# **Successful Strategies** to Reduce Gun Violence



#### February 28, 2018

This project was supported by Grant No. 2016-WY-BX-K001, awarded by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the Department of Justice's Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, the Office for Victims of Crime, and the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking. Points of view or opinions in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.

Strategies for

Policing CN

# **Setting the Context**



Hildy Saizow, SPI Subject Matter Expert



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#### **Trends in Mass Shootings**

MASS SHO	DTINGS		
IN THE U	IN THE U.S.		
	<u>Number</u>		
1982-1991	12		
1992-1999	19		
2000-2008	16		
2009-2017	48		

#### **THE VICTIMS 1982 – 2017**

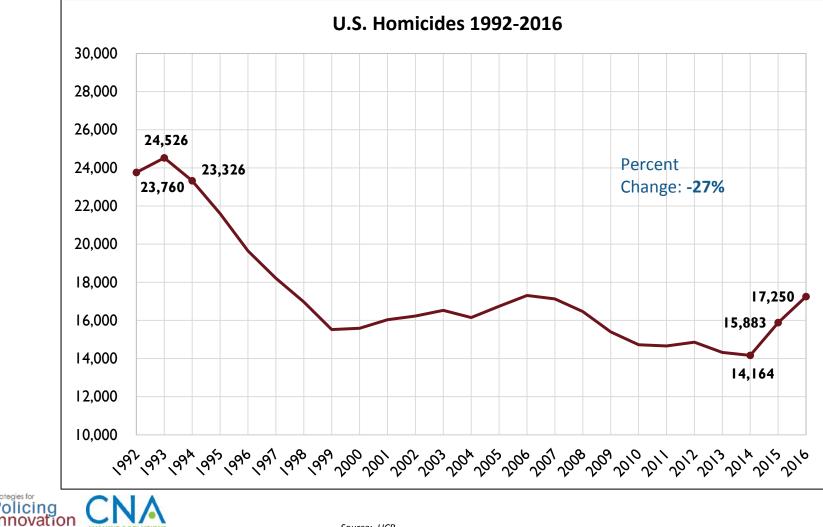
- Total Mass Shootings: 95
- Total Fatalities: **776**
- Total Injuries: 1,981

Source: A Guide to Mass Shootings in America, Mother Jones

Definition: A mass shooting is a single attack in a public place in which 4 or more victims were killed. In 2013, the federal definition changed to include incidents with 3 or more victims.

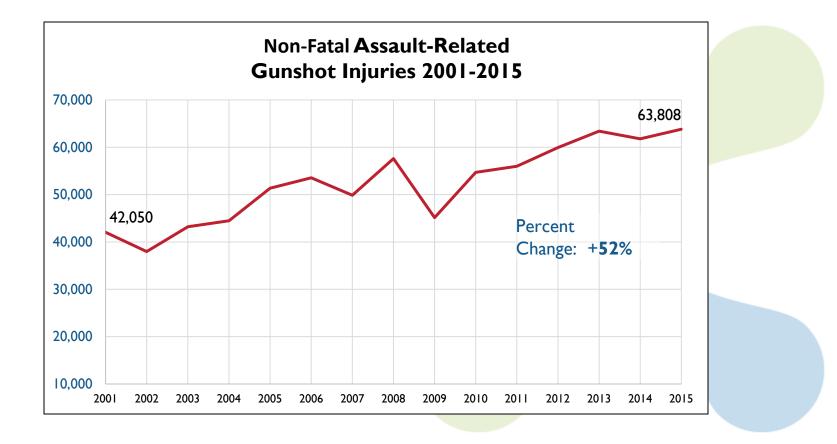


## **Trends in Homicides**



Source: UCR

#### **Trends in Non-Fatal Shootings**



Policing Innovation

Source: CDC's WISQARS™ (Web-based Injury Statistics Query and Reporting System), national estimates of injuries treated in U.S. hospital emergency departments

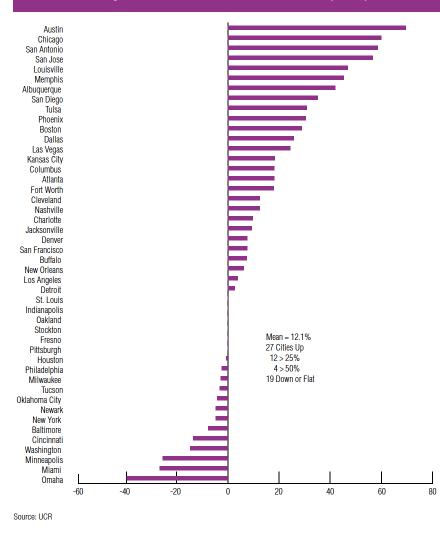
## Role of Geography

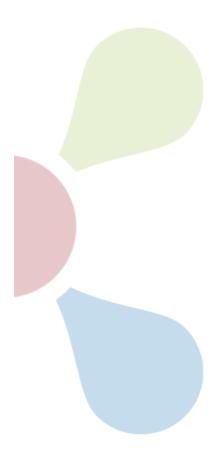
Figure 3. Percentage Changes in Homicide Between 2015 and 2016 in Large Cities With 30 or More Homicides in 2014 (*N* 46)

Homicides are Concentrated in many Big Cities (27)

Homicides are level or reduced in fewer Big Cities (19)

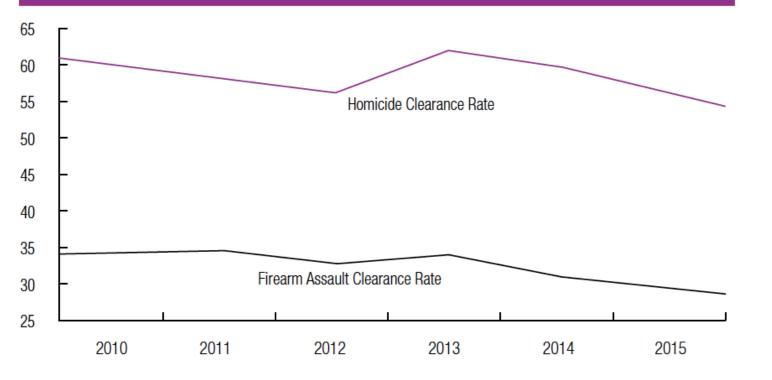






#### **Clearance Rates for Gun Violence**

Figure 12. Percentage of Homicides and Firearm Assaults Cleared by Arrest in Large Cities, 2010-2015



Source: UCR



#### Implications for Strategy Development

- Homicide is much lower than 25 years ago, even considering recent spikes.
- However, law enforcement data does not tell the full story.
- Homicides and non-fatal shootings are closely related and should be viewed collectively to understand gun violence.
- Strategies should be based on a complete picture of gun violence and the local situation and context.



# **Firearm Violence and Suppression**



Scott Decker, Ph.D. Arizona State University, School of Criminology and Criminal Justice

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## **Firearm Violence and Suppression**

- **Prosecution** 
  - Vertical Prosecution.
  - PSN and Case Review, aka "The Gun Club."
  - <u>http://www.ojp.usdoj.gov/BJA/pdf/Gun\_Prosection\_Case\_Screening.pdf</u>
- Police
  - Directed Patrol Intelligence Led Policing.
  - Gun Focused Policing.
  - Surveillance of Gang Members.
  - Most Violent Offender Programs.
  - <u>http://www.ojp.usdoj.gov/BJA/pdf/MostViolent Offender Lists.pdf</u>
- Intelligence, Mapping and Tracking Systems
  - CALGANG.
  - Real time incident maps.



## **Goals of Suppression**

- Enhance community safety.
- Identify problems, hot spots and bad actors.
- Protect potential victims.
- Enhance officer safety.
- Support prevention, intervention and reentry.
- Improve quality of life.



## **Enhancing Suppression Effectiveness**

- Engaging with other groups.
  - Partnerships
- Acting strategically.
- Effective use of intelligence and analysis.
- Changing ineffective strategies.
- Exercising leadership/being a partner.
- Being accountable.



#### Most Violent Offender Program (WOW)

- Small Groups of Targeted Offenders, nominated by a team of federal and local law enforcement and prosecution, with criminal histories checked for involvement in gun violence.
- Particular attention paid to those who were suspected for but not charged with Homicide, or charged with Armed Criminal Action (Aggravated Battery, Assault with a Firearm).
- Vertical Law Enforcement.
- Vertical Prosecution.
- Coordination across function (police, probation, parole) and jurisdiction (federal, state, local).



