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EXECUTIVE SUMMARY

- The City of Toledo was experiencing a surge in serious felony crime between 2007 and 2011. As the national crime rate continued to decline steadily, shooting incidents, robberies, and burglaries in Toledo increased significantly between 2007 and 2011. This crime surge began just before the Great Recession and the Subprime Mortgage Collapse, reducing income and property tax revenues. This cut the financial resources Toledo had with which to respond to this crisis.

- Qualitative and quantitative analyses of these crimes revealed that a disproportionate amount of these firearms assaults, robberies, and burglaries were being committed by a small number of individuals. Only a few hundred individuals appeared to be responsible for a great majority of the robberies, burglaries, and aggravated assaults within the city of more than 280,000 inhabitants. These individuals were prolific offenders who were actively involved in a criminal lifestyle of frequent serious offending.

- The Toledo Police Department consulted the Evidence-based Policing Matrix maintained by George Mason University in order to find an evidence-based strategy to address this particular crime problem. This Matrix revealed empirical research suggesting promising results for programs targeting repeat serious offenders for focused enforcement, prosecution, and incapacitation.

- The Toledo Police Department sought federal assistance for its response through a Bureau of Justice Assistance Smart Policing Initiative (now known as the Strategies for Policing Innovation program) Grant in 2013. Specifically, the Toledo Police Department sought to create a special unit to identify the most prolific offenders within the city, target them for surveillance, apprehend them when they commit new offenses, and encourage maximum prosecution. Initially this proposal was declined by BJA, yet the City of Toledo proceeded with a scaled-down version of the plan on its own.

- In 2014, the BJA re-contacted the Toledo Police Department. Additional funding had become available and the BJA decided to fund the Toledo proposal.

- The Toledo Police Department organized a prolific offender unit, entitled the Special Intelligence Group (SIG), consisting of one sergeant, four detectives, and a crime analyst. This unit was trained and equipped to gather intelligence and conduct undercover surveillance of prolific serious offenders. SIG’s mission was to observe these prolific offenders and catch them in the commission of a new crime – especially a new felony offense. The team would then prepare the case for trial and assist the prosecutor’s office in pursuing maximum prosecution and incapacitation of the prolific offender.

- The Toledo Police Department developed a partnership with two outside researchers who would assist in developing a scientifically-sound way to identify the most active prolific offenders in the community, and evaluate the potential impact the SIG unit’s operations had on crime within Toledo.
The research partners developed and tested an empirically based Prolific and Priority Offender (PPO) Scoring Matrix – a risk assessment tool for identifying those most at risk of committing a new robbery, burglary, or aggravated assault offense within the next year. This PPO Scoring Matrix was validated with a sample of more than 5,500 prior arrestees with greater than 90% accuracy. This scientifically validated PPO Scoring Matrix was converted to a computer algorithm within the Toledo Police Department’s records management system to identify the top 100 individuals most likely to commit a new burglary, robbery, or aggravated assault within Toledo.

After consultation with the BJA, SIG added a notification component to its operations. Letters were issued to PPO individuals who had the potential of coming under surveillance by the SIG unit. These letters informed the PPOs that the Toledo Police Department was aware of their substantial recent history of criminal offending, that they would be placed under observation, and that any new offending would be dealt with through maximum enforcement and prosecution. The letter also, however, offered the PPOs an alternative to crime by making available to them a host of free case management and social services assistance. These letters were (whenever possible) hand delivered to the 100 PPOs by a representative of the Toledo Police Department during March of 2016.

During the 12 months immediately following the distribution of these notification letters, SIG conducted surveillance operations observing these 100 PPO prolific offenders. One of the PPOs died of a drug overdose early on in this period, and 79 of the remaining PPOs were arrested a total of 167 times on new offenses. Only one of the PPOs took advantage of the offer for social service assistance, but even he was apprehended later committing a new string of felony crimes. Nevertheless, 20 PPOs were not detected (by SIG or any other law enforcement source) committing a new offense during this evaluation period.

Criminological research has revealed most offenders commit crimes at or around locations they frequent as part of their daily life routines. The locations the offender frequents during his or her daily life routines are collectively called the offender’s “awareness space.” The SIG unit’s analyst gathered intelligence information from various sources and constructed awareness space polygons for each of the 100 PPOs. These awareness spaces generally included all addresses and workplaces on record for the PPO within the last year, as well as all locations where the PPO was contacted by the police as a complainant, witness, victim, suspicious person, or suspect in a police report within the last year.

Examination of the specific “awareness spaces” areas where the PPOs spent most of their time each day reveal that the implementation of the prolific offender program activities coincided with statistically significant reductions in the specific crimes targeted by the program. Robberies declined 3.9%, burglaries declined 20.1%, and aggravated assaults declined 16.1% in these specific geographical areas. Furthermore, overall reports of crime decreased 1.3%, auto thefts decreased 8.5%, and thefts from autos decreased...
14.1%, and total calls for police services decreased 3.1% within these awareness spaces after the project began.

- In addition to the crime reductions revealed within these small geographic regions of the city, crime reductions were also revealed citywide in the 12 months following the implementation of this prolific offender program. Robberies declined citywide during this period by 1.9%, burglaries declined 12.0%, and police-related calls for service declined by 3.5%. One might infer from these citywide results that this small group of prolific offenders committed such a large portion of all robberies, burglaries, and aggravated assaults that their deterrence and incapacitation resulted in impacts measurable at the citywide level.

- The City of Toledo leadership, and the command staff of the Toledo Police Department, have displayed a commitment to continue use of this prolific offender unit. The city self-funded a scaled down version of the concept before BJA funding was received, and support has not wavered across a change of police chiefs and three mayoral changes. The prolific offender program has been well integrated into the training, operations, and culture of the Toledo Police Department, ensuring its sustainability for the foreseeable future.
Introduction

This is the final project report for Bureau of Justice Assistance Smart Policing Initiative Grant 2014-WY-BX-0001, regarding the Toledo Police Department’s Prolific Offender Surveillance and Apprehension Team. This grant was utilized by the Toledo Police Department in the following ways:

- Funded continued support for its existing prolific offender unit
- Acquired needed equipment to improve the unit’s operational effectiveness
- Acquired needed training to improve the unit’s operational effectiveness
- Developed an assessment tool in order to identify the most active and highest-risk prolific offenders within the community
- Conducted an evaluation of the prolific offender unit’s potential impact on crime and calls for service

This report will detail the origins of the prolific offender unit within the Toledo Police Department, and the problem it was designed to address. It will discuss why this strategy was selected, and how it was employed and refined. Finally, this report will examine the prolific offender unit’s apparent impact on crime and disorder.

Targeted Problem

The Toledo Police Department’s Prolific Offender Surveillance and Apprehension Team was established in response to a surge in serious felony crime experienced within Toledo. According to FBI Uniform Crime Report statistics, the national crime rate declined steadily from 1993 through 2014. Despite the economic recession, violent crime in the U.S. dropped from 458 violent crimes per 100,000 inhabitants in 2008 to 386 crimes in 2011. Property crime also dropped from 3,214 crimes per 100,000 inhabitants in 2008 to 2,908 in 2011 (Federal Bureau of Investigation, 2013). The City of Toledo, however, was not experiencing similar declines.

From 2007 through 2011, both violent crime and property crime did not decrease significantly in Toledo. In fact, the rate (per 100,000 inhabitants) of homicides increased 84%, rapes increased 3%, burglaries increased 41%, and arsons increased 25%. Additionally, the total number of shooting incidents increased 79% between 2009 and 2011. The crime increases experienced in Toledo primarily involved serious felony crimes, not crime more generally (Toledo Police Department, 2012).

Figure 1 below shows the robbery rate per 100,000 inhabitants in Toledo from 2007 through 2011, contrasted with the national robbery rate for that same time span. As this line graph reveals, at the national level robberies continued its decades-long decline trend, falling from 150 robberies to about 100 robberies per 100,000 inhabitants. In Toledo, however, the robbery rate fluctuated between 400 and 436 robberies per 100,000 inhabitants – far above the national average and not in decline.
Figure 1. Toledo Robbery Rate versus National Average

Figure 2 displays the burglary rate per 100,000 inhabitants in Toledo from 2007 through 2011, again contrasted with the national robbery rate for that same time span. The national burglary rate declined from about 733 burglaries, to about 699 burglaries per 100,000 inhabitants. In Toledo, however, the burglary rate skyrocketed from 1,997 to 2,914 burglaries per 100,000 inhabitants.

Figure 2. Toledo Burglary Rate versus National Average

At the same time Toledo was experiencing these increases in serious crime, it was also experiencing significant decreases in the resources needed to fight crime. Like most industrial
cities of the Great Lakes region, Toledo’s tax base has continued to shrink with the U.S. auto industry and other forms of manufacturing industries. The sub-prime mortgage crisis of 2007-2008, followed by the Great Recession of 2008-2012, further reduced the tax revenues upon which governments depend (City of Toledo, 2013).

