, we will compare individuals convicted of misdemeanors to those convicted of infractions (reference group). We use this “internal” reference group of individuals convicted of an infraction as their risk of subsequent firearm-related crime is expected to be closer to that of the general population, and that they most certainly will not be subject to firearm restrictions purely based on their offense of infraction. For Aim 3, we will compare individuals charged with felonies but convicted of misdemeanors to those charged with and convicted of misdemeanors (reference group). We will obtain all information on index crimes from the AOC data. We will then classify each misdemeanor crime into one of four categories: (1) firearm-related violent crime; (2) non-firearm-related, violent crime; (3) firearm-related, non-violent crime; and (4) non-firearm-related, non-violent crime. Examples of how we will classify each type of crime are presented in Table 1.

Table 1: Classification of Misdemeanor Crimes

Crime Category	Firearm-Related, Violent Crime	Non-Firearm-Related, Violent Crime	Firearm-Related, Non-Violent Crime	Non-Firearm-Related, Non-Violent Crime
Crime Type	Aggravated assault Murder and nonnegligent manslaughter Robbery Rape	Aggravated assault Murder and nonnegligent manslaughter Robbery Rape	Unlawful carrying a concealed firearm in a public place Unlawful possession of a firearm Possession of stolen firearm	Burglary Petty theft Driving under the influence of alcohol Drug possession

2.2. Outcomes

Our primary outcome of interest in this study is *conviction* for a subsequent firearm-related crime. Our secondary outcomes of interest include *charges* for subsequent firearm-related crime and *arrests* for subsequent firearm-related crime, both of which will help provide a more comprehensive understanding of how prior misdemeanor convictions may be associated with

subsequent firearm-related crime. We will obtain outcome information on charges and convictions from AOC data. We will obtain data on arrests by linking AOC data to Washington State Patrol (WSP) records. WSP data includes information on all arrests (e.g. burglary, assault) made in Washington from 1974 onwards. We will classify each firearm-related crime as violent or non-violent in an identical manner to how we classified index misdemeanor crimes.

2.3. Confounders

Relevant confounders for this study include age, sex, number of prior misdemeanor convictions, number of prior infraction convictions, and prior prison or jail sentence. Data for all of these covariates will be obtained from AOC data.

2.4. Effect Measure Modifiers

It is well documented that racial disparities exist within the criminal justice system. People of color are significantly more likely to be arrested and are more likely to be charged with more severe crimes than non-Hispanic White individuals.^{23,24} These racial disparities may have a significant impact on subsequent firearm-related crime. We will evaluate the potential for effect measure modification (i.e., moderation) of our observed association by race. Information on race will be obtained from AOC data.

Additionally, we will evaluate the potential for effect measure modification of our observed associations by history of felony conviction. Because we are not restricting our study population to individuals who committed their lifetime's first crime during the study period, it is likely that members of our cohort will have been convicted of felonies prior to their index crime. These individuals are prohibited from possessing a firearm and may also struggle to find steady housing and legal employment. These ramifications of felony convictions may have an important impact on risk of misdemeanor and subsequent firearm-related crime and warrant investigation. Information on prior felony convictions will be obtained from AOC data.

3. Statistical Analyses

3.1. Aims 1 and 2

To address Aims 1 and 2, we will first match individuals convicted of misdemeanors to those convicted of infractions in 1:4 ratio on age and sex. Matching in a cohort study is an effective means of controlling for confounding by the matched covariates while improving statistical efficiency.²⁵ In studies such as ours that rely on large administrative databases but that also require manual review of data, matching also improves the operational efficiency of a study by reducing the number of records for manual review.

Once we have identified our analytic cohort, we will link AOC data to jail, vital statistics, and arrest data as described in sections 1 and 2.2. Following data linkages, we will compare demographic differences between individuals in each of our five primary exposure groups classified by the category of index crime (i.e., firearm-related violent crime, non-firearm violent crime, firearm-related nonviolent crime, non-firearm nonviolent crime, and infraction).

