

Procurement Contract
No. GRA 3349

AGREEMENT NO. 18-019

**MEMORANDUM OF UNDERSTANDING BETWEEN
THE BAKERSFIELD POLICE DEPARTMENT AND
CALIFORNIA STATE UNIVERSITY BAKERSFIELD, Auxiliary for Sponsored Programs
Administration**

THIS MEMORANDUM OF UNDERSTANDING ("MOU") is made and entered into on FEB 07 2018, by and between the **CITY OF BAKERSFIELD** (hereinafter "CITY") and **CALIFORNIA STATE UNIVERSITY BAKERSFIELD, Auxiliary for Sponsored Programs Administration** (hereinafter "AGENCY").

RECITALS

WHEREAS, Bakersfield experiences a high level of gang-related shootings for a city of its size with a large percentage of the shootings occurring in or tied to small portions of the city; and

WHEREAS, CITY is going to install the ShotSpotter Gunshot Location System in Bakersfield to improve police response to gunfire, increase state and federal prosecution of gun crime within the covered area, and increase positive police-community interactions and service opportunities by quickly placing police on scene of illegal shootings and generating actionable intelligence on the frequency and exact location of gunfire; and

WHEREAS, CITY desires to contract with AGENCY to evaluate the system's effectiveness and effect on community relationships between the public and the Bakersfield Police Department,

NOW, THEREFORE, incorporating the foregoing recitals herein, CITY and AGENCY mutually agree as follows:

1. **COMPENSATION/PAYMENT PROCEDURE**. Subject to the conditions of this section, CITY will pay CONTRACTOR as follows for performing the Scope of Work ("Compensation"): See Budget attached as **Exhibit A**.

CITY will pay CONTRACTOR within 30 days after CONTRACTOR submits an itemized invoice for the portions of the Scope of Work completed and that invoice is approved by CITY. The Compensation will be the total amount paid to CONTRACTOR for performing the Scope of Work and includes, but is not limited to, all out-of-pocket costs and taxes. CITY will pay no other compensation to



CONTRACTOR. In no case will CITY compensate CONTRACTOR more than \$110,000.00 for performing the Scope of Work.

2. SCOPE OF WORK. AGENCY will provide guidance in ShotSpotter implementation and establishment of policies and practices to ensure they are data-driven and evidence-based. AGENCY will conduct research to evaluate the effectiveness of this project in reducing gun crime in the City of Bakersfield and community response to ShotSpotter installation in accordance with the Proposal, which is attached to this Agreement as **Exhibit B**.

3. TERM. This MOU shall end on June 30, 2020.

4. RESPONSIBILITIES OF CITY.

4.1. Incorporate use of ShotSpotter technology into existing policy and into the Department's Five-Year Strategic Plan.

4.2. Work with AGENCY to ensure policy and practices are intelligence-led and data-driven through the use of quality data and identification of trends and patterns to assist police in effective use of ShotSpotter technology to respond to and reduce gun crime in the City of Bakersfield while generating a positive impact on community relationships.

4.3. Make available all data and analysis information to Agency.

4.4. Provide office space for one researcher as needed.

5. RESPONSIBILITIES OF AGENCY.

5.1. Monitor and evaluate program effectiveness, providing law enforcement and the public with a detailed analysis of the effectiveness of the program

5.2. Assign staff to assist with all Project-related activities.

5.3. Provide a research team designed and staffed by AGENCY to meet at least quarterly with CITY to provide information and updates.

5.4. Attend Project related meetings to schedule/coordinate and debrief activities as needed.

5.5. Assume responsibility for the conduct and actions of its personnel.

5.6. Ensure that AGENCY does not exceed estimated expenses submitted to and approved by CITY.

6. **CONFIDENTIALITY.** Information provided to AGENCY by CITY marked as confidential is to be considered confidential information. AGENCY shall not reveal any information provided by CITY marked as confidential, for the purpose of this MOU, to any party not authorized by CITY. Agency is a state institution of higher education and is therefore subject to the Public Records Act.

7. **ASSIGNMENT.** Neither party shall assign or transfer any right or duty contained in this MOU.

8. **NOTICES.** All notices relative to this MOU shall be given in writing and shall be personally served or sent by certified or registered mail and be effective upon actual personal service or depositing in the United States mail. The parties shall be addressed as follows, or at any other address designated by notice:

CITY: BAKERSFIELD POLICE DEPARTMENT
1601 Truxtun Avenue
Bakersfield, California 93301

AGENCY: CALIFORNIA STATE UNIVERSITY BAKERSFIELD
9001 Stockdale Highway
Bakersfield, California 93311

9. **COMPLIANCE WITH ALL LAWS.** AGENCY shall, at AGENCY's sole cost, comply with all of the requirements of Municipal, State, and Federal authorities now in force, pertaining to this MOU, and shall faithfully observe in all activities relating to this MOU all Municipal ordinances and State and Federal statutes, rules or regulations, and permitting requirements now in force.. Any future changes in requirements as a result of this activity will be provided to Agency for review and negotiation or acceptance.

10. **RELATIONSHIP.** No party is an agent or employee of any other party for any purpose and is not entitled to any of the benefits provided by any party to its employees. This MOU shall not be construed as forming a partnership or any other association between the parties.

11. **HOLD HARMLESS.** AGENCY and CITY shall hold each other fully harmless against any loss, damages, claims, penalties, or expenses of any kind whatsoever sustained or incurred by a third party as a result of the negligent or intentional acts or omissions of AGENCY or CITY.

12. **EXECUTION.** This MOU is effective upon execution. It is the product of negotiation and all parties are equally responsible for authorship of this MOU.

Section 1654 of the California Civil Code shall not apply to the interpretation of this MOU.

13. FURTHER ASSURANCES. Each party shall execute and deliver such papers, documents, and instruments, and perform such acts as are necessary or appropriate, to implement the terms of this MOU and the intent of the parties to this MOU.