Between 2008 and 2011, the City of Toledo’s budget decreased by 5.2%, while the Toledo Police Department’s budget decreased by 10.5%. This financial hardship forced the city of Toledo to lay off 75 police officers in 2009. Funding within the Toledo Police Department for specialized programs, overtime pay, and new officers to replace retiring officers become increasingly limited. While Toledo’s population declined by 8.5% from the 2000 U.S. Census to the 2010 U.S. Census, the number of sworn personnel on the Toledo Police Department shrank by 20.3% during the same period (Toledo Police Department, 2012). Faced with the economic reality of this environment, the Toledo Police Department had to seek new and innovative ways to “do more with less” by employing evidence-based practices since 2008 to address problems of crime and disorder more efficiently.

In order to make the most effective use of its reduced manpower, the Toledo Police Department developed a real-time crime center, staffed with analysts and sworn officers, to detect crime patterns and incidents as they developed, and direct police resources to better respond to these incidents and trends. As part of this real-time crime center, the Toledo Police Department implemented the use of numerous surveillance cameras at crime hot spot locations. These cameras, most clearly marked with police emblems and blue flashing lights, allowed real-time observation of crime hot spots, a deterring virtual police presence, and recording of crimes for investigative and prosecutorial purposes. The Toledo Police Department installed cameras to enforce traffic laws along roadways with high numbers of crashes, issuing traffic citations through the mail for speeding and running red lights. Finally, the Toledo Police Department implemented a focused deterrence strategy, the Toledo Community Initiative to Reduce Violence (T-CIRV), modeled after Boston’s “Operation Ceasefire” gun violence project (Kennedy, Braga, & Piehl, 2001). This program targeted violent crime committed by organized street gangs.

Following the full implementation of all of these evidence-based policing strategies, some community problems – such as traffic collisions, misdemeanor crimes, auto thefts, open-air drug dealing, and domestic violence – saw some declines. Unfortunately, the most serious crimes – robbery, burglary, and aggravated assault – remained relatively unaffected. This prompted a more detailed examination of these specific street felony offenses by Toledo Police Department analysts and command staff. This examination revealed that a large number of the burglaries, robberies, and aggravated assaults occurring within Toledo were being committed by a very small number of very active offenders. This finding was consistent with the criminological research that has consistently revealed that a small percentage of the criminal population (3-5%) is responsible for committing a majority of the crime in most communities (Mawby & Worrall, 2004; Millie & Erol, 2006; Shover, 1996; Wright & Decker, 1994, 1997).

In a 2011 post-arrest interview by detectives, for example, a prolific burglar revealed he committed between three and five burglaries a day to support his heroin habit. A 2012 arrest of a commercial burglary suspect revealed stolen property linked to 23 different burglaries. A review of this burglar’s arrest history revealed that he had been arrested on 54 previous occasions for
burglary and theft-related offenses. In October 2012, a suspect was charged in the homicide of an infant as a result of a shooting into an occupied dwelling. In just the 12 months preceding this homicide, the shooter had been charged with 49 other offenses, to include robbery, trafficking in drugs, and carrying concealed weapons. These anecdotal examples dramatically illustrated the frequency and severity of offending being committed by some of these prolific offenders within Toledo.

The research partners on this project examined arrests for burglaries by the Toledo Police Department from 2011 through 2013, finding only 342 individuals (roughly 0.1% of the city’s population) accounted for 856 burglaries (42% of all burglaries cleared by arrest over this three-year period).1 Similarly, with regard to robberies it was found that 627 individuals (roughly 0.2% of the city’s population) accounted for 100% of the robberies within the city from 2011 through 2013. Analyses of non-domestic violence felony assaults revealed that only 157 individuals accounted for 100% of these assaults during this three-year span. Furthermore, some of the same individuals were found to be responsible for robberies, burglaries, and felony assaults. In fact, a core group of 118 individuals (0.04% of the city’s population) was found to be responsible for 139 burglaries, 132 robberies, 16 aggravated assaults, and hundreds of lesser offenses over only 36 months.

Clearly, a small group of very prolific offenders were making a significantly disproportionate contribution to the amount of serious crime encountered in Toledo. If these prolific offenders could be deterred or incapacitated in some manner, it would likely result in a notable decrease in crime for the city of Toledo, and in the neighborhoods where these prolific offenders operate.

Evidence-Based Response

The Toledo Police Department leadership, with assistance from their research partners, consulted the Evidence-Based Policing Matrix maintained by George Mason University’s Center for Evidence-Based Crime Policy (http://cebcp.org/evidence-based-policing/the-matrix/). This Evidence-Based Policing Matrix summarizes and categorizes the research evidence on police strategies to reduce crime. Because the Toledo Police Department was seeking effective strategies to address a small group of prolific offenders, it explored options categorized within the matrix as focused strategies addressing individuals (see Figure 3 below). The most effective interventions found within that quadrant of the Policing Matrix dealt with targeting chronic repeat offenders for surveillance, aggressive enforcement, and maximum prosecution.

The first of the effective studies referenced within the Evidence-Based Policing Matrix (Martin & Sherman, 1986), involved a program within the Washington DC Metropolitan Police Department. This program involved creating a list of the most prolific repeat felony offenders within the city, based on a few simple offender record characteristics and referrals from detectives and street officers. This list of offenders was then used to encourage street-level

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1 The term “cleared by arrest” here refers to cases that were solved through the arrest of an individual who either admitted to having committed the offense, or enough probable cause evidence existed to allow a lawful arrest of the individual who committed the offense. Other case outcomes include crimes that were never cleared / solved, cases that were reported to the police but determined to be false reports or non-criminal acts, and crime attributable to a specific individual but that individual has not yet been arrested due to being deceased or a fugitive.
officers to target these individuals for surveillance and apprehension upon discovery of a new offence. This study found reductions in reoffending while these prolific offenders were incapacitated through incarceration (Martin & Sherman, 1986).

The second study (Abrahamse, Ebener, Greenwood, Fitzgerald, & Kosin, 1991), examined the post-arrest targeting of prolific felony offenders for maximum prosecution and incarceration within Phoenix. Using variables related to the length (number of offenses) and severity (felony and violent offenses) of the arrestee’s criminal history, prolific offenders were selected for maximum prosecution and incarceration once arrested for a new felony offense. Again, reoffending was reduced while these offenders were incapacitated in prison or jail (Abrahamse, et al., 1991).

Figure 3. George Mason University Evidence-Based Policing Matrix

Further examinations of the literature also identified two additional noteworthy studies. Jennings (2006) used arrestee data from one sheriff department in Florida to develop a model that accurately predicted individuals’ likelihood of re-arrest. Using only the information available on each arrestee’s official criminal record and booking intake sheet record, Jennings (2006) predicted re-arrest with greater than 70% accuracy. Using a sample of offenders serving sentences on probation supervision in Philadelphia, Berk, Sherman, Barnes, Kurtz, and Ahlman, (2009) used only the information available in probation department’s database to accurately predict which probationers would become victims of homicide.

These previous evaluations suggested that police programs focused on incapacitating prolific repeat offenders through incarceration were successful at increasing the odds of arrest, conviction, and incarceration of these targeted offenders. The Evidence-Based Policing Matrix
also indicated the methodological rigor of these two evaluations were rigorous to very rigorous in nature, thus increasing the confidence of the Toledo Police Department that implementing such a strategy in Toledo would help reduce crime. The research also revealed the potential validity and reliability of using scientifically sound prediction tools for identifying offenders most likely to reoffend in the near future. Nevertheless, as only a few studies of this type of intervention exist, and most were more than twenty years old (predating most Geographic Information Systems (GIS) and crime mapping technologies), it was decided that the evaluation component of a new prolific offender program in Toledo would also be extremely useful to the broader law enforcement community.

The Toledo Police Department, therefore, sought to develop a prolific offender surveillance and apprehension team. The prolific offender unit would be responsible for identifying prolific offenders within the community, placing them under covert surveillance and proactive investigation, apprehending them when sufficient evidence of a criminal act was discovered, and working in close cooperation with the prosecutor’s office to assist with the fullest prosecution of the offender. Funding to support the development of this unit was sought in 2013 through a grant application to the Bureau of Justice Assistance’s (BJA) Smart Policing Initiative program (now known as the Strategies for Policing innovation program). While our Smart Policing Initiative (SPI) grant proposal was a finalist for consideration, it ultimately was rejected for funding that year.

Unit Implementation

Despite the fact that Bureau of Justice Assistance funding was not obtained in 2013, the Office of the Mayor and the Toledo Police Department thought the development of this prolific offender surveillance and apprehension unit was of such importance to the city’s safety, the city decided to fund a scaled-down version of the prolific offender unit from the City’s budget. In late 2013, the prolific offender unit was established with one command officer (then-Sergeant Scott Sterling) and three officers. This team operated as a sub-component of the Criminal Intelligence Section (CIS) of the Toledo Police Department.

