DALLAS POLICE DEPARTMENT

Violent Crime Reduction Plan

Executive Summary

This document sets forth the Dallas Police Department's (DPD) strategic plan for reducing violent crime in the City's most violence-prone areas and thereby reducing aggregate levels of reported violence City-wide. Overall violent crime[1] in Dallas is on the rise. In the past three years, violent crime has increased steadily with a 14% increase from 2018 to 2019 and an additional 5% increase in 2020 compared to 2019.

However, in Dallas, as in most cities, violent crime is geographically concentrated in a relatively small number of areas within the City. The geographic concentration of violent crime in our City is consistent with a large body of literature describing urban crime, particularly violent crime, as a phenomenon primarily occurring in a few small geographic areas. For example, just 14 of Dallas' 1,156 reporting areas[2] account for 10% of the City's reported violent crime.

Hot Spots Policing

Drawing from a substantial body of research on the positive impact that hot spots policing can have on reducing violence, this plan begins with a short-term focus on substantially increasing police visibility at micro locations (330'x330' grids) where violent crime is concentrated and prioritizing street-level deterrence and arrest of repeat offenders in these areas. The strategy is evidence-based and relies on increased police visibility and intelligence-led offender targeting rather than generalized "stop and frisk" or other dragnet tactics. Based on crime analysis and mapping, the DPD will assign officers to be highly visible on these grids identified by crime analysis as the most violence-prone and at times when violence is most often reported. At other high crime grids, designated teams of officers will focus on the surveillance, deterrence, and arrest of repeat violent offenders. Pre-post implementation data on crime and calls for service data will be tracked on and around the targeted grids, and violence hot spots reviewed and adjusted every 90 days.

Place Network Investigations

In the mid-term, the DPD will lead and coordinate with the Office of Integrated Public Safety Solutions a place-based investigations strategy designed to identify and disrupt networks of criminogenic places that disproportionately contribute to violent crime in Dallas. Place Network Investigations (PNI) are a recently developed tool based in empirical scholarship and criminological theory that focus on the spatial distribution of crime in communities and the role of unguarded places used by individuals and criminal networks to facilitate crime. During the first

[1] As used here, violent crime includes all crimes defined as Crimes Against Persons by the *National Incident-Based Reporting System, 2019.2.1 National Incident-Based Reporting System User Manual* (2019). Simple Assaults were removed from the analysis, and Robbery offenses that are listed as property crimes by NIBRS were added.
[2] The DPD subdivides the City into small reporting areas (RAs) to facilitate the analysis and mapping of crime and calls for service. Those RAs are nested within 225 patrol beats across 7 patrol divisions.

six months of implementation, initial violent place networks will be identified using traditional Risk Terrain Modeling, traditional crime analysis, and local police knowledge and intelligence.

A PNI Board made up of stakeholder government agencies (e.g., code enforcement, health departments, parks & recreation) and non-profit and/or community-based groups will be used to design unique place-based strategies to address crime and its causes within the crime-place network. Traditional police enforcement efforts (arrests, controlled drug buys) will be coordinated with the City's new Office of Integrated Public Safety Solutions (OIPSS) and coupled with code enforcement, abatement, environmental design changes, disorder-focused efforts (graffiti abatement, trash clean up, abandoned vehicle removal, weed/brush removal) and other efforts to alter the criminogenic nature of the entire crime-place network. Again, pre- and post-implementation data will be tracked in and around the targeted locations and adjustments made, if needed, to the strategy based on data trends. As crime declines in the targeted areas, new place networks will be identified and brought into the strategy.

Focused Deterrence and Urban Blight Abatement

Longer-term strategies to reduce violence include implementation of a focused deterrence model in Dallas and coordinating with other city agencies on implementing a vacant lot "greening" program and vacant/dilapidated building abatement strategy. First designed and implemented in Boston in the 1990s, focused deterrence strategies have proven successful in reducing violent crime in a number of cities where they have been applied and evaluated. The goal of focused deterrence is to change the behavior of high-risk offenders through a combination of deterrence, incapacitation (arrest), community involvement, and the provision of alternatives to violence. A key feature of most successful focused deterrence strategies is the clear communication to gang members and other violent offenders of the risks associated with continued criminal activity and the alternatives available to them under a robust suite of social services, education, and job-related services made available to them under the strategy

Focused deterrence is a holistic, resource-intensive process involving multiple law enforcement and community partners, including federal law enforcement agencies and the U.S. Attorney's Office. Initially, the DPD will work with research partners, city leadership, and other stakeholders to prioritize problems for focused deterrence interventions. The nature of those interventions may vary according to the problem identified (gang violence vs. neighborhood-based open-air drug markets). The support and partnership of social service organizations, including city agencies, non-profits, or community-based leaders and groups, is necessary and will be sought. Following other successful models, the Dallas focused deterrence strategy will make use of "violence interrupters" to help resolve street-level conflicts among violence-prone offenders, spread the retail deterrence message, and serve as street-level conduits to social services. A careful evaluation of the implementation and impact of this strategy will be designed and carried out by academic partners to facilitate modification and/or replication of the strategy to address additional problems or violent areas as progress is made.

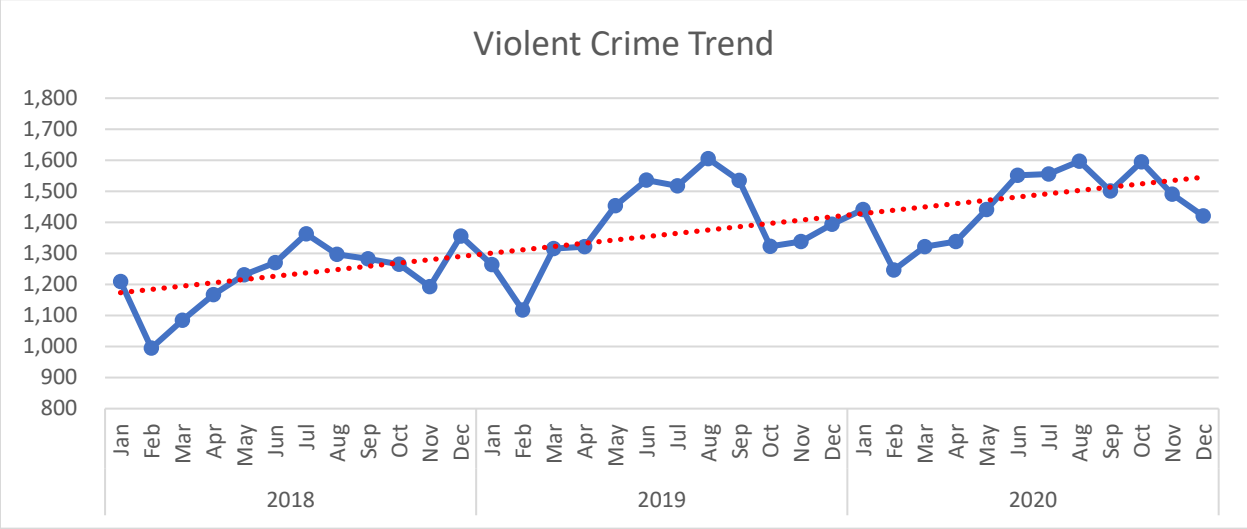
Finally, a growing body of literature has documented the association between urban blight and crime, including violent crime. Replicating the success of Philadelphia in reducing violent crime in neighborhoods through low-cost efforts to "green" vacant lots and repair the facades of abandoned or neglected buildings, the DPD will coordinate implementation of an urban blight abatement strategy in accordance with the Dallas Mayor's Task Force on Safe Communities recommendations.

Nature of the Problem

Dallas is a large metropolitan city inhabited by more than 1.3 million people and policed by approximately 3,100 police officers. The Dallas Police Department (DPD) is tasked with lowering violent crime while responding to calls for service, investigating property crimes, and providing for the overall safety of its citizens. DPD remains dedicated to reducing the increasing violent crime trend.

Overall violent crime[3] in Dallas is on the rise. In the past three years, violent crime has increased steadily with a 14% increase from 2018 to 2019 and an additional 5% increase in 2020 compared to 2019 (Figure 1 below). Focusing solely on typical indicators of street violence reveals a similar pattern. Murders, non-negligent manslaughters, robberies, and aggravated assaults were up 17% in 2019 over 2018, and they increased another 4% in 2020 for a total increase of almost 22% across the most recent three-year period (see Figure 2 below).

FIGURE 1: OVERALL VIOLENT CRIME TREND, 2018-2020

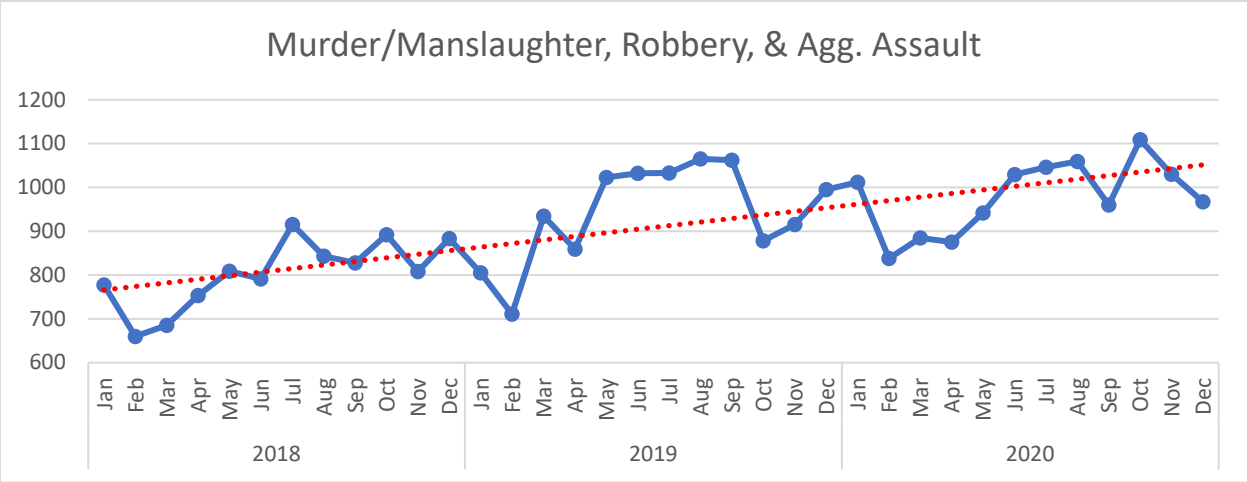


However, in Dallas, as in most cities, violent crime is geographically concentrated in a relatively small number of areas within the City. DPD's seven patrol divisions are divided into 225 beats. For reporting and analysis purposes, beats are further disaggregated into 1,156 small reporting areas (RAs) and even smaller 330' x 330' grid squares. An examination of violent crime at the RA level reveals that that roughly 10% percent of Dallas' violent crime occurs within only 14 (or 1%)

[3] Violent crime includes all crimes defined as Crimes Against Persons by the *National Incident-Based Reporting System, 2019.2.1 National Incident-Based Reporting System User Manual* (2019). Simple Assaults were removed from the analysis, and Robbery offenses that are listed as property crimes by NIBRS were added.

RAs. At the beat level, the same four beats have been among the top five violent crime areas in the City across a ten-year period. Historically, beats 318 (Southeast Division), 454 (Southwest Division), 744, and 731 (South Central Division) have consistently ranked as the most violence-prone in Dallas.

FIGURE 2: STREET-VIOLENCE TREND, 2018-2020



The geographic concentration of violent crime in our City is consistent with a large body of literature describing urban crime, particularly violent crime, as a phenomenon primarily occurring in a few small geographic areas. In an effort to reduce the violence that occurs in these areas, DPD developed TAAG areas (Targeted Area Action Grids) that set boundaries around the areas where crime was most problematic. TAAG area boundaries were set as part of a strategy to reduce all crime, property and violent, as well as public nuisance issues (e.g., illegal gambling). As violent crime began to rise, DPD adjusted these boundaries to encompass high violent crime areas and created violent crime reduction plan (VCRP) areas. VCRP areas differ from TAAGs by allowing DPD commanders to focus on persistent violent crime within smaller areas. Most notably, TAAG areas cover one square mile, while VCRP locations incorporate just .5 square miles, thus enabling DPD to commit resources to smaller hotspot locations.

Goals and Objectives

As violent crime continues to trend upward, DPD is committed to renewing its efforts to reduce violent crime in the City by developing a multi-faceted, violence reduction strategy based on the best available science. Drawing from a substantial body of research on the positive impact that hot spots policing can have on reducing violence, this plan begins with a short-term focus on substantially increasing police visibility at micro locations (330' x 330' grids) where violent crime is concentrated and prioritizing street-level deterrence and arrest of repeat offenders in these areas. Building outward, the plan incorporates a mid-term strategy focused on networks of

violent places within historically violent areas of the City using a Place Network Investigations approach. And finally, over the longer-term, DPD will lead a focused deterrence strategy and coordinate an urban blight abatement program to reduce conditions associated with violent crime and help break the cycle of violence in areas that have long been the source of most of the violence in Dallas.

By implementing these strategies, the Dallas Police Department seeks to accomplish the following goals:

- In partnership with other city agencies and the community, reverse the increasing trend in reported violent crime
- Reduce the annual number of victims of violent crime
- Increase community trust and engagement with the DPD to facilitate solving crimes of violence and successfully prosecuting violent offenders
- Improve place-based conditions that contribute to violence in coordination with the Office of Integrated Public Safety Solutions and other stakeholders

Near-Term Strategy

Hot Spots Policing

Considerable evidence suggests that police can be effective at reducing violent crime in small areas with high rates of violence. Often referred to as "hot spots policing," some of the strongest evidence of the impact that police can have on crime comes from more than 25 years of research showing that a relatively small number of areas generate the majority of violent crime in most American cities and that crime can be reduced in those areas through targeted police enforcement (Braga et al., 2019; National Research Council, 2004; Weisburd & Telep, 2014). Hot spots policing can be implemented fairly quickly and can reduce reported violent crime in targeted areas by 10-50 percent (Corsaro et al., 2019; Groff et al., 2015; Rosenfeld, Deckard & Blackburn, 2014). Moreover, there is little evidence that violent crime is spatially displaced to surrounding areas when hot spots policing is implemented and considerable evidence that areas adjacent to hot spots also can expect lower crime rate benefits (albeit to a lesser degree) from the police treatment effects (Weisburd et al., 2006). Little is known, however, about the potential displacement of crime associated with hot spots policing to other areas of the city or to different crime types (Weisburd & Telep, 2014).

While there is no universally accepted definition of a "hot spot," hot spots often consist of street segments or similar small areas that are no more than a city block long and which extend no more than a half a block on either side of the segment, although many research studies have evaluated police interventions in larger hot spots (see Rosenfeld et al., 2014 – average hot spot contained 8 street segments and Groff et al., 2015 – average hot spot was the size of 22 football fields). The appropriate size of a hot spot should be driven by empirical considerations, such as the spatial

distribution and density of crime, as well as considerations of geography and local police operational knowledge of street activity.

What police actually do in hot spots policing and whether some tactics are more effective than others have also been the subject of research and evaluation. In their most recent meta-analysis of hot spots research studies, Braga et al. (2019) found that problem-oriented policing strategies generated moderately higher impacts on crime than merely increasing police presence with extra officers or patrols. Problem-oriented policing refers to police strategies targeted at specific problems with solutions tailored to those problems (Goldstein, 1990). Hot spots dominated by illegal drug sales may call for different policing tactics than areas with high levels of illegal prostitution, for example. While some research has evaluated hot spot strategies targeted at specific types of violent crime (e.g. robberies or gun crimes), most hot spot strategies focused on violent crime seek to reduce all types of serious violent crimes.

A few studies have examined specific tactics and their effects on crime at hot spots. Recently, Corsaro et al. (2019) investigated whether foot patrols or stationary marked police vehicles with emergency lights illuminated had a greater impact on crime and calls for service within hot spots. They found that lighted patrol cars reduced violent crime in hot spots while foot patrols had the greatest impact on property crime. Groff et al. (2015) compared foot patrol, problem-oriented policing, and offender-focused tactics within experimental and control hot spots and found that only offender-focused tactics had an impact on violent crime. The experimental hot spots showed a 42% decrease in all violent crimes and a 50% decrease in violent felonies compared to their controls. Importantly, modern hot spot strategies rely on increased police visibility and intelligence-led offender targeting rather than generalized “stop and frisk,” oversaturation, or dragnet tactics that can lead to mistrust of the police and community resentment.

Offender-focused police strategies are based in an intelligence-led policing framework and derive from the empirical premise that a small percentage of offenders are responsible for most crime (Clarke & Eck, 2005; Ratcliffe, 2008). By proactively targeting repeat offenders, police can theoretically have a greater impact on crime than by targeting places alone (National Research Council, 2004). This strategy has the added benefit of leaving a smaller police “footprint” within communities by focusing attention on known repeat offenders rather than all persons who happen to be out on the street. Offender-focused policing requires good intelligence on where repeat offenders live and/or where they are likely to engage in future crime. In the Groff et al. (2015) study, the Philadelphia Police Department employed dedicated teams of officers who were exempt from answering calls for service and who proactively contacted, questioned, stopped, and arrested known offenders in the experimental hot spots.

Hot spots policing has become a well-accepted strategy to address crime in urban areas, which is disproportionately found in micro-areas with high rates of crime. In a recent nationally representative survey of U.S. law enforcement agencies, the National Police Research Platform found that 75% of agencies surveyed employed hot spots policing as a crime control strategy.

Braga et al.'s (2019) most recent updated meta-analysis of hot spots policing studies reviewed 78 tests of hot spots policing across 65 eligible studies and found noteworthy crime control gains in 62 of the 78 tests reviewed. Problem-oriented strategies focused on changing the characteristics of crime-prone places were moderately more effective than increasing police presence or traditional enforcement activities (Braga et al., 2019), and recent evidence suggests that a hot spots approach focused on repeat offenders is potentially even more effective than other place-based problem-oriented approaches (Groff et al., 2015).

That said, evidence is lacking that hot spots policing as it has been implemented and evaluated in most cities to date can effectively reduce crime in an *entire* city or within larger sections of cities (Sherman et al., 2014; Weisburd et al., 2017; Weisburd & Telep, 2014). For example, in an evaluation conducted in Dallas ten years ago, Weisburd et al. (2015) found measurable reductions in crime within treatment hot spots that experienced increases in patrol time, but these reductions were not measurable within the larger geographic patrol beats where the treatment hot spots were located. Because the experiment resulted in only a 2% increase in unallocated patrol time to hot spots, Weisburd et al. (2015) theorized that the patrol dosage level was insufficient to produce large enough crime reductions gains that might have been observed at the beat level. Based on the observed levels of crime reduction in hot spots associated with the 2% increase in unallocated patrol time, Weisburd et al. (2015) estimated that if unallocated patrol time could have been increased to 25%, then crime could theoretically have been reduced by as much as 25% within the treatment *beats*. In a subsequent experimental simulation, Weisburd et al. (2017) demonstrated a hypothetical 13% reduction in street robberies within a large police *borough* when one third of patrol officers were assigned to spend 50 percent of their time at the top five hot spots within their beats and a 21% reduction in robberies when half of patrol officers spent *all* of their time at the top five hot spots.

Taken together, the hot spots policing literature suggests several key factors that might produce optimal crime control within hot spots and possibly within larger areas surrounding those hot spots or even across an entire city (Weisburd et al., 2017):

- Hot spots must receive enough "dosage" to produce measurable crime control gains beyond the boundaries of the hot spots themselves
    - Dosage reflects both the number of hot spots that receive intervention, *and* the amount of time police devote to each hot spot
    - Concentrating available patrol resources on hot spots may result in fewer officers assigned to lower crime areas and longer response times, especially for non-emergency calls
- Police activities at hot spots matter
    - High-visibility presence (marked cars with lights on) and offender-focused tactics may be more effective than foot or drive-by patrols at reducing violent crime
- Police behavior matters

- When police focus on procedural justice and are viewed as legitimate by the public, crime control gains are likely to be enhanced (Tyler et al., 2015)

Hot Spots Policing in Dallas

Currently, the DPD focuses on hot spots by deploying resources into selected VCRP locations. On duty patrol officers will work proactively in VCRPs, particularly during summer and commonly high crime holidays (e.g., Fourth of July). Additionally, patrol commanders are provided with daily reports of crime in VCRPs and expected to develop crime reduction strategies to lower crime at those locations. Further, DPD created specialized units made up of uniformed and covert officers who are deployed to the VCRP areas when violent crime spikes or begins trending upward.

With the assistance of criminologists from the University of Texas at San Antonio, and based on our review of the current evidence for the effectiveness of various hot spots policing strategies, the DPD intends to modify its approach to hot spots policing as part of its overall strategic plan to reduce violent crime. It will modify its current hot spots policing strategy in three ways.

First, working with UTSA researchers, DPD will revisit the locations and boundaries of violent crime hot spots throughout the City by focusing on small, 330' x 330' grids where robberies, aggravated assaults, and homicides occurred in the most recent 90-day to 6-month period to ensure that hot spots are appropriately identified. Initially, this empirically driven analysis will seek to identify the small percentage of grids where violent crime is most heavily concentrated in Dallas (Weisburd et al., 2015). Once these high crime grids are identified, they will be rank ordered within beats and divisions from highest to lowest. It is expected that some beats will have no high crime grids while others will have multiple high crime hot spots. If resources allow, additional grids will be added to the treatment strategy described below to increase police coverage beyond the initially targeted grids where violent crime is most prevalent. Resource allocation decisions will be made every 90 days when hot spot locations are adjusted (if needed) based on changing crime trends.

Second, once identified and rank-ordered within beats and divisions, these high violent crime grids will be evaluated by DPD division commanders and their staff and hot spot boundaries adjusted, if appropriate, based on unique geographic features (e.g., a park or school) and local operational knowledge of crime patterns and trends. The list of current hot spots that emerges from this process will be mapped and revisited and updated every 90 days.

Finally, the hot spots will be randomly assigned to receive either (1) the systematic assignment of patrol officers to remain in the hot spot with their emergency lights activated for 15 minutes (the optimal dosage period) every hour during peak hours of crime as identified in each hot spot

through crime analysis[4], or (2) an offender-focused strategy where specialized officers will circulate through the hot spots making contact with or surveilling repeat offenders who have been identified through a separate analysis of arrestees and who live or are known to frequent the treatment hot spots. Their presence also will be concentrated in hot spots during peak crime hours, but their activities will be focused on *repeat offenders* rather than persons at large, generalized stop and frisk, or dragnet-type tactics. No "control" hot spots will be used as part of the strategy. Sufficient evidence exists that hot spots policing reduces crime in targeted micro-areas, and all available resources will be brought to bear in an effort to drive down violent crime in beats, divisions, and city-wide by concentrating sufficient dosage in the targeted violent crime hot spots identified through the process described above.

Implementation of the strategy is expected to begin in May 2021, and impacts will be assessed every 90 days as described below. Adjustments to the hot spot boundaries or deployment patterns of officers will be made every 90 days if needed based on changes in observed crime patterns.

Measurement and Evaluation

To assess the impact and effectiveness of the near-term hot spots policing strategy, reported violent crime counts and calls for service data will be obtained for the treatment hot spots, all patrol beats (those containing hot spots or not), and DPD area divisions for the six months leading up to the implementation of the strategy and weekly thereafter. Violent crime counts will be reviewed descriptively at each of three levels (hot spots, beats, divisions) on a weekly basis and patterns or changes assessed. At 90-day intervals, more sophisticated difference-in-difference and/or repeated measures multilevel modeling will be conducted by the UTSA research team to evaluate impacts of the strategy on violent crime and calls for service within hot spots, beats, and divisions. These analyses also will include an assessment of potential crime displacement and changes to the distribution of reported offenses within beats. If emerging hot spots are identified, they will be added to the treatment protocols; likewise, hot spots that are no longer "hot" will be removed.

