

Philadelphia Focused Deterrence

Findings from the Impact Evaluation

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Key Findings

The evaluation assessed changes in gun violence at the community level and the gang level by comparing: (1) shootings in the Focused Deterrence (FD) target area to shootings in a set of matched comparison neighborhoods (community level), and (2) shootings attributed to the FD targeted gangs before and after the strategy was implemented (gang level). A hypothesized gang level change also was assessed by comparing expected reductions in shootings around FD gang turfs to shootings in the turf areas around a set of statistically matched gangs from other parts of Philadelphia.

FD had a significant effect on shootings across the target area. In the 24 months following the implementation of FD in April 2013, the targeted neighborhoods witnessed a statistically significant reduction in fatal and nonfatal shootings over and above comparison neighborhoods. Comparing the 24 months before FD was implemented to the 24 months after FD, shootings were reduced by 35% in South Philadelphia. Shootings in the matched comparison areas increased 6% over the same time period.

The FD strategy did not show significant effects on the specific gangs subjected to the intervention. Although two of the gang-level models showed statistically significant reductions in shootings in a half-mile buffer area around the turfs of FD gangs, the majority of statistical models, and the more rigorous tests of gang-level reductions in shootings did not reveal significant reductions in gang shootings.

Although there were no gang-level effects, it is reasonable to infer that the deterrence message was spread throughout the target area to other potential offenders.

Introduction

This document provides an overview of the Focused Deterrence (FD) violence reduction intervention deployed in Philadelphia. FD, which began to take shape in fall 2012, is a collaboration between the Philadelphia Police Department (PPD), the District Attorney's Office (DAO), the Mayor's Office, Adult Probation and Parole Department (APPD), Juvenile Probation, and several other city, state and federal agencies. With a focus on preventing gang-related shootings, FD provides the city with an opportunity to direct and deploy law enforcement and civil resources in a manner believed to best protect at-risk communities. The impact of FD in Philadelphia, as identified by an academic research partner is also summarized.

FD strategies seek to reduce firearm violence through a wide range of enforcement and deterrence strategies. Driven by a multi-agency, collaborative approach to law enforcement, FD utilizes a strategic problem-solving policing model that is based on rigorous research evidence (for links to published evaluations of FD, see <https://nnscommunities.org/impact/results>).

FD, originally developed in Boston, MA, is a flexible approach to proactive crime prevention originally designed to combat gang-related shootings¹ and has been replicated in dozens of jurisdictions nationwide. FD gang-focused strategies have several common features and follow a consistent structure:

- (1) Convene an interagency working group that consists of local, state, and federal partners from law enforcement, community corrections, court officials, government, social service providers, community leaders, and a research partner;
- (2) Conduct a problem analysis to gather insight on key issues related to gun violence in the target area using available law enforcement data;
- (3) Systematically consult law enforcement staff familiar with the most active offenders and groups/gangs to determine which groups should be the focus of the strategy;
- (4) Focus enforcement actions on the identified groups when appropriate.

The strategy has been called “pulling levers,” which refers to strategically employing multiple types of enforcement—many uncommon to traditional policing programs. Each enforcement action includes identifying “levers” that are “pulled” for the specific individuals and street groups identified as the criminal actors by the strategy. These levers recognize existing legal vulnerabilities that are not traditionally leveraged to prevent gun violence, such as child support enforcement, public utilities theft (e.g., electricity), and public housing rule violations. Common violence prevention tools are also used in a systematic manner within groups of gang-involved offenders (e.g., high bail requests, increased detainer requests, enhanced sentences, and case assignment to a small group of trained ADAs).

The levers pulled in a case are determined by the resources available to the FD-participating agencies, as well as the unique opportunities presented by each offender.

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Once the interagency working group is convened and the specific groups and group members have been identified, implementation of the FD strategy generally proceeds with a number of specific steps. First, notification meetings (known as “call ins”) are conducted with individuals and groups identified as the drivers of violence. Key gang and group members, already under the supervision of the court system, are required to attend the call in meetings. At the call in, members of the law enforcement team convey a clear message that gun violence will no longer be tolerated, and, if a shooting by a member of a group occurs after the call in, law enforcement will “pull every lever” available and focus attention on the group involved in the shooting. Gang members are also asked to share these messages with other members of the groups, since law enforcement will focus on all members of the perpetrating group if any one of the gang members commits a shooting.