The self-funded version of the prolific offender unit had several limitations over the version initially proposed in the BJA. First, lack of funds limited the size of the unit to four personnel, all sworn officers. The grant proposal requested the funding for two more sworn officers, and analyst, and research partner staff. Second, lack of funds prevented the members assigned from receiving needed training in the surveillance and apprehension of offenders during crimes in progress. Third, lack of funds severely restricted the use of surveillance equipment (cameras, microphones, radios, etc.) and undercover vehicles. Fourth, lack of funds prevented the development of a scientifically tested and normed assessment tool for selecting prolific offenders to surveil. Fifth, lack of funds prevented an empirical assessment of the impact the prolific offender unit would have on crime and disorder within Toledo. Nevertheless, the self-funded version of the prolific offender unit served as a pilot test for the concept and may have been the most important contributing factor to the program’s sustainability. The program existed before the grant and, therefore, was likely to survive long after the grant.
Despite these limitations, the prolific offender unit, renamed the Special Intelligence Group (SIG), began operations. Its commander, Scott Sterling, developed an offender scoring matrix to select offenders for focused surveillance by SIG. The unit needed to identify individuals who were at high risk of committing a serious felony crime (primarily burglary, robbery, and aggravated assault) within the next few months. After consultation with law enforcement agencies in the United States and the United Kingdom that were discovered to utilize some form of prolific offender assessment tool, then-Sergeant Sterling developed a scoring matrix modeled after the assessment tool used in Hertfordshire, Thurrock, and Gloucestershire in the U.K. This set of scoring criteria included details about the individual’s official prior criminal arrest history, the individual’s past incarceration history, the individual’s gang involvement, and the lifestyle characteristics of the individual, such as age, marital status, and current employment.

A computer programmer with the regional public safety records management system, the Northwest Ohio Regional Information System (NORIS) automated these scoring criteria and applied this scoring matrix to every known offender in the Toledo Police Department records management system. This resulted in every prior offender in the database receiving a score of severity for potential to re-offend. In other words, everyone who had ever been previously arrested by the Toledo Police Department received a score that crudely measured their likelihood of committing a new robbery, burglary, or aggravated assault offense. Unfortunately, the highest scoring individuals were revealed to be primarily public order offenders, such as the chronically homeless, prostitutes, and mentally disordered individuals. These low-level offenders – while frequently arrested – were not the type of offenders responsible for the majority of the serious felony offending within the City.

In response, then-Sergeant Sterling made manual adjustments to the offender scoring matrix, such as adding more weight to prior felony offenses and decreasing the influence of lesser offenses in a “trial and error” process to see which changes tended to reduce the representation of low-level offenders and increase the representation of recent robbers and burglars. Admittedly, this was an unscientific process. These manual adjustments eventually started identifying individuals with the types of criminal behavior the SIG unit was designed to address. Concern existed, however, that the “trial and error” method of scoring adjustments could still be missing the correct individuals actually most likely to re-offend in the near future. There was also concern that this unscientific approach was indefensible if challenged. The Toledo Police Department still desired a research-based, statistically sound, scoring system to identify prolific offenders.

In early 2014, the SIG unit began operations by focusing covert surveillance on the individuals who produced the highest scores on the offender scoring matrix. The top scoring two or three individuals who were not currently incarcerated were surveilled for up to two weeks. If a prolific offender was either apprehended committing a new criminal act, or surveilled for two weeks without displaying any illegal activity, the unit shifted its attention to the next highest scoring individual.

The protocol of the unit was to focus covert surveillance on these individuals, document any minor crimes they may commit, but wait to arrest the individual until the unit caught the individual in the commission of a felony or violent crime. While the SIG unit occasionally
encountered individuals who demonstrated no new criminal behavior during the period of surveillance, many of the individuals surveilled were discovered to have a felony warrant for their arrest, or were caught in the commission of a new serious offense after only a few hours or days of surveillance. The swiftness with which these individuals were found to be re-offending further demonstrated how often they committed serious crimes.

After apprehending a prolific offender on new charges, members of the SIG unit would then contact the Lucas County Prosecutor’s Office and the Lucas County Court of Common Pleas to alert them of the offender’s lengthy record of offending. The SIG unit members would also request maximum prosecution of the individual and request a sentence of incarceration in the Ohio Department of Rehabilitation and Correction so that the individual would be temporarily incapacitated from offending within Toledo.

**Obtaining BJA Funding Assistance**

Despite the fact that the Toledo Police Department’s 2013 Smart Policing Initiative grant request had originally been denied, the Bureau of Justice Assistance (BJA) decided to use resources during the next fiscal year to fund some of the ‘runner up’ proposals from 2013. As a result, in September 2014, the BJA notified the Toledo Police Department that it had received Smart Policing Initiative (SPI) Grant 2014-WY-BX-0001 to support the existing SIG unit.

Other SPI Phase VI Grant recipients that year included Henderson, Nevada, Miami, Florida, and Portland, Oregon. Under this grant, the BJA funding would provide training to all SIG unit personnel, purchase surveillance equipment and vehicles, fund a civilian crime analyst to assist the unit, fund two research partners to produce an empirically sound offender scoring matrix and conduct an evaluation of the effectiveness of the SIG unit at reducing crime and disorder. At the time this grant was finally awarded, Scott Sterling had been promoted to the rank of lieutenant and had been replaced by Sergeant Duane Poole as the leader of the SIG unit. Since Lieutenant Sterling remained within the Special Intelligence Group (SIG), in charge of the Special Investigations Section, of which SIG is a part, he remained involved with the grant as the site grant manager. This consistency was crucial to the success of this grant as there was uniform understanding of the goals, procedures, policies, and actions associated with the grant. No institutional knowledge was lost during the administration of the grant and new personnel were quickly brought up to speed about the program.

**Action Plan Development and Site Visit**

The first step of the BJA grant award process involved the development of an action plan that was more detailed than the plan laid out in the grant proposal. As part of this process, the Toledo Police Department was assigned a BJA grant administrator, Ms. Vivian Elliott, to assist it with the grant administration. Two subject matter experts from the CNA corporation were also assigned to the Toledo project to provide detailed assistance and guidance. These subject matter experts – Dr. Scott Decker and Lt. Tom Woodmansee – had extensive experience as past BJA grant recipients and offered helpful feedback and insight. Managing Director of Justice Programs, Dr. James ‘Chip’ Coldren, and BJA Policy Analyst Catherine McNamee also provided valuable feedback.
While the formal action plan was being developed and written, monthly conference calls took place with CNA and BJA representatives, and an initial site visit was conducted by Dr. Decker and Lt. Woodmansee in April of 2015. This site visit proved very valuable in educating the subject matter experts about the specific characteristics of the Toledo crime problems and the operations of the Toledo Police Department. The site visit discussions also highlighted potential issues in the original evaluation plan proposed by the research partners, Dr. Richard Johnson of the Dolan Consulting Group (DCG) and Dr. Shanhe Jiang of the Department of Criminal Justice at Wayne State University. The research partner’s initial evaluation plan was deemed to be too audacious and required sample sizes that were unrealistic, given that only a small number of prolific offenders would be involved.

Inaugural Meeting
SIG’s new leader Sergeant Poole, Dr. Johnson, Dr. Jiang, and then-Captain Michael Troendle (commander of all special operations units within the Toledo Police Department) attended the BJA SPI Phase VI Inaugural Meeting in Boston in July of 2015. At this meeting, the Toledo team received further recommendations from Dr. Decker and Dr. Coldren that resulted in additional changes to the initial action plan. Finally, in September of 2015, the Toledo Police Department’s action plan was approved.

The Action Plan

Overall Strategy
Given that criminological research indicates a small number of individuals are responsible for committing the majority of the crime in most communities, a prolific offender program will be employed that combines focused deterrence and targeted enforcement with service assistance. Through the use of an empirically sound assessment tool, the 100 most currently active (and not already incarcerated) prolific offenders will be identified. These individuals will be served with letters informing them of their status as prolific offenders, explaining that continued offending will result in intensive law enforcement and prosecution, and offering them free social services to assist them with reforming their lives. Should a prolific offender refuse these services and persist in criminal behavior, however, they will become the focus of surveillance and targeted enforcement by the SIG unit.

Hiring of a Crime Analyst
An experienced civilian crime analyst, Ms. Karie Nordland, would be hired to assist the SIG unit. Ms. Nordland’s duties would include coordinating with the NORIS to flag Priority and Prolific Offenders (PPOs) within the regional criminal justice records management system, collecting and organizing intelligence data on each PPO for the SIG unit, and assisting the SIG unit with cyber surveillance of PPOs (via Facebook and other social media). This analyst would also assist the research partners by providing them relevant data for their analyses.