Every six months, the Chief of Police will lead an intensive strategic review to assess the effectiveness of the strategy and to recommend any changes or adjustments. If one of the experimental treatments (high visibility presence vs. offender-focused tactics) appears to be more effective than the other, then a decision will be made to expand or discontinue one or the other. The possible addition of place-focused, problem-oriented strategies also will be evaluated during the strategic review sessions. To facilitate transparency and stakeholder input, biannual

[4] As in Las Vegas (see Corsaro et al., 2019), patrol officers will be assigned to these high visibility hot spot times each hour via dispatch. This will help ensure fidelity to the strategy. If resources or unforeseen events do not allow for the assignment of officers to hot spots during certain hours, these gaps will be documented and accounted for in the ongoing evaluation of the efficacy of the strategy.

reports will be produced for public release outlining the hot spots strategy, detailing observed changes in violent crime, and noting any changes recommended to the strategy.

Mid-Term Strategy

Place Network Investigations

In addition to a revised hot spots policing strategy, the DPD will lead and coordinate a place-based investigations strategy designed to identify and disrupt networks of criminogenic places that disproportionately contribute to violent crime in Dallas. Place Network Investigations (PNI) are a recently developed tool based in empirical scholarship and criminological theory that focus on the spatial distribution of crime in communities and the role of unguarded places used by individuals and criminal networks to facilitate crime. A PNI strategy is based on four empirical realities (Herold et al., 2020):

1. Crime is concentrated among a relatively small number of offenders, victims, and places
2. A small number of places account for most crime in any city
3. Law enforcement strategies that target criminal networks can reduce crime
4. Criminogenic places are networked

PNI was first attempted as a coherent crime control strategy in Cincinnati several years ago (Hammer, 2020) and has since been used in Las Vegas (Herold et al., 2020) and other cities (Madensen et al., 2017) with promising early effects. In Cincinnati, violent crime was reduced in the first two pilot PNI sites by 89 and 71 percent respectively, while an evaluation of five Cincinnati PNI sites documented a 72% decline in shooting victims over the 24-month post-implementation period (Hammer, 2020). In Las Vegas, a pre-post 12-month comparison demonstrated a 39% reduction in gun-related crimes occurring in the PNI-targeted locations (Herold et al., 2020).

A PNI strategy begins with a problem-focused investigation of violence-prone locations to uncover the network of convergent settings (public places were offenders often meet), comfort spaces (private meeting locations used by individuals or groups to plan or facilitate crime), and corrupting spots (associated locations that encourage criminal activity) that make up the place network. Police use a variety of intelligence-driven efforts to uncover crime-place networks (traditional crime analysis, surveillance, informants, offender interviews, historical data) and then lead the development of a PNI Board made up of stakeholder government agencies (e.g., code enforcement, health departments, parks & recreation) and non-profit and/or community-based groups to design unique place-based strategies to address crime and its causes within the crime-place network. Traditional police enforcement efforts (arrests, controlled drug buys) are coupled with code enforcement, abatement, environmental design changes, disorder-focused

efforts (graffiti abatement, trash clean up, abandoned vehicle removal, weed/brush removal) and other efforts to alter the criminogenic nature of the entire crime-place network (Herold, 2019).

A PNI strategy is intelligence-driven, requires the involvement and commitment of multiple stakeholders, and may involve the expenditure of money and other resources by city agencies and community-based organizations (CBOs). By focusing on the most violence-prone locations, though, PNI has the promise of significantly impacting violent crime, reducing victimization, and improving the quality of life in and around the affected locations

Below is an illustration of the PNI phases taken from the Las Vegas PNI evaluation report (Herold et al., 2020).

TABLE 1: The PNI Process

Implementation Steps
Select violent micro-locations
Select and train PNI unit
Establish and follow investigative protocols
Establish, train, and gain compliance from PNI Investigative Board members
Gather pre-intelligence
Assess and establish intelligence systems
Conduct internal intelligence sessions
Collect community intelligence
Present intelligence products to PNI Investigative Board
Identify offender and crime place networks
Disrupt offender and crime place networks

To maximize its chances for success, the PNI process requires buy-in from multiple stakeholders and a careful, data-driven process that starts with identifying violence-prone hot spots and investigating them exhaustively to establish networked locations. Police and other PNI stakeholders may require training on the PNI process and/or investigative techniques, and the police must have (or put in place) a functional process for collecting and analyzing intelligence related to potential PNI sites. Once likely sites have been identified, researchers recommend the development of a PNI Board that will review the intelligence and make initial decisions about which location(s) to focus on. At that point, stakeholder engagement across multiple city agencies and/or CBOs is vital to develop data-driven interventions designed to disrupt offender and crime-place networks. Careful tracking of pre- and post-intervention metrics (agreed upon

by the Board) is vital and may require the assistance of outside research partners. The effects of the intervention must be carefully tracked and documented, and adjustments made to the plan if necessary, to optimize success. Critically, the plan must include a strong maintenance component purposely designed to ensure that crime reduction gains are maintained and not squandered as attention is shifted to other sites (Herold et al., 2020).

Implementing PNI in Dallas

As a promising mid-term strategy to address violence, the DPD, in coordination with the OIPSS, intends to implement a PNI process in Dallas to complement the hot spots strategies it will implement in the shorter term. Realistically, a PNI strategy will take 6-12 months to put into place and will require training and buy-in from multiple stakeholders and coordination with the OIPSS. In conjunction with the director of OIPSS, the DPD will develop and dedicate a DPD PNI Task Force to oversee and coordinate police efforts. The Task Force will include crime analysts, intelligence officers, investigators, and command-level supervisors, and it will work closely with the OIPSS to identify violent place networks that are appropriate candidates for a coordinated intervention with the OIPSS.

During the first six months of implementation, initial violent place networks will be identified by the DPD Task Force and OIPSS using Risk Terrain Modeling (RTM), traditional crime analysis, and local police knowledge and intelligence. The process of putting together the PNI stakeholder board will begin concurrently, and the initial training of police PNI personnel will take place during the initial six-month period. The Chief of Police and OIPSS director will lead the PNI Board and will be principally responsible for constituting the Board with support from the City Manager. Once the Board is in place, it, too, will be trained on the PNI process and goals within six months. Likely membership of the Board will include the following:

TABLE 2: Initial PNI Board Membership

City Department	Roles and Responsibilities
Police	• Lead PNI board • Gather intelligence • Conduct criminal investigations • Make arrests • Deter criminal activity • Analyze crime and public-safety related data
Building Inspection	• Address safety issues identified in buildings
City Attorney/Community Prosecution	• Legal review of abatement/intervention strategies • Prosecution of code and related violations
Code Enforcement	• Address code violations

	• Issue citations
Fire Inspection	• Identify/address fire hazards and fire code violations
Housing and Neighborhood Revitalization	• Repair/abate housing-related deficiencies
Risk Management	• Review and provide input on risk mitigation strategies associated with interventions
Parks & Recreation	• Address design or re-development of parks as needed • Repair or remove dilapidated equipment or structures
Planning & Urban Design	• Assess infrastructure changes to reduce opportunity for crime • Crime prevention through environmental design
Public Works	• Assess transportation-related matters, including street repairs, re-design, or construction
Transportation	• Evaluate traffic management, signs, signals, or safety issues related to sites
Zoning	• Review applicable zoning regulations and recommend/implement changes as needed
Sanitation	• Clear and remove trash and debris
Dallas City Marshall	• Illegal dumping
Dallas Animal Services	• Address animal-related violations
Office of Homeless Solutions	• Address homelessness and related public safety and quality of life issues in target areas
Sustainable Development	• Suggest, plan, and implement sustainable development solutions
311	• Public information campaigns in targeted areas to encourage community response

Once the PNI Board is in place and trained, the DPD PNI unit and OIPSS will present likely places for intervention to the Board for its input and approval to begin the investigative process. By month 7, the DPD PNI unit will begin the intensive intelligence-gathering process on the site(s) and associated offenders agreed-upon by the Board, which will include input, data, and analysis from OIPSS, Board agencies, and community groups if appropriate. When the initial place-based investigations are complete, the PNI Unit and OIPSS will present its investigative findings to the Board regarding the places, offenders, and crime patterns associated with the crime-place network and suggested interventions. With input from OIPSS and the DPD PNI Unit, the Board will have primary responsibility for overseeing the implementation of intervention strategies designed to disrupt the offenders and criminal activities associated with the place network. These strategies likely will involve traditional police enforcement and crime prevention activities but also should include a multipronged and multi-disciplinary strategy to address the underlying problems that facilitate violence at the crime-place network. Changes to the physical environment, code enforcement, and even traffic flows may need to be addressed as part of a comprehensive place-based violence reduction strategy. OIPSS will coordinate these place-based efforts. An outside research team will assist the DPD in training OIPSS personnel and Board members on the PNI process and developing and carrying out an evaluation strategy to track the implementation and impacts of the PNI effort.

Below is a timeline for the implementation of the Dallas PNI strategy:

DALLAS POLICE DEPARTMENT 2021 VIOLENT CRIME REDUCTION PLAN

PNI Strategy Tasks & Timeline

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
TASKS																														
												PNI Implementation																		
Select & Train PNI Unit	X	X																												
Identify violent hot spot possibilities for PNI			X	X																										
Establish PNI unit investigative protocols and practices			X	X																										
Establish PNI Board			X	X																										
Train PNI Board					X																									
Present initial PNI analyses to Board for selection of site(s)						X																								
Intensive investigation of PNI sites/offenders							X	X	X																					
Presentation of analytic /intelligence findings to Board										X																				
Design intervention strategies										X	X																			
Implement intervention												X	X	X	X	X	X	X	X	X	X	X	X							
Quarterly review of progress by Board															X				X				X							
Design maintenance strategy																							X	X						
Implement maintenance strategy																									X	X	X	X	X	X
Select additional site(s) and repeat process																							X	X	X	X	X	X	X	X
												PNI Evaluation																		
Process Evaluation																														
Train PNI Unit	X	X																												
Identify process metrics	X	X																												
Assist in analysis of initial hot spot data		X	X																											
Develop stakeholder survey			X																											
Administer survey				X	X																									
Analyze survey data						X	X																							
Collect initial process metrics		X	X	X	X	X	X	X	X	X	X																			
Analyze survey data and initial process metrics										X	X																			
Draft and deliver Year 1 process eval report											X	X																		
Collect Year 2 process metrics													X	X	X	X	X	X	X	X	X	X	X	X						
Year 2 stakeholder survey																							X	X						
Analyze Year 2 survey and process metrics																								X	X					
Draft and deliver Year 2 process eval report																									X	X				
Outcome Evaluation																														
Identify outcome metrics											X	X																		
Collect pre implementation outcome metrics													X	X	X															
Collect post implementation outcome metrics												X	X	X	X	X	X	X	X	X	X	X	X							
Analyze pre-post outcome metric data																								X	X					
Draft and deliver Year 1 outcome eval report																										X	X			
Brief stakeholders on findings																											X			
REPEAT EVALUATION																											X	X	X	X

Measurement and Evaluation

To assess the implementation and effectiveness of the PNI strategy on violent crime in Dallas, the DPD, with assistance from the UTSA research team, will conduct a process and impact evaluation of the strategy. Process evaluations are designed to document the implementation of programs and policies, assess whether they were implemented as intended, and identify any obstacles to implementation. An outcome evaluation focuses on whether the program or strategy as implemented had its intended effect. In this case, the overarching goal of the strategy is to reduce violent crime (robberies, aggravated assaults, homicides) and its associated metrics such as shootings or violence-related calls for service in around crime-place networks. The process evaluation will use initial and subsequent surveys of stakeholders to assess their knowledge of and attitudes toward the PNI strategy. Assessing stakeholder knowledge and buy-in is important for programmatic success. Process evaluations also utilize quantitative implementation metrics such as the number of crime analyses or intelligence-related interviews conducted, intelligence products produced, offenders tracked, code violations written, environmental changes made, etc. to document implementation. The PNI Board will be asked for its input on implementation metrics that should be tracked, and these will be systematically gathered and analyzed by the UTSA research team and reported in Years 1 and 2 following PNI implementation.

On the outcome side, the PNI Board will again work with the UTSA researchers to identify appropriate outcome metrics such as violent crimes, shootings, or violence-related calls for service recorded pre- and post-intervention. A 12-month pre and 12-month post period will be utilized initially to gauge the impact of the strategy on the agreed-upon outcome metrics collected in and around the crime-place network locations and surrounding beat(s). Once maintenance plans are put in place to maintain crime reduction gains at targeted PNI sites, the DPD and UTSA researchers will continue to follow key outcome metrics over time (e.g., 24-36 months) to track long-term impacts.

Longer-Term Strategies

Longer-term crime reduction strategies require additional time and resources to implement compared to short-term or mid-term strategies. In most cases, they also require collaboration with outside stakeholders, which may include other city departments, CBOs, federal law enforcement agencies, or even business or non-profit organizations. The two longer-term violence reduction strategies proposed below are each evidence-based and have proven successful after rigorous evaluation.

Focused Deterrence

First designed and implemented in Boston in the 1990s, focused deterrence strategies (sometimes referred to as “pulling levers”) have proven successful in reducing violent crime in a number of cities where they have been applied and evaluated (Braga et al., 2018; Corsaro, 2018; Engel, 2018). A leading expert in the design and evaluation of these approaches to reducing

street-level violence has stated unequivocally that "focused deterrence strategies save lives" (Engel, 2018). The goal of focused deterrence is to change the behavior of high-risk offenders through a combination of deterrence, incapacitation (arrest), community involvement, and the provision of alternatives to violence (Braga et al., 2018). A key feature of most focused deterrence strategies is the clear communication to gang members and other violent offenders of the risks associated with continued criminal activity and the alternatives available to them under a robust suite of social services, education, and job-related services made available to them under the strategy. Focused deterrence strategies have been successfully implemented in cities such as Indianapolis, Cincinnati, Chicago, New Orleans, and Seattle among others and have shown statistically significant, and in some cases, substantively large reductions (15-34%) in reported violent crime (McGarrell et al., 2006; Engel et al., 2010; Papachristos & Kirk, 2015; Corsaro & Engel, 2015; Saunders et al., 2016). One such program in Dallas, Texas—Targeted Offender Program (TOP)—was designed with Smart Policing's evidence-based, data driven concepts in mind. TOP utilized a focused deterrence (i.e., pulling levers) approach to reduce crime in the Hatcher/Scyene TAAG, one of Dallas' more crime ridden neighborhoods. Preliminary results demonstrated overall reduction in violent and property crime (Bishopp & Morris, 2016).

Components of Focused Deterrence

Focused deterrence is a city led initiative that will operate outside of the four areas that the Youth Advocates violence interrupters are working in. Focused deterrence will complement the strategic efforts of the violence interrupters. While focused deterrence strategies typically contain common elements, they should be viewed as problem-oriented policing strategies that work best when tailored to a specific crime problem (e.g., gang violence, youth homicide) in a city or area of a city. These strategies emphasize the development of an interagency law enforcement team often consisting of local, state, and federal partners (law enforcement, prosecutors, probation/parole, etc.), which relies on local intelligence to identify offenders or groups of offenders within the targeted risk group. The law enforcement team then develops a strategy to target the offenders utilizing all available legal remedies – arrest and prosecution (often with federal partners taking the lead on drug and gun-related crimes), gang injunctions, place-based strategies to close down buildings or houses used to facilitate crime, etc. Key to the strategy is (1) a deterrence message communicated directly and repeatedly to the target population, and (2) offering violent lifestyle alternatives to the targeted offenders, which may involve the provision of social services, education, job training, or direct employment with willing partners in the private or on-profit sectors (Braga, 2018).

The deterrence message is often communicated through "call-ins" or offender notification meetings whereby offenders are invited or required (as a condition of probation or parole) to appear and hear deterrence messaging from law enforcement officials and respected community voices (e.g., clergy or family members of victims). At these meetings, social service representatives are also available to offer prosocial alternatives to the threat posed by law enforcement of arrest and long-term incarceration in a federal penitentiary. Cities that have used focused deterrence strategies successfully have also made use of street workers (often former

gang members) to communicate the deterrence message directly to gang members on the street and to serve as a resource to connect them with social services (CICF, 2021; Engel et al., 2010; McGarrell, et al., 2006).

Focused deterrence strategies come in several varieties. The original Boston Ceasefire model, later replicated and modified in Cincinnati and other cities, focused on gangs and violent criminal groups. Other cities have copied the High Point, NC drug market intervention (DMI) program that focused on identifying and arresting violent drug dealers while suspending criminal proceedings against non-violent drug offenders within targeted drug markets (Kennedy & Wong, 2009). These non-violent offenders are then provided moral support and encouragement from family members and/or community leaders and social service support from city or non-profit agencies. Based on the High Point experience, DMI has been rated as "effective" by the National Institute of Justice (NIJ, 2014). A final type of focused deterrence targets repeat offenders by leveraging available legal tools (arrest and prosecution), deterrence through the use of "moral" voices from the community, and the provision of social service alternatives (Braga, 2018; Papachristos et al., 2007).

Focused Deterrence in Dallas

As part of its strategy to help provide long-term solutions to violent crime in Dallas, the DPD will lead problem-based, focused deterrence strategies tailored to particular violent crime problems or neighborhoods. In partnership with academic experts, the DPD will utilize problem-oriented policing methods to clearly identify underlying violent crime patterns in Dallas and its neighborhoods,[5] and then it will design tailored strategies to address those problems drawn from the success of focused deterrence models in other cities.

Focused deterrence is a holistic, resource-intensive process involving multiple law enforcement and community partners. Initially, the DPD will work with its academic partners, city leadership, and other stakeholders to prioritize problems for focused deterrence interventions. The nature of those interventions may vary according to the problem identified (gang violence vs. neighborhood-based open-air drug markets), recognizing that some problems may overlap. As studies that have documented success have found, law enforcement partners at the local, state, and federal level will be engaged and brought onboard early in the process. These partners may include the FBI, U.S. Attorney's Office, DEA, ATF, Dallas County District Attorney, Dallas Adult and Juvenile Probation, Texas TDCJ Parole Division, and others.

Given the resource-intensive nature of focused deterrence, initially one problem and/or neighborhood will be selected for intervention. The initial plan will be drawn-up as outlined

[5] Neighborhoods may be defined in the traditional sense using historically understood neighborhood boundaries (e.g., Pleasant Grove, Five-Points, Oak Cliff]) or it may focus on troublesome housing complexes or known drug market locations.

above, and it will be continually assessed as part of the evaluation process once enacted. If resources allow, a second (or even third) focused deterrence effort may be undertaken simultaneously based on the emerging evidence and lessons learned from the first.

Engaging in the SARA[6] problem-oriented process and laying the groundwork for the partnerships needed to ensure programmatic success will take 9 months to a year. It is anticipated that the actual implementation of a focused deterrence strategy likely will begin in spring 2022. By that time, the impact of the short and mid-term strategies that are part of DPD's overall violence reduction strategic plan will have been measured and felt. The impact of these shorter-term strategies may affect the crime problems identified and chosen for intervention using a focused deterrence approach. In this way, the long-term focused deterrence strategy will build upon the expected success of earlier the components of the overall violent crime reduction plan, and the components will work synergistically to reduce violent crime in Dallas and lay the groundwork for long-term change.

Measurement and Evaluation

A scientifically valid process and impact evaluation of the Dallas focused deterrence strategy is essential for measuring and documenting programmatic successes and failures. Credible, experienced research partners will be engaged to conduct an independent evaluation of the strategy. An evaluation of this magnitude will be a considerable investment, but as the Mayor's Task Force on Safe Communities report makes clear "it is critical to know whether evidence-based strategies are being implemented as outlined in research and if public investments are yielding results" (p. 13). The DPD will follow the recommendation of the Task Force and will work with city leadership to find philanthropic partners willing to help underwrite the initial and ongoing costs of an independent evaluation. The before-and-after measure of crime calls for service, quality of life, and community safety perceptions will be key outcome indicators that experienced evaluators will consider. Carefully documenting the fidelity with which the strategy is implemented is also important and necessary to produce a "lessons learned" document that can serve as an implementation guide for subsequent iterations of the strategy.

Violence Interrupters

Following a recommendation from the Mayor's Task Force on Safe Communities (2019), as well as the experience of other cities, Dallas will be utilizing violence interrupters and violence intervention programming. The violence interrupters is a community based strategy that helps to resolve conflicts, spread the retail deterrence message, and serve as street-level conduits to social services.[7] The violence interrupters and focused deterrence will work together and will be

[6] Scanning, analysis, response, and assessment (Goldstein, 1990).

[7] Dallas has at least one active street worker organization – Urban Specialists – that utilizes former gang members to help steer youth away from gang involvement. See

problem-based and carefully drafted with clearly identified roles and commitments from partner organizations. The city made a significant investment in violence interruption programming to not only reduce crime but also provide opportunities for individuals to break the cycle of violence and avoid a life of incarceration. On April 28, 2021, the Dallas City Council approved a 1.6-million-dollar contract with Youth Advocate Programs to develop violence intervention and prevention programming for the City. To ensure these programs are working in concert a well-defined evaluation plan will be in place to measure process implementation and impact.

Urban Blight and Disorder Abatement

Rooted in "broken windows" theory (Wilson & Kelling, 1982), a growing body of literature has documented the association between urban blight and crime, including violent crime (Kondo et al., 2015; Branas et al., 2016; Branas et al., 2018). Efforts in Philadelphia to remediate vacant lots and abandoned or neglected buildings through implementation of new city ordinances that required the installation of working doors and windows and the cleaning/repairing of facades on buildings or the "greening" of vacant lots led to measurable reductions in firearms assaults in and around the treated areas compared to comparable untreated areas (Branas et al., 2016). In a follow-up study using a randomized controlled trial design (the "gold standard" in research design to show cause and effect), Branas and his colleagues (2018) obtained funding to randomly assign vacant lots in Philadelphia for treatment through the application of a vacant land ordinance that allowed city-contracted workers to remove trash and debris, grade the land, plant a small number of trees, hydroseed the lot with grass, and install a low wooden fence with gaps to encourage use of the lots as micro parks within neighborhoods. Approximately 375 lots were randomly assigned and treated (some more extensively than others) at an average cost of $5 per square meter and maintained afterwards at an average cost of $.50 per square meter. The researchers measured crime and neighborhood perceptions of crime in and around the treated sites and found significantly reduced perceptions of crime through surveys of residents and a statistically significant reduction in all reported crime (-4.2%), gun assaults (-2.7%), and burglaries (-6.3%) in the treated areas compared to the untreated areas; the effects were even more pronounced in neighborhoods below the poverty line.

The Philadelphia experience has been recognized by the Mayor's Task Force on Safe Communities as a model practice for Dallas. In its report, the Task Force has already documented the predicted impact on violent crime of a similar strategy in Dallas and calculated the program's costs and expected benefits. Thus, its first recommendation is to "Remediate blighted buildings and abandoned lots in high-violence locations." The City committed to this blight remediation strategy in FY 2021 and dedicated resources and funding to implement environmental improvements for crime reduction. The Dallas Police Department has assisted OIPSS and Code

https://www.dallasnews.com/news/commentary/2020/02/11/with-violent-crime-on-the-rise-these-former-gang-members-hope-to-save-dallas/.

Enforcement with identifying high crime areas in need of blight remediation resulting in over 17,000 blighted properties being remediated. The urban blight abatement strategy remains a significant part of the strategic plan to reduce violent crime in the City.