14. TERMINATION. This MOU may be terminated by any party upon ten (10) days' written notice, served by mail or personal service, to all other parties.

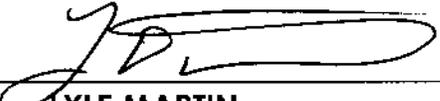
IN WITNESS WHEREOF, the parties hereto have caused this Memorandum of Understanding to be executed, the day and year first-above written.

"CITY"

"AGENCY"

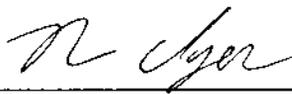
BAKERSFIELD POLICE DEPARTMENT

**CALIFORNIA STATE UNIVERSITY
BAKERSFIELD, Auxiliary for
Sponsored Programs Administration**

By: 
LYLE MARTIN
Chief of Police

By: 
DR. JENNY ZORN
Provost

APPROVED AS TO CONTENT:
VIRGINIA GENNARO
City Attorney

By: 
RICHARD IGER
Deputy City Attorney

COUNTERSIGNED:

By: 
NELSON SMITH
Finance Director

Ri:lsc
Attachments: Exhibit A – Budget
Exhibit B - Proposal

Statement of the Problem

Bakersfield is a city of 363,612 people located at the southern end of California's Central Valley in the Eastern District of California. Bakersfield is the county seat and the largest city in Kern County. The City suffers from gang and gun violence. This project seeks \$500,000 over two years to implement ShotSpotter technology in an area that suffers the highest rates of gunfire and gang activity. ShotSpotter is a proven technology used in cities nationwide to immediately identify the location of gunfire and direct police to the spot within seconds. This project will improve police response to gunfire and increase state and federal prosecution of gun crime within the covered area by quickly placing police on scene of illegal shootings and generating actionable intelligence on the frequency and exact location of gunfire.

Gun Violence in Bakersfield is a Serious Problem

On a hot afternoon in May of 2016, children gathered for dismissal at McKinley Elementary school on 4th Street in Bakersfield. Hundreds of fourth and fifth-graders lined up to board buses or await parents who were on foot and in cars parked along busy 4th Street on the south side of Lowell Park. In the middle of the park, 20-year old Damien Wofford barbecued with his uncle. A young man approached Damien and asked, "You Westside?" Damien's answer cost him his life. The man opened fire, killing Damien instantly and sending bullets across the park and into a retirement home. School aides rushed the front of the school, grabbing children in their arms and shouting at the rest to run inside. Luckily, no children were struck by bullets that day. The effect on their lives from the exposure to gunfire and murder remains to be seen.

On February 23rd, 2017, as this grant application was being prepared, a young man loaded his girlfriend's children into the backseat of his car and drove away from an apartment in

the 1400 block of S St, only blocks from Lowell Park. As he slowed at the intersection with California Avenue, a dark sedan pulled up and a passenger in the sedan sprayed 9 mm bullets at the car. Multiple rounds entered the car from the rear, passing through the trunk and the back seat. The bullets struck and killed five year- old Kason Guyton and seriously injured his seven year-old brother. The driver, a long-time associate of a criminal street gang, was uninjured.

The murder of Damien Wofford was solved; the killer remains in custody. Kason’s murderer is at large at the time of this writing. Sadly, these incidents are typical of the 1,121 (source: BPD crime reports) shootings in Bakersfield in the last five years. The victims have been of every age; there is usually no lead-up or provocation. **The people who live, work, and attend school in the area of Damien and Kayson’s murders are more in danger of being killed than anyone else in the City of Bakersfield.**

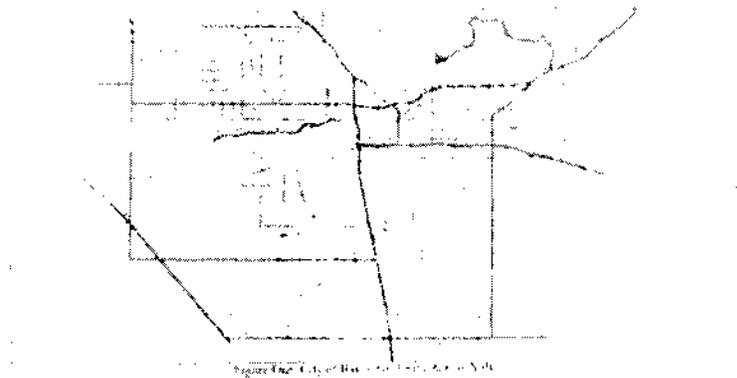
Gun Violence in Bakersfield is Highly Concentrated

Violent crime statistics for the City of Bakersfield show an increase in 2014, 2015, and 2016. Bakersfield also has a higher rate of homicide (6.1 per 100,000 in 2015) and aggravated assault (292 per 100,000) than California on average (4.8 per 100,000 homicide, 253 per 100,000 aggravated assault) (source: 2015 Crime in the United States; published by the FBI).

TYPE OF CRIME	2010	2011	2012	2013	2014	2015	2016
Homicide	32	18	34	24	17	22	32
Aggravated Assault	1397	1261	1141	1083	981	1062	1108

In a small portion of Bakersfield, however, one can find a much higher concentration of gunfire, shooting victims, and homicides. The Area of Concern, roughly defined as an area in US census tracts 20,21,22,14, and 15 for Bakersfield and mapped below:





As can be seen in Figure Two, displaying all shootings at persons and homes from 2012-2016, this Area of Concern (AoC) experiences the highest concentration of gunfire in the city:

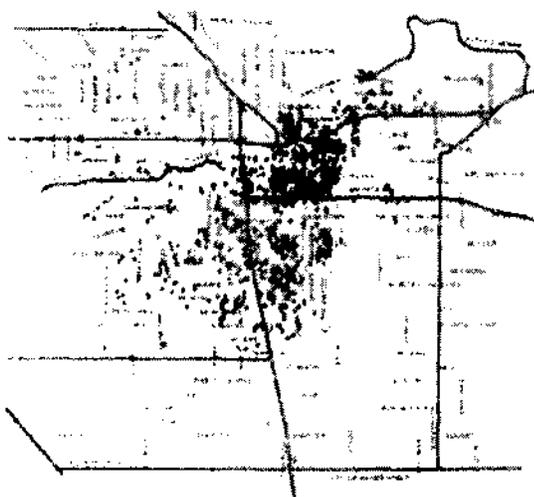
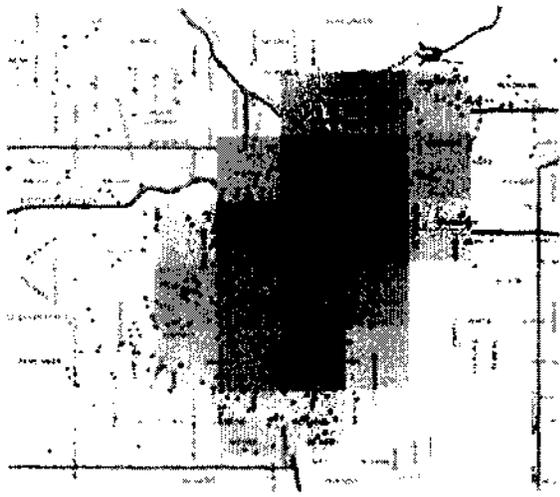


Figure Two: City Map with All Shootings 2012-2016



Heatmap map showing all Shootings 2012-2016

This three square miles represents only 2.08% of Bakersfield's 143.6 square miles and only 7.8% of the city's population, but these people hear, see, and are all too often struck by **28% of the gunfire** (314 of 1,121 shootings over five years) that occurs in the city. The chart below displays the shooting data for those five years.

YEAR	Bakersfield Overall	Area of Concern	% in AoC
2012	269	67	24.9%
2013	116	21	18.1%
2014	187	67	35.8%
2015	248	76	30.6%
2016	301	83	27.5%

Thus, the below Area has been designated as the Area of Concern for this project in order to most strongly impact the problem of illegal gunfire:

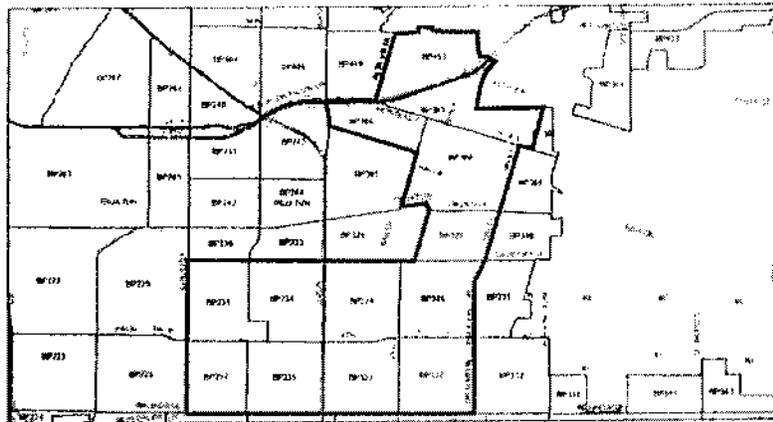


Figure Three: Close Map of Area of Concern

In this Area, Gun Violence is Gang Violence, Gang Violence is Gun Violence

A large proportion of these shootings are linked to the gang presence that dominates the AoC. The city's two most violent criminal street gangs, the East Side Crips and West Side Crips, occupy traditional territory that covers the AoC. The Bakersfield Police Department's gang unit has determined that 45% of the 1,121 shootings that occurred in the city over the past five years have been gang-related or probably gang-related. In 2016, the Bakersfield Police Department's gang unit seized 243 illegal firearms from gang members or affiliates- this is 48% of the firearms seized by the entire department that year.

The population of the AoC is 73% Hispanic, 16% African-American, and 9% white. The most violent gangs, the East and West Side Crips, are predominantly African-American. Gun violence disproportionately affects the African-American community in Bakersfield: the population of Bakersfield is 8.2% African-American but 58% of the shooting victims in 2016 were African-American. The stressful and sometimes confrontational nature of shooting scenes and investigations can exacerbate tensions between the black community and police.

The AoC experiences a number of risk factors that are often precursors for gang involvement. Unemployment, incarceration, and single-parent families are all higher than in other areas of Bakersfield; high school graduation rates and incomes are substantially lower (source: US Census and BPD crime report data). The high availability of firearms also acts to make the AoC a place where gangs thrive and opportunity keeps its distance. The poverty rate in the AoC is 51.7%, compared to 19.8% in the city as a whole.

Current Violence Reduction Strategies and How PSN will be Integrated

The Bakersfield Police Department is a lead partner in the Bakersfield Safe Streets Partnership, a collaborative effort among law enforcement, educators, faith-based organizations, and service providers to present the Ceasefire group violence reduction model among Bakersfield street gangs. BPD also leads the Cops, Clergy, and Community Coalition (3C) to strengthen law enforcement-community relations through presentation of the Ceasefire model and provide mentoring and intervention services among the at-risk population.

PSN funding will be used to install and subscribe to ShotSpotter technology services within the AoC (see Design and Implementation below). *ShotSpotter will be integrated into existing violence-reduction efforts through a three-pronged approach:*

- Publicizing the capabilities of the ShotSpotter technology through the social media of BSSP and 3C in order to discourage illegal firearm use, encourage private person reporting, and reinforce police and community prioritization of gun violence
- Informing gang members of ShotSpotter technology during gang “call-ins,” emphasizing rapid police response and presenting cases of gang-involved persons arrested for discharging a firearm. Emphasis will be placed on federal prosecution.
- Presenting ShotSpotter data and reports to BSSP and 3C members as well as the public in order to demonstrate police transparency and commitment to public safety

There have been successes and challenges in reducing gang violence and gun crime

Like many jurisdictions, Bakersfield has had some successes in reducing gang and gun crime. In 2016, BPD’s gang unit carried out a number of investigations to seize illegal firearms; they seized 243 guns from gang members or affiliates- all without a single officer-involved shooting. Simultaneously, Ceasefire-style call-ins, community outreach events at shooting hotspots, and “pulling all levers” responses to gang shootings have had a positive effect both by reducing crime at those spots and by improving law enforcement-community relations.