## The "Gun Club"

- Weekly meeting to review all gun arrests including:
  - State District Attorney.
  - Assistant United States Attorney.
  - Bureau of Alcohol, Tobacco, Firearms and Explosives.
  - Local police
- Group discusses strength of the case, background of the arrestee to determine the most appropriate venue for prosecution.
- Initial dramatic case in state court, charges dismissed, and suspect "walked across the street" by federal marshals.
- Prosecutions and convictions both up following implementation of review process.



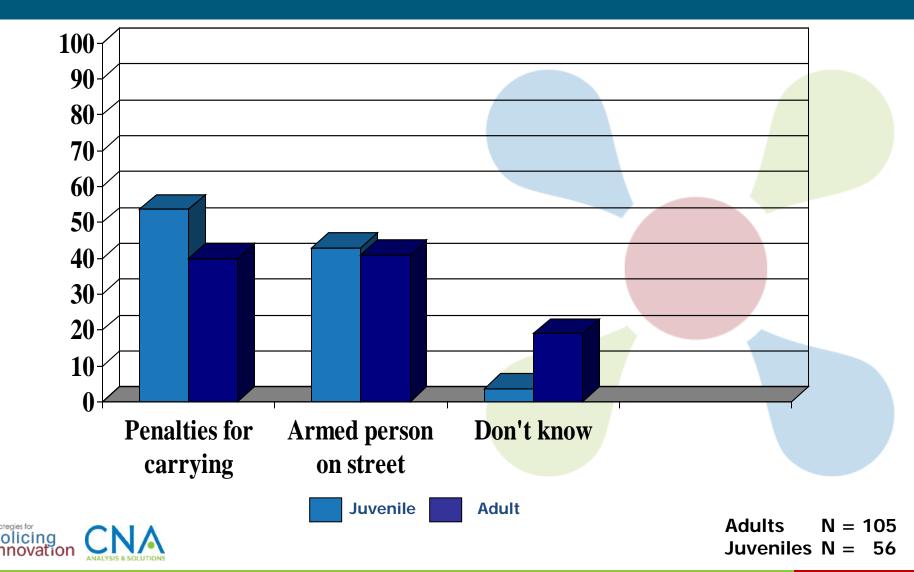
## Firearm Violence Data Sources

- I. Uniform Crime Reports/National Incident Based Reporting System
- 2. Supplemental Homicide Reports
- 3. Assault or Gun Assault data from RMS
- 4. CAD/RMS Data specifically and generally (911 shots fired calls)
- 5. Homicide Incident Reviews
- 6. Homicide Files/Case Review
- 7. National Youth Gang Crime data

- 8. Gun Crime Analysis (CCW/UUW/Assault/Robbery /Homicide)
- 9. Gun Recovery Data from local gun seizure data bases
- 10. ATF Gun Trace Data
- II. Ambulance Data
- 12. Emergency Room Data
- I3. Offender Interview/Focus Groups
- 14. Agency Personnel Interviews/Focus Groups
- 15. Land Utilization patterns
- 16. Shot Spotter data



# Offender Perspectives Matter: What is the most important consideration in deciding to carry a gun?



#### The Costs and Impacts of Seven Gun Recovery Tactics

	Level of risk to subject	Probability of getting a gun	Ease of getting gun	Crime reduction	\$ Cost	Social cost	Effect on crime	Collaboration required
Search warrants	High	High	High	High	High	Medium	Immediate	No
Arrests	High	Medium	Medium	High	Medium	Medium	Immediate	No
Traffic stops	Medium/Low	Low	Low	Low	Low	?Low?	Immediate	No
Pedestrian stops	High	Low	Low	Low	Low	?Low?	Immediate	No
Consent Search	Medium/Low	Medium	Medium	Medium	Medium	Medium	Long term	Yes
Gun buybacks	Low	High	High	Low	Medium	Low	Long term	Yes
Gun Turn-in campaigns		High	Medium	Low	Low	Low	Long term	No



#### Problem Solving Approaches to Firearm Violence

- Many interventions will not be solely law enforcement approaches.
  - Partnerships are a key.
    - Code enforcement.
    - Emergency and trauma based interventions.
    - Neighborhood and outreach groups.
    - Weed and Seed.
  - No "magic bullets."
  - Going after gun sources can be more difficult than it sounds.
  - Combine different data sources, including qualitative work.
  - Learn from local successes.
    - Traffic and pedestrian stops account for 50% of illegal firearms seized in many police departments.
    - A few officers have a contraband hit rate of over 50% in traffic stops. WHY?



# Problem Solving Approaches to Firearm Violence (cont.)

- Team building is important and can't be rushed.
- Workgroup leaders play a pivotal role.
- Generating buy-in.
- Making the data matter.
- Intervention ideas can come from unanticipated sources.
  - Juvenile Court gun referrals.
  - Emergency room visits.
  - Police notification from ER.
- Overcoming skepticism.
- Generating greater impact through coordinated effort.
- Keeping on target.
- Measuring outputs and outcomes.



# **Operation LASER** Los Angeles Police Department



Deputy Chief Dennis Kato Los Angeles Police Department

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LAPD Data Driven Crime fighting Evolution 2009 to 2017

#### "To support Crime Reduction through better strategic analysis."





(placing cops in right place at right time)

#### Palantir & Removal of impact players

-ASER

(using data to track suspects and investigate crimes)

#### Dashboard Analysis-based goal setting

Sroup<sup>9</sup> (calculating natural rate and leveling for comparison)

#### = Incremental Crime Reduction

## Development of LASER

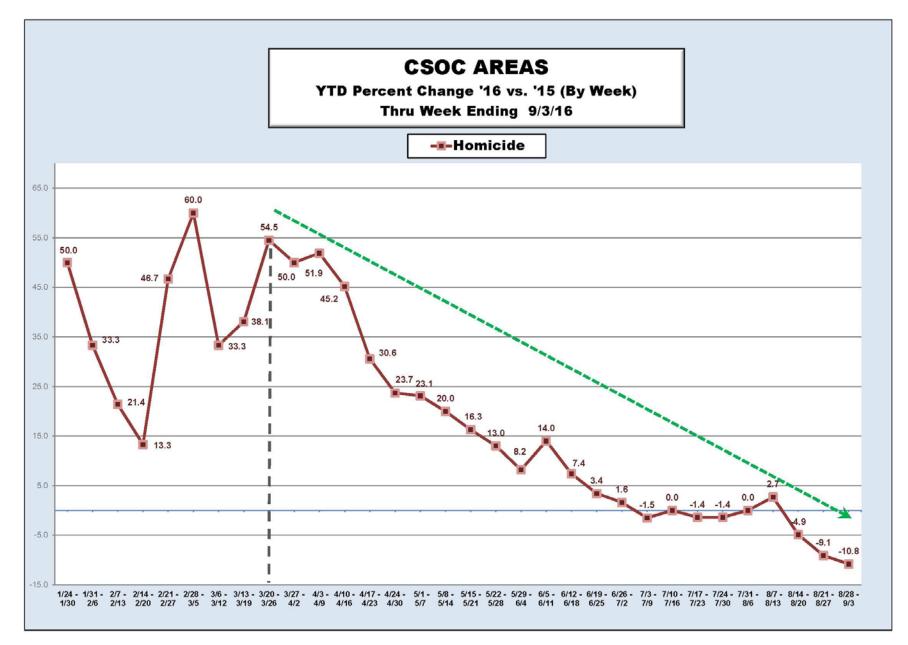
- Implemented in 2010 in Newton Division utilizing a BJA SPI grant.
- Newton Division ended 2012 with an all-time low of 16 homicides – (Averaged 45 homicides in 2007 and 2008).
  - A 56% decrease in homicides compared to 2011 and 59% decrease compared to 2010.
- In 2016, the Community Safety Operations Center (CSOC) was established and used LASER to reduce gun violence in the four most violent divisions.



## **Violence on the Rise**

- In March 2016, the City began to see a dramatic increase in violent crimes (13.6%) compared to the same period in 2015.
  - Homicides were up 16.3%.
  - Shots Fired incidents were up 11.5%.
  - Shooting Victims were up 3.9%.
- 77th Street, Southeast, Southwest, and Newton accounted for approximately 48% of the City's violent gun crimes.