Community Prosecution, Nuisance Abatement, and Lighting

Similarly, the DPD is aware that some multi-family housing complexes located in historically low-income neighborhoods in Dallas are hot spots for violent crime.[8] As part of its long-term violence reduction strategy, DPD plans to engage with OIPSS, City leadership, the Dallas District and City Attorneys' offices, Code Enforcement, banks, and other stakeholders to identify problem complexes, evaluate their compliance with existing laws and regulations, and investigate the potential need for new ordinances or regulations that would allow the City to take a more active role in remediating conditions of blight, poor lighting (see, e.g. Mayor's Task Force on Safe Communities Recommendation 2 on outdoor lighting), or other environmental conditions conducive to crime. The Dallas Police Department has worked with Transportation, Public Works, and OIPSS to improve outdoor lighting in high crime areas. Over 1,000 new or improved lights have been installed utilizing funding allocated to address poor lighting conditions in high crime areas. The Dallas Police Department will continue to work with these departments to improve and increase lighting in the identified grid locations where violent crime is concentrated.

An increased focus on convenience stores that drive criminal activity will be utilized in partnership with code enforcement. A new ordinance will be in place and allow for greater enforcement power by code enforcement inspectors and DPD. DPD, Code Enforcement, and OIPSS will need the active cooperation, participation, and investment by all stakeholders in addressing these underlying conditions.

Risk Terrain Modeling

The OIPSS will support the Dallas Police Department's efforts with non-law enforcement crime reduction strategies. The OIPSS will utilize crime analysis and Risk Terrain Modeling (RTM) to increase public safety and build a sense of order in the community.

Risk Terrain Modeling utilizes software and crime analysis to identify the places that are at highest risk for criminal activity. RTM is a method that uses GIS techniques to explore the relationship between crime and the spatial features that influence and encourage criminal activity and assist the police department in resource deployment decisions.

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[8] WFAA ABC 8 recently ran a story on bank-owned apartment complexes in Dallas and their lack of accountability in enforcing federal regulations requiring them to provide safe, livable environments for low-income residents. See https://www.wfaa.com/article/news/local/investigates/banking-below-30-banks-own-dallas-low-income-high-crime-housing-incentives/287-e49aa69d-9bd1-4072-aaa8-c50f47ac0af2.

OIPSS will be responsible for integrating internal and external resources to address and mitigate geographic characteristics that promote, encourage, and contribute to violent criminal activity. The police department will identify and arrest individuals committing criminal activity and the RTM will ensure the appropriate resources are ordered to quickly modify and/or change the geographic characteristics and dynamics in the identified risk areas for sustainable crime reduction and improved quality of life.

Measurement and Evaluation

As with all aspects of the DPD Violent Crime Reduction Strategic Plan, the evaluation of strategies to address urban blight, vacant land, and violence-prone apartment complexes will require a well-designed evaluation plan that, at minimum, employs a rigorous quasi-experimental design to gauge the impact of abatement efforts on violent crime, resident perceptions of crime and safety, and calls for service. Investing in an independent evaluation will best ensure that a scientifically appropriate and objective analysis of all relevant pre- and post-intervention data is conducted. In partnership with other stakeholders, and hopefully with funding from foundations or other philanthropic sources, the DPD is committed to facilitating and coordinating an objective evaluation of the City's urban blight abatement efforts and their effects on violent crime and related measures.

Summary and Conclusion

This document serves as the Violent Crime Reduction Strategic Plan of the Dallas Police Department. It contains evidence-based short, mid, and long-term strategies to address violence and its underlying conditions in the City of Dallas over the next three years. In any city, violent crime is caused by a combination of social, structural, and environmental conditions, many of which are outside of the direct control of the police. As criminal justice and bail reform efforts continue to gain traction throughout the nation and in Texas, legislators and judges must be cognizant of how bail decisions can impact violent crime by increasing the number of offenders on pre-trial release, a portion of whom will commit additional crimes while on release pending trial.[9] Thus, the successful execution of this plan will require active participation, cooperation, and investment by a wide-range of stakeholders in Dallas, including City leadership, multiple City agencies and departments, federal and state law enforcement partners, community and faith-based organizations, non-profits, research partners, and community members themselves. The DPD recognizes its leading role in protecting the safety of our City and its residents, and it is prepared to take the lead in executing this plan.

In the short-term, the DPD will execute a hot spots policing strategy to significantly increase police visibility in violent crime hot spots and deter violent offenders through lawful enforcement and surveillance activities. As a mid-term strategy, the DPD will coordinate and lead a place-based enforcement strategy to identify and target networks of crime-prone places to arrest offenders and address underlying environmental conditions conducive to crime. Long-term, the DPD will lead a problem-oriented, focused deterrence strategy to arrest and prosecute violent offenders, deter others from committing violent crimes, and facilitate the provision of social services to crime-prone individuals willing to take advantage of them. At the same time, the DPD will work with City leadership and other city and non-profit partners to address urban blight by "greening" vacant lots, improving the appearance of vacant and neglected houses, and abating crime-conducive environmental conditions at multi-family housing complexes. From short-term to long-term, the DPD is also committed to facilitating the independent evaluation of these strategies to document their successes or failures and to provide a roadmap for future leaders in Dallas and beyond to follow in their continuing efforts to reduce violence and the toll it takes on individuals and families in the community.

These strategies are evidence-based and purposely designed to work synergistically to lower violent crime and improve the environmental conditions that facilitate it, recognizing that lowering poverty, improving education, reducing unemployment, eliminating food insecurity, and supporting families are also critical to reducing violence in communities in the long term.

[9] See Cassell & Fowles (2020) for a recent discussion of bail reform in Chicago and its impact on public safety.

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Violent Crime Reduction Plan
Hot Spot Intervention Evaluation: Period 2

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Executive Summary

This report is the second in a series of interim reports that will outline the implementation and impacts of the Dallas Police Department's Violent Crime Reduction Plan (Crime Plan) and its constituent components. The evidence-based plan, including a near-term hot spots strategy, was developed in collaboration with criminologists from the University of Texas at San Antonio (UTSA) who have been providing programmatic and analytic support to the DPD since the plan got underway in early May 2021. The results from the initial DPD hot spots intervention (Period 1) were detailed in a previous report. This evaluation covers Period 2 of the hot spots intervention, which began September 1, 2021 and spans an approximate 90-day period through November 29, 2021. This report also describes the impact of the hot spots strategy from its inception in early May 2021 through the end of 2021. The final section of this report provides year-to-year crime comparisons, which are useful for comparing crime trends in 2021 when the Crime Plan began to previous years.

Methodology

As outlined in the Crime Plan, the UTSA research team analyzes the geographical occurrence of violent street crime (murder, robbery, aggravated assault) in Dallas every 90 days to identify violent crime hot spots in the City where police resources should be focused. Prior analyses revealed that a very small proportion of grids (approximately .05%) account for almost 10% of violent street crime in Dallas, and it is these n≈ 50 grids that are identified and targeted every 90 days based on crimes reported to the DPD in the previous 90 days. For the purposes of this evaluation, a "violent crime" is defined as any reported *incident* involving a murder/non-negligent manslaughter, robbery, or aggravated assault (not including family violence-related aggravated assaults) with at least one victim. Incidents with multiple offenses (e.g. a murder and a robbery) or multiple victims (three individuals assaulted) were counted as a single incident for the purposes of identifying hot spots and in the analyses reported below, unless otherwise noted.

Based on UTSA's analysis and available DPD resources, the DPD targeted a new set of 51 grids for treatment in Period 2 (Sep-Nov 2021) under the hot spots strategy. The strategy involves two different treatments. Twenty-seven grids received a high visibility treatment that involved placing patrol cars in grids with their emergency lights illuminated during peak crime times and days of the week. Twenty-four grids received an offender-focused treatment that involved targeting repeat and high-risk violent offenders by specialized, Division-based Crime Response Teams (CRTs).

To check for possible crime displacement or diffusion of treatment benefits, catchment areas were defined surrounding all treated grids. Catchment areas extend three grids outward in every direction from the treatment grids. In some areas, catchment areas overlap, and in a few areas the catchment area for a treatment grid contained another treated grid.

The results reported below detail the impact of the hot spots strategy (1) during intervention Period 2 (Sep-Nov 2021), (2) since the inception of the hot spots strategy and through the end of the calendar year (May-Dec 2021), and (3) on crime city-wide in 2021 compared to previous years.

Period 2 Treatment Evaluation (Sep-Nov 2021)

The Period 2 hot spots evaluation examined changes in violent crime, arrests, and calls for service during the second hot spots intervention period (Sep-Nov 2021) compared to the three months leading up to the intervention (Jun-Aug 2021). Compared to the pre-intervention period, violent crime *decreased* 13.7% city-wide and 52.8% in the treatment grids during Period 2, and similar crime reductions were seen across both treatment types. In most DPD divisions, crime displacement was not observed in the catchment areas surrounding the treatment grids, although three of the divisions showed some evidence of displacement. Subsequent analyses are underway to identify possible causes for the displacement in these three divisions when the other four divisions saw an associated crime reduction in the catchment areas. These crime reduction benefits observed city-wide and within the Period 2 treatment grids did not come at the cost of increased arrests. In fact, arrests were down 11.3% city-wide and almost 53% in the treatment grids during the Period 2 intervention. Only warrant-related arrests were up, and then only in the treatment grids, which was expected given the focus of the strategy on repeat offenders and those with outstanding warrants. Finally, violence-related calls for service were down 15.2% in the treatment grids and up slightly city-wide, which may portend an increased willingness by the public to report violent crime as the community members see evidence of reduced levels of violence across the city and particularly within the treated areas.

Hot Spot Intervention to Date – Periods 1 & 2 (May-Dec 2021)

In this section of the report, we began our analysis by examining the "fidelity" of the treatment plan, or the extent to which the DPD deployed officers to the designated high visibility treatment grids during the appropriate days and times as identified by the hot spots analysis. Our analysis of DPD computer-aided dispatch (CAD) data revealed that officers marked out in the treatment grids during 60-70% of the expected days and times, which leaves some room for improvement in the fidelity of the high visibility treatment. While the overall results of the strategy are robust and suggest strong crime suppressive effects in and around the hot spots, and even city-wide, DPD is putting in place new tracking methods to improve alignment between future hot spot deployment schedules and actual treatment delivery in the field.

From a violent crime perspective, crime was cut approximately in half in the treated hot spot grids during the Period 1(May-Aug) and Period 2 (Sep-Dec) interventions. Note that in this section of the report below, the period interventions were extended by one month each because the DPD continued to treat the same grids in the fourth month following each 90-day intervention period while new grids were being identified and impacts assessed. In the Period 1 grids (May-Aug),

crime remained suppressed even after treatment ceased and remained at lower post-intervention levels for the next four months. In the catchment areas, crime increased by about 25% during the Period 1 intervention and decreased by about 10% in Period 2. Thus, Period 1 showed some evidence of crime displacement, which was largely driven by three divisions, while Period 2 showed an average reduction in catchment area crime, also with some variation by division.

Part 1 arrests declined substantially, and in proportion to observed crime reductions, in the treatment hot spots during both intervention periods, but rose again in the Period 1grids in the four months after treatment ended. Future analyses will explore longitudinal arrest patterns in the Period 2 grids once treatment was removed. At the same time that Part 1 arrests declined in the treated areas, warrant-based arrests increased by 27% and 42% respectively during Period 1 and Period 2. These increases were expected given the focus on repeat offenders and clearing outstanding warrants in the hot spots. Finally, violence-related calls for service decreased 14% in the Period 1 treatment grids and 10% in the Period 2 grids. Calls remained at lower than pre-intervention levels in the Period 1 grids four months after treatment ended, although they began rising slowly again during those months.

Year-to-Year Comparison (2019-2021)

This section of the report examined city-wide changes in reported violent crime incidents and victims from 2019 to 2021. Violent incidents and the number of violent crime victims fell more than 14% in 2021 compared to 2020 and even more (about 18%) compared to 2019. The drop in violent crime recorded in 2021 compared to the previous year largely coincided with implementation of the Crime Plan in May 2021, and the gap continued to widen throughout the remainder of 2021 as the hot spots interventions took place. Reductions were seen in 2021 across all violent street crime types – murder, robbery, and non-family violence aggravated assault – with large reductions seen in robberies and a smaller but still significant reduction of 12% in murders during 2021 compared to 2020.

Background

In early May 2021, the Dallas Police Department presented to the Public Safety Committee of the Dallas City Council a strategic plan to reduce violent crime in the city. The plan outlined near, mid, and long-term strategies to reverse the rising trend of violence in Dallas and lower the number of victims of violent crime. The near-term approach involved implementation of a hot spots policing strategy to increase police visibility in micro-locations characterized by high levels of violent street crime and to target repeat violent offenders in those locations. The evidence-based plan, including the hot spots strategy, was developed in collaboration with criminologists from the University of Texas at San Antonio who have been providing programmatic and analytic support to the DPD as the plan got underway in early May.

This report is the second in a series of interim reports that will outline the implementation and impacts of the overall Violent Crime Reduction Plan (Crime Plan) and its constituent components. The results from the initial DPD hot spots intervention (Period 1) were detailed in a previous report. This evaluation covers Period 2 of the hot spots intervention, which began September 1, 2021 and spans an approximate 90-day period through November 29, 2021. This report also describes the impact of the hot spots strategy from its inception in early May 2021 through the end of 2021. The final section of this report provides year-to-year crime comparisons, which are useful for comparing crime trends in 2021 when the Crime Plan began to previous years.

Methodology

As outlined in the Crime Plan, the UTSA research team analyzes the geographical occurrence of violent street crime (murder, robbery, aggravated assault) in Dallas every 90 days to identify violent crime hot spots in the City where police resources should be focused. Utilizing an existing Dallas map layer of 330'x 330' grids, the UTSA team, working with DPD crime analysts and managers, identified a subset of grids that accounted for a disproportionate amount of violent crime in the previous 90-day period. Prior analyses revealed that a very small proportion of grids (approximately .05%) account for almost 10% of violent street crime in Dallas, and it is these n≈ 50 grids that are identified and targeted every 90 days based on crimes reported to the DPD in the previous 90 days. For the purposes of this evaluation, a "violent crime" is defined as any reported *incident* involving a murder/non-negligent manslaughter, robbery, or aggravated assault (not including family violence-related aggravated assaults) with at least one victim. Incidents with multiple offenses (e.g. a murder and a robbery) or multiple victims (three individuals assaulted) were counted as a single incident for the purposes of identifying hot spots and in the analyses reported below, unless otherwise noted.

Based on UTSA's analysis and available DPD resources, the DPD targeted a new set of 51 grids for treatment in Period 2 (Sep-Nov 2021) under the hot spots strategy. The strategy involves two

different treatments. Twenty-seven grids received a high visibility treatment that involved placing patrol cars in grids with their emergency lights illuminated during peak crime times and days of the week. Twenty-four grids received an offender-focused treatment that involved targeting repeat and high-risk violent offenders by specialized, Division-based Crime Response Teams (CRTs).

To check for possible crime displacement or diffusion of treatment benefits, catchment areas were defined surrounding all treated grids. Catchment areas extend three grids outward in every direction from the treatment grids. In some areas, catchment areas overlap, and in a few areas the catchment area for a treatment grid contained another treated grid.

The results reported below detail the impact of the hot spots strategy (1) during intervention Period 2 (Sep-Nov 2021), (2) since the inception of the hot spots strategy and through the end of the calendar year (May-Dec 2021), and (3) on crime city-wide in 2021 compared to previous years.

Period 2 Treatment Evaluation (Sep-Nov 2021)

As noted above, the Period 2 hot spots analysis ran from September 1 through November 29, 2021 and involved a new set of grids (n=51) identified at the conclusion of Period 1. Collectively, these 51 grids represented those with the highest number of reported violent crime incidents in the city over the previous three months and together accounted for approximately 10% of all reported violent crime incidents city-wide.

Violent Crime

Table 1 and Figure 1 below summarize the change in violent crime during the Period 2 intervention (Sep-Nov) compared to the previous three months (Jun-Aug). The pre-intervention and intervention periods each consist of 13 weeks. As shown in Table 1, the average weekly number of reported violent crimes decreased by 13.7% city-wide after the Period 2 hot spots strategy went into effect. We also measured change in the 51 treatment grids, the catchment areas immediately surrounding the treated grids, and in the grids outside of the treatment and catchment areas. *Importantly, reported weekly violent crime averages decreased by more than half (-52.8%) in the treated grids after the hot spots intervention*, while weekly averages outside the treatment and catchment areas *decreased* by 11.9%. Crime in the catchment grids *decreased 1.2%*, suggesting that the Period 2 intervention did not, on average, result in the displacement of crime to the areas immediately surrounding the treated grids.[1] Finally, as shown in Figure 1 below, we measured pre- and post-intervention change in Period 2 hot spots by crime type. Large reductions can be seen in all violent street crimes measured, including murder, robberies (overall, individual and business), and non-family violence aggravated assaults.

[1] Figure 4 below shows displacement effects by division, and some variation across the divisions can be seen.

Table 1: Violent Crime Summary

	Pre-Intervention (Jun 1-Aug 31)		Post-Intervention (Sep 1-Nov 29)		Percent Change
	Total Incidents	*Ave. per week (N=13)*	*Total Incidents*	*Ave. per week (N=13)*	
City-Wide	1,780	136.9	1,536	118.2	-13.7%
Non-Treatment/Catchment Grids	1,488	114.5	1,311	100.8	-11.9%
Treatment Grids	123	9.5	58	4.5	-52.8%
Catchment Grids	169	13.0	167	12.8	-1.2%
Treatment Grids Only					
Offender Focused Grids	69	5.3	31	2.4	-55.1%
High Visibility Grids	54	4.2	27	2.1	-50.0%

Figure 1: Pre- and Post-Intervention Violent Crime

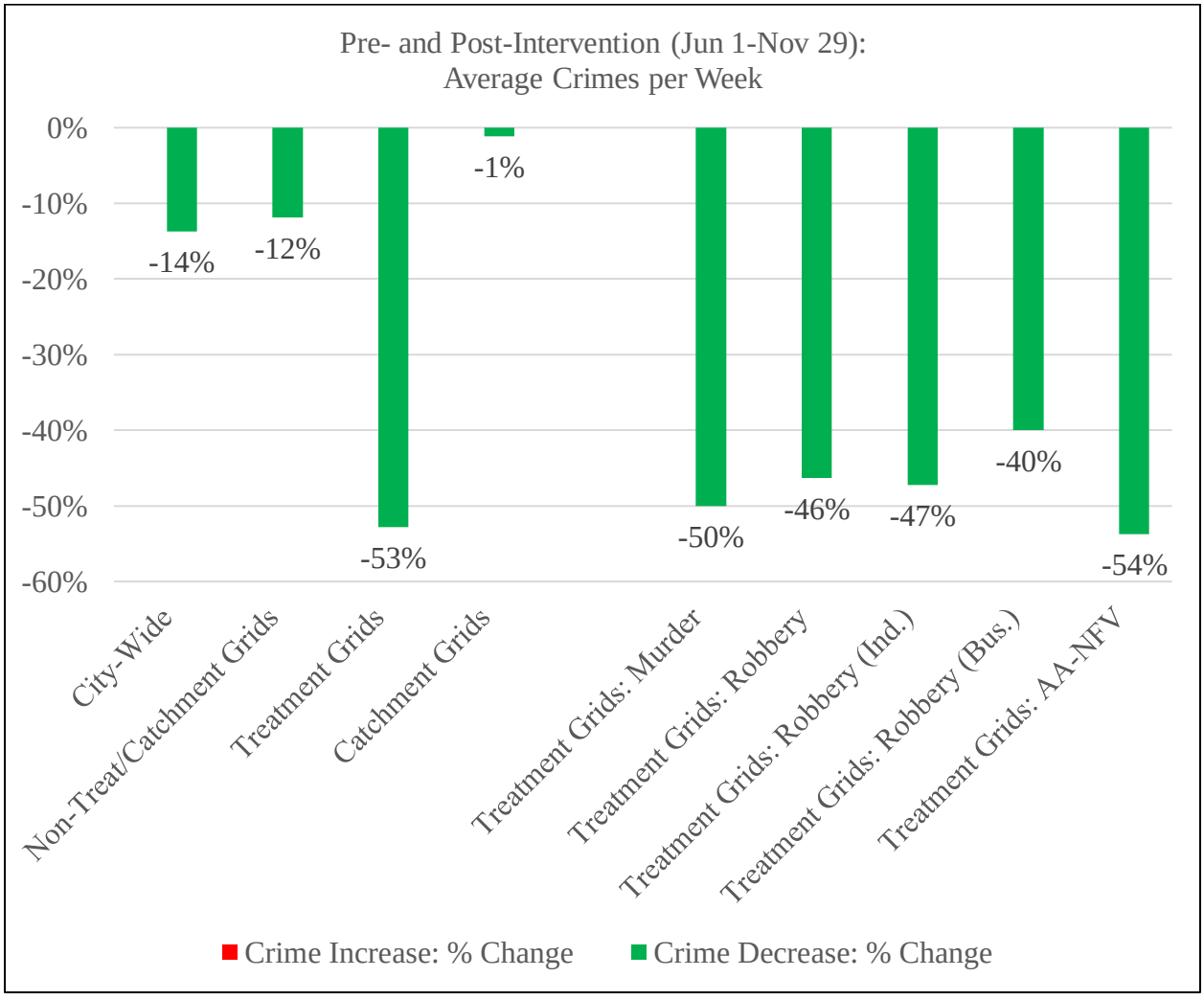
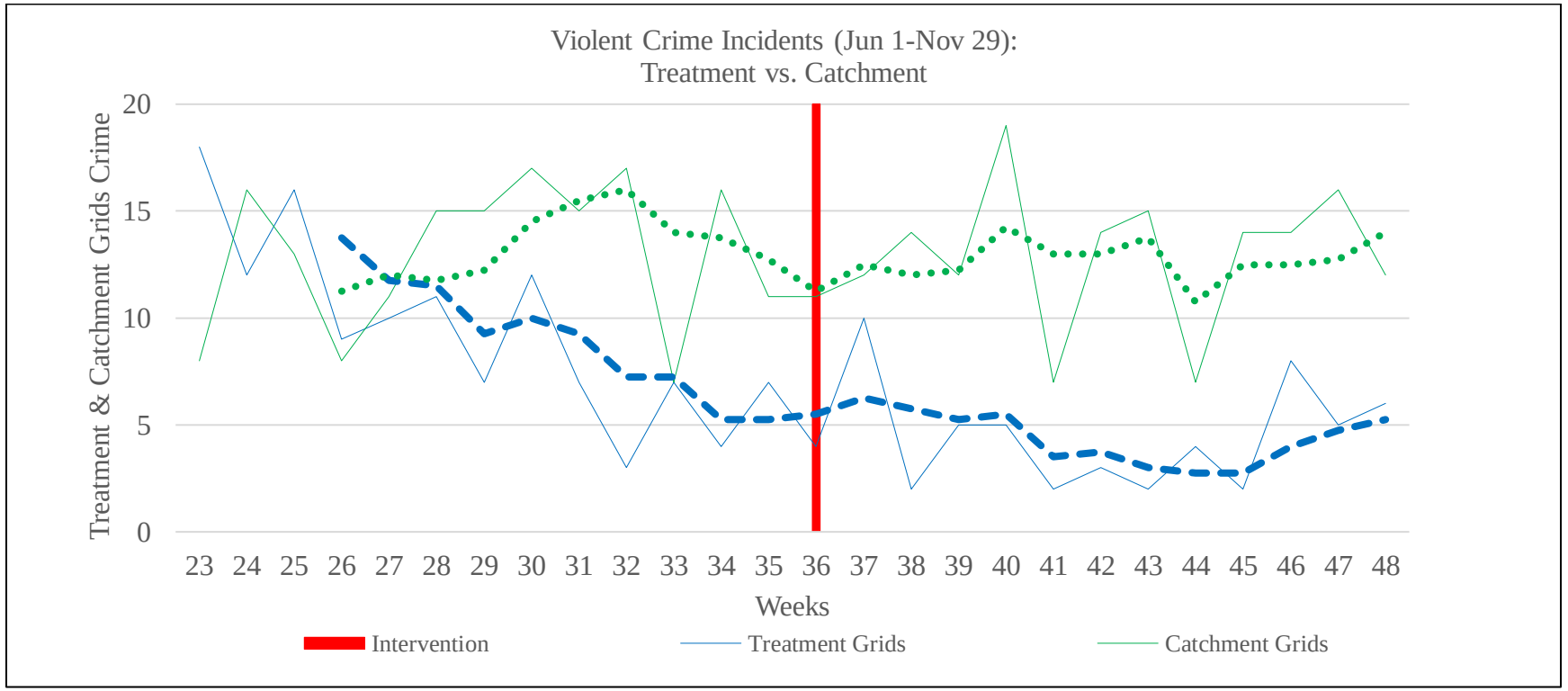


Figure 2 shows the longitudinal trends in weekly reported violent crime before and after the Period 2 hot spots intervention. The solid lines represent counts of violent crimes per week in the treatment grids (in blue) and counts of violent crimes in the surrounding catchment grids (in green). The dashed lines represent the four-week moving average of these counts in their corresponding colors, while the red vertical line shows the start of the Period 2 intervention (first week of September). Consistent with the decreases previously reported in the Period 1 treatment grids, the Period 2 grids were trending downward in the weeks leading up to the intervention, and that decrease continued through week 45 before ticking up slightly by week 48. The downward trend seen in the pre-intervention period (weeks 26-36) for the treated grids is a partially explained by the fact that 11 grids treated during Period 1 carried over and also were treated in Period 2. With some week-to-week to variation, crime in the catchment grids remained relatively flat before and after the Period 2 intervention began.