Community partners have increased capacity in recent months as well. Training in mental health and transformative mentoring models has increased the capacity of service providers while improved collaborative relationships with law enforcement have connected families at highest risk of gun violence with service providers who can provide effective services.

Unfortunately, challenges remain. Despite a record high number of gun seizures in 2016, the year also saw the highest number of gang-related shootings in almost a decade. The majority of these shootings remain unsolved. A very small number of persons responsible for the majority

of the gun violence remain active despite successful community efforts to remove long-term gang members from the gang lifestyle.

There are other ongoing violence reduction efforts that will benefit from this proposal

Partners in the BSSP and the 3C Coalition as well as other organizations are engaged in ongoing violence reduction efforts in the AoC that will align and integrate with this proposal. Their clients will benefit from the reduction of gunfire and the availability of guns in the AoC not only because of the reduced immediate risk of harm but also from reduction of long-term trauma caused by exposure to gunfire and the aftermath of violent incidents. While many of these organizations provide services and activities that complement this proposal, none of them overlap or provide similar services to proposed grant-funded efforts.

- The Wendale Davis Foundation (WDF) provides youth mentoring, activities, and family services to people at-risk of gang violence in the AoC. WDF strongly supports this proposal.
- Stay Focused Ministries provides faith-based counseling, mentoring, and youth activities as well as large-scale community outreach efforts in the AoC. Located within the AoC, Stay Focused Ministries strongly supports this proposal.
- Garden Pathways provides mentoring, counseling, and parenting and job skills training within the AoC. Garden Pathways strongly supports this proposal.
- #HowLong and Project DYNAMO are dedicated to violence reduction and mentoring services for young African-American men. Project DYNAMO provides mentoring services within the Bakersfield City School District, which covers several schools in the AoC. #HowLong and Project DYNAMO strongly support this proposal.

- Project 180, a function of the Kern County Department of Human Services and local community-based organizations and service providers, strongly supports this proposal.
- Body of Christ represents three churches in or near the AoC and provides community services in the AoC, including counseling and mentoring services directed at victims of gang violence and their family members. Body of Christ strongly supports this proposal.

Community engagement or outreach efforts are a major part of these violence reduction efforts

Through long-term collaboration and established dedication to violence reduction, the BPD and the above-listed organizations, along with others, are working diligently at community engagement and outreach as part of their overall violence reduction plan. In 2016, the BSSP and Stay Focused Ministries established a practice of conducting a street outreach event at the site of major gang-related shooting incidents, contacting over 500 people living near shooting scenes within days of the incidents. In the last year, BPD actively participated in the WDF Peace March and the WDF Youth Leadership Conference and joined community members for training in Youth Mental Health First Aid and Transformative Mentoring.

These efforts have been productive and effective in their own right. The importance of the relationships established through these efforts cannot be underestimated. The long-term relationships and established trust will be of utmost importance in gaining community support of implementation of ShotSpotter technology to reduce gunfire.

There are Gaps and Needs in Current Gun Violence Reduction Efforts

While current outreach and collaborative efforts address a number of ongoing issues and have improved the community's ability to intervene in the lives of at-risk individuals, the nature of many of the shootings makes apprehending violators difficult, and the existing gang and gun

culture in the AoC makes it that much harder. Law enforcement faces challenges in pattern identification, quick response, and community cooperation that can be addressed by this project.

- *Pattern Identification:* Police often direct staffing, patrols, and investigative resources through noticing crime patterns and trends. While the above data makes it clear there are far too many shootings in the AoC, reported shootings still occur too infrequently to make patterns and trends easily identifiable and actionable. Further, many reports of illegal shootings are merely “shots heard”- the police are often unable to pinpoint a location when the perpetrator misses his intended victim and the victim flees. This leaves police often unaware of unimportant information about existing activity.
- *Quick and Safe Response:* Many shootings are initially reported only “shots heard” without an exact location known. This can lead to officers driving into an area without knowing if they are on the scene or blocks away. This can delay medical aid to a wounded victim or cause police to miss critical evidence because they do not know where to look. In the case of little Kason Guyton, the panicked driver fled to a hospital. Police did not get to the murder scene- a busy roadway- for nearly ten minutes while police investigated multiple “shots heard” calls, all giving different locations.
- *Community Cooperation:* Many people know exactly what is going in their own neighborhoods, but are reluctant to report it to police because they are frightened of retaliation. Sometimes gun activity becomes so much a part of a neighborhood, residents don’t bother to report gunshots, assume someone else will report it, or lack faith in a police response. Cities using ShotSpotter technology have reported an increase in community cooperation due to the improved efficiency of police responses to these calls and the resultant perceived interest and concern of law enforcement for the community.

In order to help close these gaps and improve law enforcement's ability to reduce gun violence in the AoC, solutions are needed to:

1. quickly and accurately identify the location of gunshots
2. report that information to police
3. help generate a police response that will increase community faith in police and thus increase cooperation with law enforcement.