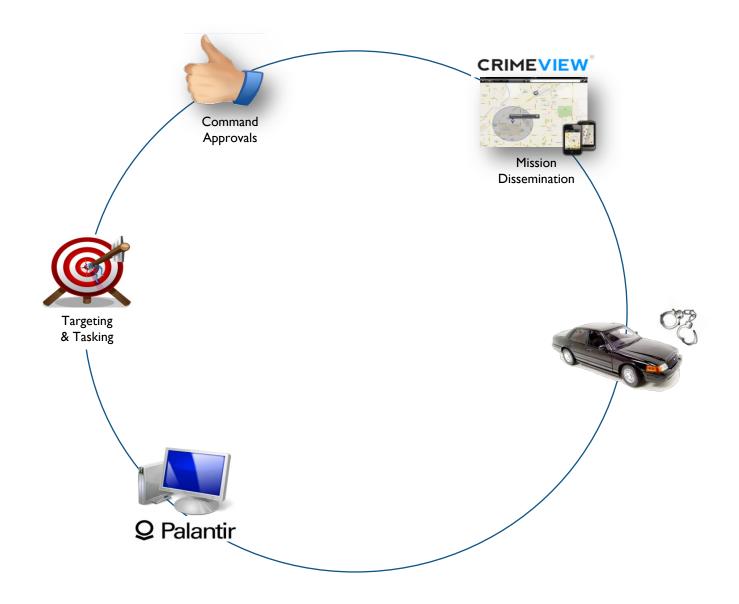




# Winning Elements

- Form a Crime Intelligence Detail (CID) analysts and officers.
- Identify hot spot corridors and maintain them for 9-12 months.
- Direct regular patrol, bikes, and foot patrol into the hot spot corridors.
- Create Chronic Offender bulletins and assign them to patrol and special units.
- Identification of "Anchor Points" and assign responsibility.
- Collect and analyze data throughout the intervention period.





## LASER – Top 12 Chronic Offenders



Nunos, Andres M/H, 506/175 11/04/1989 CII: A28870300 1357 W. 20th St. RD2099 Priors: Robbery, Poss of F/A, ADW Gang: Harpys "Junior" Parole/Probation -12031PC 1/3/18 - Arr Wrnt #REV8PH0003101 Gang: "Lil' Boy"



Vela, Jose M/H, 507/175 02/05/1991 CII: A27400554 3156 James M. Wood Bl. RD 2045 Priors: Robbery, ADW, GTP 1/4/18 - Arr Wrnt #REV8PH0010301 Parole

1/4/18 - Ben Wrnt# LA7CJ0284401

Pena, Marco M/H, 601/150 02/26/1993 CII: A27477679 1942 Transient, RD2036 Priors: Robbery. ADW, vandalism, GTA Gang: MS-13 "Flaco" FRML Probation - GTA



Guevara, Armando M/H. 506/150 06/01/1993 CII: A29027087 1623 Gramercy, RD 2081 Priors: Robb, ADW, Burg, Poss of F/A, narco, GTA Gang: GOD "Drastic" Parole/Probation



Avilez, Allen M/H. 509/150 07/01/1989 CII: A26662478 2712 S. Hobart Bl. RD 2081 Priors: Rape, 187, ADW, Poss of F/A, GTA Gang: BSE (Blood Shot Eyes) "Necio" Summ Probation - DV



Cuevas, Victor M/H, 510/ 180 01/20/1995 CII: A31354971 1250 N. Kingsley Ave. #11, Priors: Robb/Vandalism Gang: Playboys 3 (Dukes) "Pecas" Parole/Summ Probation



Hernandez, Johnny M/H, 508/ 150 12/07/1996 CII: A33420788 1749 S. New Hampshire, RD2076 Priors: 187, Robb, ADW, Burg Gane: Drifters "Kilo" FRML Probation - Narco



Valdez, David M/H, 511/210 05/01/1997 CII: A32421644 971 S. Elden Ave #5, RD 2069 Priors: Robbery, Poss of F/A, ADW Gang: MS 13 - "Negro/Dopey" FRML Probation



Vargas, Christopher M/H. 601/235 10/23/1995 CII: A31497770 16135 Leadwell Ave, Van Nuys 2269 W. Washington #11 RD 1018 Priors: Robb, Weapon viol Gang: 18th ST "Grizzly" FRML Prob -Carrying a dirk/dagger



**Ramos, Cristian Alexander** M/H, 507/150 02/23/1982 CII: A11719594 RD2081 Priors: ADW, Poss of F/A. GTP, Burg, Stalking, GTA PRCS Probation



Vega, Brian M/H, 09/04/1997 CII: A31014455 535 S. Catalina #312, RD 2027 Priors: Robbery, ADW Gang: 18th St (Shatto Park Loco) "Devok" Summ Prob -Trespassing



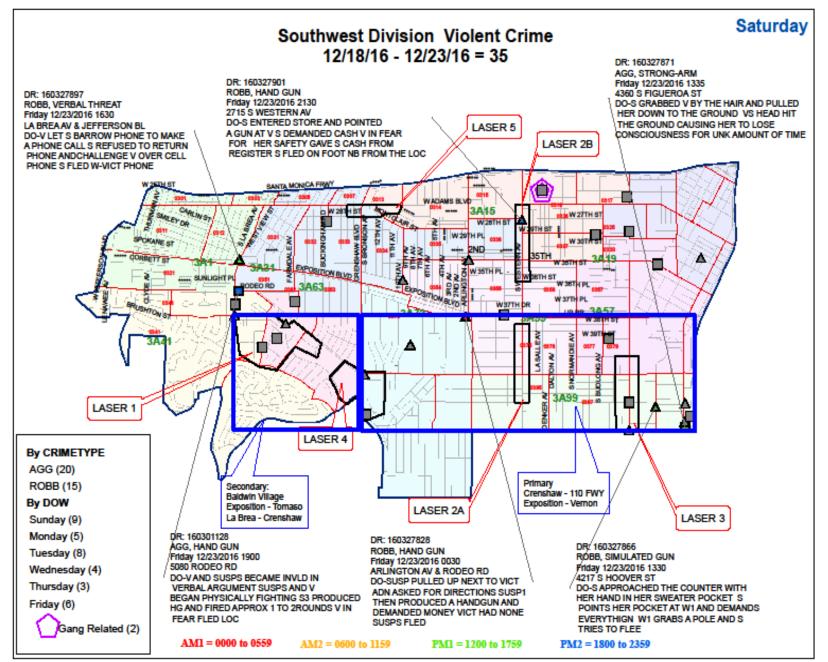
Enriquez, Pedro M/H. 507/140 12/17/1982 CII: A25271592 1942 Transient, RD 2026 Priors: Criminal threats. RSP, GTA, narco Gang: El Sereno "Pepi" Summ Probation