Figure 2: Violent Crime Incidents in Treatment vs. Catchment Grids



We also examined pre-post changes in weekly crime averages across treatment types – high visibility grids compared to offender-focused grids. Figure 3 shows the decreases in reported weekly averages of violent crime pre- and post-intervention by intervention type. Across both the high visibility (blue dashed line) and offender-focused (black dashed line) interventions, crime has gone down in the treated grids, and those decreases have been maintained post-intervention. Both treatment types were successful at reducing weekly violent crime averages by approximately 50%, although the offender focused grids showed about a 10% greater treatment effect than the high visibility grids.

Figure 3: Treatment Intervention Types

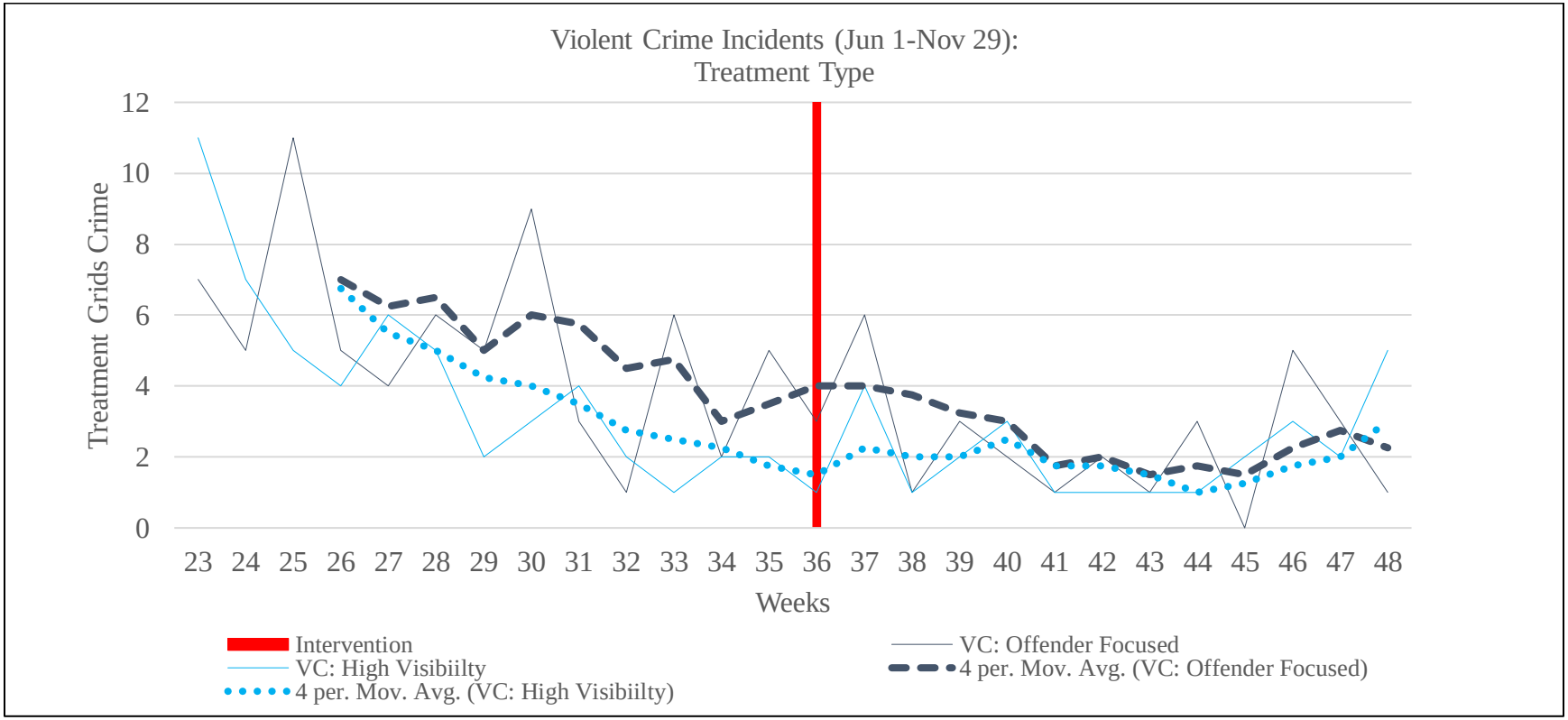
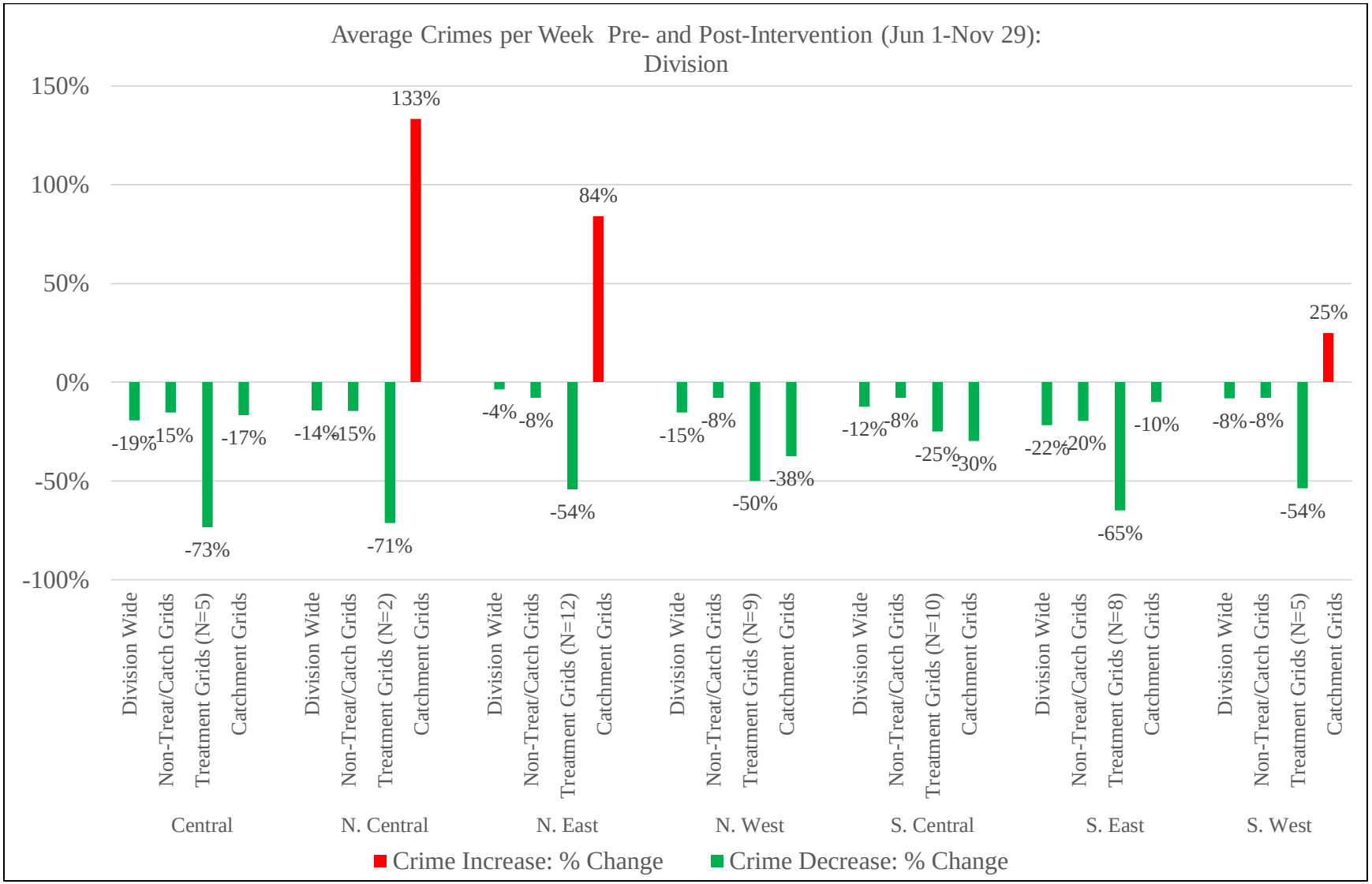


Figure 4 shows changes in average weekly violent crime counts within the seven patrol divisions *before and after* the hot spots strategy was implemented. Changes are shown division-wide and within non-treatment/catchment grids, treatment grids, and catchment grids for each division. For example, average weekly violent crime was down 19% across the entire Central Division post-intervention, a result largely driven by the 73% decrease seen in the five treated grids in this division. These treatment grids helped suppress overall violent crime counts across the entire division. Even the catchment grids in the Central Division benefited from the intervention as they showed a 17% decrease in violent street crime post-intervention. Similarly, violent crime was down significantly in the treatment grids across all divisions and in most of the catchment areas. Notable deviations from this pattern occurred in the North Central, North East, and to a lesser degree, South West division, where displacement into the catchment areas was observed. Additional analyses are being conducted to help diagnose why displacement seemed to have occurred in these three divisions while a diffusion of treatment benefits was seen in the catchment areas of the other four divisions.

Figure 4: Division-Percentage Change in Violent Crime



Arrest

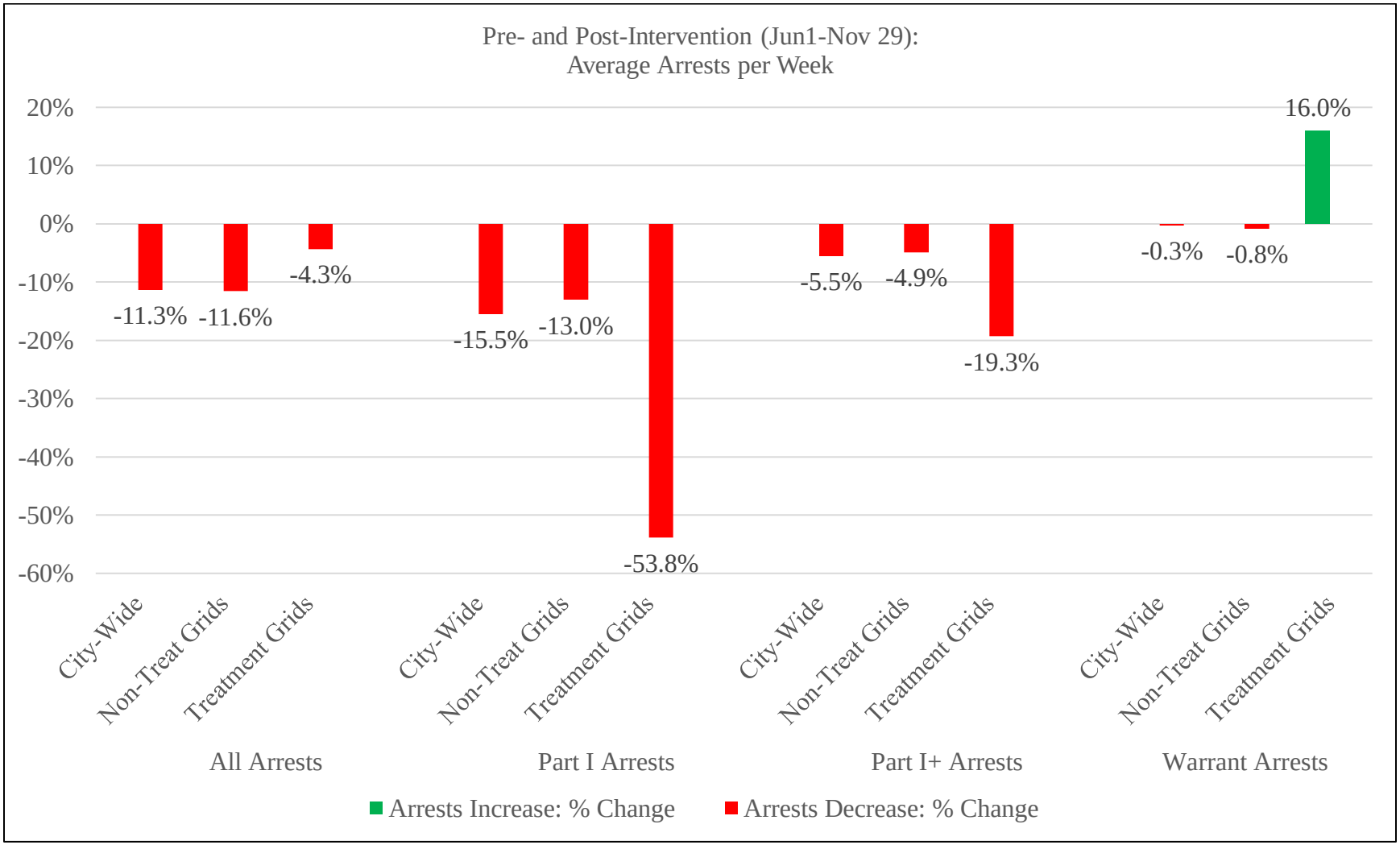
Using NIBRS crime categories, arrest data were evaluated using four measures prior to the intervention (June 1-August 31) and after the Period 2 intervention (September 1-November 29, 2021):

1. All arrests
2. Part 1 arrests (murder & nonnegligent manslaughter; robbery of individuals; robbery of businesses; and aggravated assault without family violence)
3. Part 1+ arrests (murder & nonnegligent manslaughter; robbery of individuals; robbery of businesses; aggravated assault without family violence; simple assault; and weapons violations)
4. Warrant arrests (all warrant arrests)

Figure 5 below shows changes in the average number of weekly arrests city-wide and in treatment and non-treatment grids and by arrest type pre- and post- intervention. Post-period 2 intervention, arrests decreased 11.3% city-wide and 4.3% in the treatment grids. This is a remarkable success story for the hot spots strategy, which was purposely designed to avoid heavy-handed policing in the targeted grids. While violent crime was driven down by more than 50% (on average) in the targeted grids, it did not come at the cost of a large increase in overall arrests. Instead, the DPD made *fewer* Part I arrests for serious violent crimes and *fewer* "Part 1+" arrests[2] city-wide, in the non-treatment grids, and in the treatment grids themselves. In fact, Part 1 arrests were down more than 50% in the treatment grids, which likely represents a deterrent effect and thus the need for fewer Part I arrests because violent crime was reduced so much in those areas. Consistent with the strategy, however, warrant-based arrests were up by 16% in the treatment grids as the DPD concentrated on arresting offenders in those areas with outstanding warrants.

[2] Part 1+ arrests include Part 1 violent offenses *plus* arrests for simple assault and weapons-related offenses.

Figure 5: Pre- and Post-Intervention Arrests



Calls for Service

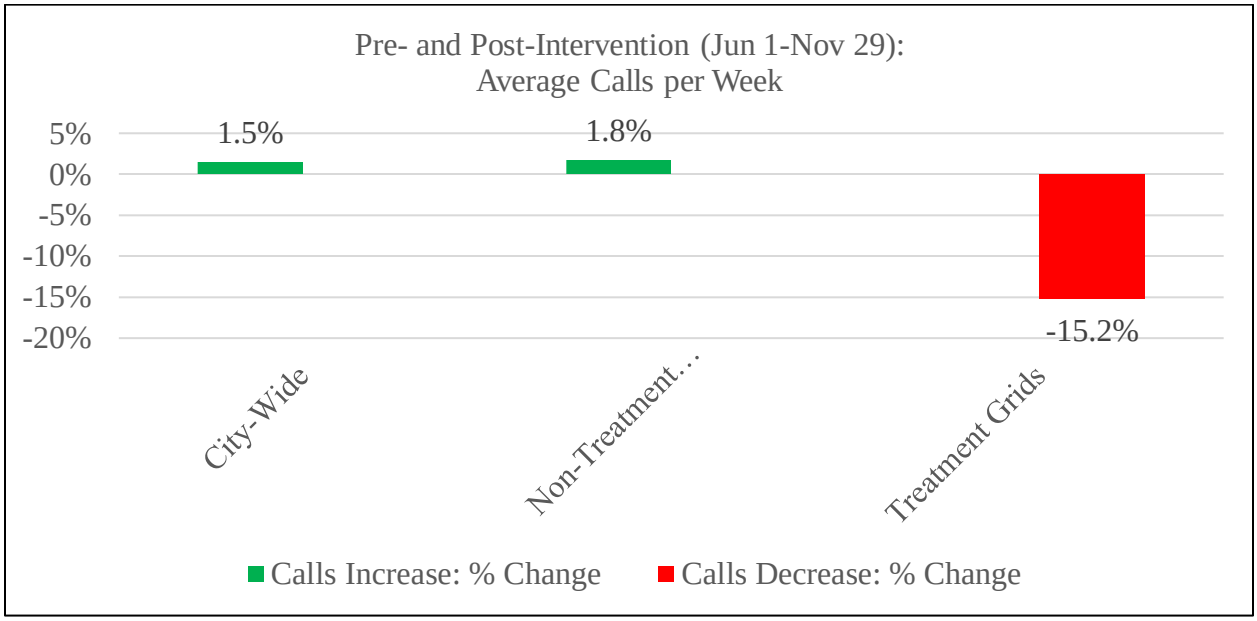
In evaluating the impact of the hot spots strategy on calls for service, we examined changes in violence-related calls for service[3] by the public pre- and post-intervention. Consistent with the violent crime reductions seen in the Period 2 treatment grids so far, violence-related calls for service also decreased by 15.2% in the treated grids post-intervention. However, they increased slightly city-wide and in the non-treatment grids (see Table 2 and Figure 6 below). Given that violent crime also was down city-wide and in the non-treated areas during the Period 2 intervention, this slight rise in violence-related calls city-wide may signal an increased willingness by the public to call the police. One of the stated goals of the Crime Plan was to increase community trust and engagement in helping the DPD solve crimes of violence. Future analyses will explore whether this pattern of increased calls to the police outside the treated areas holds during subsequent treatment periods.

Table 2: Calls for Service Summary

	Pre-Intervention (Jun 1-Aug 31)		**Post-Intervention (Sep 1-Nov 29)**		**Percent Change**
	Total CFS	*Ave. per week (N=13)*	*Total CFS*	*Ave. per week (N=13)*	
City-Wide	8,929	686.8	9,062	697.1	1.5%
Non-Treatment Grids	8,784	675.7	8,939	687.6	1.8%
Treatment Grids	145	11.2	123	9.5	-15.2%

[3] 14 - Stabbing, Cutting; 17 - Kidnapping in Progress; 19 – Shooting; 41/20 - Robbery - In Progress; 41/25 - Criminal Aslt -In Prog; 6G - Random Gun Fire; 6XE - Disturbance Emergency; 6XEA - Disturbance Emerg Amb; DAEF-Dist Armed Encounter Foot; DAEV-Dist Armed Encounter Veh; DASF-Dist Active Shooter Foot; DASV-Dist Active Shooter Veh.

Figure 6: Pre- and Post-Intervention Calls for Service



Summary

This Period 2 hot spots evaluation examined changes in violent crime, arrests, and calls for service during the intervention period (Sep-Nov 2021) compared to the three months leading up to the intervention (Jun-Aug 2021). Coming out of the summer months, the UTSA research team re-analyzed violent crime patterns in Dallas and identified 51 grids that showed the highest levels of violent crime in the previous three months, including 11 carry-over grids that had been treated during the Period 1 intervention. These 51 grids became the focus of the Period 2 hot spots intervention, which, consistent with the Crime Plan strategy, assigned hot spots to one of two treatments – high visibility patrol cars in treatment grids during peak crime days and times *or* an intelligence-driven, offender-focused treatment that concentrated on repeat offenders and others engaged in criminal activity within the grids.

Compared to the pre-intervention period, violent crime *decreased* 13.7% city-wide and 52.8% in the treatment grids during Period 2, and similar crime reductions were seen across both treatment types. In most DPD divisions, crime displacement was not observed in the catchment areas surrounding the treatment grids, although three of the divisions showed some evidence of displacement. Subsequent analyses are underway to identify possible causes for the displacement in these three divisions when the other four divisions saw an associated crime reduction in the catchment areas. These crime reduction benefits observed city-wide and within the Period 2 treatment grids did not come at the cost of increased arrests. In fact, arrests were down 11.3% city-wide and almost 53% in the treatment grids during the Period 2 intervention. Only warrant-related

arrests were up, and then only in the treatment grids, which was expected given the focus of the strategy on repeat offenders and those with outstanding warrants. Finally, violence-related calls for service were down 15.2% in the treatment grids and up slightly city-wide, which may portend an increased willingness by the public to report violent crime as the community members see evidence of reduced levels of violence across the city and particularly within the treated areas.

Hot Spot Intervention to Date – Periods 1 & 2 (May-Dec 2021)

This section of the report focuses on crime and related measures across the two treatment periods plus two additional months. The first set of hot spot grids were treated from May 7 through August 31, 2021 (Period 1 plus one month), while the second set of grids (Period 2 plus one month) were treated from September 1 – December 31, 2021. Note that the treatment periods are designed to last 90 days, but while new grids are being identified for the next intervention period and the impact of the just-completed intervention period is being evaluated, DPD remains active in the current set of grids. Thus, while the intervention periods themselves are evaluated over their designated 90-day period (see Period 2 evaluation above), an additional month is tacked onto the end of each 90-day period while the impact assessment and new grid analysis is conducted. In effect, each set of treatment grids received four months of treatment, and the analyses reported below provide an assessment of this entire eight-month period.