Second, when there is a shooting, the FD team follows through on the promises made during the call in. Once the group that perpetrated the shooting is identified, the law enforcement team begins an “enforcement action.” During that action, common levers pulled include an increase in law enforcement presence in targeted geographic areas and increased prosecutorial attention, such as requests for higher bail, higher sentences, and an increased likelihood of federal prosecution. Other agencies, including probation and parole, simultaneously increase their probation/parole requirements on the group members who are under correctional supervision.

The third step directly involves the community through the use of community leaders, street outreach workers, or “moral voices”—prosocial adults who are often known to and respected by the identified group members—who can help deliver the tailored message that violence will not be tolerated, and social service assistance is available. Many of these community leaders are also present at the call ins. Street outreach workers can link individuals to social services. The provision of social services is a critical part of the overall FD message—showing the identified individuals that meaningful help is available and the community cares about individual well-being. The social service component team leader communicates this message at the call ins, and continues to build a network of responsive services, usually organized with centralized case management.

Research on FD is extensive and shows that this multifaceted intervention can reduce violence. FD is believed to work in two primary ways. First, the threat of enforcement is an integral part of FD, as this increases the actual and perceived risks for crime-drivers if they commit a shooting or violent act. By communicating directly with these offenders, FD delivers a clear message about the potential changes in law enforcement strategy, the personal impact on them if they become the focus of law enforcement and the

likely criminal justice system consequences of the enforcement actions. Accordingly, in conjunction with the community support of the strategy and mission to reduce gun violence and the promise of social services, these individuals are likely to refrain from shooting. Second, since if any member of a group commits a shooting, all members will be subject to enforcement actions, the message can have an impact on a significant portion of the active gang community. Taken together, the specific and general deterrent effect of FD are believed to directly result in reductions in shootings in the areas and communities most affected by gun violence.

Focused Deterrence in Philadelphia

The Timeline and Target Area

In Philadelphia, interest in the potential application of FD in the city began in the fall of 2012. At that time, leadership in the DAO became familiar with the work in Boston and other jurisdictions across the country and started to explore opportunities to bring this unique gun violence intervention model to Philadelphia. Subsequently, the head of the DAO’s Gun Violence Task Force began to meet regularly with the Deputy Commissioner for Patrol Operations of the PPD to formulate a preliminary plan to implement FD. The decision was made to pilot the strategy in one geographic area of the city, the South Division. An executive team was formed in 2012, which included leaders from the DAO, PPD, the Mayor’s Office, State Parole, Adult Probation and Parole (APPD), Adult Court, Juvenile Probation, Philadelphia Housing Authority Police, social service organizations, researchers, and the local federal prosecutor, the US Attorney for the Eastern District of Pennsylvania. The Executive Team also staffed three working groups: (1) Law Enforcement Intelligence and Strategy; (2) Social Services; and (3) Data and Evaluation.

After an extensive planning period, the first FD call in notification meeting was held in April 2013. Shortly thereafter, members of two of the identified gangs perpetrated shooting incidents and, as a result, the first two enforcement actions took place. The next call in meeting was held in May 2013, with five subsequent enforcements taking place between May and November 2013. During the first two years of FD there were four call in meetings and 13 enforcements (some gangs were subject to enforcement actions more than once—a total of nine gangs were subject to enforcements during those first two years).

As the strategy was implemented, the research partner—Temple University—sought out evaluation funding from the National Institute of Justice, the research arm of the U.S. Department of Justice. The funding, which was awarded in

the fall of 2013, supported a rigorous assessment of the impact of FD on both area-level shootings throughout the target area and those specifically committed by the targeted gangs. The funding also supported a data-driven process to update and expand law enforcement efforts to collaboratively map and detail active street groups and gangs throughout the entire city of Philadelphia. The research collaboration was later expanded to include faculty from Drexel University. Although the FD intervention has continued through 2017, the evaluation examines the impact of the intervention on shootings over a two-year period: from implementation in April 2013 through March 31, 2015.

In large cities like Philadelphia, the large-scale, resource-intensive use of dedicated police personnel and robust social services makes FD difficult to deploy citywide. Therefore, the Executive Team determined that a focus on the South Police Division (Districts 1, 3, and 17) was appropriate (see Figure 1). South Philadelphia was a prime location for FD because preliminary efforts were underway to identify the locations and nature of shooting events and the structure and membership of groups in that area were believed to be fairly well understood. Accordingly, the Deputy Commissioner of PPD created the South Gang Task Force—a group of ten experienced police officers and one lieutenant to focus intelligence gathering and enforcement expertise specifically in the target area and on the identified group/gang offenders. South Division was also an appropriate venue as the PPD leadership from the division was already collaborating extensively with the DAO to reduce gang violence in those districts. The identified gangs' territories encompassed a narrow geographic area, which was unique within the city, and allowed for targeted enforcements to be deployed efficiently over a smaller area.