We will conduct identical analyses for Aims 1 and 2, though the exposure variable will vary for each aim as described in section 2.1. We will calculate crude incidence rates of firearm-related crime among the four primary misdemeanor groups, as well as by specific form of offense (e.g., assault, robbery) compared to infractions. For all analyses, follow-up time will begin once the study cohort member returns to the community (e.g., at the end of the incarceration period if the index crime resulted in incarceration). Follow-up time will end on the day of first charge for a subsequent crime, death, or end of study period, whichever occurred first.

We will conduct survival analyses using the sub-distribution method described by Fine and Gray to model sub-hazard ratios for subsequent convictions for firearm-related crimes while treating death and incarceration as competing risks and controlling for confounders.²⁶ In all analyses, we will examine the risk of any firearm-related convictions as well as separately by whether it was due to a violent or non-violent crime. We will conduct all analyses among the full analytic cohort, as well as stratified by race/ethnicity and prior felony conviction in order to evaluate the potential for effect measure modification by these variables. Similar analyses will be conducted to evaluate the association of an index misdemeanor with our secondary outcomes.

3.2. Aim 3

To address Aim 3, we will restrict our analysis to members of our analytic cohort whose index crimes were misdemeanors. We will use descriptive statistics to characterize the frequency with which crimes that were charged as felonies resulted in misdemeanor convictions, as well as to compare demographic characteristics between individuals charged with a felony but convicted of a misdemeanor and those who were charged with and convicted of a misdemeanor. We will compare the crude incidence rate of firearm-related crime between individuals charged with felonies but convicted of misdemeanors to those who were charged with and convicted of misdemeanors. Follow-up time will end on the day of first charge for a subsequent crime, death, or end of study period, whichever occurred first. As in Aims 1 and 2, we will use the sub-distribution method to model subhazard ratios for subsequent firearm-related crime while accounting for incarcerations and deaths as competing risks and controlling for confounders.

3.3. Analytic Power

Annual data on the number of misdemeanor and infraction convictions are available from AOC.²⁷ From 2015 through 2019, there were 19,909 convictions for cases filed in Washington superior courts for criminal misdemeanor or gross misdemeanor offenses (e.g., murder, robbery, controlled substance violations) and 415,556 convictions for traffic-related and criminal offenses for cases filed in courts of limited jurisdiction. During that period, there were also 3,808,016 infractions (e.g., traffic-related violations).

For Aims 1 and 2, we have based our estimate of analytic power on the following assumptions: (1) a ratio of 1:4 individuals convicted of misdemeanors to individuals convicted of infractions; (2) a conviction proportion of 5% for subsequent firearm-related crime among individuals who commit an infraction; and (3) $\alpha=0.05$. Based on these assumptions, we will have >90% power to detect a hazard ratio as small as 1.05.

For Aim 3, we will restrict our cohort to the subset of individuals who were convicted of a misdemeanor for their index crime. Prior research has estimated that 38% of individuals convicted of violent misdemeanors were initially charged with violent felonies, and that the rate of subsequent firearm-related and violent crime among those charged with and convicted of violent misdemeanors was 25%.¹⁶ Our estimate of analytic power for Aim 3 is based on the following assumptions: (1) a ratio of 1:1 individuals charged with felonies but convicted of misdemeanors to individuals charged with and convicted of misdemeanors; (2) conviction proportion of 25% for a subsequent firearm-related crime among individuals charged with and convicted of misdemeanors; and (3) $\alpha=0.05$. Based on these assumptions, we will have >90% power to detect a hazard ratio as small as 1.05.

Key Challenges and Solutions

A challenge of firearm-related research is that information on firearm involvement in violent crimes is often not included in the administrative databases maintained by state courts. As a result, some investigators chose to combine violent and firearm-related crime into a single outcome variable in their studies.^{10,11,20,21} Data on firearm involvement in violent crimes for both index and subsequent misdemeanor crimes are not available in AOC data. To address this issue, we will travel to courthouses across Washington to review the original case files associated with each crime to ascertain if a firearm was involved. This review must be done manually; however, by restricting both the study time frame and identifying a subset of individuals who committed infractions through the matching process, we will be able to restrict the number of cases that need to be reviewed to a feasible amount in line with our experience in prior studies.