Technical Training Support
The SIG unit members would attend the Advanced Surveillance and Intelligence Operations training course conducted by Trojan Securities International in Fayetteville, Arkansas to advance their knowledge of covert surveillance techniques and the apprehension of high-risk individuals. The SIG unit members, the analyst, and the research partners would receive training in basic and
intermediate crime mapping using ArcGIS, provided by CNA corporation, to assist both the impact evaluation and intelligence and crime analysis. Additionally, both research partners would attend the BJA Smart Suite Researcher Fellows Academy training, hosted by the School of Criminal Justice at Michigan State University, to increase their skills in program evaluation techniques.

**Surveillance Equipment Acquisition**
The SIG unit would purchase a surveillance van outfitted with video surveillance equipment to assist the team members with observing PPO individuals and document their new criminal offenses.

**Development of a Prolific Offender Scoring Matrix**
The Toledo team sought to develop and test an objective and standardized prolific offender scoring matrix. Using empirical data analysis of known offenders previously arrested by the Toledo Police Department, the research partners would develop and test an empirically sound scoring matrix for predicting risk of committing another robbery, burglary, or aggravated assault in the near future. Once developed, this scoring matrix would be used to identify the 100 highest-scoring individuals, who are not currently incarcerated, to be addressed by the SIG unit program.

**Notification and Offering of Services**
Using the predictive offender scoring matrix, a Priority and Prolific Offenders (PPO) list would be produced and offenders from the list will be personally served a focused deterrence letter by Toledo Police Department personnel. This letter would inform each individual offender of their designation as a prolific offender, explain the consequences of this designation, and refer them to the network of social services offered by Treatment Accountability for Safer Communities (TASC) of Northwest Ohio. When an individual contacts TASC, the organization conducts a holistic initial intake needs assessment. This assessment explores the client’s needs for housing, employment, education (up to high school / GED), substance abuse treatment, mental health treatment, and parenting assistance. Based on these needs, an individualized treatment plan is developed for the client, and the client is referred to the most appropriate no-cost, or low cost, assistance programs to meet the client’s needs.

**Coordination with Services**
TASC would provide basic social services to prolific offenders who choose to seek assistance, or would make the appropriate referrals for those that need specialized assistance. These services could include psychosocial assessments, clinical case management services, job counseling, job training, substance abuse counseling referrals, mental health counseling referrals, parenting classes, suicide prevention services, and high school completion education. The Toledo Police Department already had an established working relationship with TASC as this organization also provided the social services component for the T-CIRV focused deterrence program. Under the SIG / PPO program, TASC would also notify the SIG unit if a PPO contacted their organization, and whether or not the PPO actually took advantage of the social services provided.

**Coordination with Other Agencies**
The list of PPOs would be provided to local law enforcement agencies, probation, parole, and prosecutors for focused enforcement. SIG team members and command staff representatives from the Toledo Police Department attended many meetings with the heads of the county probation department, municipal probation department, and the local state parole office. These meetings were used to explain the SIG / PPO program and request interagency cooperation. Although the initial process was slow, cooperation from these community corrections agencies grew in intensity over time. Just one example involved coordinating in real time with electronic monitoring home detection staff to locate a PPO that was believed to be committing a burglary while wearing an electronic ankle bracelet.

When an individual designated as a PPO is arrested on a new offense, SIG unit personnel will work closely with the Lucas County Prosecutor’s Office to encourage and assist in the fullest prosecution of the offender. SIG unit members met with the prosecuting attorneys assigned to the case to make specific requests to seek pretrial detention, and incarceration as the preferred sentence upon conviction.

**Impact Evaluation**

The effectiveness of the SIG unit’s activities on reducing crime and disorder would be evaluated by the research partners in the following manner. The first method would involve a quasi-experimental research design, examining the numbers of reported crimes within the geographic area identified as the “awareness space” of all of the prolific offenders for various lengths of time before and after each specific offender receives his / her specific deterrence notification. The intent of this pretest-posttest evaluation would be to determine if the act of notifying the prolific offender that he / she will be the focus of enforcement efforts, via a notification letter providing the prolific offender access to social services to assist with rehabilitation, resulted in a measurable reduction in reported crimes and calls for service in the offender’s known awareness space. The second evaluation method would involve a quasi-experimental research design, examining the numbers of reported crimes and calls for service within the geographic area identified as the awareness space of the prolific offenders before and after these PPOs were incapacitated through incarceration in prison. Crimes and calls for service within each offender’s awareness space would be compared for various lengths of time during the period in which the offender was “on the street,” and for the length of time the offender was incapacitated through pretrial detention and sentenced incarceration.

**Implementation**

As soon as the action plan was approved in late August, 2015, implementation began. The analyst was quickly hired and began assisting the existing SIG team. The SIG unit sworn personnel were scheduled for advanced surveillance training. The CNA Corporation provided GIS software training on-site at the Toledo Police Department, taught by Julie Wartell of the Police Foundation. During September through November of 2015, the approved equipment acquisition also began.

**Prolific Offender Scoring Matrix Development**

Creation of the scoring matrix began immediately upon approval of the action plan and lasted until January of 2016. The purpose of the Prolific and Priority Offender (PPO) scoring matrix...
was to identify individuals who are currently highly active in committing street felony crimes such as burglaries, robberies, and non-domestic aggravated assaults with a weapon. (The only reason domestic violence assaults were only excluded was because these crimes generally occur behind closed door in private residences. As the SIG unit’s strategy is to use covert surveillance on the street to detect new crime offenses, the nature of where domestic violence offenses usually occur – in a house or apartment -- would prevent such new crimes from being detected.)

The term “prolific” in this case refers to individuals engaged in a high number of very serious crimes over a period of time – individuals who are currently living a “life of crime.” Serious crimes refer to felony offenses that create the greatest amount of public fear (Burt & Katz, 1985; Skogan, 1987); specifically burglary, robbery, and aggravated assaults. The PPO matrix was specifically designed and tested to identify, in a reliable manner, these types of individuals from among the adult individuals who already had a prior criminal arrest record with the Toledo Police Department. The PPO matrix was also designed to screen out prolific minor crime offenders such as homeless mentally ill individuals, or street prostitutes, who pose less of a threat to the community. The perspective of the Toledo Police Department was that these low-level misdemeanor offenders needed social service assistance more than incapacitation. The matrix was designed to identify individuals who posed the greatest safety risk to the community.

To create the matrix, Dr. Johnson, one of the research partners, used existing data from the NORIS criminal justice records management system. First, data was provided by NORIS for all adult individuals bodily arrested (taken into physical custody and booked in at jail) by the Toledo Police Department during 2010. (Juveniles would be excluded from the matrix and the SIG program due to the belief juveniles still posed a higher likelihood of rehabilitation.) This produced data on 5,564 individuals. All data on these individuals available in the NORIS records management system was downloaded, with the exception of the individual’s name, race, ethnicity, and sex. Each individual was given a non-descript identification number, so that the researcher would be blinded to each offender’s identity and immaterial demographic characteristics. The information that was available for each offender included characteristics such as:

- Total number of prior arrests as of 2010 arrest
- Total number of prior burglary arrests as of 2010 arrest
- Total number of prior robbery arrests as of 2010 arrest
- Total number of prior non-domestic violence felony assault arrests as of 2010 arrest
- Total number of prior weapons-related offense arrests as of 2010 arrest
- Total number of prior arrests for stolen property offenses as of 2010 arrest
- Total number of prior drug related offense arrests as of 2010 arrest
- Total number of prior alcohol related offense arrests as of 2010 arrest
- Total number of prior violent offense arrests as of 2010 arrest
- Total number of prior property offense arrests as of 2010 arrest
- Marital status at time of 2010 arrest
- Number of children as of 2010 arrest
- Housed or homeless as of 2010 arrest
- Highest education level at time of 2010 arrest
- Employment status at time of 2010 arrest
• Any known gang affiliation and specific gang involved
• Any order of protection in effect as of 2010 arrest
• Driving record status (valid, suspended, or revoked) as of 2010 arrest
• On probation as of 2010 arrest
• Prior probation violations as of 2010 arrest
• Any outstanding or unpaid court fees as of 2010 arrest
• On parole at time of 2010 arrest
• Total number of prior prison incarceration sentences served as of 2010 arrest

Data were also obtained on whether or not each of these individuals went on to be arrested for a charge of burglary, robbery, or non-domestic felony assault during the years 2011, 2012, and 2013. Modelling such prior research as that of Berk and associates (2009) and Jennings (2006), an a-theoretical analysis was conducted. Using the information known about each individual offender as of their 2010 arrest, an analysis was conducted to determine which of these characteristics (if any) predicted a new arrest for burglary, robbery, or felony assault in 2011-2013. In other words, limited to only the information available in the in the NORIS records management system, could a PPO offense be predicted with accuracy?