Characteristics of the Philadelphia FD Intervention

The FD Executive Team is responsible for coordinating all components of FD—the team members meet monthly to discuss incidents of gun violence in South Division, the status of any enforcements, community outreach efforts, and social service assistance being provided to group members. At each meeting, leaders from the PPD provide details regarding which groups are under enforcement. The DAO supplements this information with details regarding prosecutorial efforts, including the status of bail hearings and case convictions and sentences. In addition, the Social Services Director for FD reports on how many targeted individuals have enrolled in services and continue to be served, and the FD Outreach Coordinator discusses events and outreach efforts in the target neighborhoods.

Figure 1. Map of Focused Deterrence Target Area



A strength of the FD approach is that the intervention is largely standardized and follows a roadmap that has been evaluated and has a demonstrated record of success. However, the Philadelphia Executive Team has developed and employed several strategies, including levers that extend beyond traditional law enforcement sanctions used in other FD jurisdictions, in order to tailor the efforts to the characteristics of Philadelphia. These include working with public utilities to terminate service for non-payment or illegal connections and facilitating a review of public housing rule violations and eligibility. Creating a specialized Gang Task Force of ten officers with extensive skills in intelligence gathering and gang enforcement, dedicated to the FD strategy, was an additional feature that is not typical of FD strategies in other cities (though the task force was greatly reduced in number after about two years due to general turnover and other departmental changes). Unique levers pulled during the enforcement actions also included: prosecution requests for high bail after a new arrest, hearings to revoke probation for probationers who have been arrested (but not yet convicted) of a new offense (known as Daisey Kates hearings), providing the testimony of gang task force members at all relevant hearings,

increased frequency and requirements of probation or parole supervision, the execution of outstanding warrants, targeted code enforcement, and increased child support order enforcement.

For the first two years, the strategy was able to utilize a dedicated judge to supervise all identified gang/group members on probation regardless of the presiding judge in the original case; however, this changed in the summer of 2015 as the result of a state appellate court decision interpreting a rule of criminal procedure. The ruling specified that the supervision of probationers must remain with the original sentencing judge absent extenuating circumstances, such as the death of the original judge.

It should be noted that FD, as deployed in Philadelphia, relies specifically on adult offenders to spread the FD message in their neighborhoods after the call in meetings. Juveniles, defined in this jurisdiction as individuals under 18 years of age, are not invited to call in meetings; however, some juveniles are classified as members of the identified gangs and can be the subject of FD enforcement action. Although the elements of enforcement actions on juvenile offenders are overseen separately from those for adult offenders, Juvenile Probation's Juvenile Enforcement Team (JET) works in close collaboration with PPD and the DAO to ensure that the enforcement is appropriate under the Pennsylvania Juvenile Act and is done in a systematic way. Juvenile Probation deploys their own enforcement resources relative to juvenile gang members during enforcement actions.

Social services are not a required component of FD strategies, and the use of or emphasis on social services varies widely across jurisdictions that have implemented FD. In Philadelphia, however, this is a key element of the intervention. During the evaluation period, social services made initial contact with roughly 112 group members across 14 street groups that had members present at call in meetings from April 2013 to March 2015, and 37 (33.0%) engaged in some level of social services, such as being referred to a GED program, drug or alcohol treatment, or job or vocational training. Group members must first complete an orientation through the Mayor's Office of Reintegration Services (RISE). The Mayor's Office staffs a full-time Social Services Director to oversee social services for those gang/group members who wanted to participate in services. Most individuals are recruited for services immediately after the call in meetings, though some individuals are referred for services by their peers who were already participating. During the evaluation period, the Mayor's Office also lent a staffer to help coordinate social services and community outreach. Community outreach

included developing and distributing materials that summarized the strategy, and working with community leaders to provide an understanding of the strategy. The key message was that the strategy is not focused on arrest and incarceration, but instead on delivering a message of collective accountability and creating social pressure that deters violence. For the first two years of the project the strategy utilized an AmeriCorps VISTA volunteer who attended community meetings and distributed information about FD. This volunteer was also instrumental in collecting data on the type and extent of community outreach conducted.