Another challenge in this project is accurate estimation of time at risk. While we plan to obtain dates of deaths and jail incarceration, we will only be able to obtain this information for deaths and jail incarcerations that occurred in Washington, which may result in an overestimation of time at risk. Additionally, we will not have data on dates of prison incarceration. To address this challenge, we will use AOC sentencing data to estimate the length of time that members of our cohort may have spent in prison. These data will allow us to know which members of our cohort were sent to prison and to estimate how long they would not have been at risk of our outcome. We plan to conduct a sensitivity analysis wherein we exclude individuals sentenced to prison from our cohort to estimate how misclassified person-time may be biasing our results. As prison sentences for misdemeanor crimes in Washington are exceedingly rare (only 0.4% of misdemeanor cases in 2019),²⁸ we anticipate that the results of this sensitivity analysis will not be appreciably different from our primary findings.

An important consideration in this study is the need for a thoughtful interpretation of findings that is sensitive to the challenges faced by communities of color. It is well documented that Black and Hispanic individuals—particularly men—are more likely to be arrested than non-Hispanic White individuals.^{23,24} They are typically charged with more severe crimes and are less likely to have felony charges downgraded to misdemeanors.²⁹ Simultaneously, they are more likely to be victims of violent crime, to live in unsafe neighborhoods, and to feel unsafe. To address this important consideration, we will work closely with experts in the community and

members of the Advisory Board to ensure that our findings are accurately and sensitively interpreted.

Research Team

Ali Rowhani-Rahbar, MD, MPH, PhD (Principal Investigator) is the Bartley Dobb Associate Professor for the Study and Prevention of Violence at the University of Washington. He is the Co-Director of the Firearm Injury and Policy Research Program, Leader of the Violence Prevention Section, and Director of the Research Core at Harborview Injury Prevention and Research Center. He investigates firearm-related violent victimization and perpetration with an integrated public health and public safety approach. His research is focused on generating evidence that inform policies, programs, and practices designed to prevent firearm violence from occurring in the first place, promote healing following it, and reduce its recurrence. These efforts have resulted in multiple firearm-specific peer-reviewed publications over the past decade. Miriam Haviland, MSPH, PhD (Co-investigator) is an epidemiologist with expertise in the design and conduct of population-based studies. Her research has predominantly focused on generating evidence to improve practices and programs pertaining to maternal and child health. She is now a member of the Firearm Injury and Policy Research Program at Harborview Injury Prevention and Research Center where she has led a substantial number of studies of firearm violence and policy. Her work is predominantly focused on generating rigorous evidence to support the development of policies and programs to prevent firearm-related injury, as well as advancing the methodologic rigor of the field of firearm injury prevention research. Andrew Bowen, BA (Research Assistant) is a member of the Firearm Injury and Policy Research Program at the Harborview Injury Prevention and Research Center and involved in a large number of studies of firearm injury, violence, and policy as described in the separate Qualifications document.

Advisory Board

We have formed an Advisory Board with collective expertise in law, sociology, criminology, social justice, and gender and racial equity. The members of this board will meet with the research team every 6 months during the course of the study to learn about its progress, provide feedback, share their experience and insight toward any necessary modifications along the way, assist with the appropriate interpretation and implications of the findings, and connect the research team to other experts and community partners. Deirdre M. Bowen, JD, PhD is an Associate Professor of Law at Seattle University School of Law with a doctoral degree in sociology. She has significant experience conducting research in criminal legal systems and advocating for survivors of violence, including many cases involving firearms. Fe Lopez, JD is the Director of Educational Equity Initiatives at Law School Admission Council. She has extensively engaged with communities of color, especially those who have been negatively and disproportionately impacted by discrimination. She has advocated and promoted practices to help build trust and strengthen community and law enforcement relations. Enrique Gonzalez, BA is currently a Community Engagement Specialist at the City of Seattle, a former Community Advocate in Public Defender Association, and the former Co-Chairperson of the Seattle Community Police Commission. He has worked extensively on areas including police accountability, justice reform, and juvenile justice advocacy.