Implementation Evaluation

We begin our analysis of the hot spots intervention to date by evaluating how the strategy was implemented by the DPD. The key question here is how closely the DPD adhered to the strategy as it was designed and operationalized. The strategy called for the deployment of DPD officers in identified hot spots (grids) during days of the week and times of the day when crime peaks occurred based on an analysis of violent crime patterns in the previous months. Deployment at the right places and at the right times is particularly important in the high visibility grids when lighted patrol cars are scheduled to be deployed for 15-minute intervals during targeted days of the week and hours of the day. The offender-focused grids were treated by DPD Crime Response Teams (CRTs) made of up two, 10 person teams (dayshift and nightshift) in each patrol division. While efforts initially were made to deploy these teams during peak crime times in the offender-focused grids, particularly during the Period 1 intervention, it became apparent to the DPD leadership and the UTSA research team that these teams were operating constantly within the targeted grids during all hours of the day and night. Moreover, the nature of the offender-focused work done by these groups did not align well with a rigid deployment schedule based on temporal crime patterns. By the Period 2 intervention, these units were singularly focused on the hot spot treatment grids but they were not limited solely to being present in the treatment grids and often worked within the catchment areas as well. In addition, they were not restricted to certain peak crime hours of the day since they were able to maintain nearly 24-hour coverage in around the hot spots with the day and night shift teams.

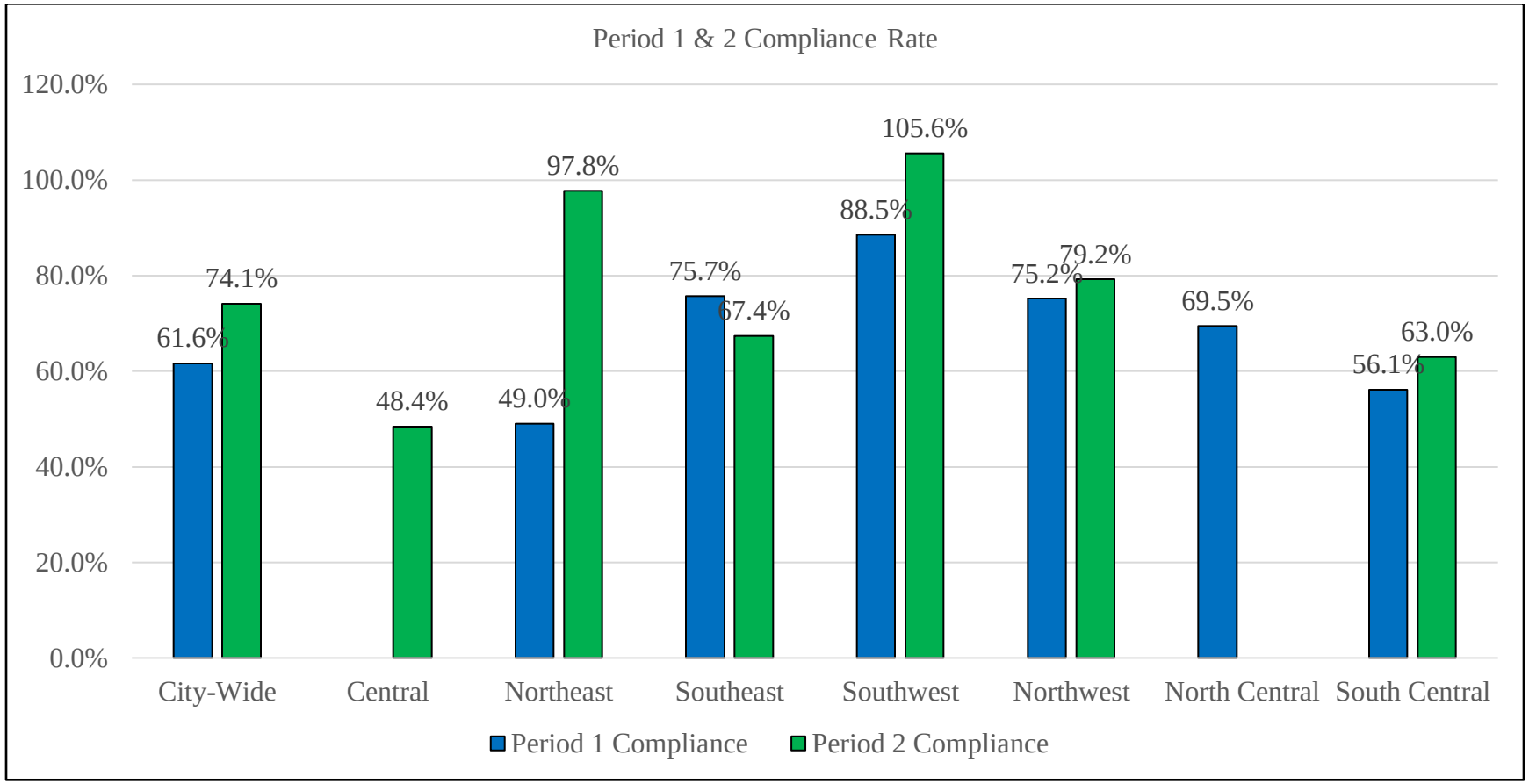
Consequently, the analysis focused exclusively on how closely the DPD deployment schedules adhered to the *high visibility* deployment plans within the two intervention periods. The methodology to assess compliance with high visibility treatment protocols involved comparing the total number of hours across the weeks when lighted patrol cars were scheduled to be present during a 15-minute period to the number of unit mark-outs in the targeted grids during the

intervention period.[4] Figure 7 summarizes the compliance rate city-wide and by division during treatment Periods 1 and 2.

Overall, compliance increased from 61.6% in Period 1 to 74.1% in Period 2. This trend is also evident in all Division with the exception of Southeast. While no definitive compliance threshold was established or applied to these efforts, the level and improvement from Period 1 to Period 2 indicate a commitment by DPD to execute the high visibility, hot spot strategy of the Crime Plan as outlined.

[4] For each intervention period, DPD created a treatment schedule based on the peak crime day/time analysis provided by the UTSA research team. 911 dispatchers were instructed to dispatch officers to the target grids during these times, and officers also were given the option of "marking" themselves out in the grids. In either case, officers were instructed to stay stationary in the grids with the lights of their patrol cars illuminated for at least 15 minutes. DPD developed a unique dispatch code that officers and dispatchers used to denote when an officer was marked out in targeted grid based on the period deployment schedule. The UTSA team obtained and analyzed these CAD records for the two treatment periods.

Figure 7: Period 1 & 2 Compliance



Violent Crime

Figure 8 below provides a longitudinal assessment of changes in reported crime across both periods, keeping in mind that 11 grids carried over into Period 2 from the initial set of Period 1 grids. The Period 1 grids are shown in blue. They averaged 8.5 violent crimes per week prior to the Period 1 intervention (Jan-Apr 2021) and 4.2 offenses per week during the intervention (May-Aug 2021). Significantly, violent crime continued to trend downward in the Period 1 grids during the three months after the intervention ended (Sep-Dec 2021), again recognizing that 11 of the original 47 grids continued to be treated in Period 2.

The Period 2 grids began at an average of about 10 violent crimes per week before the hot spots intervention and dropped to 4 violent crimes per week averaged across the 51 grids by the conclusion of the treatment. In the next report, the continued 90-day trend in both sets of grids – Periods 1 and 2 – will be evaluated.

For now, it is clear that the Period 1 treatment continued to have beneficial crime reduction effects in the treated grids even after the treatment was removed, and the hot spots strategy induced powerful crime reduction effects during Period 2 in the treated grids. Please see Tables 4 and 5 in the Appendix for details on crime count changes in each treatment grid and across both intervention periods.

Figure 8: Treatment Grids in 2021: Average Weekly Violent Crime Incidents

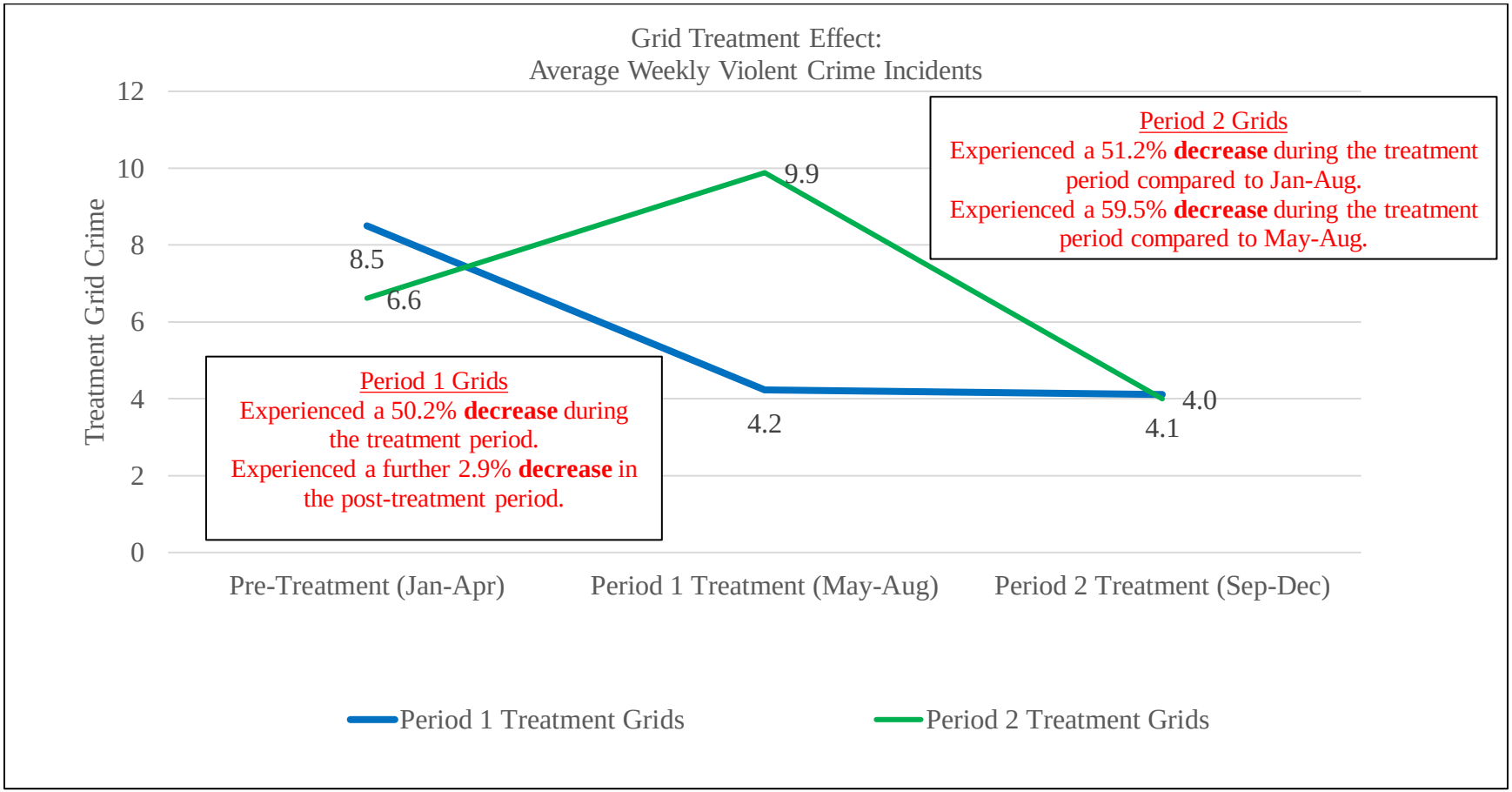
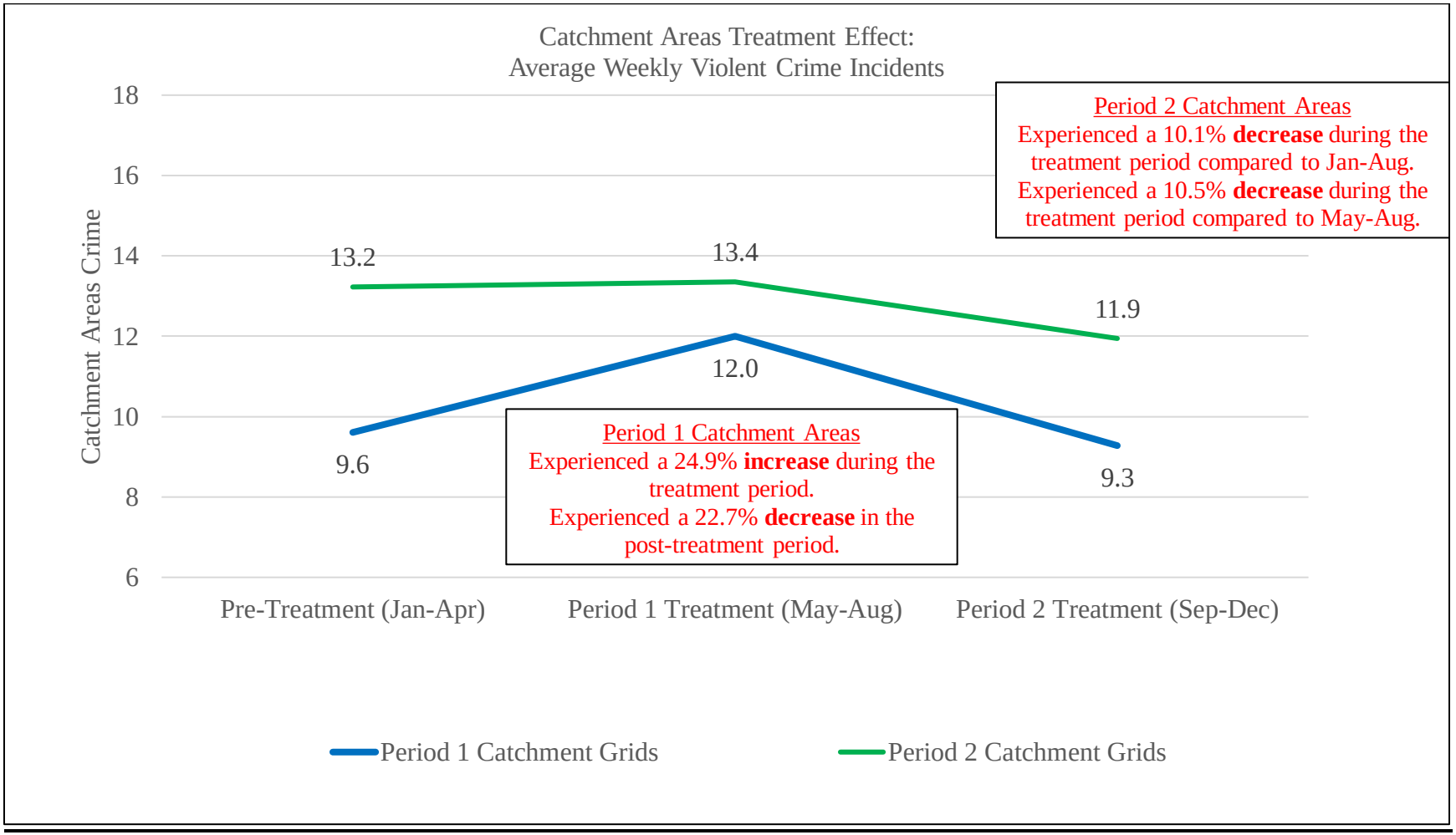


Figure 9 examines possible displacement into catchment grids surrounding the treated areas and across the two treatment periods. The story differs by treatment period. In Period 1 (blue line), catchment grids experienced a 25% *increase* in reported violent crime during the treatment period (May-Aug 2021), while crime went down by half in the Period 1 treatment grids. This suggests a clear displacement effect averaged across all grids, although displacement varied by division, and some divisions saw decreases in catchment area crime. Interestingly, once the treatment ended, the Period 1 catchment grids experienced a 23% *reduction* in violent crime in the four months after treatment ended (Sep-Dec 2021). Since some of the Period 1 grids also were treated in Period 2, the Period 1 catchment grids might have experienced a benefit from the Period 2 treatment that occurred in close proximity to some of them, which might account for the crime reduction effects seen in the Period 1 catchment grids during Period 2 when they were not treated. Violent crime incidents in the Period 2 catchment grids declined slightly (on average) during the Period 2 treatment (Sep-Dec 2021). Unlike the Period 1 catchment grids, the Period 2 catchment areas did not experience an average displacement effect, although as reported above, there was some variation across divisions and a few seemed to experience displacement.

What accounts for the different displacement effects seen between the two treatment periods? Following the displacement seen in some divisions during Period 1, the UTSA research team recommended that the DPD expand its treatment to adjacent grids (catchment) during Period 2 when the catchment grids were part of a contiguous environment. For example, Dallas has many large apartment complexes that generate a disproportionate amount of violent crime. Many treatment grids are situated within these complexes. To try and minimize displacement into other areas of the complexes, DPD instructed its officers to consider the entire apartment complex as a hot spot rather than merely the 330'x 330' treatment grid identified through crime analysis. As a result, Period 2 saw more treatment of adjacent catchment grids than in Period 2. This might have accounted for the diffusion of benefits seen in the catchment areas during Period 2 compared to the average displacement seen in Period 1.

Figure 9: Catchment Grids in 2021: Percentage Change



Arrest

Figure 10 examines the change in Part 1 arrests from January through December 2021 across the two treatment periods. Both treatment periods showed a substantial decrease in Part 1 arrests during the interventions (by more than half), which suggests the hot spots treatment had a deterrent effect that reduced the need or opportunity for arrests during the treatment periods. Once treatment was removed from most of the Period 1 grids, arrests increased substantially (+105% on average) in those grids. Recall that crime continued to fall in the Period 1 grids after treatment was removed, so the increase in arrests in the post-Period 1 intervention is at odds with the pattern of reduced crime *and* arrests seen during the treatment periods themselves. More work is needed to understand these differences.

Figure 10: Treatment Grids in 2021: Part I Arrests

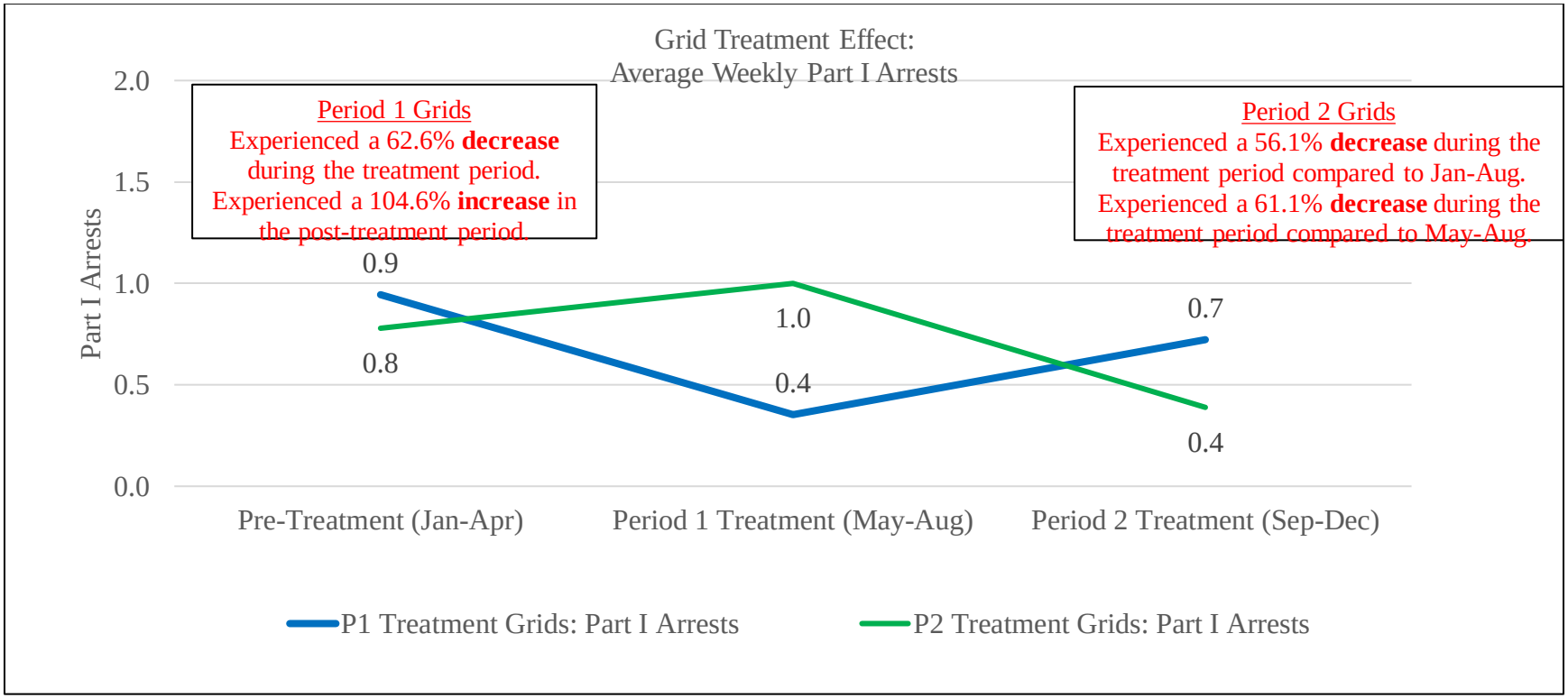
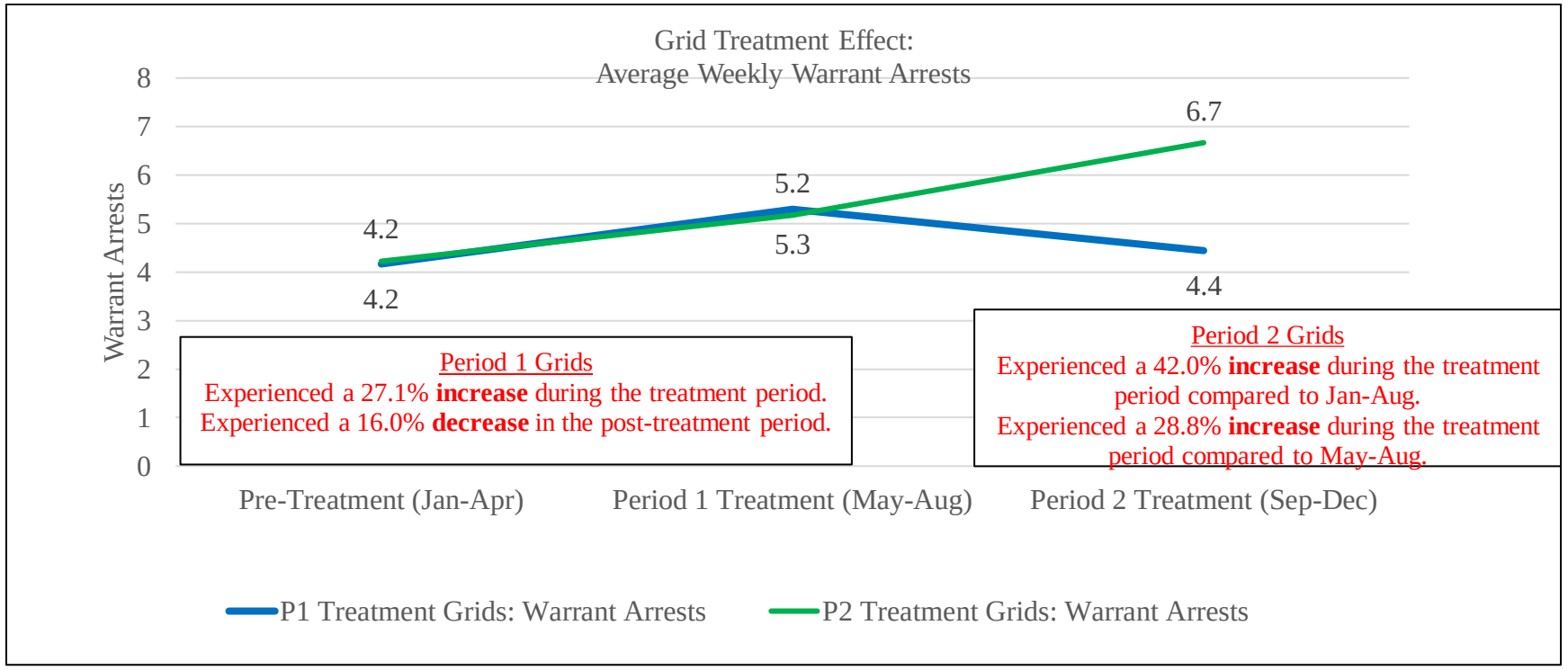


Figure 11 analyzes the subset of warrant-based arrests across the two treatment periods. Since the hot spots strategy employs an offender-focused approach in approximately half the treatment grids, we would expect warrant arrests to increase in the treatment grids during the treatment periods as the DPD focuses on clearing outstanding warrants in those grids. In the months leading up to the interventions, both sets of grids (Periods 1 & 2) experienced an increase in warrant-related arrests, but the trajectory of those increases steepened significantly, as expected, during the treatment periods. And as expected, once the treatment was removed from most of the Period 1 grids, warrant-based arrests declined. It remains be seen if a similar pattern holds for the Period 2 grids now that a new set of grids (Period 3) has been identified and treatment has been removed from the Period 2 grids.