Current Resources are Inadequate to Address Gaps and Needs

The solution of simply flooding the AoC with high-visibility police has been tried and often succeeds, but it becomes prohibitively expensive in a short time. Unfortunately, the *absence* of high-visibility patrols is also highly visible- gang members simply lay low until the extra patrols cease. While technology exists that can address the needs listed above, it has been prohibitively expensive for the BPD to subscribe to the system. Community outreach and partnership efforts have begun to address the issues of community faith in and cooperation with law enforcement, but these efforts are still limited by the technical aspects of police response to gunfire that is nearly random, often spontaneous, and unpredictably reported. *The AoC can benefit from grant funding to provide ShotSpotter technology to address these issues.*

Project Design and Implementation

This proposal seeks to establish the Bakersfield Gun Violence Project, using \$500,000 of PSN funding and \$16,000 of local funding to accomplish the following goals:

- **Goal 1: Improve police response to gunfire in the Area of Concern.**
- **Goal 2: Improve prosecution efforts for gun crime in the AoC.**

- **Goal 3: Generate community cooperation with law enforcement efforts to reduce gunfire.**

These Goals will be accomplished through meeting the objectives defined below:

Goal 1: Improve police response to gunfire in the Area of Concern.

- Objective 1.1: Install ShotSpotter coverage for the AoC.
- Objective 1.2: Reduce average police response time to the scene of shootings in the AoC.
- Objective 1.3: Locate more shooting scenes and increase public awareness of police response through contact at scenes and follow-up such as canvassing and “door hanger” information cards.
- Objective 1.4: Generate actionable intelligence reports to guide patrol, gang suppression, and community outreach efforts.

Goal 2: Improve prosecution efforts for gun crime in the AoC.

- Objective 2.1: Increase gun seizures and shooting arrests in the AoC.
- Objective 2.2: Refer all shooting and gun possession cases in the AoC to the United States’ Attorney Office for consideration of federal prosecution.

Goal 3: Generate community cooperation with law enforcement efforts to reduce gunfire.

- Objective 3.1: Educate residents of the AoC through community outreach, media, and public education efforts.
- Objective 3.2: Formulate police response protocols that emphasize police concern for public safety and community cooperation.

- Objective 3.3: Establish that public perception of project technology and police response to gunfire events in the AoC is positive.

The Project Planning Team

This project was planned and designed by law enforcement, community partners, and our academic research partner.

- *Law Enforcement:* Beginning in early 2016, BPD began evaluating potential technology solutions for ongoing gang violence. Gang unit officers, homicide investigators, and supervisors reviewed available technology. Command Staff attended vendor presentations and considered potential impact on police services. The Project Director consulted with similar cities currently using the proposed technology on viability, similarity of problems, and potential benefit for Bakersfield. Finally, consultation was held with the local office of the Federal Bureau of Investigation (FBI) and the Central Valley Violent Gang Crime Task Force and the office of the United States Attorney to confirm effectiveness of the proposal.
- *Community Partners:* Regular meetings of the BSSP and 3C Coalition allowed police to discuss solutions with community partners. Topics included community perception, obstacles including cultural issues, and effective communication.
- *Research Partner:* California State University Bakersfield (CSUB) is an established research partner with BPD and currently assists with BSSP and 3C. In planning this project, BPD and CSUB met to review shooting data, community issues, and potential effects of the project.

- *ShotSpotter staff*: Once the desired technology was identified, ShotSpotter staff became a part of the planning team, identifying effective installation areas and providing data on other projects.

Design Features

Partnerships: This project incorporates existing partnerships among law enforcement, community members, service providers, and academic research partners. The following partnerships will join in making this proposal effective and sustainable:

Bakersfield Safe Streets Partnership and Cops, Clergy, and Community Coalition: these collaborative groups work together to present Ceasefire call-ins, enhance community capacity to provide intervention and prevention services, and strengthen law-enforcement-community relations. These groups will assist this project through planning and community outreach and education.

BPD Crime Analysis Unit: the BPD's three full-time Crime Analysts will provide research and analysis to support ShotSpotter installation and implementation. Once ShotSpotter is in place, analysts will provide regular ShotSpotter reports on alerts, patterns, and trends to support proactive patrol and investigations to reduce gun crime.

Central Valley Violent Gang Crime Task Force: This task force, working from the local FBI office, is made up of FBI agents, local law enforcement officers, and federal prosecutors. This task force will support the project through assistance in investigation, apprehension, and prosecution of gun crime in the AoC.

California State University Bakersfield: Our CSUB research partner will provide guidance in ShotSpotter implementation and establishment of policies and practices to ensure they are data-driven and evidence-based. CSUB will conduct research to evaluate

the effectiveness of this project in reducing gun crime in the AoC and community response to ShotSpotter installation.

PSN Bakersfield Gun Violence Project (GVP) Board: This is the only body not currently in place. The PSN GVP board will be formed specifically for this project and will consist of the Project Director and a representative from each of the FBI, BPD, Kern County District Attorney, United States Attorney's Office in Bakersfield, CSUB, and two community members. The Board will assist in formulating policy and ensure all gun cases in the AoC are reviewed for potential federal prosecution.

Strategic Planning: BPD will incorporate use of ShotSpotter technology into existing policy and into the Department's Five-Year Strategic Plan now in process. In addition, BPD will work with our research partner from CSUB to ensure policy and practices are intelligence-led and data-driven through the use of quality data and identification of trends and patterns to assist police in effective use of ShotSpotter technology to respond to and reduce gun crime in the AoC while generating a positive impact on community relationships. Our CSUB research partner will also monitor and evaluate program effectiveness, providing law enforcement and the public with a detailed analysis of the effectiveness of the program.

Training: Training for this project will include in-service training for BPD gang unit and patrol officers in response to and effective use of ShotSpotter alerts and data. BPD Crime Analysts will be trained in effective use of ShotSpotter data and preparation of reports. BPD investigators and management staff will be trained in ShotSpotter capabilities and parameters.

Outreach: Outreach efforts associated with the project will include pre-implementation meetings and demonstrations among community partners, traditional news media releases regarding implementation and case updates, and a social media campaign targeting the AoC to explain

ShotSpotter intent and capabilities. In addition, ShotSpotter-generated cases will be presented to at-risk gang members during Ceasefire call-ins in order to discourage further gun violence.