Research Ethics Considerations

We will obtain Institutional Review Board approval from the Human Subjects Division of the University of Washington for using data from AOC (charges and convictions), WSP (arrests), DOH (deaths), and KCDAJD (all jail incarcerations in King County). Separately, we will obtain approval from the Washington State Institutional Review Board for using data from OFM (all jail incarcerations in Washington State except those in King County).

Plans for Dissemination

We will prepare multiple papers and submit them to high impact journals (e.g., *JAMA Network*, *Annals of Internal Medicine*, *American Journal of Public Health*, *Health Affairs*, *Journal of Interpersonal Violence*). Additionally, we will present our findings at national academic meetings, such as the Annual Meeting of the American Society of Criminology, American Public Health Association, and Society for Advancement of Violence and Injury Research. Research briefs and press releases about the study findings will be shared in community forums. We will also include an explanation for how the scientific findings could be translated into public health and public safety programs as well as public policies in the publications and presentations that result from this study. We will use the website of the School of Public Health and Harborview Injury Prevention and Research Center at the University of Washington to promote the findings and share those via social media and news outlets at the local, state, and national levels. Additionally, we will share the findings with colleagues at the Regional Firearms Enforcement Unit, the first unit of its kind in the nation.³⁰ This unit, located at the King County Prosecuting Attorney's Office, is responsible for quickly and proactively assisting with the service of protection orders, immediate removal of firearms based on those orders, and holding those accountable who fail to comply with or who otherwise possess firearms unlawfully. We will also inform key legislators in Washington about the study findings. Due to the nature of the project, we do not anticipate the COVID-19 pandemic to negatively influence its execution or dissemination.

Timeline

The project is anticipated to be completed in 2 years. We propose to begin the project on October 1, 2020 and complete it on September 30, 2022. This 2-year period includes several phases per Table 2 below.

Table 2. Project Timeline

Task	Year 1				Year 2			
Phase 1. Start-up								
Phase 2. Access to AOC and WSP data								
Phase 3. Review and preparation of arrest and conviction analytic datasets								
Phase 4. Access to KCDAJD, OMF, and DOH data								
Phase 5. Review and preparation of jail and death analytic datasets								
Phase 6. Analysis of Aims 1 and 2								
Phase 7. Analysis of Aim 3								
Phase 8. Dissemination								

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Qualifications and Experience of the Research Team

The research team consists of individuals who have collectively contributed to several publications, editorials, commentaries, and presentations on firearm injury and gun violence at the local and national level. Collectively, this team of investigators offers a wealth of experience and diverse set of skills in the field of firearm violence research.

Research Team

Ali Rowhani-Rahbar, MD, MPH, PhD (Principal Investigator) is the Bartley Dobb Associate Professor for the Study and Prevention of Violence and Associate Professor of Epidemiology at the University of Washington. He is the Co-Director of the Firearm Injury and Policy Research Program, Leader of the Violence Prevention Section, and Director of the Research Core at Harborview Injury Prevention and Research Center. His epidemiologic studies have spanned across multiple forms of violence with a central focus on gun violence. He has authored several peer-reviewed articles and reports about firearm injury, crime, violence and death. He investigates violent victimization and perpetration with an integrated public health and public safety approach. His research on inter-personal violence is focused on the nexus of trauma and crime to inform policies, programs, and practices that prevent violence from occurring in the first place, promote healing following violence, and reduce recidivism. He has served on the firearm violence research technical advisory group of the American College of Emergency Physicians, research council of the American Foundation for Firearm Injury Reduction in Medicine, board of directors of the Society for Advancement of Violence and Injury Research, organizing panel of the National Academy of Medicine Workshop on Health Systems Interventions to Prevent Firearm Injuries and Deaths, and editorial board of *Injury Prevention*.