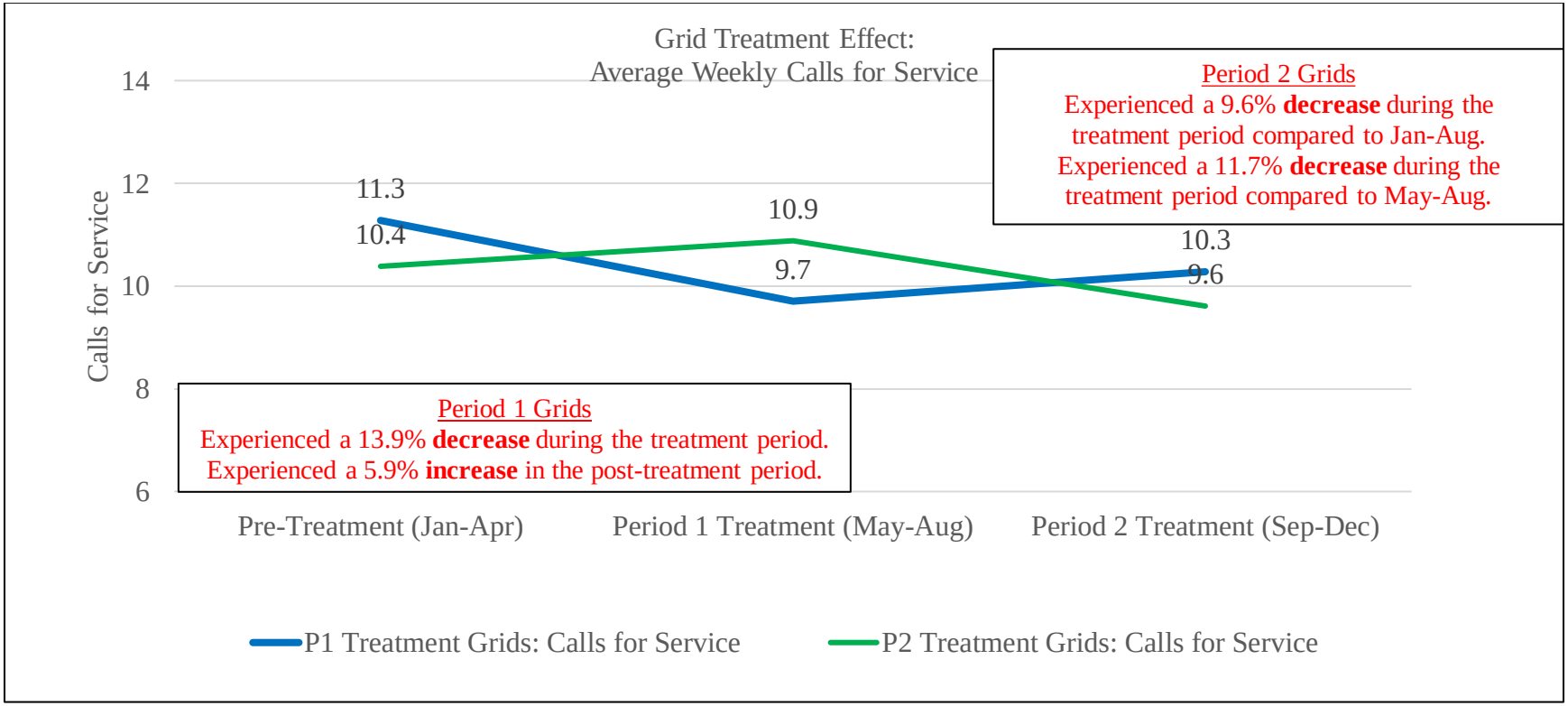
Figure 11: Treatment Grids in 2021: Warrant Arrests



Calls for Service

In Figure 12, we examine changes in violence-related calls for service across the two treatment periods. Period 1 saw a 14% decrease in these calls during the treatment period compared to the months prior, and in the months subsequent to the treatment calls went back up, albeit to a lower level than before treatment. Similarly, in Period 2, violence-related calls went down about 10% compared to pre-treatment levels. Future analyses will explore whether calls in these treated grids also rose post-treatment. Clearly, though, the hot spots strategy is having a beneficial impact on public demand for police services related to violent crime in the treated areas and during the treatment periods.

Figure 12: Treatment Grids in 2021: Calls for Service



Summary

This section first evaluated the implementation of the DPD hot spots strategy across the two intervention periods to date, and it also examined changes in crime, arrests, and calls for service across the entire eight-month implementation period – May through December 2021. Our analysis of DPD computer-aided dispatch (CAD) data revealed that officers marked out in the treatment grids during 60-70% of the expected days and times, which leaves some room for improvement in the fidelity of the high visibility treatment. While the overall results of the strategy are robust and suggest strong crime suppressive effects in and around the hot spots, and even city-wide, DPD is putting in place new tracking methods to improve alignment between future hot spot deployment schedules and actual treatment delivery in the field.

From a violent crime perspective, crime was cut approximately in half in the treated hot spot grids during the Period 1(May-Aug) and Period 2 (Sep-Dec) interventions. Note that in "Hot Spot Intervention to Date" section of the report, the period interventions were extended by one month each because the DPD continued to treat the same grids in the fourth month following each 90-day intervention period while new grids were being identified and impacts assessed. In the Period 1 grids (May-Aug), crime remained suppressed even after treatment ceased and remained at lower post-intervention levels for the next four months. In the catchment areas, which themselves received a great deal of treatment (see Implementation discussion above), crime increased by about 25% during the Period 1 intervention and decreased by about 10% in Period 2. Thus, Period 1 showed some evidence of displacement, which was largely driven by three divisions (see *Violent Crime Reduction Plan Hot Spot Intervention: Phase 1* report), while Period 2 showed an average reduction in catchment area crime, also with some variation by division.

Part 1 arrests declined substantially, and in proportion to observed crime reductions, in the treatment hot spots during both intervention periods, but rose again in the Period 1grids in the four months after treatment ended. Future analyses will explore longitudinal arrest patterns in the Period 2 grids once treatment was removed. At the same time that Part 1 arrests declined in the treated areas, warrant-based arrests increased by 27% and 42% respectively during Period 1 and Period 2. These increases were expected given the focus on repeat offenders and clearing outstanding warrants in the hot spots. Finally, violence-related calls for service decreased 14% in the Period 1 treatment grids and 10% in the Period 2 grids. Calls remained at lower than pre-intervention levels in the Period 1 grids four months after treatment ended, although they began rising slowly again during those months.

Year-to-Year Comparison (2019-2021)

This section of the report shows year-to-year changes in crime and victimization metrics from 2019 through 2021. Its purpose is to compare crime and victimization in 2021 when the Crime Plan went into effect to crime trends in the previous two years. These comparisons are useful for evaluating the potential city-wide impact of the hot spots strategy, which again focused on only about 90 grids during Periods 1 and 2 (.09%) out of the more than 101,000 grids in Dallas.

Violent Crime

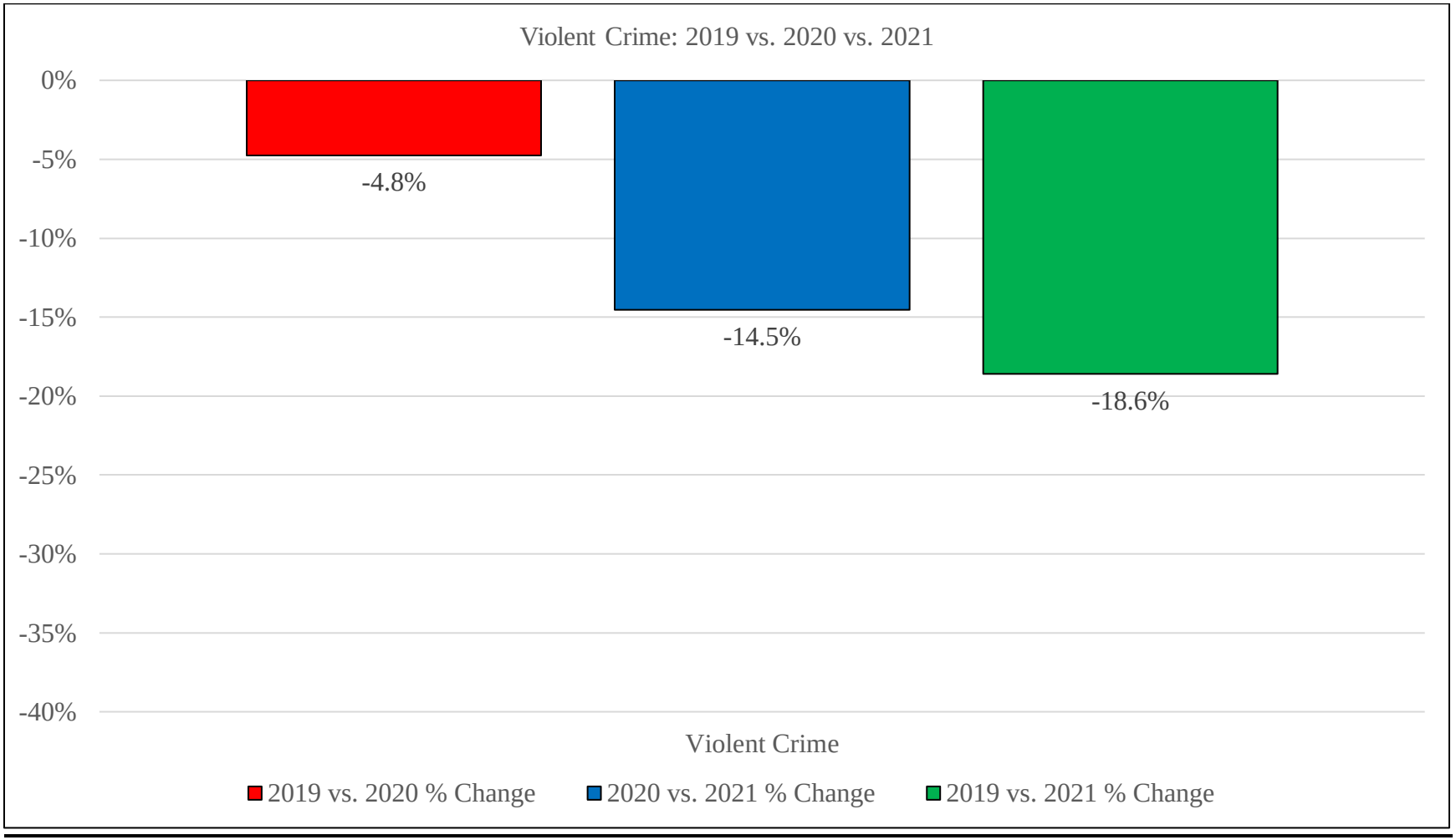
Table 3 and Figure 13 below compare violent crime trends throughout the city during the most recent three-year period. The data cover all months from January 1, 2019 through December 31, 2021. Overall, violent crime in Dallas fell 4.8% from 2019 to 2020 and fell even more steeply (14.5%) from 2020 to 2021. Most significantly, violent crime was down 18.6% in 2021 compared to 2019 – this is largely driven by the reductions in robbery and, to a lesser extent, murder.

Changes in individual street crimes varied by crime type. For example, murders increased from 196 in 2019 to 242 in 2020 (+23.5%) but then fell 12% from 2020 to 2021. Robberies (business and individual) dropped substantially from 2019 to 2020 and dropped even more steeply in 2021 compared to 2020. The impact of the Crime Plan is most evident for murders and aggravated assaults, which were both up considerably in 2020 over 2019 levels, but then dropped in 2021 when the Crime Plan went into effect.

Table 3: Year to Year Violent Crime Comparison

	Totals			Percent Change		
	2019	2020	2021	2019 vs. 2020	2020 vs. 2021	2019 vs. 2021
All Violent Crime	8,133	7,746	6,621	-4.8%	-14.5%	-18.6%
Murder	196	242	213	23.5%	-12.0%	8.7%
Robbery: Individual	3,675	2,804	2,052	-23.7%	-26.8%	-44.2%
Robbery: Business	989	693	437	-29.9%	-36.9%	-55.8%
Aggravated Assault	3,314	4,071	3,978	22.8%	-2.3%	20.0%

Figure 13: Year-to-Year Change in Overall Violent Crime City-Wide



The effect of the Crime Plan is evident in the 12-month view of annual violent crime counts by year (Figure 14). In May 2021 when the Crime Plan began, violent crime was at about the same level as it was in May 2020. From there, and with some seasonal variation, the 2021 monthly crime levels (green line) began to drop and diverge from the slope of the monthly 2020 and 2019 levels (red and blue lines respectively). The late summer crime drop evident across all three years was steeper in 2021 than in the previous years, and after a slight uptick in October, crime continued to fall through the end of 2021. By the end of the year, the gap in December 2021 violent crime and compared to the previous two years had widened to its largest of the year as the Period 2 hot spots intervention (Sep-Dec 2021) came to a close.

Figure 14: 2019 to 2021 Violent Crime (12-Month View)

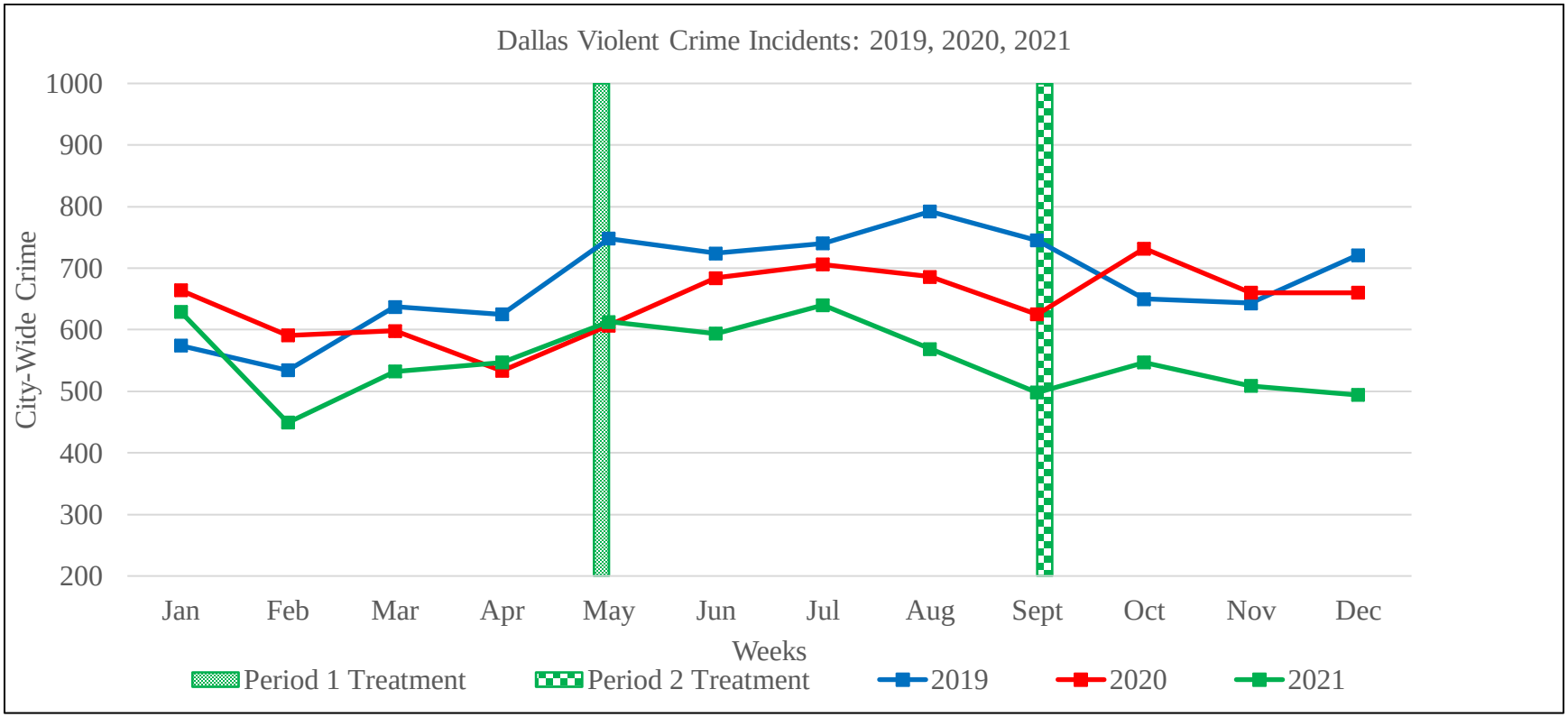
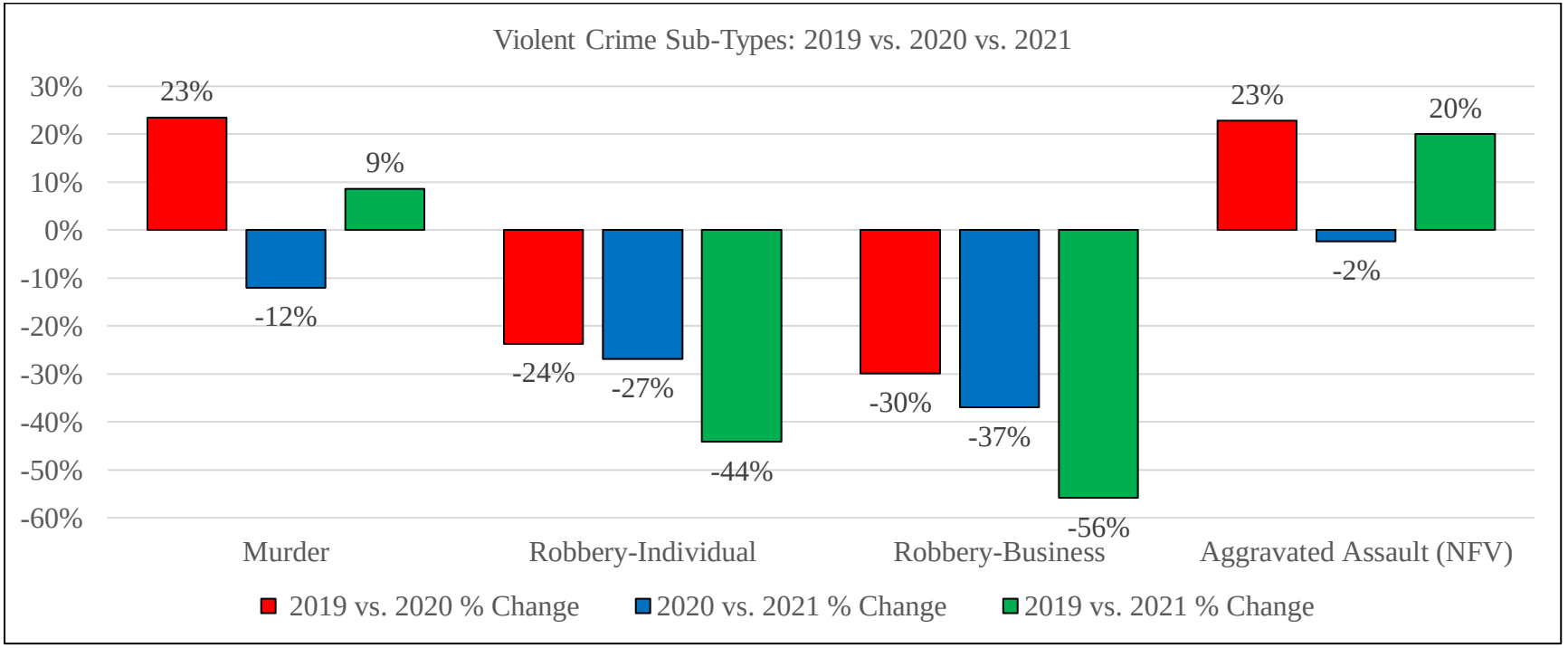


Figure 15 shows year-to-year changes in violent crime types in Dallas. As noted previously, all categories of street-level violent crime dropped in 2021 compared to 2020 (blue bars). Murder was down 12%, robbery was down steeply across both subtypes (individual and business), and even non-family violence aggravated assaults were down slightly at -2% compared to 2020. Two-year change (green bars) varied by crime type with 2021 robberies down dramatically compared to 2019 and murders and aggravated assaults higher in 2021 than in 2019, suggesting more work still needs to be done in reducing violence and the conditions that give rise to it in Dallas. The declining trends across all crime types in 2021 compared to 2020 are cause for cautious optimism heading into 2022 and implementation of the place-network investigations (PNI) and focused deterrence components of the Crime Plan.