#### **UPDATED: 02/12/18**

## **CSOC** OSB VIOLENT CRIME HOT SHEET FOR 03/29/17 TO 04/05/17

CRIME:	SUSPECT DESCRIPTORS:	MO:
211 W/HANDGUN 3125 W VERNON AV (RD 0393) 03/20/17 2145 HRS DR# 170309217	S1-S4: M B BLK BRO ? 511 20-24 YEARS SUSP VEH: CHEV SED 4D 2010 WHI	SUSP(S) APPRAOCHED V AND PRODUCED H/G, REMOVED VICS PROP RET TO A VEH AND FLED WITH PROP
211 W/FIREARM 39 <sup>™</sup> ST & FLOWER (RD 0359) 03/25/17 2215 HRS DR# 170309599	S1 M B BLK BRO 507 240 25-41 YEARS SUSP VEH: TOYT CAM 4D ? GRY	S BRANDISHED A FIREARM AT V S PUNCHED V ON FACE WHILE REMOVING VS PROP S FLED FROM SCENE
STRONG ARM 211           48 <sup>TH</sup> ST & CRENSHAW BL (RD 0363)           03/25/17 2300 HRS           DR# 170309654	S1: M B ? ? 510? 20-25 YEARS S2: M B ? ? 601 ? 20-25 YEARS SUSP VEH: RED 4D SEDAN W/LYFT PLACARD IN WINDOW	VIC WALKING APPRCHD BY SUSPS SUSP REACHED WITH LEFT HAND TO GRAB VICTSGOLD CHAIN VICT TRIED TO PUSH S1 HAND AWAY BUT S2 PUNCHED VICT IN FACE
211 W/STUN GUN 218TH ST & WESTERN AV (RD 0506) 03/21/17 1930 HRS DR# 170507683	S1: F B ? BRO 509 120 16 YEARS S2: F B BRO BRO 504 110 16 YEARS SUSP VEH: TOYT ? 4D ? GRN	SUSP APPROACH VS IN VEH S DEMAND V PROP S1 USED STUN GUN ON VS V COMPLIED IN FEAR REMOVED PROP
211 W/SIM HANDGUN 222 <sup>ND</sup> ST & DENKER (0506) 03/27/2017 1820 HRS DR# 170507956	S1: F B BLK ? 509 135 25 YEARS S2: F B BLK ? 409 110 18 YEARS S3: M B BLK ? 409 110 14 YEARS SUSP VEH: HOND ACC 4D ? GRN	3 SUSPS APPROACHED VICT S1 TOOK VICTS PURSE WHILE SIMULATING A HANDGUN WHILE SUSPS 2 AND 3 ACTED AS LOOKOUTS SUSPS THEN FLED IN VEH DRIVEN BY S4
211 W/FIREARM 3318 W 66TH ST (1241) 03/19/17 1700 HRS DR# 171209498	S1-S5: M B W/ BUILD - HEAVY SUSP VEH: FORD MUS 2D 2014	SUSP(S) ENTERED V RES S1 PISTOL WHIPPED V IN THE HEAD WITH THE GUN S1 ALSO PLACED A BAG OVER V HEAD SUSP(S) BEAT HIM
211 W/HANDGUN VERMONT AV & 87 <sup>TH</sup> ST (RD 1265) 03/22/17 1800 HRS DR# 171209705	S1: M B ? ? 600 150 35 YEARS SUSP VEH: CHEV IMP 4D 2000 BLK	SUSP WALKED UP TO VICT PULLED OUT HANDGUN OUT OF SWEATER POCKET STATEDYOU KNOW WHAT TO DO HAND IT OVER VICT WAS IN FEAR SUSP TOOK PROP AND FLED
211 W/HANDGUN 70 <sup>th</sup> ST & MENLO (RD 1248) 03/23/17 1650 HRS DR# 171209776	S1: M B BLK BRO 508-600 18-24 YEARS W/ DARK COMPLEXION S2: F B RED ? 502 100 18-23YEARS SUSP VEH: DODG CAL LL 2000 RED	S1 CALLED OUT TO V S1 THEN EXITED VEH AND STARTED PUNCHING V WHILE POCKET CHECKING HER S THEN FOUGHT WITH V COUSIN S BRANDISHED HANDGUN AND FLED
STRONG ARM 211 10211 AVALON BL (RD 1823) 03/24/17 0915 HRS DR# 171808565	S1: F B BLK BRO 505 200 ? SUSP VEH: VOLK ? 4D ? GRY UNKNOWN CA	S APPRO V AND ORDERED V INTO VEH S DEMANDED V PROPERTY V COMPLIED S ENTVEH AND FLED
211 W/HANDGUN 11508 WILMINGTON AV (RD 1849) MEDICAL MARIJUANA FACILITY 03/21/17 1410 HRS DR# 171808357	S1: M B BLK BRO 600 185 25-29 YEARS S2: M B BLK BRO 509 160 25-29 YEARS SUSP VEH: TOYT CAM 4D 2012 BLK UNKNOWN CA	SUSP APPROACHED V AND POINTED GUN, SUSP REMOVED GUN FROM VICT (SECURITY GUARD) AND FLED.





Map prepared by CSOC Crime Analysis Detail on 12/26/16 at 0745. For internal distribution only.

Poli

#### **Firearms Recovered**

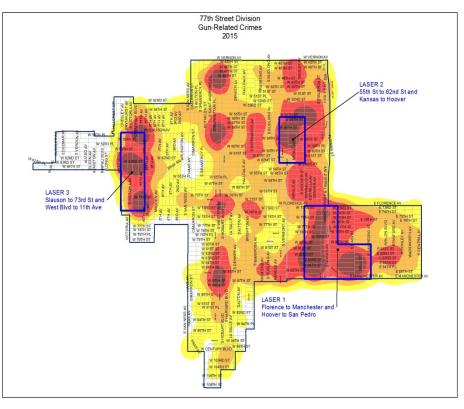
The below chart represents the number of firearms recovered in the four CSOC Areas as of September 20, 2016. These numbers encompass guns recovered in the Areas by all entities, i.e. Metropolitan Division, Patrol officers, outside agencies, etc.

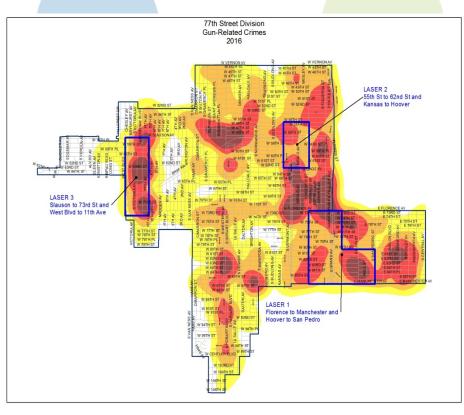
	1/1/16 – 3/12/16	CSOC	TOTAL
Newton	124	106	230
Southwest	142	302	444
77 <sup>th</sup>	79	309	388
Southeast	35	151	186
TOTAL	380	868	1248



#### **Gun-Related Crime**

#### 77<sup>th</sup> Street Division 2015 vs. 2016

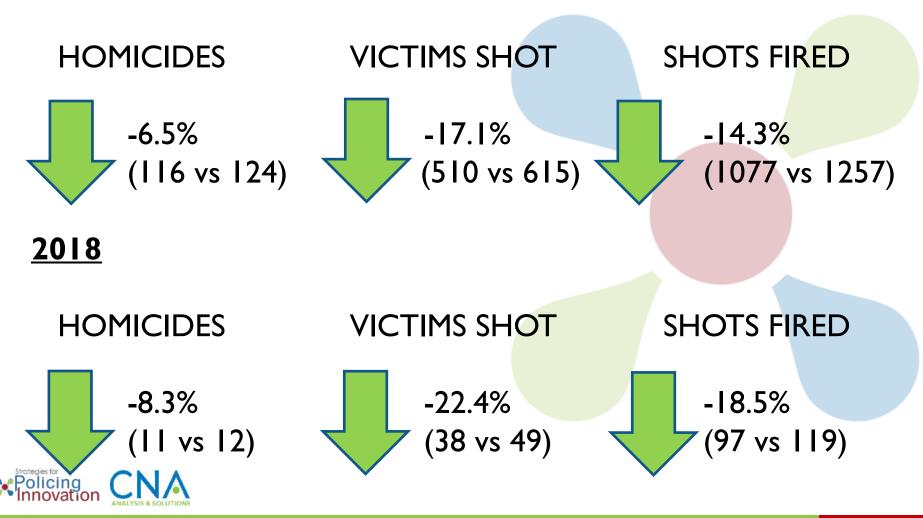






## **South Bureau Crime Statistics**

#### 



# Chicago Crime Fighting Initiative



Chief Jonathan Lewin Chicago Police Department Bureau of Technical Services

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## Homicides in Chicago, 2010-2016

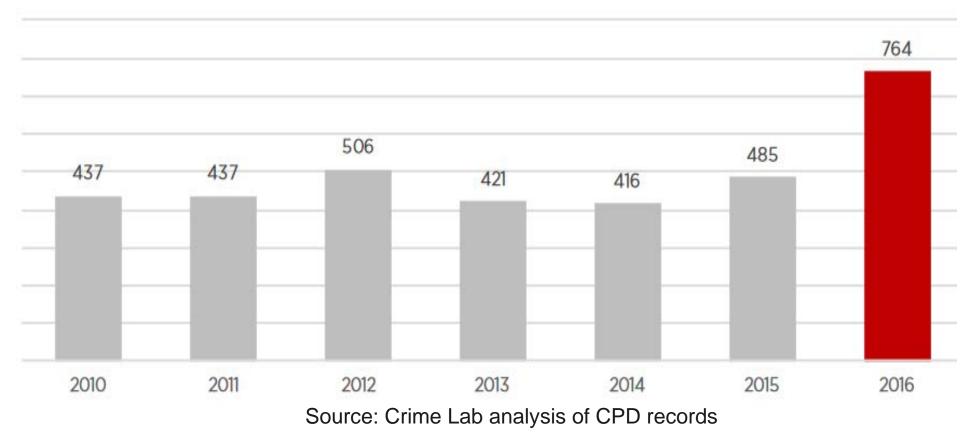
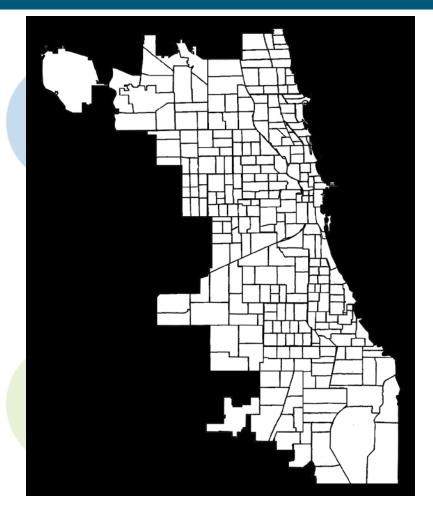




Photo: Carlos Javier Ortiz

#### Overview

- 3 Police Areas.
- 280 Beats.
- 22 Police Districts.
- Beat is where CAPS happens.
- Officers work on the same beat and same watch for a year.
  - Answering calls for service.
  - Problem solving with community.