Of the 5,564 arrestees from 2010, 3,467 (62.3%) of these individuals were not rearrested for a PPO-related offense (burglary, robbery, or non-domestic felony assault) during 2011-2013. Another 1,510 (27.1%) of these individuals was arrested for only one PPO-related offense during 2011-2013. This was just as expected, as the premise of the SIG strategy is that the majority of the most serious crime is being committed by a small number of prolific offending individuals, and 89.4% of these arrestees were charged with one or no PPO offenses over three years. Only 587 (10.6%) of the 2010 arrestees were rearrested during 2011-2013 for two or more PPO offenses, with a small group of 166 individuals (3% of arrestees) accounting for 574 new PPO offense arrests during 2011-2013. Again, the evidence supported the assertion that a small core of prolific offenders accounted for a vastly disproportionate amount of serious crime within Toledo.

The information characteristics available on each 2010 arrestee were treated as independent (predictive) variables. Some of these characteristics, such as marital status, were broken up into multiple variable categories. For example, marital status was turned into two variables – currently married (yes / no), and not currently married (yes / no, and includes widowed, divorced, and never married). Each of the independent variables was then examined for multicollinearity, which is a statistical phenomenon when two predictors coincide so closely that they may cancel each other out in the analysis. Multicollinearity was detected with a few variables, such as prior robberies and prior felony assaults both being highly correlated with total prior violent offenses. In this case, prior robberies and prior assaults were stronger individual predictors of a new PPO offense, so the measure of total prior violent offenses was dropped from further analysis.

After multicollinearity issues were corrected, the remaining arrestee characteristics from 2010 were used as independent variables in a binary logistic multiple regression model to predict a new arrest for any PPO type of offense in years 2011-2013. Only six of these characteristics from 2010 ended up predicting (at a statistically significant level) that an individual was arrested.
for a new PPO offense in 2011-2013. These predictive characteristics were as follows (in order from greatest to least predictive value):

- Prior non-DV felony assault offenses
- Prior robbery offenses
- Prior misdemeanor and/or felony weapons-related offenses
- Prior term of state prison incarceration
- Not currently married
- Total number of prior arrests

One may note that many characteristics often found to be correlated with crime involvement risk – such as homelessness, substance abuse, unemployment, gang affiliation, and lack of education – did not reveal predictive value in this model (Lilly, Cullen, & Ball, 2001; Sampson and Laub, 1995). This is likely because this model was not applied to the general population and was not used to predict general criminality. Instead, it was applied to a sample of individuals who were already engaged in crime, and was used to predict a specific kind of future offending. In other words, it sought to determine what characteristics about existing criminal offenders predicted specific PPO offense activity.

As each of these six predictors had different magnitudes of predictive influence, each predictor would have to be weighted accordingly in a PPO scoring matrix. The beta weights of each of these six statistically significant values were then used to determine the proportional magnitude of influence of each predictor. The proportion of magnitude value was then used to determine a weighted score by which to multiply an individual’s value on that characteristic. For example, the predictive value of the number of prior robbery offenses was 10 times stronger than the predictive value of the prior number of total criminal arrests, so the number of prior robbery offenses was multiplied by 10 when creating the individual’s matrix score.

**Prolific Offender Scoring Matrix Validation**

An initial test of this scoring system was conducted and the characteristics of the top 30 highest scoring individuals were examined to ensure that only individuals who appeared to be serious offenders rose to the top scores. This review revealed two individuals in the top 30 scores who still resembled the profile of the low-level homeless or mentally disordered misdemeanor offender. Further analysis revealed that the strongest predictor of these types of low-level misdemeanor offenders was the total number of prior arrests for all offenses. As a result, this variable was removed from the model and the scoring analysis was run again. This time, no such low-level offenders were discovered within the top 50 scoring individuals. The resulting PPO scoring matrix format was as follows:

Number of prior robbery charges x 10 =
Number of prior burglary offenses x 10 =
Number of prior weapons charges x 10 =
Prior terms of state incarceration x 3 =
Not currently married (Yes = 1, No = 0) x 3 = +

Sum equals PPO matrix score
The higher the PPO matrix score, the higher the likelihood the individual will commit a new robbery, burglary, or felony assault over the next several months.

Among the 50 highest scoring individuals of the sample of 2010 arrestees, the vast majority had been arrested for a new PPO offense from 2011-2013. In fact, 54% had been charged with more than 3 PPO offenses during 2011-2013. Interestingly, 13 of these 50 highest scoring individuals had accumulated no new PPO offense arrests during 2011-2013, possibly indicating a 25% false positive rate. A false positive rate is the degree to which individuals are predicted to be an active PPO when, in fact, they are not (Berk et al, 2009). A false positive rate this high is concerning as, if true, it would mean 1 out of every 4 of the individuals identified as a PPO is actually not an active prolific serious offender.

As the research partner was working with blinded data, Dr. Johnson did not know the identity or current status of these individual offenders. It was possible that these 13 individuals did not commit any new PPO offenses during 2011-2013 because he or she had reformed and desisted offending. It was also possible that the lack of new offenses may simply have been due to these individuals having moved away from the Toledo area, being incapacitated through incarceration, having died, or even committing offenses but were not apprehended and charged.

Dr. Johnson, therefore, provided the random identification numbers of these 13 individuals to the SIG unit analyst and Sergeant Poole who then used these identification numbers to look up the identities of these individuals and try to determine each individual’s circumstances during years 2011-2013. Sergeant Poole and Ms. Nordland’s investigation revealed that all 13 of these individuals that did not commit a new PPO offense in Toledo during 2011-2013 were either deceased during 2011, or incarcerated during the entire 2011-2013 period.

After learning this, Dr. Johnson then provided Ms. Nordland with all of the potential false positive individuals among the top 100 highest scoring persons from the arrestee data from 2010. Twenty-seven individuals that ranked among the top 100 highest scores were not arrested for a new PPO offense during 2011-2013. Of these 27 individuals, all but one were found to have died, been incarcerated in prison, or moved away to another area (as verified by new arrest records being discovered in another region of Ohio or another state). The one individual who remained was believed by officers to have moved away from the Toledo area, but this could not be substantiated. As a result, the false positive rate was determined to be no greater than 1% for the individuals earning the 100 highest scores on the PPO matrix.

This confirmed the Toledo Police Department’s confidence in this evidence-based PPO scoring matrix. The Toledo Police Department then contacted computer programmers with the NORIS regional records management system to have this scoring matrix system coded into the records management system. After that was accomplished in February of 2016, this scoring matrix was applied to every individual arrested in the past by the Toledo Police Department, giving every one of the thousands of offenders in the database a PPO matrix score. Higher scores indicated greater likelihood of committing a new PPO offense within the near future, and lower scores indicated lower likelihood of committing a PPO offense. These scores ranged from a high of 179 to a low of zero. Sergeant Poole then used these scores to select the individuals to receive focused attention from the SIG unit.
NOTE: While the rest of this intervention strategy continued as will be described in the following pages, the research partners continued to test the validity of the PPO matrix. Dr. Johnson gathered data on the PPO matrix scores (as of March 1, 2016) assigned to every person within the Toledo records management system who had committed a PPO-related offense (robbery, burglary, or felony assault) in the past. This was a total of 4,786 individuals. Dr. Johnson then gathered data on all PPO-related offense arrests that occurred from March 1, 2016, through February 28, 2017. Dr. Johnson found that these March, 2016 PPO matrix scores accurately predicted who would be arrested for a new PPO-related offense over the following 12 months (Pearson’s r = .241). Furthermore, after removing individuals who were incapacitated in prison during 2016, and therefore could not commit a new PPO-related offense, the predictive strength of the PPO matrix grew even stronger (Pearson’s r = .372).

Selection of 100 Priority and Prolific Offenders
Once every offender known to the Toledo Police Department had received a PPO matrix score, Sergeant Poole and Analyst Nordland set about selecting 100 PPO offenders for notification and attention from the SIG unit. While the SIG unit did not normally address as many as 100 prolific offenders, selecting a sample of this large size assisted the research partners with their evaluation of the effectiveness of the SIG unit on reducing crime and disorder. A smaller sample makes achieving statistical significance difficult and increases the proportional influence of a single abnormal case in the sample. Increasing the sample to minimum of 100 cases increases the accuracy of percentage calculations (percent = per 100).

While generally the SIG unit would likely only have the time and resources to address no more than 50 individuals in a 12-month period, selecting 100 individuals for analysis allowed comparisons between individuals who only received a notification letter and those who received both a notification letter and focused enforcement by the SIG unit.

In selecting this sample, Sergeant Poole and Analyst Nordland found that they could not simply select the 100 highest-scoring individuals as some of the highest scoring individuals were already incarcerated in prison and would not be eligible for release for another few years. A few were also deceased. After excluding such individual cases, they had to examine the top 260 scores on the PPO matrix before a sample of 100 acceptable candidates could be identified. Even within this sample, 18 individuals were incarcerated in jail or prison on the first day that the 12-month evaluation process began, but were due to be released back into the community within a few weeks.