Accountability, Data Analysis, and Data-informed Efforts: Our research partner, CSUB, will gather data from ShotSpotter itself, BPD crime reports, and public information meetings. CSUB will conduct an analysis to determine the effect of ShotSpotter on gang and gun violence in the AoC. The resulting report will be submitted for publication and provided to BPD, community leaders, allied law enforcement and corrections agencies, and local government officials. The report will also be made available on the City's website.

This Proposal is Data-driven

As covered extensively under Statement of the Problem above, UCR, BPD Crime Report data, and census data indicate that the AoC ~~is~~ needs serious intervention efforts to reduce gun and gang violence. Comparison of the AoC data to Bakersfield at large indicates that this area experiences a much higher rate and number of shootings and other gun crimes than other areas. Further comparison of census data and comparison to the remainder of the city indicates that the AoC suffers exposure to a high number of risk factors for gang participation and its associated gun violence. Gangs' abilities to intimidate victims and witnesses through gun violence is key to operating among a community of mainly law-abiding people and maintain a hold on the area that negatively impacts employment opportunity, service availability, and quality of life.

Installation of Technology

This proposal will install a security measure known as the ShotSpotter Gunfire Location, Alert and Analysis Service to help reduce gun crime. Based on crime analysis (detailed above in Statement of the Problem), we will be targeting a three square-mile coverage area where there has historically been a high level of gun crime and shots fired incidents. Networked sensors will

be placed throughout the three square mile area at specific coordinates on buildings and telephone poles within the AoC to accurately detect and locate the origin of gunshots. Once a gunshot is detected, ShotSpotter calculates the position where the gun was fired and sends the data to a central server accessible by BPD and other local law enforcement agencies. Because ShotSpotter uses computer software to analyze sounds, ShotSpotter is precise enough to ignore fireworks, backfiring cars, and other noises that could be mistaken for gunfire.

ShotSpotter instantly notifies officers of shootings in progress with real-time data delivered to dispatch centers, patrol cars and smart phones. Instant alerts enable first responders to aid victims, collect evidence and act quickly to apprehend armed, dangerous offenders. ShotSpotter's actionable intelligence can then be used to prevent future crimes by positioning law enforcement when and where crime is likely to occur.

The result is a dispatcher or commander in a control center will be equipped with the exact location, number of rounds fired, and number of shooters involved, type of explosion, and speed and direction if the event is in motion. With greater knowledge of the situation's severity and scope, first responders arrive at the scene faster and are better prepared to protect their personal safety, attend to victims, and more efficiently manage the crime scene. The result is preemptive intelligence for better safety and appropriate dispatch of resources and improved preservation and collection of physical evidence.

Agencies using ShotSpotter have seen gunfire-related violent crime rates fall by at least 30%, more than a 50% increase in gunfire arrests, and a dramatic drop in gunfire rates, as much as 60 to 80%, depending on the location of the system. ShotSpotter can also increase arrests, decrease police response time, increase officer safety, pinpoint key forensic evidence, and save lives. ShotSpotter statistics have reported less than 10 percent of gunfire detected by the system

is accompanied by a 911 call, concrete proof of the technology's merits. Reducing the response time in these situations can and will be life-saving. ShotSpotter is in use in over 80 US cities.

Mere installation of technology is not, of course, a ready answer to long-standing problems of gang and gun violence. As detailed elsewhere in this proposal, full implementation of this program will include community outreach and collaboration, integration with existing violence-reduction efforts, and cooperative efforts with prosecutors.

The Drivers of Gun and Gang Violence

According to BPD gang and homicide investigators, in the AoC and Bakersfield at large, the majority of gang-related shootings are driven by ego and retaliation. Simply put, a gang shooting is either carried out to increase the status of the shooter or in response to a prior shooting by another gang. Frequently the target of gang shootings is not a particular person, but rather anyone who happens to be in an area known to belong to another gang. The status of the target is incidental at best when anyone in the rival territory will do.

This creates a situation where shootings are often committed by gang members who simply go into rival territory with one or more guns and drive around until they see someone to shoot. Due to the close proximity of the gangs, the shootings are often committed with little forethought or planning and with a very short drive to the "target area" and a quick retreat to "safe" turf. This pattern creates a small window of opportunity for law enforcement intervention.

This proposal addresses the key drivers of ego and retaliation by focusing on the area known to belong to the City's most violent gangs. Increasing the potential for capture and increased prosecution in this area denies the gangs the ability to easily find a satisfactory target and make a quick escape. Interference with this most traditional pattern of gang-related shooting will have a significant impact on violent crime.

Information Sharing with Law Enforcement and the Community; Community Engagement

Information sharing is important to the success of this project, particularly as a demonstration of law enforcement commitment to transparency and accountability. At the same time, law enforcement operational needs often require that certain information remain confidential or be delayed in release.

Law Enforcement, Probation/parole, Prosecutors and Corrections will be provided with ShotSpotter reports and information at the bi-weekly gun and gang violence briefings that are currently held at the BPD. In addition, through agreement with ShotSpotter, law enforcement partners operating in the Area of Concern can receive ShotSpotter instant alerts at the same time as BPD officers. ShotSpotter data and reports will be available to law enforcement partners upon request through BPD Crime Analysts.

Community partners, including non-law enforcement public agencies and officials, will receive regular updates on ShotSpotter activity to help direct their efforts in outreach and services. Summarized ShotSpotter data will be released through regular media outlets and BPD social media sites.

Community engagement and feedback will be incorporated into this project by providing a public version of the ShotSpotter report at monthly meetings of the BSSP and 3C Coalitions as well as making it available through the City's website. Feedback will be gathered through interactive community meetings and through a survey conducted by our research partner. Results of the survey will be made available to the media and the public.

Long-term Planning: Making the Project Sustainable

This project is unusual in that ShotSpotter technology, while proven effective in many cities, has not been used in Bakersfield before. Thus, there is an obligation to make evaluation and assessment the first part of any sustainability plan.