- Pin maps to crime prediction.
- Mobile computing.
- Surveillance cameras.
- LPR.



## **Current State of Technology**







## **Data Rich, Information Poor**

 Chicago Police Department has an advanced technology environment but there have been challenges translating the technology into action.



## **Combining Technology and Process**

## • Rolling Out New Technology.

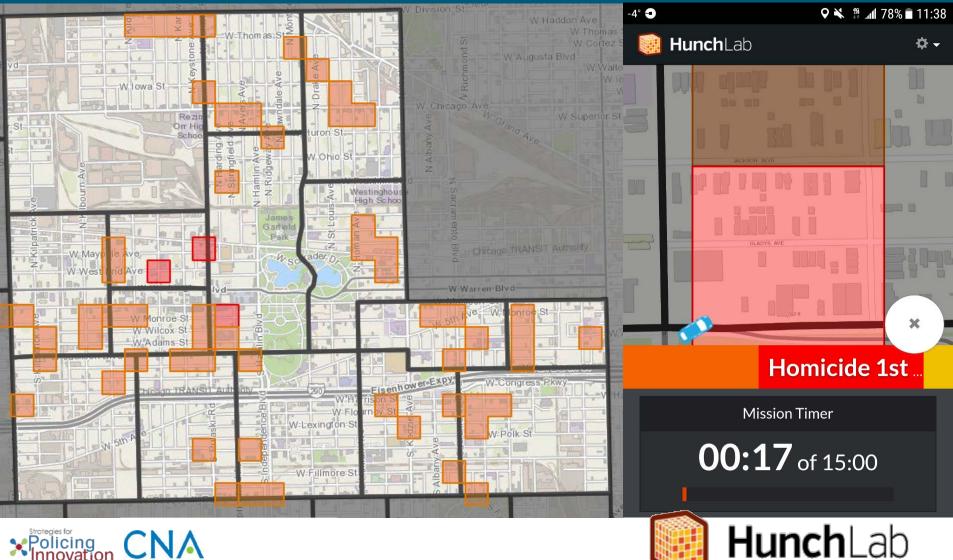
- Mobile Phones.
- Predictive Policing.
- Gunshot Detection.
- Surveillance Cameras.

### Implementing New Processes.

- Commander's Daily Briefing.
- Embedded Analysts.



## **Geo-based Crime Forecasting**





## Integrated Video Camera Network



## **Technology Looking Forward**





## **Technology Objective**

Provide on-site real-time situational awareness capacity integrating the following into a comprehensive framework for tactical and strategic violence reduction:

- Surveillance cameras
- ShotSpotter
- Computer Aided Dispatch (CAD)
- Automated Vehicle Location (AVL)
- CLEAR (crime/ arrest/ gang information), and
- License Plate Recognition (LPR)

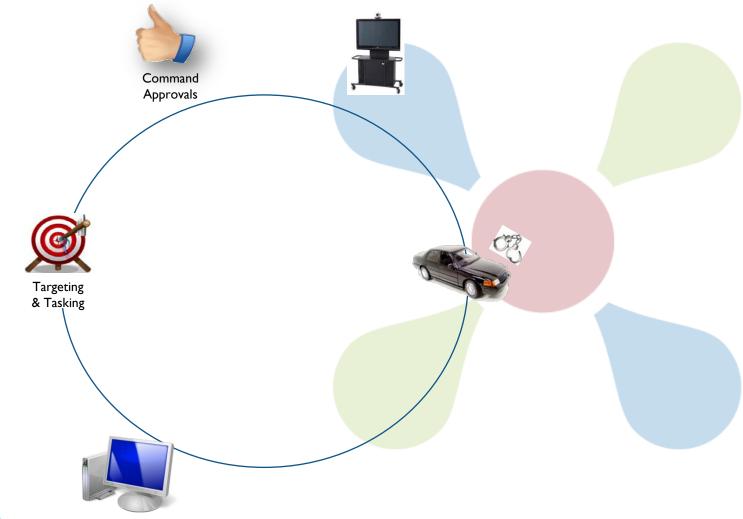


## **Shots Fired Detection and Response**

- ShotSpotter Advantages:
  - Faster detection time
  - More accurate location
  - Every Shots Fired event (even without 911 call)
- 458 ShotSpotter detection events had no matching SHOTSF 911 call within +/- 10 Minutes (18.7%)
- Of the 1,996 ShotSpotter events with at least one 911 call
  - Average SHOTSF calls per ShotSpotter event: 2.05 calls
  - Average delay from ShotSpotter detection to first 911 call: 5.20 minutes



## **SDSC Intelligence-Action Cycle**





## **Community Engagement: Areas of Focus**

District 007 SDSC Community Interaction Community Engagement • Community Partnership





# Results 2016-2017



### Tier 1 Shooting Incidents

District(s)	Year To Date 2017	Year To Date 2016	% Change	Year To Date 2015	% Change	28 Days Ending 31-Dec-17	28 Days Ending 03-Dec-17	% Change	28 Days Ending 31-Dec-16	% Change	28 Days Ending 31-Dec-15	% Change
06	196	234	-16 %	163	20 %	8	11	-27 %	18	-56 %	11	-27 %
07	204	358	-43 %	276	-26 %	13	10	30 %	14	-7 %	21	-38 %
09	166	242	-31 %	168	-1 %	7	12	-42 %	21	-67 %	14	-50 %
10	240	289	-17 %	132	82 %	12	22	-45 %	17	-29 %	11	9%
11	353	478	-26 %	276	28 %	23	21	10 %	28	-18 %	23	0%
15	254	312	-19 %	155	64 %	15	22	-32 %	17	-12 %	17	-12 %
06, 09, 10, 15	856	1077	-21 %	618	39 %	42	67	-37 %	73	-42 %	53	-21 %
07, 11	557	836	-33 %	552	1 %	36	31	16 %	42	-14 %	44	-18 %
All Except 07, 11	2226	2714	-18 %	1874	19 %	110	125	-12 %	163	-33 %	143	-23 %
All Except Tier 1	1370	1637	-16 %	1256	9 %	68	58	17 %	90	-24 %	90	-24 %
All Tier 1	1413	1913	-26 %	1170	21 %	78	98	-20 %	115	-32 %	97	-20 %
All Districts	2783	3550	-22 %	2426	15 %	146	156	-6 %	205	-29 %	187	-22 %

#### Tier 1 Shooting Victims

District(s)	Year To Date 2017	Year To Date 2016	% Change	Year To Date 2015	% Change	28 Days Ending 31-Dec-17	28 Days Ending 03-Dec-17	% Change	28 Days Ending 31-Dec-16	% Change	28 Days Ending 31-Dec-15	% Change
06	250	289	-13 %	203	23 %	9	13	-31 %	26	-65 %	12	-25 %
07	250	463	-46 %	341	-27 %	14	11	27 %	15	-7 %	23	-39 %
09	222	293	-24 %	223	0 %	7	13	-46 %	26	-73 %	19	-63 %
10	305	352	-13 %	147	107 %	13	23	-43 %	22	-41 %	12	8 %
11	441	600	-27 %	342	29 %	24	26	-8 %	36	-33 %	27	-11 %
15	336	382	-12 %	190	77 %	19	30	-37 %	21	-10 %	20	-5 %
06, 09, 10, 15	1113	1316	-15 %	763	46 %	48	79	-39 %	95	-49 %	63	-24 %
07, 11	691	1063	-35 %	683	1%	38	37	3 %	51	-25 %	50	-24 %
All Except 07, 11	2768	3288	-16 %	2270	22 %	134	139	-4 %	204	-34 %	167	-20 %
All Except Tier 1	1655	1972	-16 %	1507	10 %	86	60	43 %	109	-21 %	104	-17 %
All Tier 1	1804	2379	-24 %	1446	25 %	86	116	-26 %	146	-41 %	113	-24 %
All Districts	3459	4351	-21 %	2953	17 %	172	176	-2 %	255	-33 %	217	-21 %