In the second year of FD, beginning in December 2014, the DAO hired a full time individual as a Community Outreach Coordinator to serve as the primary liaison between law enforcement and the community. Notably, this individual is a resident of the areas in which FD is deployed and is known to the residents of those neighborhoods. The Outreach Coordinator runs monthly community meetings and has developed, in conjunction with the DAO, several prevention efforts to reach young children, including basketball and *biddie ball* (a form of basketball for younger participants) leagues and neighborhood service projects, such as greening and clean up days and community resource fairs. The FD-related community meetings are held in different neighborhoods in South Philadelphia to increase the diversity of community member engagement and reach as large an audience as possible. At these meetings members of the Philadelphia FD team provide updates to community members, social service and community agencies disseminate literature regarding upcoming events, and community members are able speak directly to the law enforcement and social service teams about community issues and concerns.

The Evaluation Design

This evaluation employs a rigorous quasi-experimental design to examine, in two ways, whether the FD intervention reduced shootings. First, this study examines the impact of FD on the community. In this case, the total number of shooting incidents within the targeted community was compared to statistically similar communities in Philadelphia. Second, this study identifies the changes in the rate and number of shootings committed by members of the identified groups attributable to FD. For this analysis, the shootings rate of treated gangs post-intervention is compared to the pre-intervention shootings rate of the identified gangs as well as a set of matched comparison gangs. More detail is provided below.

Method to Assess Community-Level Effect

At minimum, if the FD strategy is effective, gun violence should decrease in the target area over and above any decreases witnessed in communities similar to the targeted areas in South Philadelphia. Assessing the impact of FD on shootings *at the community-level* does not take into consideration whether the specific gangs that were identified changed their behavior—it simply examines whether area-level shootings were significantly lower compared to other areas in Philadelphia that did not receive the intervention. The research team obtained official records on all criminal shootings that took place between January 2009 and March 2015 from the Philadelphia Police Department. Criminal shootings exclude officer and self-inflicted gunshot incidents and are counted at the “victim” level (i.e., one perpetrator who shoots three people in the same incident is recorded as three shootings). To derive equivalent or “comparison” communities, the research team used a statistical matching technique known as propensity score modeling. Community characteristics, including demographics and other factors related to violence are entered into a statistical model. This model is used to determine which communities from the remainder of Philadelphia (none of which received the FD intervention) are the most similar to the areas in which FD was deployed.

In this analysis, communities were matched at the U.S. Census block group level to adequately capture the neighborhood-level processes that make communities unique. This is a common unit of analysis in geographic analyses of crime patterns. The FD target area is represented by 146 block groups. A “matching with replacement” routine was used, which allows a given untreated block group to be included in more than one matched set. The factors used in the matching were: the rate of shootings and robbery with a gun for the pre-intervention year (2012); policing activity measured as the level of car and pedestrian stops made by PPD in 2012; count of street gangs in 2013; count of active probationers/parolees in 2009-2010; and demographic characteristics derived from the American Community Survey data for 2007 to 2011 (concentrated disadvantage, residential stability, percent Black, percent Hispanic, and total population). Post-matching assessment tests demonstrated that the treatment and comparison block groups were well-balanced, and no statistically significant differences in the factors included in the model were observed between the two groups.

To model the community-level impact, the research team relied on a statistical model known as difference in difference estimation (DID). The method examines the change over two periods of time—before the intervention or

“treatment” (FD) and after the intervention—in relation to changes between the treatment and comparison areas. Two differences are examined in this approach: the difference (1) between shootings within the FD-targeted communities before FD and after FD and (2) between the FD-targeted areas and the comparison areas. By conducting two distinct comparisons, the effects of natural forces or other universally applicable factors (such as a general decrease in shootings taking place in the city during this period) can be accounted for. This isolates the effect of the FD intervention and provides evidence of the intervention’s impact.

Method to Assess Gang-Level Effect

A gang-level effect considers the impact of FD on the members of groups that are directly targeted by the intervention. Because it was not possible to randomly assign gangs to receive or not receive the FD intervention (because a gang shooting triggers the enforcement action), the most rigorous way to assess the impact of FD on shootings by identified gangs was to derive a set of gangs that could be used as comparisons to those targeted in South Philadelphia. This approach is similar to the community-level approach, but the focus is on groups/gangs and not communities. These analyses are complementary. The focus on gang-level outcomes allows the research team to determine if the rate of shootings *committed by members of FD targeted gangs* changed after the intervention and relative to the behavior of the members of matched comparison gangs.