CSUB's reports on the efficacy of ShotSpotter will be made public and directed to public officials responsible for law enforcement operations and public budgeting at regular intervals throughout the two-year grant period. This may motivate officials to consider collaboration with other public agencies, budget project support into the future, or seek other funding opportunities.

Public support and interest in this effort must be well-informed. Dr. Hays' reports will also be made available to the public, who may express their opinions to public officials. Public input will be solicited at multiple public information meetings by Dr. Hays' team, the results of which will also be provided to officials.

Capabilities and Competencies

The Bakersfield Police Department has a long history of successful management of grant-funded projects and activities, including projects related to gun and gang violence, traffic safety, and community policing. In addition to the BPD's staff of law enforcement officers and administrative specialists, partnerships with federal agencies and community-based partners will provide additional support and capabilities.

Captain Joe Mullins will be the Project Director. Captain Mullins has an extensive history in gang investigations and suppression efforts as well as grant management and community collaboration. Captain Mullins will be responsible for implementation of ShotSpotter technology and relevant BPD policies and procedures.

Lieutenant Martin Heredia will act as operational coordinator for the implementation of ShotSpotter alert responses and coordination of scheduling and patrol/gang unit resources for

ShotSpotter responses and follow-up. Lt. Heredia is an experienced gang and homicide investigator, with extensive knowledge of the members, relationships, and activities of Bakersfield's criminal street gangs,

Crime Analyst Elizabeth Agerton will act as the primary crime analyst in support of the project. Ms. Agerton is an adept crime analyst with extensive experience in gang investigations. A past coordinator of the BPD's gang information database, she is readily capable of processing data and generating intelligence. Ms. Agerton will be responsible for generating regular reports on project activities for law enforcement and community distribution.

BPD Business Manager Darrin Branson will provide fiscal oversight for this project. He will prepare and process contracts, generate and submit financial reports, and provide liaison with the funding agency.

Supervisory Senior Resident Agent Jose Moreno will act as the FBI representative for the project. SSRA Moreno supervises the Central Valley Violent Gang Crime Task Force from the Bakersfield office of the FBI. He will provide advice and guidance on implementation of ShotSpotter technology and policies as well as operational support through federal investigative resources in AoC cases.

Assistant United States Attorney Melanie Alsworth will be the USAO representative for the project. She will work with the Kern County District Attorney's Office to review all gun cases from the AoC for potential federal prosecution. She will also provide guidance and support in ShotSpotter implementation and community interaction.

Supervising Deputy District Attorney Cynthia Zimmer will be the Kern County District Attorney representative for the project. She will work with the USAO to review all gun cases from the

AoC for directed prosecution. She will also provide guidance and support in ShotSpotter implementation and community interaction.

Professor Zachary Hays will lead the California State University Bakersfield research team. Dr. Hays is an Associate Professor in the Department of Criminal Justice at CSUB. He earned his Ph.D. (2008) and Master's (2005) degrees in Crime, Law, & Justice from the Pennsylvania State University. He earned his BA in Sociology, with a focus on Criminology, from Western Washington University in 2002. His primary research and teaching interests focus on policing and law enforcement, with special attention to criminological theory, social stratification, and quantitative research methods. Dr. Hays has numerous book and research article publications in some of the top journals in the field of criminal justice, including "Removing Release Impediments: Evaluation of Washington State's Housing Voucher Program" (2013), *Police Use of Excessive Force in Disorganized Neighborhoods* (2011), and "Urban Revitalization and Seattle Crime, 1982-2000" (2011). He has also served as Primary Investigator or Co-Primary Investigator on state- and federally-funded research grants evaluating new police strategies (PI, *Cops, Clergy, & Community: Improving Police-Community Relations through the Bakersfield Safe Streets Project*, California Board of State and Community Corrections) and implementing new police technologies (Co-PI, *Safety Camera Initiative*, Bureau of Justice Assistance). For these evaluations, Dr. Hays collected and analyzed data from community surveys and official police data in order to identify criminal justice and public safety related problems, proposed practical solutions for each project, and then assessed each project's implementation and effectiveness. Dr. Hays also has extensive training and experience in the collection, analysis, and use of criminal justice and public safety data. He is proficient in, and/or has offered university-level courses on, basic and advanced regression techniques, structural equation

modeling, multi-level modeling, time series analysis, and spatial analyses (e.g., Geographic Information Systems). Finally, Dr. Hays is a popular instructor at CSUB, a respected member of the Bakersfield community, and has already developed a strong working relationship with Captain Mullins, the Bakersfield Police Department, and many local organizations through their previous collaboration on grant-funded research activities. Dr. Hays and the Bakersfield Police Department will obtain a Memorandum of Understanding for his service as research partner for this project, if funded.

Plan for Collecting the Data Required for this Solicitation's Performance Measures

The data collection for the evaluation of the ShotSpotter technology will consist of activities over three time periods and a variety of methods. As described above, these activities will focus on the AoC within Bakersfield, CA.

Pre-Installation Data Collection (Time 1): The first data collection period will occur during the three months leading up to the installation of the ShotSpotter technology while the BPD and its partner organizations lay the practical & logistical foundations of the project. During this pre-test period, two methods of data collection will be used. First, data will be collected from the Bakersfield Police Department on a number of criminal offenses of interest dating back 24-36 months prior to the SCI implementation date in both the AoC and the immediately surrounding one square mile areas (to act as controls). Archival data collected from the Bakersfield PD will include 1) shots heard, 2) shots fired, 3) assaults-firearm, and 4) homicides-firearm.

Additionally, demographic data will be collected from the City of Bakersfield and the US Census to provide statistical controls for other potentially criminogenic influencing factors (e.g., overall/violent/property crime rates, population size, race/ethnicity, sex, employment, income, etc.). These baseline data will be used for comparative purposes (both before, during, and after

the grant period and geographically between the AoC and surrounding areas) to determine whether the above offenses generally rose, stayed the same, or declined post-installation.