### **Compare Tiers**

### **Shooting Incidents**

District(s)	Year To Date 2017	Year To Date 2016	% Change	Year To Date 2015	% Change	28 Days Ending 31-Dec-17	28 Days Ending 03-Dec-17	% Change	28 Days Ending 31-Dec-16	% Change	28 Days Ending 31-Dec-15	% Change
All Tier 1	1413	1913	-26 %	1170	21 %	78	98	-20 %	115	-32 %	97	-20 %
All Tier 2	1054	1228	-14 %	965	9%	45	44	2 %	70	-36 %	68	-34 %
All Tier 3	271	352	-23 %	242	12 %	23	12	92 %	19	21 %	20	15 %
All Tier 4	45	57	-21 %	49	-8 %	0	2	-100 %	1	-100 %	2	-100 %
All Districts	2783	3550	-22 %	2426	15 %	146	156	-6 %	205	-29 %	187	-22 %

### Shooting Victims

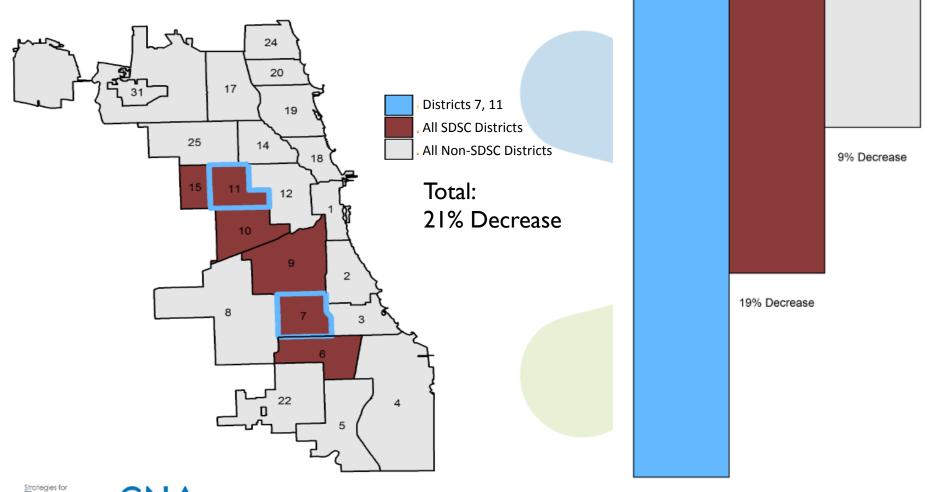
District(s)	Year To Date 2017	Year To Date 2016	% Change	Year To Date 2015	% Change	28 Days Ending 31-Dec-17	28 Days Ending 03-Dec-17	% Change	28 Days Ending 31-Dec-16	% Change	28 Days Ending 31-Dec-15	% Change
All Tier 1	1804	2379	-24 %	1446	25 %	86	116	-26 %	146	-41 %	113	-24 %
All Tier 2	1267	1487	-15 %	1162	9%	55	46	20 %	87	-37 %	76	-28 %
All Tier 3	337	417	-19 %	286	18 %	31	12	158 %	21	48 %	25	24 %
All Tier 4	51	68	-25 %	59	-14 %	0	2	-100 %	1	-100 %	3	-100 %
All Districts	3459	4351	-21 %	2953	17 %	172	176	-2 %	255	-33 %	217	-21 %

#### Murders

District(s)	Year To Date 2017	Year To Date 2016	% Change	Year To Date 2015	% Change	28 Days Ending 31-Dec-17	28 Days Ending 03-Dec-17	% Change	28 Days Ending 31-Dec-16	% Change	28 Days Ending 31-Dec-15	% Change
All Tier 1	313	412	-24 %	220	42 %	22	19	16 %	29	-24 %	16	38 %
All Tier 2	273	271	1 %	191	43 %	11	11	0 %	23	-52 %	12	-8 %
All Tier 3	54	73	-26 %	63	-14 %	2	1	100 %	1	100 %	4	-50 %
All Tier 4	10	16	-38 %	14	-29 %	1	0	100 %	2	-50 %	0	100 %
All Districts	650	772	-16 %	488	33 %	36	31	16 %	55	-35 %	32	13 %



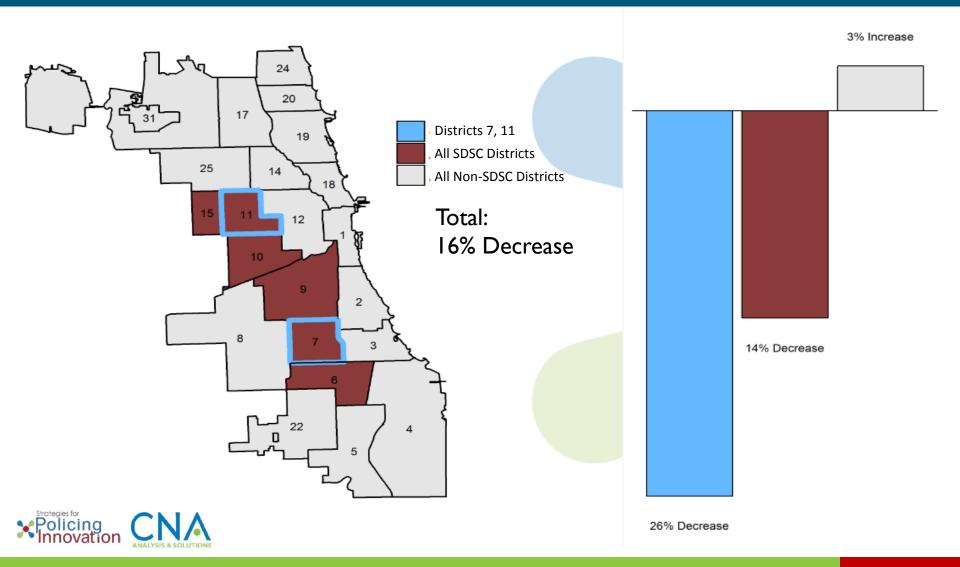
## Percent Change in Shooting Incidents 2017 vs 2016





33% Decrease

# Percent Change in Shooting Incidents 2017 vs 2016



## Performance

- All Tier 1s down for 2017 in Shooting Incidents.
- All Tier 1s down for 2017 in Murders.
- 2017 vs 2016 shootings by Tier:
  - Tier Is down 26%
  - Tier 2s down 14%
  - Tier 3s down 23%
  - Tier 4s down 21%
  - Citywide down 22%
- 2017 vs 2016 shootings Tier 1.
  - 007 ls most dramatic (-43%).
  - Followed by 009 -31%, 011 -26%, 015 -19%, 010 17%, 006 16%.



### Performance – Change in Shooting Trends

- All Tier I was flat or trending up 90 days prior to SDSC go-live (avg +13% year over year).
- All Tier I was trending down or flat 90 days after SDSC go-live (avg -23% year over year).
- The net effective change from upward +13% to downward -23% was -36%.
- All but Dist 09 showed a significant change in direction, largest was Dist 11 at -67%.

		90 Days After Go Live			90 Days	Before Go	) Live	Effective % Change
District	Go-Live Date	90 Days After Go- Live	Prior Year Compare	% From Prior Year	90 Days Before Go- Live	Prior Year Compare	% From Prior Year	Difference between % chg from prior year 90 days before vs 90 days after
6	7-Jan-17	56	53	6%	52	42	24%	-18%
7	7-Feb-17	44	64	-31%	76	61	25%	-56%
9	15-Mar-17	51	53	-4%	45	48	-6%	2%
10	15-Mar-17	51	63	-19%	46	46	0%	-1 <b>9</b> %
11	15-Mar-17	52	101	-49%	104	88	18%	<b>-67</b> %
15	15-Mar-17	64	78	-18%	54	50	8%	<b>-26</b> %
Total Tier I		318	412	-23%	377	335	13%	-36%



### Performance – Change in Shooting Trends Explanation for Previous Slide

- The slide shows a rapid improvement in conditions for most of Tier I within 90 days after each SDSC go-live date.
- To eliminate the effects of seasonality, we don't want to look at shootings immediately before and after. Otherwise we would be comparing warm spring to cold winter which would always be unfavorable.
- Instead we want to look at the trend in shootings immediately before and after
- The right hand column shows the difference between the % change from prior year for the period before the go-live date (was typically an increasing percentage) and the % change from prior year for the period after the go-live date (was typically a decreasing percentage.)
- Example: 11 was trending up +18% before 07-FEB and dramatically swung to trending down -49% after 07-FEB. This was a net 67% improvement downward.