Notification and Services Letters
During March of 2016, the 100 PPO offenders identified by Sergeant Poole and Analyst Nordland were personally served a focused deterrence letter by Toledo Police Department personnel (See the Appendix for a copy of this form letter.) Each letter informed the individual that he or she had been designation as a prolific offender by the Toledo Police Department, and that their continued criminal behavior would no longer be tolerated. The letter explained that the consequences of this designation meant they would be under close observation by the law enforcement and any further criminal offending would result in maximum prosecution. The letter
also offered each offender free assistance in reforming their lives through the Treatment Accountability for Safer Communities (TASC) organization of Northwest Ohio.

Wherever possible, community-policing officers with the Toledo Police Department’s Community Services Division hand delivered and explained these letters to each of the 100 PPOs, including the 18 that were still incarcerated. Unfortunately, many of the PPOs – all individuals with lengthy criminal histories and actively engaged in a criminal lifestyle – refused to answer the door for uniformed officers or fled and hid when approached by officers. As a result, 38 letters were hand-delivered to the PPO by a member of the Toledo Police Department, 40 were delivered to a relative (usually the mother or significant other) of the PPO or the PPO’s probation officer, and 22 were mailed to the PPO at his or her last known address.

While these letters were being served, the SIG unit briefed detectives and the patrol division of the Toledo Police Department about the PPO project, the meaning of the PPO designation, and the letters that were sent to the PPOs. Representatives of the Lucas County Prosecutor’s Office and several Lucas County Common Pleas court judges also received presentations about the program.

Reactions to the Notification Letters
TASC offers free social services to individuals who wish to break the cycle of recidivism. TASC of Northwest Ohio supports individuals in their efforts to become self-sufficient, law-abiding citizens by providing employment, education, and housing assistance. Additionally, TASC provides psychological assessments, and when necessary, makes referrals to specialty agencies for mental health, addiction, and family counseling. TASC was given the list of 100 PPOs and asked to track any who chose to seek assistance. For client confidentiality purposes, TASC was only asked to provide a numeric count of PPOs who: 1) inquired about services, 2) entered a service program, or 3) completed a service program. No individual identifying information or details of the actual services utilized were provided to the Toledo Police Department by TASC.

Upon receiving the list of 100 PPOs, TASC reported that TASC had previous contact with 32 of these individuals. Immediately after the notification letters were served, TASC received approximately a dozen phone calls from individuals who mentioned receiving their notification letter. Many refused to give details about their identity and only inquired about what services TASC offered. Conversations with TASC staff revealed several of these callers were under the impression that all they had to do was call TASC to be taken off the PPO list. Once they realized that they were expected to complete an intake process and participate in services, most had no interest in further contact with TASC.

Very few of these PPO individuals took advantage of the free social services offered to them. During the 12-month evaluation period after issuance of the notification letters (03/01/2016 – 02/28/2017), only 4 PPO list individuals (4%) began the intake assessment process with TASC. Of these 4 PPO individuals, only one (1% of the PPOs) completed the intake process and participated in services. The sole individual who followed through with seeking services at TASC, a repeat offender in his forties, contacted detectives and community policing officers with the Toledo Police Department to thank them for the opportunity to straighten out his life. He indicated that he was feeling too old for the criminal lifestyle and was seeking to end his life...
of crime. Unfortunately, this individual was apprehended in the commission of a burglary in August 2017 by the SIG unit while they were conducting surveillance related to a series of residential burglaries.

In addition to the low interest in seeking free help to reform their lives, anecdotal evidence suggested that some PPOs saw their notification letters and PPO categorization as a status symbol among their peers. In contacts with patrol officers, a few individuals proudly identified their PPO status as a moniker for their level of dangerousness or toughness.

**SIG Unit Operations March 2016 – February 2016**

Although the SIG unit had been operating since 2013, for the purposes of evaluating its effectiveness at reducing crime and disorder in Toledo, its operations were tracked by the research partners for a 12-month period after the PPO notification letters were delivered. Beginning with the PPO with the highest PPO matrix score, the SIG unit focused its surveillance activities on one or two PPOs at a time. The SIG unit would spend up to two weeks engaged in covert surveillance of each PPO. If the PPO under surveillance was not observed committing new offenses during that time span, then the unit moved on to the next PPO on the list. Many PPOs, however, were quickly observed committing new felony offenses and were apprehended after only a few days of surveillance.

In addition to the surveillance and apprehension activities of the SIG unit, other personnel also encountered PPOs and engaged in enforcement action. One PPO was apprehended in a major undercover drug operation, and several were apprehended on warrants obtained by detectives investigating burglary and robbery cases. Other PPOs were encountered and arrested by patrol officers who found them engaged in various criminal activities. Additionally, one PPO died of a Heroin overdose during the first month of the evaluation period.

In total, 79 of the 99 PPOs that lived (79.8%) were arrested for a new crime at least once during the 12-month evaluation period. For the remaining 20% of these 100 PPOs, no law enforcement entities detected them committing any new criminal offenses during the 12-month evaluation period. This suggested that notification letters and increased surveillance might have deterred approximately 20% of PPOs from committing new crimes, at least during the 12-month evaluation period. For the sake of these individuals, and the inhabitants of Toledo, it is hoped that this was the case.

The expected incapacitation of PPOs through pre-trial detention and sentences of incarceration, however, developed more slowly than was originally anticipated. During the 12-month period evaluated by the research partners, pre-trial detention and sentences of incarceration were not as common as expected for PPOs arrested on new charges. Among the PPOs arrested on new charges during the 12-month evaluation period, the average total amount of time in custody was 19 days. As many of the PPOs were arrested multiple times for new offenses, this 19 days was spread over several arrests, indicating each arrest only resulted in a few days or hours “off the street.”

A number of factors may have contributed to this situation. One may have been a lack of knowledge about the prolific offender program within the judiciary. Prior to the evaluation
period, representatives of the Toledo Police Department had met with representatives of the prosecutor’s office and members of the judiciary, to discuss the prolific offender program among other enforcement initiatives. When pre-trial detention and sentences of incarceration did not appear to be occurring at the level previously expected, Sergeant Poole began active efforts to meet with each of the judges to better explain the strategy of the SIG unit and the prolific offender program. He sought to ensure the judges were aware of the program’s existence, strategy, and goals, seek their “buy-in,” and address any questions or concerns they might have.

The grant period also ended up coinciding with several initiatives to reduce incarcerations nationally, and in Ohio specifically. In August, 2013, the U.S. Attorney General announced initiatives to reduce prison incarcerations by at least 20%. Despite the fact Attorney General Holder cited a need for increased focus on violent and serious crime, decreased prosecutions for low-level, non-violent offenses, and a decrease in the number of people being charged under drug-related mandatory minimums (U.S. Attorney General, 2013), it became apparent the judiciary in Lucas County was being less likely to incarcerate in many cases, including violent offenses. Likewise, an initiative introduced in the Ohio State Legislature for sweeping criminal justice reform aimed, in part, at reducing prison inmate populations in the state by more than 34,000 individuals (Johnson, 2015).

Another factor that potentially influenced pre-trial detention and sentences of incarceration was a sudden spike in gun-related homicides in Toledo during 2015 through 2017, primarily perpetrated by juvenile offenders. Toledo experienced 22 homicides in 2014, and 24 homicides in 2015, a 9% increase. The number of homicides increased by 50% during 2016, with 36 deaths. During 2017 it increased another 11% with 40 deaths. As mentioned, many of these homicides were committed by juvenile and young adult offenders and none of these 2016-2017 homicides was committed by a PPO. When confronted with limited available prison space, and a rise in the number of defendants being found guilty of murder, the county courts may have been reluctant to dedicate prison space to PPOs who did not commit murder.

Regardless of the reason – lack of knowledge, a deinstitutionalization movement, limited prison space, or a spike in murders – few of the many PPOs who continued to commit serious offenses within the Toledo community experienced incapacitation during the 12-month evaluation period. Many of the re-arrested PPOs (63%) did not receive pre-trial preventive detention, being released on bond or recognizance after only a few hours or days in jail. Likewise, the vast majority of PPOs apprehended committing a new offense did not receive a sentence of incapacitation during the 12-month evaluation period. Of the 79 PPOs arrested on new felony charges, only 19% received a sentence of incarceration in prison. Most PPOs were sentenced to probation supervision within the community, which most were already under when apprehended re-offending.