Miriam Haviland, MSPH, PhD (Co-Investigator) is an Epidemiologist with expertise in the design and conduct of population-based studies. Her research has predominantly focused on generating evidence to improve practices and programs pertaining to maternal and child health. Since joining the Firearm Injury and Policy Research Program of the Harborview Injury Prevention and Research Center at the University of Washington, she has provided methodologic oversight for a number of projects that have generated valuable new evidence for firearm injury prevention. Examples of this work include an evaluation of the effect of state minimum age restrictions on handgun purchases and possession on youth-perpetrated firearm homicides and an evaluation of the association of county-level pediatrician density with firearm suicide among youth aged 10-19. Additionally, she has served as the principal analyst on a number of other studies being conducted within the Program including a state-wide investigation of Extreme Risk Protection Orders, an evaluation of state DUI-related firearm prohibitions, and an age-period-cohort analysis of trends in firearm-related homicides and suicides in the US over the past thirty years. As an epidemiologist, she is dedicated to making methodologic improvements in the field of firearm injury prevention and is currently working on a project to understand the strengths and weaknesses of variables used as proxies for firearm ownership.

Andrew Bowen, BA (Research Assistant) is a Research Assistant in the Firearm Injury and Policy Research Program of the Harborview Injury Prevention and Research Center at the University of Washington. In this role, he provides essential research support to studies of

firearm injury, violence, and policy. His research has focused on federal and state policies governing access to firearms and their effects on firearm-related harm and mortality. He has been responsible for primary source legal research to characterize permit-to-purchase requirements, minimum age restrictions on handgun purchase, and DUI laws in 50 states; this work contributed to studies examining the effect of those policies on suicide and homicide of young adults. Other legal research activities include summarizing state-level firearm prohibitions related to non-domestic violence misdemeanors. Additionally, he has experience in extracting data from law enforcement and court records for studies to examine risk factors for intimate partner homicide-related child death and characteristics of Extreme Risk Protection Order filings. He is currently contributing to reviews concerning proxy measures of firearm ownership and the intersection of firearms and chronic illness.

Advisory Board

We have formed an Advisory Board with collective expertise in law, sociology, criminology, social justice, and gender and racial equity. The members of this board will meet with the research team every 6 months during the course of the study to learn about its progress, provide feedback, share their experience and insight toward any necessary modifications along the way, assist with the appropriate interpretation and implications of the findings, and connect the research team to other experts and community partners.

Deirdre M. Bowen, JD, PhD is an Associate Professor of Law at Seattle University School of Law with a doctoral degree in sociology. She has significant experience conducting research in criminal legal systems and advocating for survivors of violence, especially domestic violence, and cases involving firearms.

Fe Lopez, JD is the Director of Educational Equity Initiatives at Law School Admission Council. She has extensively engaged with communities of color, especially those who have been negatively and disproportionately impacted by discrimination. She has advocated and promoted practices to help build trust and strengthen community and law enforcement relations.

Enrique Gonzalez, BA is currently a Community Engagement Specialist at the City of Seattle, a former Community Advocate in Public Defender Association, and the former Co-Chairperson of the Seattle Community Police Commission. He has worked extensively on areas including police accountability, justice reform, and juvenile justice advocacy.

Description of the Organization

University of Washington

The University of Washington was founded on November 4, 1861. It is one of the oldest state-supported institutions of higher education on the Pacific Coast. The primary mission of the University is the preservation, advancement, and dissemination of knowledge. The University preserves knowledge through its libraries and collections, its courses, and the scholarship of its faculty. It advances new knowledge through many forms of research, inquiry and discussion, and disseminates it through the classroom and the laboratory, scholarly exchanges, creative practice, international education, and public service. As one of the nation's outstanding teaching and research institutions, the University is committed to maintaining an environment for objectivity and imaginative inquiry for the original scholarship and research that ensure the production of new knowledge in the free exchange of facts, theories, and ideas. Many of the approximately 4,100 teaching and research faculty are known nationally and internationally for their accomplishments. In recent fiscal years, the University received over \$1.6 billion in public and private grant and contract support for research and training. Since 1969, the University has been one of the leading institutions in receipt of federal awards nationally.