## **Performance – Change in Shootings**

 Comparing widest period after go-live to before go-live for each SDSC

District		Max Days A	fter go-live		E	Eq. Days Be	fore go-live	9	% Change
District	From	Thru	Days	Shootings	From	Thru	Days	Shootings	% Change
6	3/15/2017	11/12/2017	243.00	137	7/15/2016	3/14/2017	243.00	165	-17%
7	1/7/2017	11/12/2017	310.00	178	3/3/2016	1/6/2017	310.00	325	-45%
9	3/15/2017	11/12/2017	243.00	123	7/15/2016	3/14/2017	243.00	156	-21%
10	3/15/2017	11/12/2017	243.00	175	7/15/2016	3/14/2017	243.00	191	-8%
11	2/7/2017	11/12/2017	279.00	274	5/4/2016	2/6/2017	279.00	374	-27%
15	3/15/2017	11/12/2017	243.00	177	7/15/2016	3/14/2017	243.00	208	-15%
TOTAL				1064				1419	-25%



## **Performance – Change in Shootings**

 Comparing 200 days after go-live to 200 days prior year

District	20	00 Days Af	ter go-Li	ve	2	200 Days	Prior Yea	r	% Change
District	From	Thru	Days	Shootings	From	Thru	Days	Shootings	76 Change
6	3/15/2017	9/30/2017	200.00	121	3/15/2016	9/30/2016	200.00	130	-7%
7	1/7/2017	7/25/2017	200.00	117	1/7/2016	7/24/2016	200.00	192	-39%
9	3/15/2017	9/30/2017	200.00	106	3/15/2016	9/30/2016	200.00	132	-20%
10	3/15/2017	9/30/2017	200.00	142	3/15/2016	9/30/2016	200.00	165	-14%
П	2/7/2017	8/25/2017	200.00	193	2/7/2016	8/24/2016	200.00	277	-30%
15	3/15/2017	9/30/2017	200.00	148	3/15/2016	9/30/2016	200.00	201	-26%
TOTAL				827				1097	-25%



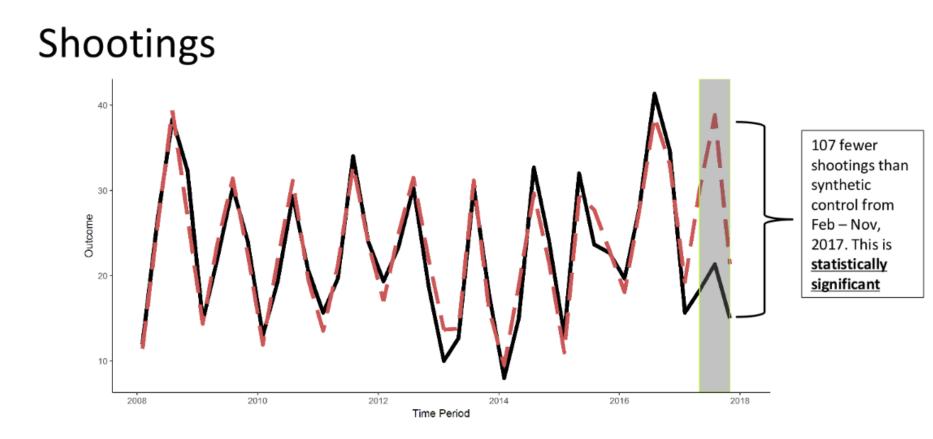


## Tier 1 Districts Evaluation Measuring Crime Reduction and its Causes

## **Evaluation Methodology**

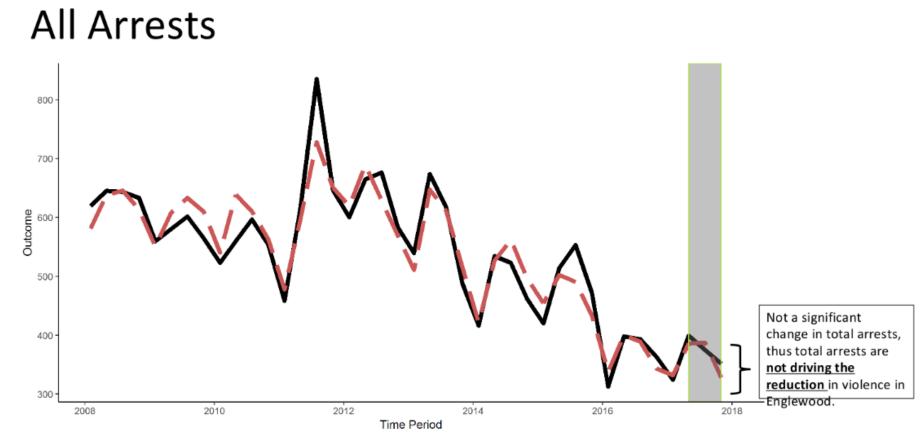
- For a normal RCT evaluation, there would be a district very similar to an SDSC district that didn't receive treatment so we could compare results in the post period.
- **Synthetic controls** have emerged as an alternative.
- Idea:
  - Create a weighted set of control districts (non Tier I) that closely resemble the pattern of crime in the preintervention period (Jan 2008 – Feb 2017) for the treated district and compare to results in postintervention period





- The **<u>black line</u>** represents shootings in District 007.
- The <u>red line</u> represents a scientific estimate of what shootings would have looked like in 007 if no SDSC was implemented. Called 'synthetic control unit'.





The black line represents all arrests made in District 007.

The red line represents all arrests in synthetic District 007, a weighted average of arrest data from non-SDSC districts

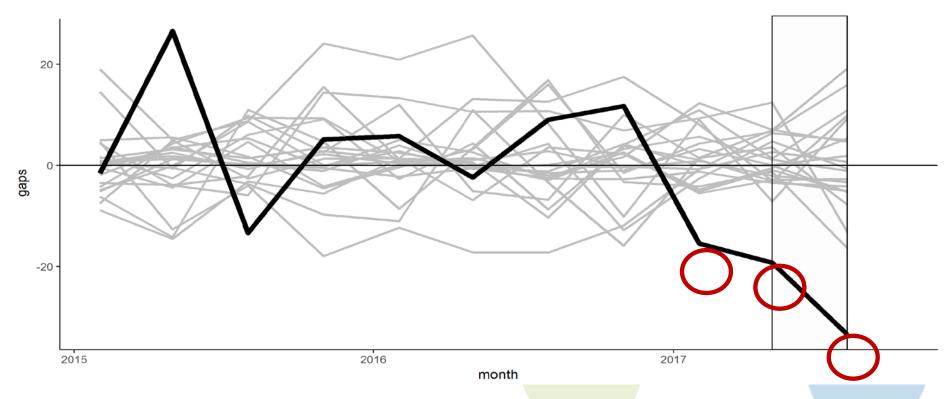


## Is This Significant?

- Placebo Test.
  - Build a synthetic control unit for all districts (Tier I and non-Tier I).
  - See how the true numbers deviate from the synthetic control in the post period.
  - If the gap between shootings in the actual treated unit compared to synthetic control is larger than the vast majority of other districts, then this is statistically significant.

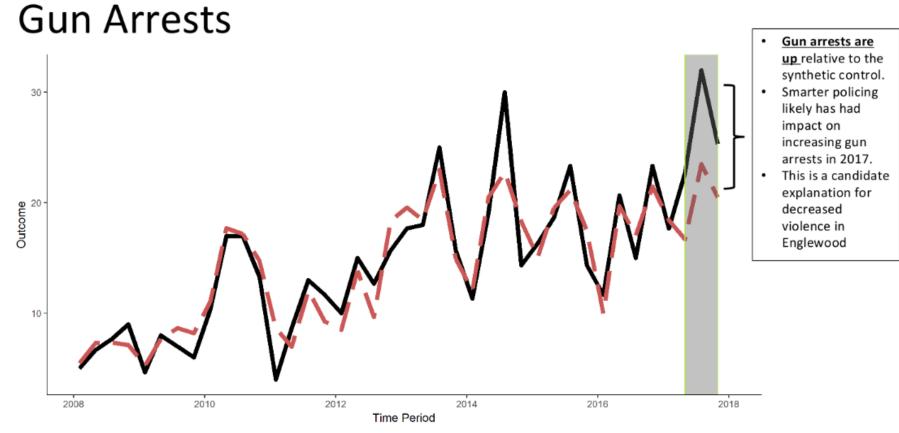


### District 007 Placebo Test for Significance in Shooting Reduction Compared to All Other Districts 2015-Present



District 007 has three statistically significant quarters of reductions, where the results from the placebo test fall far below all other districts. Two of these are in the post period.