Lacking incapacitation, many of the PPOs ended up being re-arrested again (sometimes multiple times) during the 12-month evaluation period. During the 12-month evaluation period, the 79 PPOs found reoffending were taken into custody a total of 167 times, for an average of 2.1 arrest incidents per PPO. The most active PPO was arrested 11 separate times over the 12-month evaluation period. Even after removing that individual from the analysis, the average number of arrests for the remaining 78 PPOs was still 2.0 arrest incidents per PPO during the 12-month
evaluation period. Clearly, these PPOs remained active in their offending. To put this active offending in perspective, of the 4,686 total individuals arrested by the Toledo Police Department during 2016, 71.8% experienced no new arrests during 2017, and another 5% experienced only one new arrest. PPO individuals engaged in far more crime than the majority of other individuals arrested by the Toledo Police Department.

Fortunately, after the 12-month evaluation period, this trend had reversed, in part due to persistent actions of Sergeant Poole to educate local judges about the SIG unit and the disproportionate impact PPO individuals were having on crime rates within the community. By the late summer of 2017, PPOs were becoming more likely to receive longer sentences of incarceration. In August of 2017, a PPO pled guilty to a series of burglaries and received a sentence of 8 years in prison. In September of 2017, a PPO received a sentence of 7 ½ years in prison for burglaries and illegal possession of a firearm, while another PPO, found guilty at trial, was sentenced to 26 years for numerous burglaries and firearms offenses. In November of 2017, three more PPOs went to prison. A PPO was sentenced to 4 years in prison after pleading guilty to five burglaries. Another PPO was sentenced to 8 years after being convicted at trial for burglaries, and the third received 13 years in prison for burglary, receiving stolen property, firearms violations, and leading police on a pursuit. Recent anecdotal statements made to SIG members by deputy prosecutors and judges also reflected prosecutors were doing everything they could to seek pre-trial detention for PPOs, and judges felt it necessary to incarcerate when dealing with PPO convictions.

Analysis and Evaluation

The purpose of the evaluation was to determine if the SIG unit’s activities had any influence on crime and disorder within Toledo. Despite far less incapacitation than expected, and low participation in the social services assistance offered, did the notification letters and focused enforcement result in any reductions in crimes and calls for service? In order to answer this question, research partner Dr. Shanhe Jiang examined changes in Uniform Crime Report Index Crimes citywide, and within each PPO’s “awareness space.”

Program Effects within Awareness Spaces

Criminological research has revealed most offenders commit crimes of opportunity that present themselves throughout the offender’s daily routine activities (Roncek & Maier, 1991; Sherman, Gartin, & Buerger, 1989). This suggests that most offenders will commit their offenses at or around locations they frequent as part of their daily life routines. The locations the offender frequents during his or her daily life routines are collectively called the offender’s “awareness space” (Bernasco, Birks, Johnson, Ruiter, White, Townsley, & Baum, 2015; Bernasco & Block, 2009; Johnson, Ruiter, & Bernasco, 2015).

Ethnographic research with burglars and robbers has revealed that many such offenders select their crime targets from locations frequented during non-criminal activities. As they go about their normal daily activities, these offenders see targets of opportunity for spontaneous crimes. They also become familiar with the geography and general human movement patterns within the areas they frequent, providing a sense of comfort or security within the area (Cromwell, Olson, & Avary, 1991; Wright & Decker, 1994, 1997). Recent “journey-to-crime” empirical research
has supported these suggestions posed by the ethnographic research (Brantingham & Brantingham, 2008). Empirical spatial analyses of the distances between an offender’s residence or workplace, and the locations where the offender committed his or her crimes has revealed that crimes are often densely concentrated around the addresses the offender frequents (Canter, Hammon, Youngs, & Juszczak, 2013; Levine, 2007). While exceptions do exist with some specific offenders or offense types (Townsley & Sidebottom, 2010), most burglaries, robberies, and assaults are concentrated within a block of where the offender spends most of his or her time. The farther the distance away from the places the offender spends his or her time, the less likely an offence is to occur (referred to as “distance decay”).

Due to individual offender differences in lifestyles, residential mobility, and associations with others, the size and shape of each offender’s awareness space varies with that offender (Ackerman & Rossmo, 2015). For example, surveillance and intelligence reports may reveal that an individual may reside primarily at his mother’s house, but routinely spends time hanging out with associates on a particular street corner many hours out of the day. The individual may also frequently visit the apartments of two girlfriends with whom he has fathered children. Therefore, this individual’s awareness space would include the area immediately around (in a 100 foot radius) his mother’s house, the street corner hangout, and the two apartments of his girlfriends. Figure 4 below illustrates how such an awareness space may look. According to the criminological research literature, when this particular individual decides to engage in a crime of opportunity, it is likely to occur within the area of these four disks. In this example hypothetical, changes in crimes and calls for police services at all addresses under these four disks would be tracked.

Gathering intelligence information from past police reports, bureau of motor vehicle records, probation department records, and records from social service agencies (unemployment office, children and family services, etc.), Analyst Nordland constructed awareness space polygons for each of the 100 PPOs. At a minimum, these awareness spaces generally included all addresses and workplaces on record for the PPO within the last year, as well as all locations where the PPO was contacted by the police as a complainant, witness, victim, suspicious person, or suspect in a police report within the last year. Using these awareness space geographic regions, Dr. Jiang then examined changes in Uniform Crime Report Index Crimes and police calls for service. It was hypothesized that if a PPO individual desisted offending, or at least reduced his or her intensity of offending, decreases in crimes and calls for service within this awareness space would be detected.

The original intent of the research partners was to separately examine the effects the PPO notification letters, use of rehabilitative social services, and incapacitation through incarceration separately within the awareness spaces of the 100 PPOs. Unfortunately, this ended up proving impractical for several reasons.

Figure 4. Example of a Hypothetical Offender Awareness Space
First, only one individual responded to the offer for social service assistance, making the sample inadequate for examining whether social service assistance influenced changes in crime within the awareness spaces. Second, as described earlier, incapacitation through incarceration was relatively rare and short term. Of those PPOs who were arrested during the 12 month program evaluation period, the average number of total time spent incarcerated was 19 days. Because many of these PPOs were arrested multiple times, this average of 19 days of incarceration was also broken up over multiple arrests, leaving only brief periods of incapacitation available for any analysis. Third, it would be difficult to disentangle which intervention – the notification letter, the surveillance, or the apprehension – was the cause of any specific changes in crime that were discovered.

As a result, the evaluation component examined the influence of all of the prolific offender unit program activities (notification letters, social service assistance, surveillance, and apprehensions combined) as the intervention. In other words, the individual effects of notification letters or surveillance were not examined separately. The evaluation examined the effects of the SIG program on changes in calls for service and changes in crime, 12 months before and 12 month after April 1, 2016, within the 100 PPOs’ combined awareness spaces. It is acknowledged that more potential influences than just the notification letters, SIG surveillance, and incarceration were also at work during this period, such as the Toledo T-CIRV focused deterrence program and the enforcement efforts of other branches of the Toledo Police Department. Weather changes could also be considered a confounding factor. Extensive research has revealed that crime rates, especially violent crime rates, are influenced by ambient temperature and precipitation. Crime, especially violent crime, tends to decrease significantly during periods of cold weather, snow, or rain (Butke & Sheridan, 2010; Cohn, 1990; Cohn & Rolton, 2000).
Nevertheless, despite these potential interfering variables, statistically significant reductions in the types of crimes SIG sought to prevent were observed during the 12 months after the program began with notification letters distributed during late March, 2016. Specifically, robberies declined from 3,662 in the 12 months before April 1, 2016, to 3,517 in the 12 months after that date. This was a reduction of 3.9%, and suggested the prevention of 143 robberies. Burglaries also declined from 13,546 during the 12 months before, to 10,833 burglaries in the 12-month after period. This was a decline of 20.1% and suggested the prevention of 2,726 burglaries. Aggravated assaults within these combined 100 awareness spaces declined from 3,041 during the 12 months before, to 2,560 assaults in the 12-month after period. This was a decline of 16.1%, and suggested the prevention of 489 aggravated assaults.

As was previously mentioned, Toledo (along with 6 other of Ohio’s largest cities) experienced an increase in homicides from 2015 through 2017. This was also the case within the combined awareness spaces of the 100 PPOs. Homicides within these combined 100 awareness spaces increased by 104% from the 12 months before and after April 1, 2016, yet none involved a PPO as either a victim or perpetrator, suggesting the homicide rate could have risen even higher if the prolific offenders had been involved.

Criminologists and psychologists have revealed that persistent chronic criminal offenders display a constellation of deviant behaviors (Gibson, Wright, & Tibbetts, 2001; Gottfredson & Hirschi, 1984; Wright & Decker, 1994, 1997). In addition to engaging in criminal behaviors, they also tend to engage in a whole host of other antisocial and unhealthy behaviors that disrupt their lives. For example, it is common for those engaged in serial acts of burglary or robbery to also engage in lesser crimes (such as theft or prostitution), abuse alcohol and drugs, have multiple promiscuous relationships with unprotected sex, commit frequent traffic violations, be neglectful parents, demonstrate poor work ethics, and frequently encounter interpersonal conflicts with others (Boisvert, Wright, Knopik, & Vaske, 2012; Cromwell, Olson, & Avary, 1991; Gottfredson & Hirschi, 1984). This results in a chaotic lifestyle of problems and conflicts. These individuals also serve as catalysts or instigators for criminal activity, pressuring others to engage in crimes they were not already predisposed to commit (Cromwell et al., 1991; Wright & Cullen, 2004; Wright & Decker, 1994, 1997).