To begin the process of identifying possible comparison gangs, the PPD, in coordination with the research team and other FD partners, conducted a series of “gang audits.” The audits were focus group-style meetings used to gather specific information on every street-level criminal group in Philadelphia. Data that were considered at these meetings included a gang’s territorial borders, size, organization, alliances and conflicts, and propensity for violence. Importantly, although different members and units of the law enforcement community already possessed much of this information, these audits represented a comprehensive effort to aggregate and synthesize all of this information at the city level. Some of these factors were used to derive a set of matched comparison gangs. Because FD only targeted active gangs, only gangs that were active during the FD implementation period were used as potential matches. The set of factors used in the propensity score model included the 2012 count of shootings in a quarter-mile buffer area (i.e. a bounding region) around the centroid of the gang territory, number of members in gang, numbers of associates in gang, average age of gang members, yes/no classification as street gang (out of three gang types), count of other gangs in buffer

area around gang turf, if the gang was located in public housing, if the gang territory overlaps with a drug market, count of active probationers/parolees in the area around gang territory, and two measures derived from American Community Survey Data for the block groups in which the gang territories intersected—concentrated disadvantage and residential stability. After propensity score matching, no significant differences on the modeled characteristics were observed between the treated and comparison gangs.

In addition to the gang audits, analysts in PPD’s Central Intelligence Unit (CIU) synthesized data from their unit and from the Police Districts throughout Philadelphia on gang-related shootings from 2009 through March 2015. Each shooting was coded to capture any gang involvement in several key roles: (1) gang member was a perpetrator or suspected perpetrator,ⁱⁱ (2) gang member was a victim, or (3) gang member was a witness or bystander. In this analysis, the research team utilized two distinct types of comparisons: (1) pre-post differences in any shootings (did not have to be a gang-perpetrated shooting) within a buffer zone around the centroid of each gang’s territory to compare buffer area shootings in close proximity to FD gang territories versus shootings in close proximity to matched comparison gangs’ territories; and (2) pre-post differences in shootings by FD gangs.ⁱⁱⁱ

For the buffer area analyses, two buffer zones were created around the center of each gang’s home turf: a smaller ¼ mile buffer zone that encompassed approximately 0.2 square miles, and a larger ½ mile buffer zone that included about 0.8 square miles. The evaluation team then ran two types of models to assess the gang-level effect using the shooting outcomes within each buffer-area as an outcome. The first model was a basic difference-in-difference model testing the difference in pre-post change for the treated gangs versus matched comparison gangs as of April 2013 when the first call in was held (quarter 2 in 2013). The second set of regression models examined changes specific to the timings of the call in meetings and enforcement efforts. The models based on timing test the hypothesis that each gang might not be aware of the FD strategy or respond to it until that particular gang has representatives present at a call in meeting or law enforcement began an enforcement action. A series of regression models were therefore run for each gang that classified the impact period as “turning on” in the quarter corresponding to that group’s call in date. Additional models were run using the quarter corresponding to each gang’s enforcement; and finally, models where both the call in dates and enforcement dates were flagged.^{iv} Note that these models (i.e., the second set of gang-focused regression models) do not utilize comparison gangs.

Because these pre-post panel models can be viewed as rigorous tests of hypotheses without relying on comparison groups, the research team also used these models to examine changes in shootings perpetrated by the targeted gangs. As the buffer area outcome is based on *any shootings in a geographic area around a gang’s territory*, the perpetrator shooting analysis is designed to assess whether there were fewer shootings *attributed specifically to the targeted gangs*.