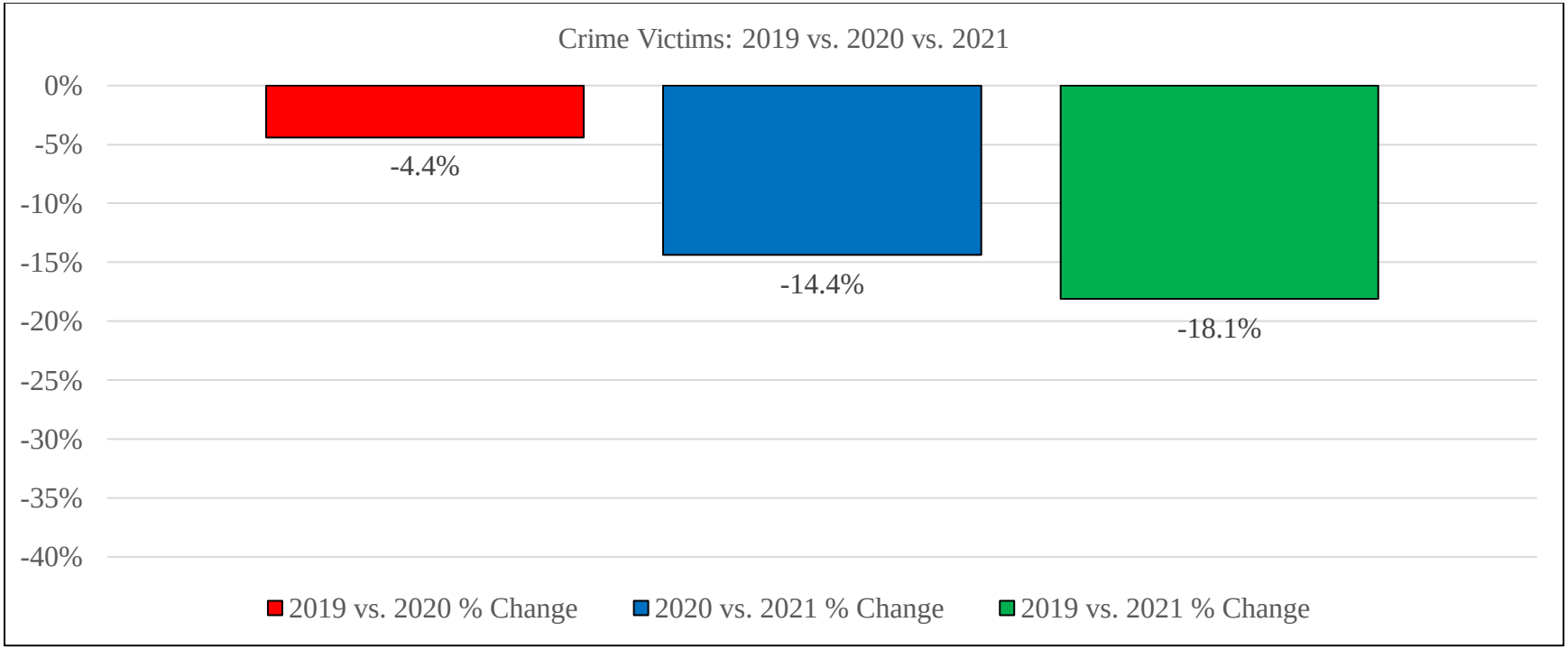
Figure 15: Year-to-Year Change by Violent Crime Type



Victims

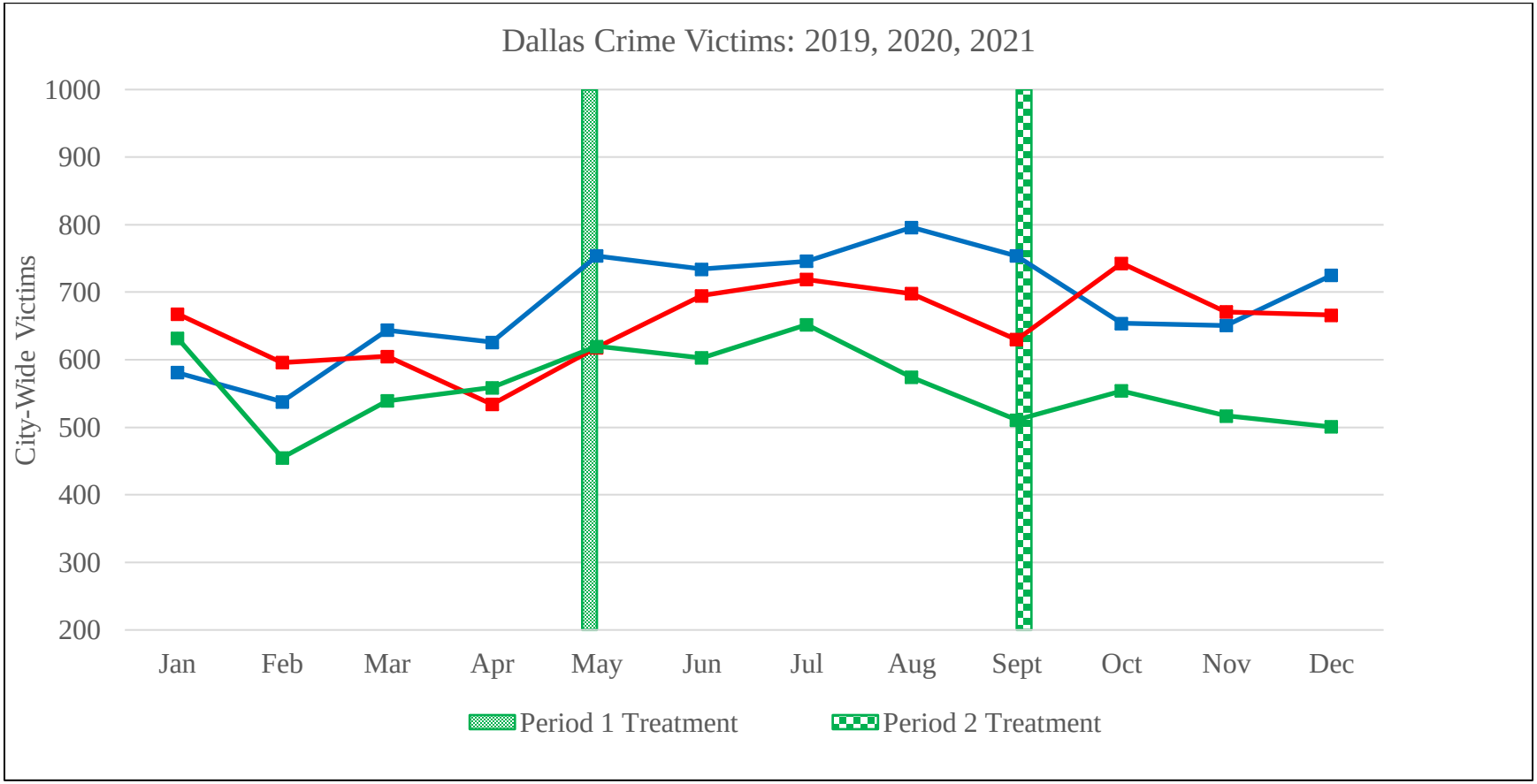
Figures 16 and 17 below examine year-to-year changes in the number of violent crime victims in Dallas. One of the stated goals of the DPD Crime Plan is to reduce the number of violent crime victims. Thus, these analyses mirror the incident-level results reported above in Figures 13 and 14 but focus specifically on the number of reported victims of violent crime during 2019-2021. Figure 16 indicates a 14.4% reduction in the number of violent crime victims in 2021 compared to 2020 (blue bar). Comparing 2021 to 2019 shows an even larger reduction – 18.1% - across the two-year period (green bar).

Figure 16: Year-to-Year Change in Victims City-Wide



Finally, Figure 17 shows the drop in violent victimization that coincided with the implementation of the Crime Plan. In May 2021 when the Crime Plan went into effect, the number of violent victims recorded up to that time was almost identical to the number of victims recorded in 2020. But after the Crime Plan began, the 2021 victimization rate (green line) began to fall relative to 2020 (red line). By the end of the year, the gap between the number of violent crime victims in 2021 had widened to its largest point of the year compared to 2020 and 2019 (blue line).

Figure 17: 2019 to 2021 Victims (12-Month View)



Summary

This section of the report examined city-wide changes in reported violent crime incidents and victims from 2019 to 2021. Violent incidents and the number of violent crime victims fell more than 14% in 2021 compared to 2020 and even more (about 18%) compared to 2019. The drop in violent crime recorded in 2021 compared to the previous year largely coincided with implementation of the Crime Plan in May 2021, and the gap continued to widen throughout the remainder of 2021 as the hot spots interventions took place. Reductions were seen in 2021 across all violent street crime types – murder, robbery, and non-family violence aggravated assault – with large reductions seen in robberies and a smaller but still significant reduction of 12% in murders during 2021 compared to 2020.

Appendix

Table 4: Period 1 Grids – Pre and Treatment Period Crime Levels

Grid ID	Division	Treatment	Pre Treatment Crime (Jan-Apr)	Treatment Crime (May-Aug)	P1 Crime Change
49873	CE	OF	3	2	-1
73540	NC	HV	2	3	1
86832	NC	HV	3	3	0
92380	NC	OF	3	0	-3
100143	NC	OF	3	0	-3
68486	NE	HV	2	1	-1
68527	NE	HV	2	1	-1
73557	NE	HV	1	0	-1
73868	NE	HV	2	1	-1
75170	NE	HV	3	0	-3
85891	NE	HV	2	0	-2
87123	NE	HV	3	1	-2
90118	NE	HV	2	0	-2
53440	NE	OF	4	2	-2
57043	NE	OF	6	2	-4
69878	NE	OF	4	1	-3
74193	NE	OF	3	2	-1
74842	NE	OF	3	1	-2
86628	NE	OF	2	2	0
87585	NE	OF	3	2	-1
87810	NE	OF	1	0	-1
88980	NE	OF	9	5	-4
73438	NW	HV	3	2	-1
86232	NW	HV	1	0	-1
61838	NW	OF	5	2	-3
70562	NW	OF	3	0	-3
71996	NW	OF	5	1	-4
71999	NW	OF	4	1	-3
72554	NW	OF	3	3	0
18876	SC	HV	4	2	-2
22467	SC	HV	3	2	-1
33746	SC	HV	3	0	-3
5646	SC	OF	2	3	1
14142	SC	OF	3	3	0
19338	SC	OF	2	0	-2
22411	SC	OF	2	1	-1
28917	SC	OF	3	1	-2

30826	SC	OF	7	3	-4
6161	SC	OF	2	3	1
40543	SE	HV	2	1	-1
42431	SE	HV	7	7	0
43203	SE	OF	5	1	-4
14095	SW	HV	2	0	-2
6663	SW	OF	3	1	-2
6913	SW	OF	5	3	-2
7184	SW	OF	3	3	0
21621	SW	OF	5	0	-5

Table 5: Period 2 Grids – Pre and Treatment Period Crime Levels

Grid ID	Division	Treatment	Pre Treatment Crime (May-Aug)	Treatment Crime (Sep-Dec)	P2 Crime Change
45299	CE	HV	3	2	-1
49885	CE	HV	7	1	-6
50119	CE	HV	6	0	-6
49133	CE	OF	3	2	-1
55375	CE	OF	2	1	-1
90932	NC	OF	4	2	-2
97469	NC	OF	4	1	-3
53941	NE	HV	2	0	-2
56493	NE	HV	2	2	0
57818	NE	HV	5	2	-3
68527	NE	HV	1	2	1
77233	NE	HV	2	0	-2
77886	NE	HV	2	0	-2
83886	NE	HV	2	0	-2
75181	NE	OF	4	1	-3
86628	NE	OF	2	2	0
86878	NE	OF	3	3	0
87126	NE	OF	4	1	-3
88980	NE	OF	5	2	-3
61124	NW	HV	4	3	-1
61838	NW	HV	2	3	1
71142	NW	HV	4	0	-4
71390	NW	HV	3	1	-2
72516	NW	HV	3	0	-3
73438	NW	HV	2	0	-2
70845	NW	OF	2	2	0

71423	NW	OF	6	2	-4
85989	NW	OF	3	0	-3
2818	SC	HV	2	2	0
7749	SC	HV	2	0	-2
20516	SC	HV	4	3	-1
20844	SC	HV	4	4	0
4244	SC	OF	4	2	-2
5646	SC	OF	3	3	0
6161	SC	OF	3	0	-3
21689	SC	OF	7	1	-6
27964	SC	OF	2	0	-2
30826	SC	OF	3	6	3
27406	SE	HV	4	0	-4
27734	SE	HV	3	2	-1
40003	SE	HV	2	2	0
43854	SE	HV	2	1	-1
44917	SE	HV	3	2	-1
52546	SE	HV	3	2	-1
42431	SE	OF	7	1	-6
46649	SE	OF	2	0	-2
39874	SW	HV	3	0	-3
4422	SW	OF	4	2	-2
6408	SW	OF	3	0	-3
6913	SW	OF	3	4	1
7184	SW	OF	3	0	-3

Table 6: Violent Crime Specific Summary

	Pre-Intervention		Post-Intervention		
	Total Incidents	*Average per week (N=13)*	*Total Incidents*	*Average per week (N=13)*	**Percent Change**
City-Wide: Murder	52	4.0	57	4.4	9.6%
Non-Treat/Catchment Grids: Murder	45	3.5	47	3.6	4.4%
Treatment Grids: Murder	2	0.2	1	0.1	-50.0%
Catchment Grids: Murder	5	0.4	9	0.7	80.0%
City-Wide: Robbery	640	49.2	536	41.2	-16.3%
Non-Treat/Catchment Grids: Robbery	527	40.5	452	34.8	-14.2%
Treatment Grids: Robbery	41	3.2	22	1.7	-46.3%
Catchment Grids: Robbery	72	5.5	62	4.8	-13.9%
City-Wide: Robbery (Individual)	522	40.2	451	34.7	-13.6%
Non-Treat/Catchment Grids: Robbery (Ind.)	422	32.5	381	29.3	-9.7%
Treatment Grids: Robbery (Ind.)	36	2.8	19	1.5	-47.2%
Catchment Grids: Robbery (Ind.)	64	4.9	51	3.9	-20.3%
City-Wide: Robbery (Business)	118	9.1	85	6.5	-28.0%
Non-Treat/Catchment Grids: Robbery (Bus.)	105	8.1	71	5.5	-32.4%
Treatment Grids: Robbery (Bus.)	5	0.4	3	0.2	-40.0%
Catchment Grids: Robbery (Bus.)	8	0.6	11	0.8	37.5%
City-Wide: Aggravated Assault	1,099	84.5	965	74.2	-12.2%
Non-Treat/Catchment Grids: AA	927	71.3	829	63.8	-10.6%
Treatment Grids: AA	80	6.2	37	2.8	-53.8%
Catchment Grids: AA	92	7.1	99	7.6	7.6%

Crime specific total exceed the overall total as some incidents involved more than one crime.

Figure 18: Murder

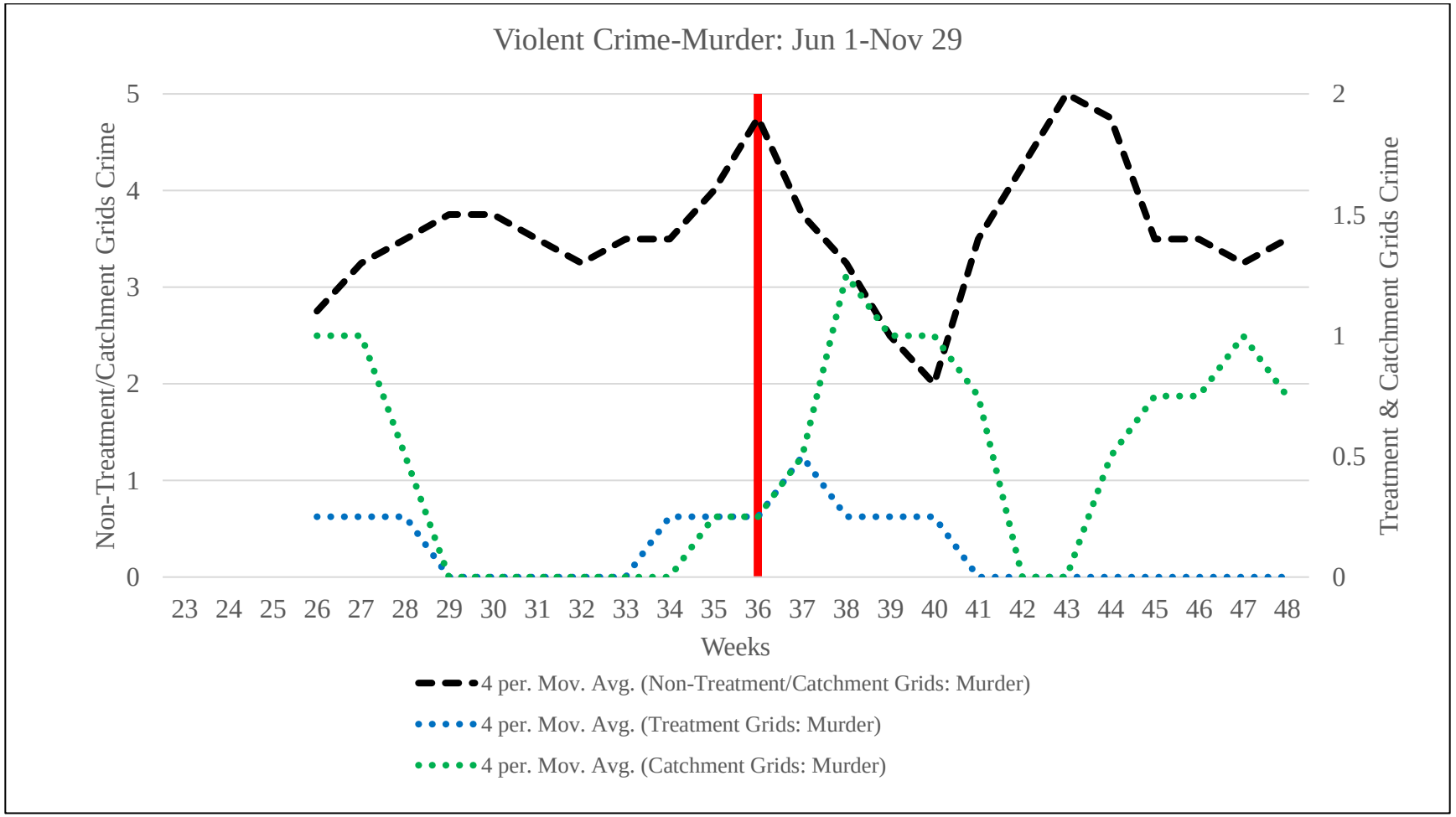


Figure 19: All Robbery

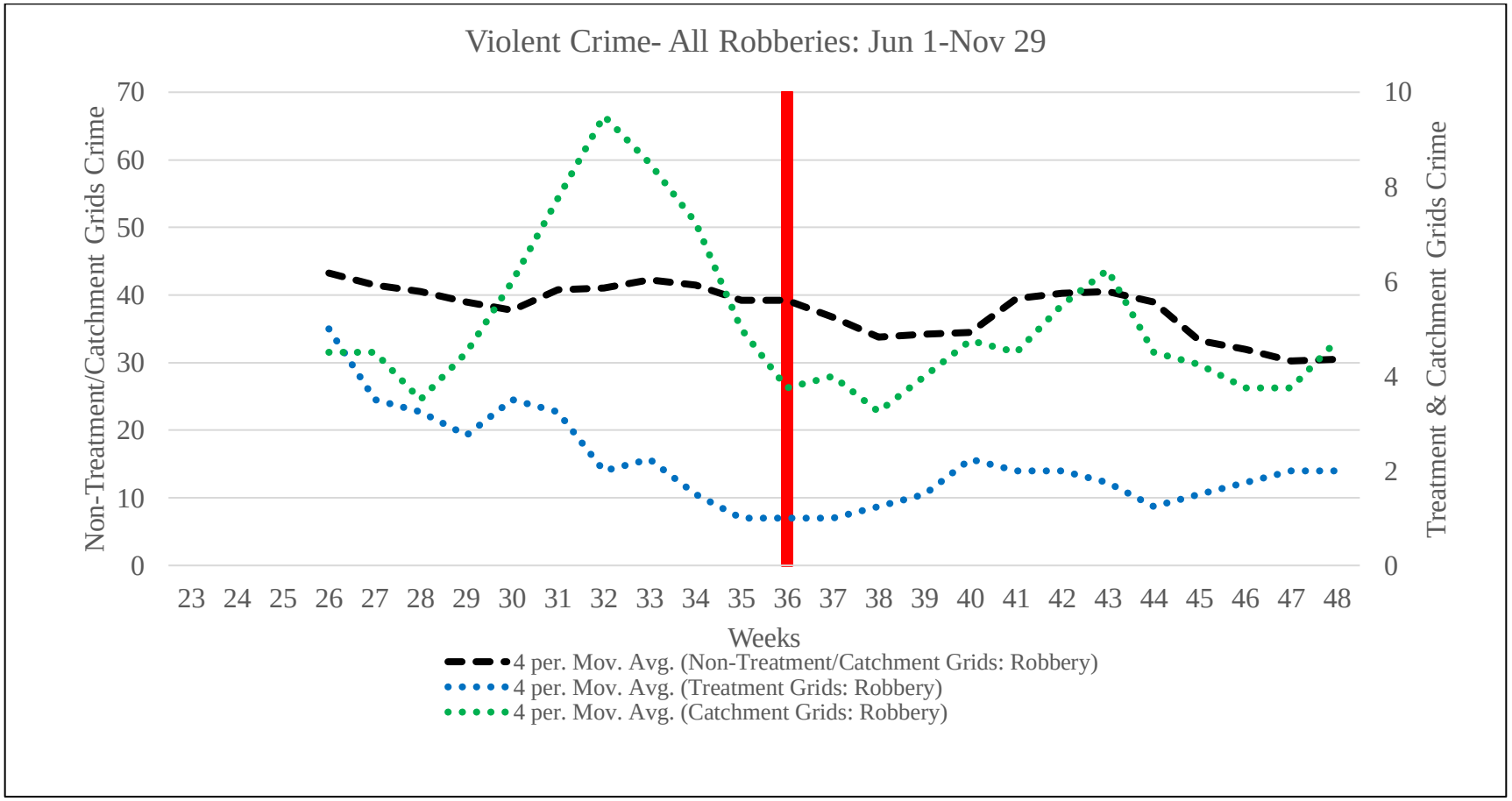


Figure 20: Robbery (Individual)

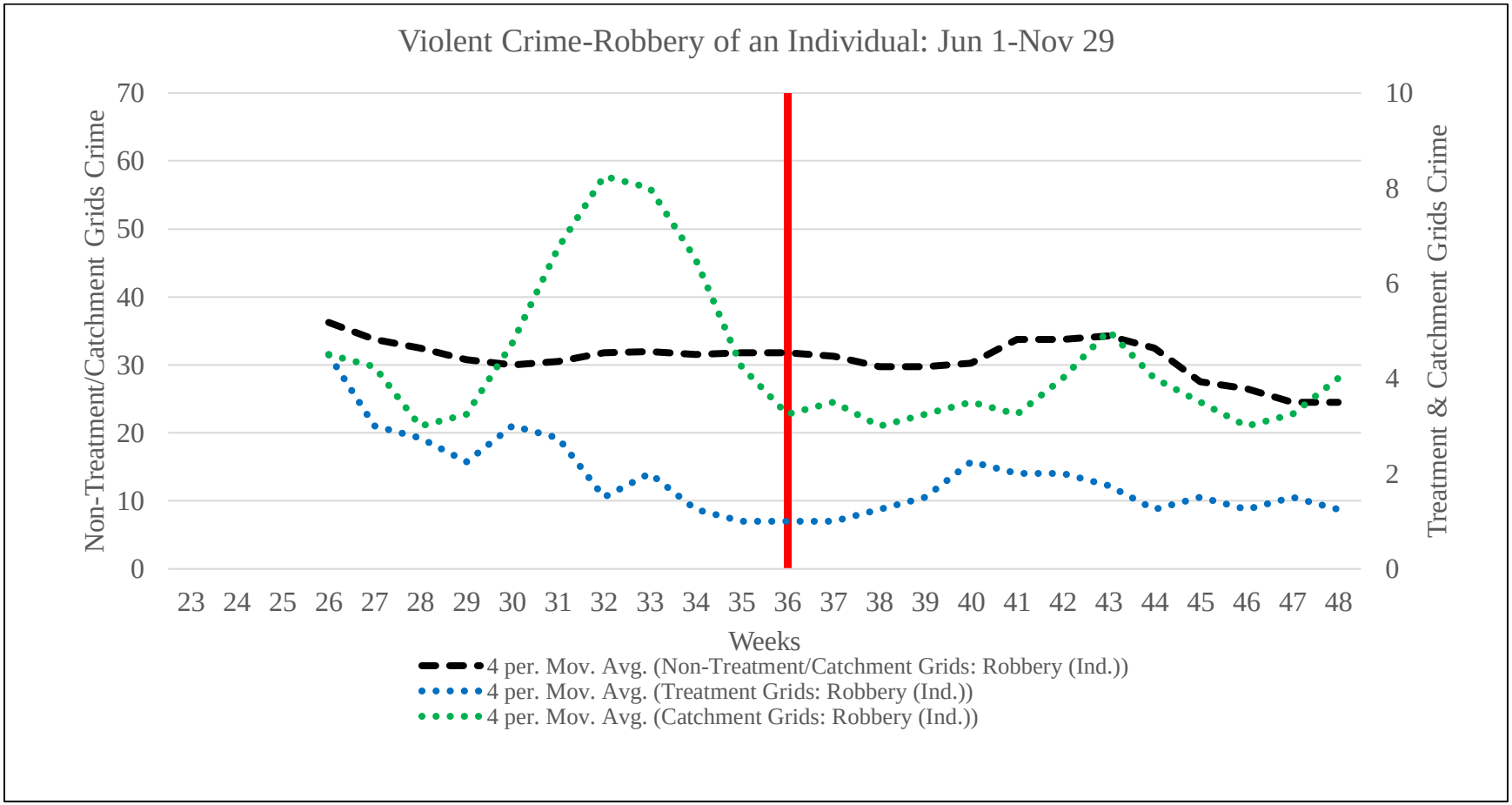


Figure 21: Robbery (Business)