As a result, it is possible that efforts to incapacitate or deter such individuals would not only result in reductions in serious crime, but also reduce other sorts of crime and disorder. Eliminating or curbing the antisocial behavior of these prolific offenders may reduce incidences of thefts, domestic arguments, and neighbor disputes that normally would have resulted from the self-focused and abrasive behaviors of these PPOs. In fact, such reductions were discovered within the combined awareness spaces of these 100 PPOs. Compared to the 12 months before April 1, 2016, overall reports of crime in the 12 months after that date decreased by 1.3%, or 2,930 crimes prevented, within these 100 awareness spaces. Auto thefts decreased by 8.5% (289 crimes prevented), and thefts from autos decreased 14.1%. Additionally, total calls for police services decreased by 3.1% within these combined awareness spaces during the 12 months after the project began.

In summary, these results reveal that the implementation of the prolific offender program activities (notification letters, offer of rehabilitative services, surveillance, apprehension, and
prosecution) coincided with statistically significant reductions in the specific crimes targeted by the program in the areas where the PPOs spent their daily activities. It also corresponded with statistically significant reductions in other property crimes and total calls for police-related services within these awareness spaces.

**Citywide Crime Changes**

It was also hypothesized that, since these 100 PPOs were responsible for such disproportionate amounts of burglary, robbery, and aggravated assault within the city, any decreases within these individual awareness spaces would also be detected at the citywide level. This was the justification for expecting a program that only focused on 100 individuals might influence citywide crime levels for a community of more than 280,000 inhabitants.

The research partners examined changes in serious crimes that occurred at the citywide level for a period of 12 months before (April 2015 to March 2016) and after (April 2016 to March 2017) the notification letters were delivered and SIG began focusing attention on these 100 PPO individuals (April 1, 2016). Some promising outcomes were again revealed. Robberies declined citywide during this period by 1.9%, and burglaries 12.0%. No statistically significant change was found for aggravated assaults and overall crime declined by only 0.7%. Finally, citywide police-related calls for service declined by 3.5% in the 12 months after the prolific offender program began.

Because crime rates are influenced by a host of potential causes, it is not possible to disentangle the effect of the implementation of the SIG unit from all other potential influences. Economic factors, demographic shifts, architectural changes to the environment, and other policing strategies may also have been influential. As a result, it is impossible to say with certainty that the implementation of the SIG unit, and focused enforcement on PPO individuals caused these crime decreases.

In summary, across a city of more than 280,000 inhabitants, the implementation of the prolific offender program corresponded with a small citywide decrease robberies, and notable decreases in burglaries and general police calls for service. The implementation of this program did not coincide with any significant citywide changes in aggravated assaults or overall crime, just the crimes primarily targeted for reduction – robbery and burglary.

**Integration and Sustainability**

Leadership in the city of Toledo and the command staff of the Toledo Police Department displayed a commitment to this prolific offender unit concept even before BJA funding was received. Recall that after the initial grant application was not funded, the Mayor’s Office, the Toledo City Council, and the Toledo Police Department went ahead and initiated a scaled-down version of the unit with its own funding. Two mayoral changes have occurred since then. The untimely death of Mayor D. Michael Collins, the appointment and election of Mayor Paula Hicks-Hudson, and then the election of current Mayor Wade Kapszukiewicz, yet funding and political support for the SIG unit has remained consistently strong. In other words, despite many political changes within Toledo city government, commitment to the SIG unit and PPO program has been unwavering. Furthermore, the SIG unit has also survived command changes with the
Toledo Police Department. When the first grant application was filed with the BJA to fund the prolific offender unit, the department was led by Chief Derrick Diggs, who supported funding the program even without the grant resources. Shortly thereafter, Chief Diggs retired and was succeeded by Chief George Kral, who had been an ardent supporter of the SIG unit and other evidence-based policing practices. SIG’s survival through these administrative changes suggest its chances of continued existence into the foreseeable future remain strong.

Review of the SIG unit’s purpose, and the meaning of a PPO designation has been added to the list of topics on the syllabus of field instruction for probationary officers on the Toledo Police Department. Toledo field training officers (FTOs) now show rookie officers how the computer-aided dispatch screen flags PPOs, and how to record intelligence information when one encounters a PPO in the field. All field personnel are now required to attend an in-service training session about the SIG unit and PPO program, presented by Sergeant Poole.

Furthermore, over the last three years anecdotal evidence suggests that SIG has been well integrated into the structure of the Toledo Police Department. Representatives from SIG regularly participate in the department’s monthly CRIMESTAT intelligence-led policing meetings, distributing and receiving useful intelligence information on crime series and potential suspects. The crime analyst assigned to the SIG unit is housed within the Toledo Police Department’s real-time crime center with all of the other analysts within the department. This permitted greater flow of information between analysis and units, and gave the SIG analyst greater access to supporting resources when needed. Members of other specialized units, such as gangs, vice, narcotics, and investigations all frequently interact with SIG members, exchanging valuable intelligence information. Patrol officers routinely take note of the PPOs in their patrol areas and take additional investigative action (questioning, searching, and documenting) when they encounter individuals identified as PPOs. Finally, SIG members often meet with members of the Lucas County Prosecutor’s Office to discuss specific cases involving PPOs. These anecdotal facts suggest that the prolific offender program has become an integral part of the Toledo Police Department.

**Conclusion**

Seeking to address increases in the serious crimes of robbery, burglary, and aggravated assault, and strapped by limited financial resources, the Toledo Police Department partnered with the Bureau of Justice Assistance to implement a response that relied on previous empirical evidence of success. Modeling previously successful programs, the Toledo Police Department and the Bureau of Justice Assistance created a program to address the disproportionate impact of prolific serial felony offenders. Developing a scientifically rigorous assessment tool to identify individuals most at risk of committing a new robbery, burglary, or aggravated assault, the project triaged all of the potential offenders within the city so resources could be focused on those of greatest risk.

Equipped with an empirically tested way to sort out the most active and prolific serious offenders within the city, the Toledo Police Department put these individuals on notice and offered them each the social services assistance they would need to help them end their lives of crime. The Toledo Police Department also held these individuals accountable for their future acts by placing
them under focused surveillance. As new offenses were committed, these prolific offenders were apprehended and maximum prosecution and incapacitation was sought.

Evaluations by independent research partners revealed that the implementation of this prolific offender program corresponded with decreases in burglaries, robberies, and aggravated assaults around the areas most frequented by these prolific offenders. Declines in other property crimes, overall crime, and calls for police services also occurred. The impact of the crime and disorder reductions within these limited spaces appeared to be so significant, they were also measured at the citywide level. The citywide robbery, burglary, and calls for police services rates fell after implementation of this program. These results suggest that the use of the Toledo prolific offender program should continue.
References


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Appendix – Sample PPO Notification Letter

CITY OF TOLEDO

DEPARTMENT OF POLICE OPERATIONS

April 2017

Dear [Insert Offender’s Name],

You are getting this letter as a warning that you have been chosen as a Priority and Prolific Offender with the Toledo Police Department. You fit into this Prolific Offender Program based on a number of different reasons, including your current arrest history and your criminal history.

Because of this designation, you will be the target of focused police enforcement and full prosecution if you continue with this criminal lifestyle. However, as a member of the Prolific Offender Program, you will be given the chance to receive social services offered by Treatment Accountability for Safer Communities (TASC) of Northwest Ohio. TASC will provide basic social services to those who choose to seek help, and/or will make the right referrals for those that need special help. Such services could include meeting with staff at Ohio Means Jobs, going to a resume and cover letter class, and/or learning successful interviewing and work force skills. Attached you will find an “Ohio Means Jobs Lucas County Engagement Form”. If you are interested in getting any of these services, please bring this form and letter to the Ohio Means Jobs building, located on 1301 Monroe Street, Toledo, or call (419) 213-5627.

If you decide to receive any of these services, the Toledo Police Department will be informed. Should you decide to take advantage of these services, stop your criminal activity and have no contact with the justice system over the next year, you will be taken off the Prolific Offender Program. If you choose not to get help, you will be the target of further focused police enforcement and full prosecution should you continue with your criminal activities.

We hope you will join the Toledo Police Department in an effort to improve your own life and to improve the lives of the people of Toledo. Together, we can work to make Toledo safer.

Sincerely,

George Kral, Chief of Police

Toledo Police Department

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