Second, multiple public information meetings (informal focus groups) will be held to help inform the ShotSpotter installation process. These meetings will be publicly announced via the BPD's, partner organizations', and CSUB's webpages (and other outlets, as resources allow) weeks prior to the events and be held at multiple locations (local partner organization facilities) within the AoC. Information obtained from these meetings will be used to inform the BPD of the public's baseline perceptions of the ShotSpotter technology and the BPD, their broader safety concerns, and where the public believes that the ShotSpotter technology should be located to capture the greatest amount of criminal activity. In seeking the public's opinion on these matters, the BPD hopes to take a more proactive approach to involving the community in their policing efforts, in the co-production of public order, and in obtaining the public's approval and satisfaction with the project (Goal 3).

Post-Installation, Mid-Project Data Collection (Time 2): The second data collection period will begin approximately halfway through the funding period (only after the ShotSpotter technology has been successfully installed) and will consist of one method of data collection. Here again, the same four BPD archival measures and demographic information collected at Time 1 (described above) will be collected for comparative purposes in the AoC and surrounding areas. These data will then be analyzed to determine whether ShotSpotter had a significant effect on actual levels of crime over time and across space, while controlling for potentially criminogenic factors.

This second data collection period is necessary in order to determine whether the ShotSpotter technology might lead to an artificial change in criminal offenses as the technology

successfully captures more offenses than the BPD could previously capture, even though the actual number of offenses may have increased, decreased, or stayed the same between Times 1 & 2. In other words, the true level of offenses at Time 1 may actually be different (likely higher) than the BPD is able to record simply because the public is not reporting all of the offenses that the ShotSpotter technology would have captured, had it been already installed. Therefore, collecting data at Time 2 will give us an additional point of comparison (to Time 3) so that we may determine if/whether the specified offenses went up, went down, or stayed the same, while accounting for the possibility of an artificial effect of the ShotSpotter technology.

The public information meetings used to assess pre-test public opinion on the ShotSpotter technology implementation will not be conducted during this second data collection period.

Post-Installation, End-Project Data Collection (Time 3): The third data collection period will take place during the last few months of the funding period and will consist of two methods of data collection. Again, the same four BPD archival measures and demographic information collected at both Time 1 and Time 2 will be collected for comparative purposes in the AoC and surrounding areas. These data will be analyzed one final time in order to determine whether ShotSpotter had a significant effect on actual levels of crime over time and across space, while controlling for potentially criminogenic factors. In order to determine whether the ShotSpotter technology led to an artificial change in the four offenses at Time 2, the results obtained from the data collection and analysis at Time 2 will also be compared to the results obtained at Time 3. If there are significant differences at Time 3, we can be more assured that those differences were a direct result of the effect that the ShotSpotter technology had on Goals 1 & 2 (from above) rather than simply being an artifact of the technology's presence. That is, a significant outcome at Time 3 would be stronger evidence that the technology worked (or did not work) than would be

the outcomes from Time 2. So, if the four crime measures have significantly decreased between Times 2 & 3, then we will be able to conclude that the ShotSpotter technology significantly reduced crime and helped us achieve Goals 1 & 2.

During this time period, multiple public information meetings will be held again in order to determine whether the community has a positive perception of the ShotSpotter technology and the BPD (Goal 3). As with the initial meetings, these meetings will also be publicly announced via the BPD's, partner organizations', and CSUB's webpages (and other outlets, as resources allow) weeks prior to the events and be held at multiple locations (local partner organization facilities) within the AoC. Information obtained from these meetings will be compared to the data collected from the meetings at Time 1 and then analyzed to determine whether the ShotSpotter technology had a positive impact on perceptions of the technology and the BPD (Goal 3). If the perceptions of the technology and the BPD have improved between Times 1 & 3, then we will be able to conclude that the ShotSpotter technology helped us achieve Goal 3.

BPD and CSUB are currently working together under an MOU for a separate grant through the California Board of State and Community Corrections (BSCC). An MOU for this PSN application is pending.

Letters of Support for this PSN application are pending from:

- The Honorable Kevin McCarthy, United States Congressman for the 23rd District of California
- The Honorable David Valadao, United State Congressman for the 21st District of California
- The Honorable Vince Fong, California State Assemblyman for the 34th District
- The Honorable Karen Goh, Mayor, City of Bakersfield
- The Honorable Leticia Perez, Kern County Supervisor for the 5th District

California State University, Bakersfield

Direct and Indirect Cost:

	Year 1	Year 2	TOTAL
A. Personnel			
Zachary Hays 2 course release (6 WTU) at \$2,688 per WTU	\$16,128	\$16,128	\$32,256
Zachary Hays 1 month Summer salary at \$8,961 per Month	\$8,961	\$8,961	\$17,922
1 Undergraduate Student at 10hrs/wk X 30wks X \$11/hr during academic year	\$3,080	\$3,080	\$6,160
B. Fringe Benefits			
Zachary Hays at 48% of release time	\$7,741	\$7,741	\$15,483
Zachary Hays at 16% of summer salary	\$1,434	\$1,434	\$2,868
C. Equipment			
D. Supplies			
supplies			
E. Travel			
Professional and Research Group Meeting			
PI			
Students			
F. External Evaluator			
F. Participant Support			
G. Total Direct Cost	\$37,344	\$37,344	\$74,688
H. Indirect cost (F & A) at 47% MTDC less equipment and participant cost	\$17,552	\$17,552	\$35,104
I. Total Direct and Indirect Costs	\$54,896	\$54,896	\$109,792



CSU Bakersfield

Academic Affairs

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MEMORANDUM

DATE: 1/31/18

TO: Richard Iger, Deputy City Attorney

FROM: Dee Evans

SUBJECT: GRA3349

Please find enclosed 2 partially executed copies of the above agreement. Once fully executed, please forward a copy for our files. We look forward to working with you on this project. Please let me know if you require anything further.

Dee

CITY OF BAKERSFIELD
ORIGINAL