School of Public Health

The School of Public Health is one of 18 schools/colleges at the University of Washington. The combination of discipline-oriented academic programs and strong interdisciplinary research provides a setting for faculty and students to apply in-depth expertise to broad public health problems. Students gain knowledge of quantitative and qualitative methods, public health values, and emerging technologies through classroom, research, and field training experiences. The School is well regarded within the University community for its support of state-of-the-art research activities including those pertaining to injury such as firearm injury and violence. Many of the graduate programs in the School emphasize fundamental and applied research in the public health sciences, conducted by faculty who are actively engaged in research. Excellent collaborative relationships exist with other health sciences schools (Medicine, Pharmacy, Nursing, and Social Work) and other research organizations enhancing the depth and breadth of research in the School.

Department of Epidemiology

The Department of Epidemiology in the School of Public Health at the University of Washington is one of the most highly-regarded departments of epidemiology in the United States. There are approximately 70 regular faculty members and 170 graduate students in the Department. Faculty in the Department are actively studying health outcomes including injury and violence. The Department has a long and successful history of studying firearm injury. The wide range of faculty research areas leads to a diverse and dynamic teaching program and numerous research opportunities for students. The Department will serve as the administrative office for the proposed project.



July 23, 2020

Ali Rowhani-Rahbar, MD, PhD
Department of Epidemiology
University of Washington

Dear Dr. Rowhani-Rahbar:

I am pleased to write a letter of support for the project entitled *Risk of Subsequent Firearm-Related Crime Among Individuals with Prior Misdemeanor Conviction* as part of your funding application submitted to Fund for a Safer Future's recent Request for Proposals to support research that will help answer the question: "What Works to Prevent Gun Violence?"

This proposal is a timely and highly relevant approach towards informing firearm access restriction policies in the United States. As a Family Law professor and director and founder of the Domestic Violence Protection Order Clinic at Seattle University School of Law, I have significant experience conducting research in criminal legal systems and advocating for survivors of domestic violence, including many cases involving firearms. My specific expertise falls at the intersection of law and sociology.

In support of this project, I will serve on its Advisory Board to broadly share my experience with the criminal legal system, domestic violence law, and sociology of law with the research team. Specifically, I will review your classification of crimes and provide input into legal, sociologic, and methodologic aspects of the three aims of the project. Finally, I will make suggestions to resolve challenges that may arise during the study period and connect the research team to other experts and knowledgeable individuals who may be able to further support the execution of the project and strengthen the impact of the findings obtained from it.

Faculty Offices

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If you have any questions, please do not hesitate to call me at 206.601.9265 or email me at dbowen@seattleu.edu.

Sincerely,

A handwritten signature in black ink that reads "Deirdre M. Bowen". The signature is fluid and cursive, with a long horizontal stroke at the end.

Deirdre M. Bowen, J.D., Ph.D.
Associate Professor of Law, Seattle University School of Law

Director of the Domestic Violence Protection Order Clinic
Co-Director, Madrid Study Abroad Law & Policy Program at UCIIM
Research Scientist, Firearm Injury & Policy Research Program at Harborview Injury
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July 27, 2020

Ali Rowhani-Rahbar, MD, PhD
Department of Epidemiology
University of Washington

Dear Dr. Rowhani-Rahbar:

I am pleased to write a letter of support for the project entitled *Risk of Subsequent Firearm-Related Crime Among Individuals with Prior Misdemeanor Conviction* as part of your funding application submitted to Fund for a Safer Future's recent Request for Proposals to support research that will help answer the question: "What Works to Prevent Gun Violence?"

This proposal will provide critically important and useful evidence to inform firearm access restriction policies in Washington and the United States. As a Community Engagement Specialist for the Seattle Office of Police Accountability, I oversee/do/have experience with people involved in the criminal justice system. I will be glad to serve on this project's Advisory Board and share my experience in the criminal justice system with the research team and help with the interpretation of findings and implications of this research especially those related to health and justice equity. I will make suggestions to resolve challenges that may arise during the study period and connect the research team to other experts and knowledgeable individuals who may be able to further support the execution of the project and strengthen the impact of the findings obtained from it.

If you have any questions, please do not hesitate to call me at 206-409-0650 or email me at enrique.gonzalez@seattle.gov.

Sincerely

Enrique Gonzalez

A handwritten signature in black ink, appearing to read "Enrique Gonzalez", with a stylized, flowing script.