Results

Community-Level Results

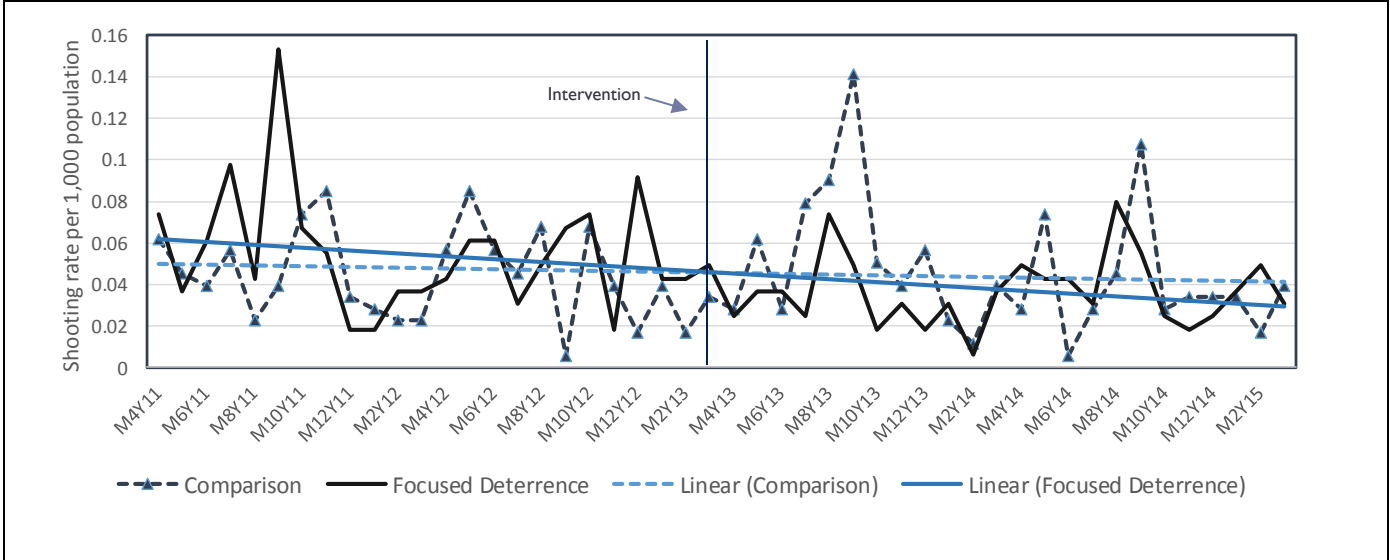
Figure 2 displays the monthly rates of shootings (per 1,000 residents) for the 24 months before the intervention and the 24 months after for both the FD neighborhoods and the comparison neighborhoods. The graph also includes the linear trends of the time series. One can see that, at the beginning of the time series—April 2011—the shootings rate of the FD target neighborhoods is higher than that of the comparison neighborhoods, but by March 2013, the rate is below that of the comparison neighborhoods. Results from the difference-in-difference models indicate that the FD intervention was associated with a statistically significant reduction in shootings in the 24 months following the implementation of FD when compared to the comparison communities (See Table 1).^v

Table 1. Difference-in-Difference Test of Focused Deterrence Intervention Effects on Shooting Rates Relative to Comparison Neighborhoods; and Entire City (Community-Level Effect)

	Coefficient
Versus Matched Comparison Neighborhoods	
FD Intervention	-0.027**
Versus Rest of City	
FD Intervention	-0.021**
Significance level: *p<.05;**p<.01	

Statistically significant means that researchers are confident that the results that were observed were due to the FD strategy itself and not due to random chance or measurement error. When the effects are large enough or of a characteristic unlikely to have occurred absent the FD strategy, one can be comfortable attributing the observed change to the initiative.

Figure 2. Monthly Shooting Rate for Focused Deterrence Neighborhoods and Comparison Neighborhoods, April 2011 through March 2015



A significance level of less than 0.01 indicates less than a 1% risk of concluding that a difference exists when there is no actual difference. This practice, and the levels used in the evaluation, are standard across the social and physical sciences. The reduction in shootings in terms of a *percentage change* for the target area for the 24 months before FD compared to the 24 months after FD was **35%** (not shown). Shootings in the matched comparison areas increased 6% over the same time period.

Gang-Level Results

The difference-in-difference models testing whether any shootings within the quarter- and half-mile buffer areas around each gang’s territory showed that shooting rates in the FD-treated gangs were lower than the matched comparison gangs outside of South Philadelphia (See Table 2). The coefficients are in the expected direction (i.e., negative), but the results are not statistically significant.

Table 2. Difference-in-Difference Test of Focused Deterrence Intervention Effects Comparing Targeted Gangs to Comparison Gangs		
	½ Mile Buffer	¼ Mile Buffer
	Coefficient	Coefficient
FD Intervention	-2.91	-1.36
*p<.05; **p<.01; 14 treated gangs, 69 comparison		

However, there were some significant reductions found in the panel data models that matched the timing of the call ins and enforcement actions to the targeted gangs (Table 3).

Significant reductions in quarterly shootings were found for the half-mile buffer around gangs called in (Table 3, Model I) and with enforcement actions (Table 3, Model II). Results were not significant in the model that matched the timing of both the call ins and enforcements (Table 3, Model III).