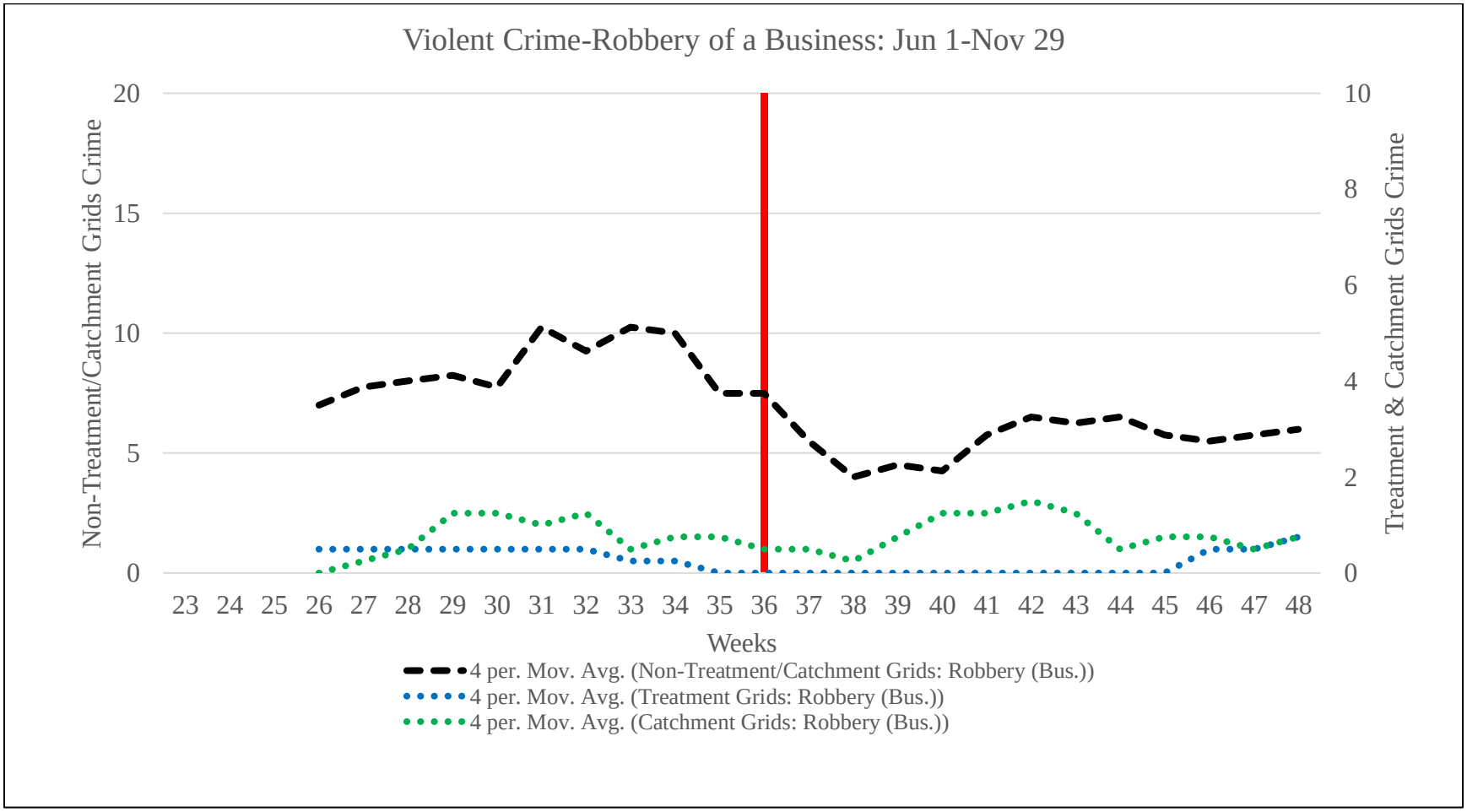


Figure 22: Aggravated Assault

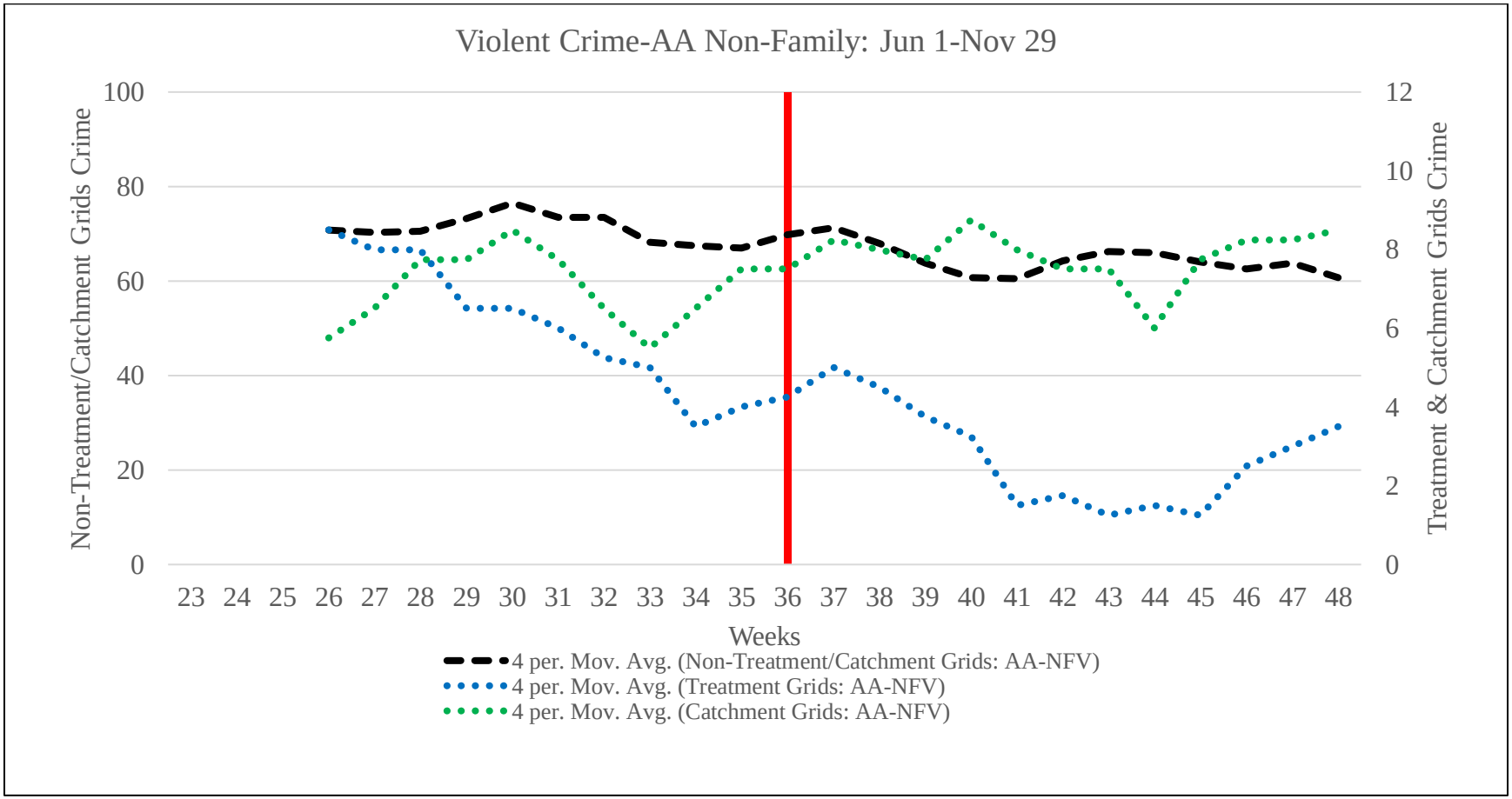


Table 7: Division Violent Crime Summary

	Pre-Intervention		Post-Intervention		
	Total Incidents	*Average per week (N=13)*	*Total Incidents*	*Average per week (N=13)*	**Percent Change**
Central: Division-Wide	232	17.8	187	14.4	-19.4%
Non-Treatment/Catchment Grids	181	13.9	153	11.8	-15.5%
Treatment Grids (N=5)	15	1.2	4	0.3	-73.3%
Catchment Grids	36	2.8	30	2.3	-16.7%
North Central: Division-Wide	133	10.2	114	8.8	-14.3%
Non-Treatment/Catchment Grids	123	9.5	105	8.1	-14.6%
Treatment Grids (N=2)	7	0.5	2	0.2	71.4%
Catchment Grids	3	0.2	7	0.5	133.3%
North East: Division-Wide	276	21.2	266	20.5	-3.6%
Non-Treatment/Catchment Grids	227	17.5	209	16.1	-7.9%
Treatment Grids (N=12)	24	1.8	11	0.8	-54.2%
Catchment Grids	25	1.9	46	3.5	84.0%
North West: Division-Wide	241	18.5	204	15.7	-15.4%
Non-Treatment/Catchment Grids	189	14.5	174	13.4	-7.9%
Treatment Grids (N=9)	20	1.5	10	0.8	-50.0%
Catchment Grids	32	2.5	20	1.5	-37.5%
South Central: Division-Wide	276	21.2	242	18.6	-12.3%
Non-Treatment/Catchment Grids	215	16.5	198	15.2	-7.9%
Treatment Grids (N=10)	24	1.8	18	1.4	-25.0%
Catchment Grids	37	2.8	26	2.0	-29.7%
South East: Division-Wide	355	27.3	278	21.4	-21.7%
Non-Treatment/Catchment Grids	315	24.2	253	19.5	-19.7%
Treatment Grids (N=8)	20	1.5	7	0.5	-65.0%
Catchment Grids	20	1.5	18	1.4	-10.0%
South West: Division-Wide	267	20.5	245	18.8	-8.2%
Non-Treatment/Catchment Grids	238	18.3	219	16.8	-8.0%
Treatment Grids (N=5)	13	1.0	6	0.5	-53.8%
Catchment Grids	16	1.2	20	1.5	25.0%

Table 8: Arrest Summary

	Pre-Intervention		Post-Intervention		
	Total Incidents	*Average per week (N=13)*	*Total Incidents*	*Average per week (N=13)*	**Percent Change**
City-Wide: All Arrests	9,134	702.6	8,100	623.1	-11.3%
Non-Treatment Grids: All Arrests	8,832	679.4	7,811	600.8	-11.6%
Treatment Grids: All Arrests	302	23.2	289	22.2	-4.3%
City-Wide: Part I Arrests	220	16.9	186	14.3	-15.5%
Non-Treatment Grids: Part I Arrests	207	15.9	180	13.8	-13.0%
Treatment Grids: Part I Arrests	13	1.0	6	0.5	-53.8%
City-Wide: Part I+ Arrests	1,901	146.2	1,796	138.2	-5.5%
Non-Treatment Grids: Part I+ Arrests	1,813	139.5	1,725	132.7	-4.9%
Treatment Grids: Part I+ Arrests	88	6.8	71	5.5	-19.3%
City-Wide: Warrant Arrests	2,328	179.1	2,321	178.5	-0.3%
Non-Treatment Grids: Warrant Arrests	2,253	173.3	2,234	171.8	-0.8%
Treatment Grids: Warrant Arrests	75	5.8	87	6.7	16.0%

Figure 23: Non-Treatment Grids vs. Treatment Grids: All Arrests

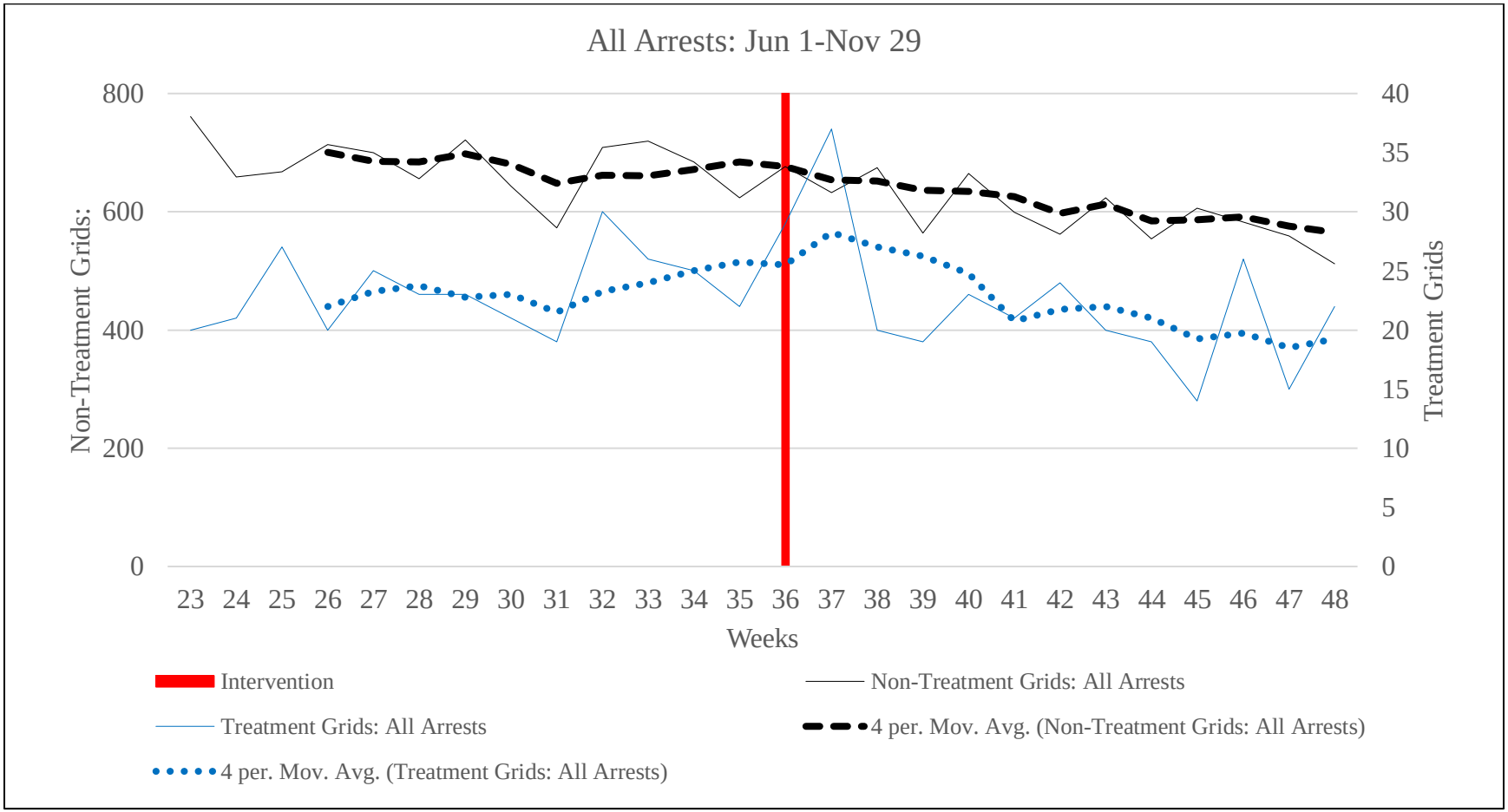


Figure 24: Non-Treatment Grids vs. Treatment Grids: Part I Arrests

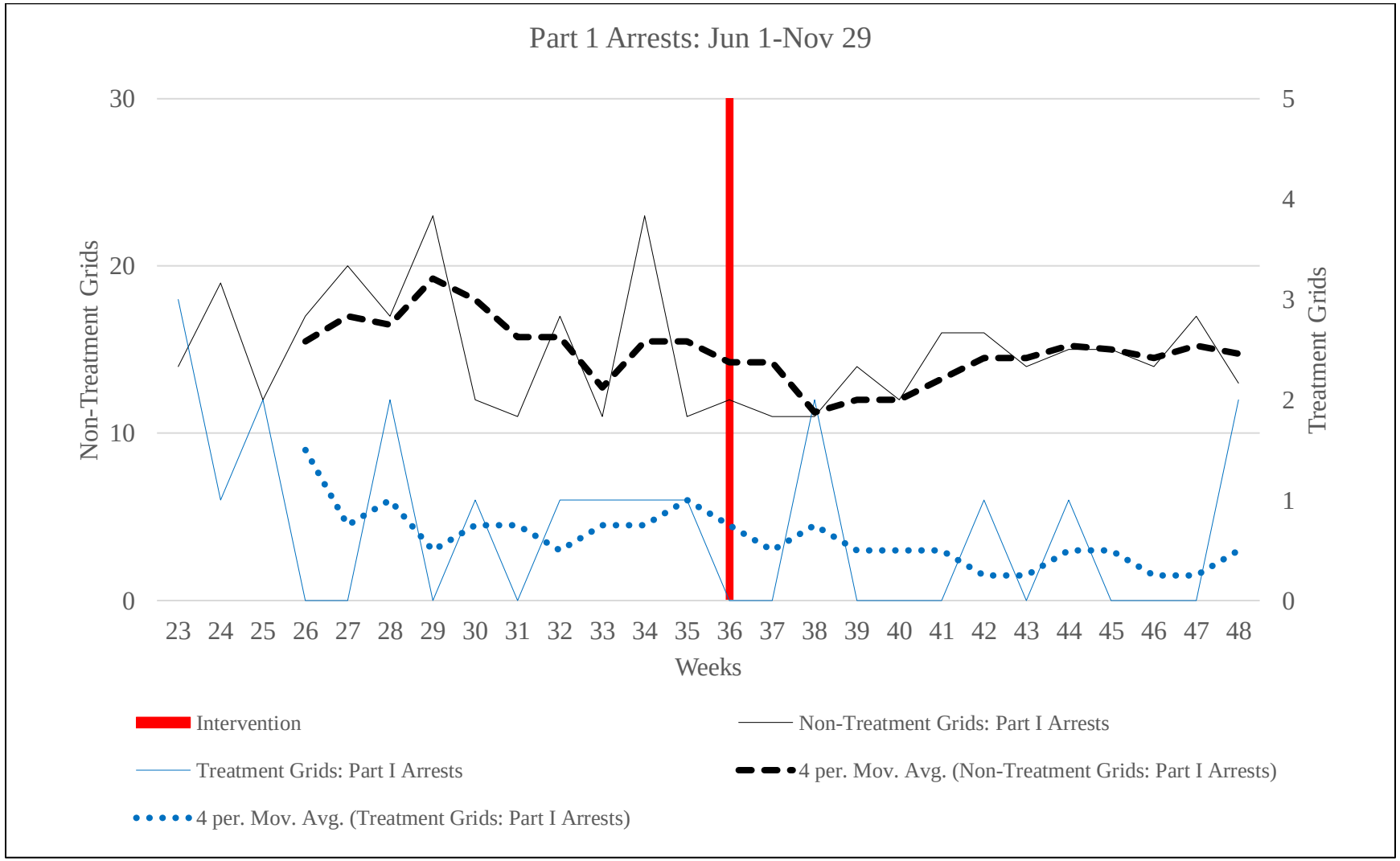


Figure 25: Non-Treatment Grids vs. Treatment Grids: Part I+ Arrests

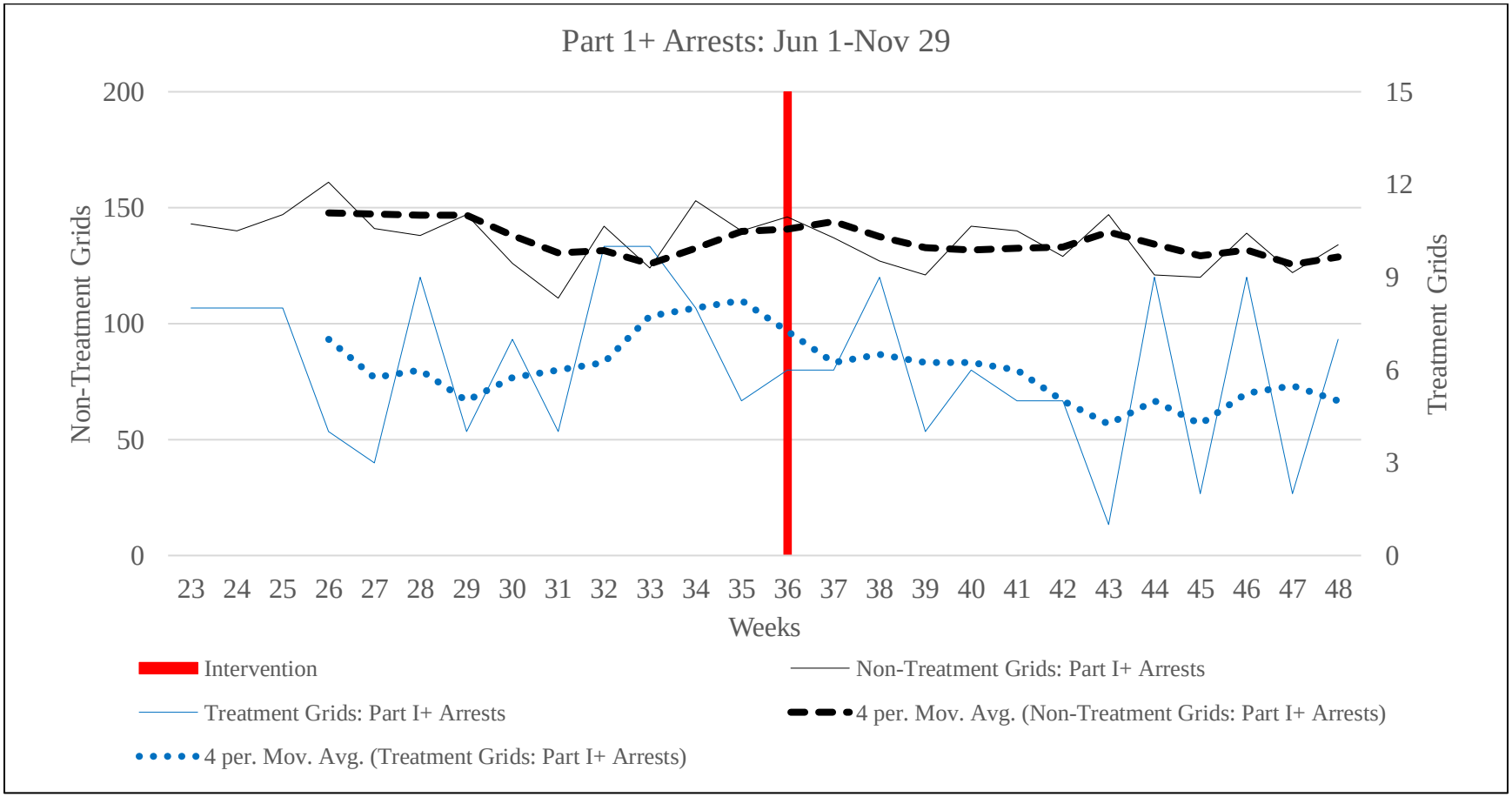


Figure 26: Non-Treatment Grids vs. Treatment Grids: Warrant Arrests