The last model addressed whether shootings perpetrated by the targeted gangs decreased following the call in meetings and enforcements, timed for each gang. Because this measure of gang-perpetrated shootings captures shootings

Table 3. Panel Models (Pre-Post) Assessing the Timing of the Intervention on Buffer Area Shootings around Gang Territories (Targeted Gangs Only)						
	Model I		Model II		Model III	
	Called In Only		Enforcement Only		Called In & Enforcement	
Quarter Mile Buffer						
	Coef.	p	Coef.	p	Coef.	p
Called In	0.187	0.08			0.237	0.15
Enforcement			0.054	0.68	-0.082	0.60
Half Mile Buffer						
Called In	-0.187*	0.01			-0.157	0.16
Enforcement			-0.232*	0.01	-0.135	0.23
*p<.05; **p<.01						

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specifically attributed to a particular gang, this test (assuming measurement is accurate) is generally considered a stronger test of change in gang behavior than that of the previous models using the buffer area measures. The results, shown in Table 4, indicate that there were no significant reductions in shootings attributed to the targeted gangs.^{vi}

Although gang-level reductions in gang-perpetrated shootings were not statistically significant, the majority of targeted gangs saw a reduction in shootings after members of the gang were called in and were subject to enforcement actions. A graph illustrative of this overall decrease in shootings for the targeted gangs is shown in Figure 3. The figure shows the quarterly change in gang-perpetrated shootings following the first call in meeting for each particular gang. Bars above zero represent an *increase* in shootings following the call in meetings; bars below zero represent a *decrease* in shootings. Nine of the 14 gangs represented at call in meetings across the two year evaluation period exhibited a reduction in shootings after members were called in, and the magnitude of the reductions exceeded the increases for two of the four gangs that had higher rates of shootings after the intervention. Although not shown, the figures are similar for the change in gang-perpetrated shootings post enforcement action.

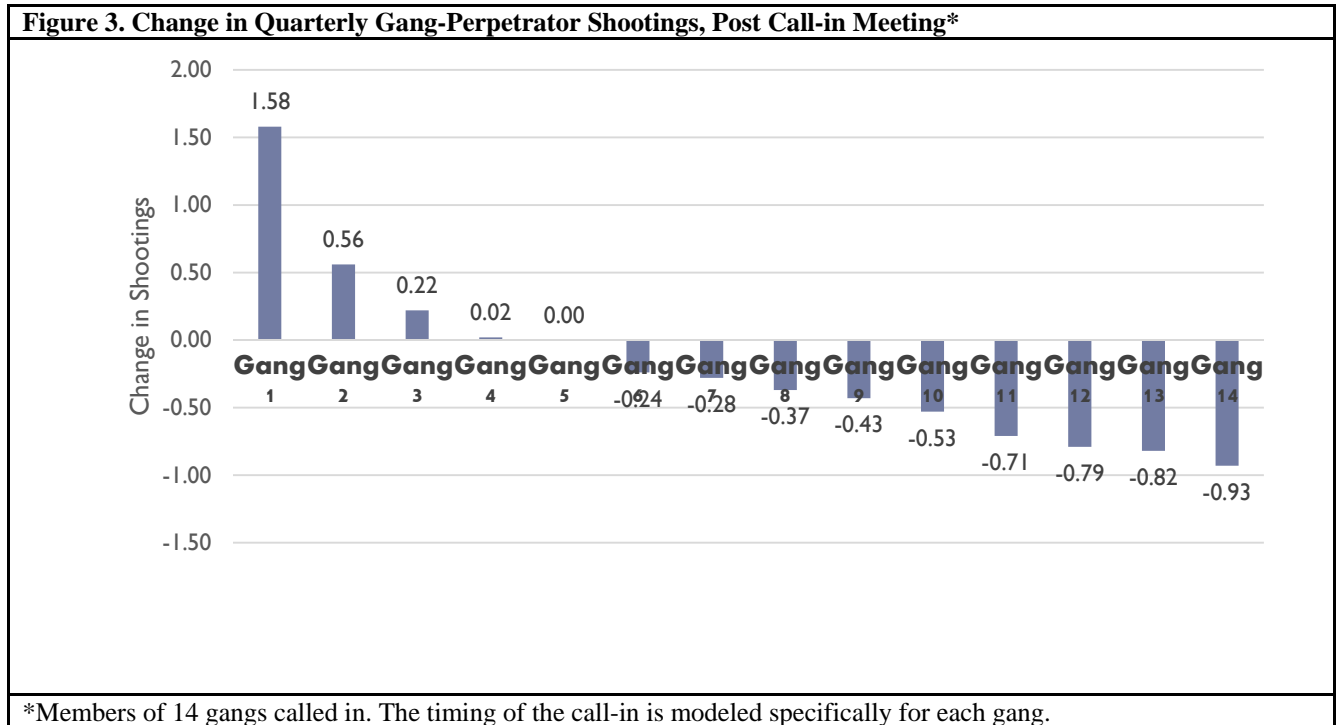
Table 4. Panel Models Assessing the Timing of the Intervention on Gang-Perpetrated Shootings						
	Model I Called In Only		Model II Enforcement Only		Model III Called In & Enforcement	
Gang-Perpetrated Shootings						
	Coef.	<i>p</i>	Coef.	<i>p</i>	Coef.	<i>p</i>
Called In	0.158	0.67			0.551	0.27
Enforce- ment			0.340	0.38	-0.006	0.99
* <i>p</i> <.05; ** <i>p</i> <.01						

Why might there be a Community-Level Effect, but not a Gang-Level Effect?

Although some gang-level models (the half mile buffer panel models shown in Table 3, bottom rows) showed a significant reduction in gang-level shootings after the call in meetings and enforcement actions, overall, the weight of evidence across all gang-level models indicates that we cannot conclude with certainty that FD was responsible for a decline in gang shootings by gangs subjected to the intervention. There are a number of reasons why the evaluation might find a significant area-level effect, but not a gang-level effect. The FD intervention is believed to work

because law enforcement sends a message, backed up by concrete and serious responses, that gang-related shootings will no longer be tolerated. Community leaders also are relaying the message that gun violence is unacceptable and social service support is available. It is expected that gang members subjected to the intervention will spread this message throughout the community. The general community, therefore, could have both become aware of the FD intervention, and observed more law enforcement officers on the street and subsequently spread the word that police were focused on stopping shootings and gang violence. This could have made potential offenders who were not in gangs hesitant to commit crimes or, more specifically, to engage in shootings. Therefore, the overall number of shootings in those communities may have been indirectly reduced because of FD. This “spillover” deterrent effect would appear in this analysis as a reduction in the overall level of shootings across the South Philadelphia community, though no effects would be directly attributable to the gangs.

It also is possible that a gang-level effect was not observed here because of the measures used to capture “gang-involved” shootings. For instance, the accuracy and efficiency of gang intelligence around shootings may have increased, which could lead to identifying more gang-perpetrated shootings as the intervention continued and the processes of intelligence gathering were refined and sharing of information across units and departments increased. But it is also conceivable that the gangs in South Philadelphia (or at least some of the gangs—see Figure 3) had particular characteristics that made them less amenable or responsive to the intervention. Some of the more active gangs in the target area had multiple factions or were branching off into subgroups or new groups during the intervention period. Theoretically, these newer groups may be less cohesive, and hence, less likely to share anti-violence messages. These newer groups also could feel like they have something to prove, and simply ignore the message. Additionally, some of the new factions are comprised of juveniles—who were not subject to the call in meetings. Supplementary data collection, such as arrest data, youth surveys or interviews with group members, which were not possible as part of the evaluation, would be necessary to parse out the confounding issues mentioned here. To date, only two other published evaluations of FD have examined both the community-level and gang-level effects of FD—most evaluations have studied only community-level outcomes. We have much more to learn from research about the mechanisms at work to create behavior change with FD strategies. What is evident from these results, however, is that FD, as implemented in Philadelphia, was able to reduce the rate of criminal shootings across South Philadelphia.



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- ⁱ Variations of the strategy also have been developed to combat street-level drug markets, and more recently, domestic violence.
- ⁱⁱ In the remainder of the text, any reference to “perpetrator shootings” signifies perpetrator or suspect.
- ⁱⁱⁱ The evaluation team originally intended to compare pre-post trends in shootings by targeted gangs to pre-post trends in shootings by matched comparison gangs, but it was determined that perpetrator shooting data was collected differently across the Police Districts, making it difficult to reliably compare shootings by gangs in South District (the FD target area) to those in other Police Districts.
- ^{iv} Negative binomial regression models with random effects were used to model changes in quarterly shootings pre and post intervention. These models account for the trend in shootings.
- ^v Although Figure 2 displays only the 24 months directly preceding the intervention, the difference-in-difference models utilize 123 pre-intervention months in the regression equation.
- ^{vi} Models also were run examining gang shootings where the targeted gang: (a) was the victim, (b) was a witness or bystander at the shooting incident, and (c) was perpetrator, victim, or witness/bystander (combined). None of these models showed significant reductions in shooting incidents by gang.