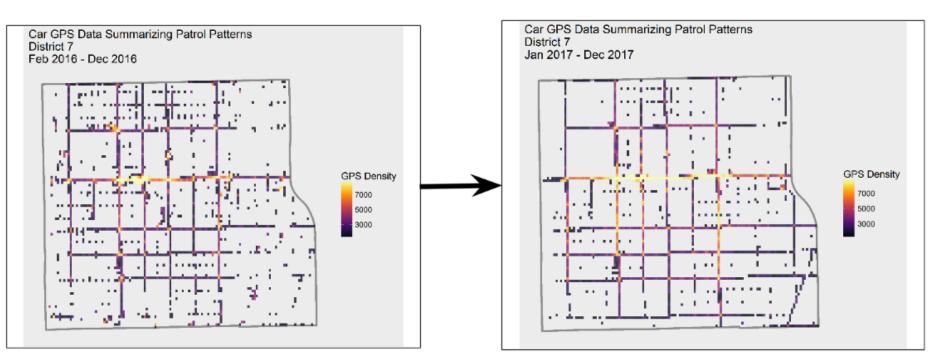




The black line represents gun arrests in District 007.

The red line represents gun arrests in synthetic District 007, a weighted average of gun arrests from non-SDSC districts





#### **Changes in Patrol Patterns**

- The figure above represents the top 15% of District 007's patrol coverage. The color scale shows where the most intense of these top 15% patrol points are located.
- In 2016, the highest concentration of patrol is around the station and E/W on 63<sup>rd</sup> St.
- In 2017, we see a shift towards high intensity patrol on major N/S thoroughfares south of 63<sup>rd</sup> St.



## **CFS: Shots Fired Response Time**

District	From D	e Minutes Dispatch Scene	% Change
	2016	2017	
007	5.6	4.7	-16%
011	6.6	5.8	-12%
006	5.5	4.9	-10%
009	5.3	5.1	-4%
015	5.6	5.4	-4%
010	4.7	4.7	1%

- All Tier I except 010 had improved response time to 911 Calls relating to Shootings (Person Shot, Shots Fired).
- 007 and 011, the first to have Shot Spotter deployed, were at the top of the rankings among other Tier 1 districts for improved response times.
- Call times sampled for 2017 compared to 2016



## **Improved Officer Mobility**

DIST	Miles Driven by Average Car on Average Watch	District Sq. Miles	District Mean Distance	Miles Driven per District Mean Distance
15	29.1	3.8	1.95	14.9
11	36.3	6.1	2.47	14.7
7	32.3	6.5	2.55	12.7
3	30.8	6.1	2.47	12.5
20	25.8	4.4	2.1	12.3

Three of the Tier I Districts 07, 11, 15 are at the top of the rankings for Mobility of Their Average Car on their Average Watch

N 4 · I

- Because there is significant variation in District Size, the rankings are calculated proportional to the "Mean Distance\*"
  - across the District

\*Mean Distance is the Square Root of the District Area. Measurement period is July 2017 thru Dec 2017.



## **SDSC** Expansion Timeline

	Room Go-Live	HunchLab	SmartPhones	ShotSpotter	Cameras	# Cams
003	29-Dec-2017	29-Dec-2017	29-Dec-2017	31-Dec-2017	I-Jan-2018	15
004	29-Dec-2017	29-Dec-2017	29-Dec-2017	12-Jan-2018	I-Jan-2018	7
005	29-Dec-2017	29-Dec-2017	29-Dec-2017	28-Feb-2018	31-Jan-2018	6
025	29-Dec-2017	29-Dec-2017	29-Dec-2017	28-Mar-2018	31-Jan-2018	9
002	February 2018	February 2018	February 2018	30-Apr-2018*	30-Apr-2018	8
008	16-Mar-2018	16-Mar-2018	16-Mar-2018	31-May-2018*	30-Apr-2018	4
012	February 2018	February2018	February 2018	N/A	30-Apr-2018	5



## **SDSC Areas for Further Research**

While it is too early to determine which activity is having the greatest impact, there are several areas that could use more data to help answer that question:

- **Categorization.** Crime is different from district to district, this will influence the outcomes of interventions. Preliminary ideas include categorizing beats into:
  - Predominantly Chicano gang historic conflicts
    - Predominantly personal conflicts
    - Narcotics market-based violence
  - Predominantly black gang historic conflicts
    - Predominantly personal conflicts
    - Narcotics market-based violence
- **Shootings/Homicides Ratio.** Why shootings are more often fatal in some districts than others, and what is causing this.
- **Saturation.** How many officers were deployed in a district in a given day? Including regularly assigned officers, overtime, and area resources.
- POD Activity.
  - Are POD missions having an impact on crime within the frame of view?
  - As the volume of POD missions increases, is there a spill-over effect of deterrence on other PODs in the area?
- Traffic stops.
  - How are traffic stops being used to recover guns in the districts?
  - Why are some districts more effective at converting from traffic stop to UUW than others?
  - Are there any gang violence categories that respond better to traffic stops (and other interventions) than others?



Positive Community Interactions.

- How are officers deciding to conduct PCIs?
- Is there a place where they are happening more than others?
- Is there a time that they are most likely to happen?
- What do officers do with data gathered as a result of the PCI?
- Have there been any significant changes in crime in the immediate vicinity?
- Custom Notifications.
  - How are candidates for custom notifications prioritized?
  - What incidents trigger custom notifications?
  - Is the agenda of a custom notification set?
  - When looking at two individuals of similar criminal activity level, is there a significant difference in criminal activity between one who receives a custom notification and one who doesn't?

#### Responding to Tipsters.

- How are tips followed up on in the district?
- Have they led to any arrests? Convictions?
- Is there an outreach policy to generate tips?
- Is there a difference between clearance rates between cases that have tipsters involved versus those that don't?

## **SDSC Crime Lab GIS Initiatives**

- Are officers patrolling riskier areas in 007 than in other districts?
  - Use HunchLab predictions to develop a 'quality of patrol' metric.
  - This will help us understand if officers are patrolling the areas with highest risk.
  - This will allow us to better evaluate the effect of HunchLab as well.
- Integrate GPS analysis with SDSC daily briefing
  - Allow District Commanders to know where their officers are deployed, closing the feedback loop for sound patrol strategy.



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# Offender Focused Policing City of Syracuse



Captain Richard Trudell Syracuse Police Department

This project was supported by Grant No. 2016-WY-BX-K001, awarded by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the Department of Justice's Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, the Office for Victims of Crime, and the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking. Points of view or opinions in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.



#### Syracuse Gun Violence Problem

- City of Syracuse Population 144,027.
- UCR violent crime rate.
  - 68% higher than cities of comparable size.
  - 15% higher than cities with populations over one million.
- Murder rate.
  - 147% higher than cities of comparable size.
  - 89% higher than cities with populations over one million.
- 2016 marked the worst year in gun violence in over a decade.



#### Syracuse Gun Violence Problem

- Violence driven significantly by gangs.
  - High concentration of identified gangs on city's south side.
  - 63% of south side shootings between 2014-2016 gang-related.
  - Small percentage of gang members are gun violence prone.



#### Syracuse Gun Violence Problem

- Syracuse Truce.
  - Initiated in 2013.
  - Followed the Gun Violence Intervention model.
    - Call ins.
    - Infrastructure for services.
    - Enforcement actions.
    - Outreach.
    - Community involvement.



# **Offender Focused Policing**

- Partnership in Syracuse has maintained a chronic offender list (CORE).
- Effectively address accelerating gun violence through better coordinated enforcement on the offenders who drive the violence.
- Mold what we have learned through our Focused Deterrence Strategy towards our CORE offenders.



# **Offender Focused Policing**

- Support for this idea found in recently published findings out of Philadelphia.
  - 2010-2011 experimented with three forms of policing to address violent crime in hotspots.
  - "Offender-focused policing" was determined to be effective in reducing violent crime in targeted hotspots.



- Designed to resemble an enforcement action or "trigger" as part of focused deterrence or "lever-pulling."
- Applied consistently to CORE offenders in hotspots on the south side.
- Like a "trigger" enforcement on CORE population entails a wide range of activity.



- Borrowing further from the focused deterrence strategy CORE offenders receive advanced notice through custom notifications.
- CORE offenders receive a personalized deterrence message.
- Services are offered.



- Current CORE list is developed by local Crime Analysis Center using a set of criteria given points.
- Under SPI we will be working with our Research Partner (John Finn Institute/Albany) to assess different risk prediction models to more accurately select our CORE offenders.



 Conduct quarterly intelligence sessions, including the application of social network analysis.



- Conduct bi-weekly "Perpstat" meetings in which units assigned offenders review statuses and the actions taken.
- Tailor enforcement interventions on CORE offenders through offender reviews.





Marrants:

DATE DR OFFENSE 1/8/2018 01 16196051 VIOL PROBATION :

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License Status: Unlicensed
Supervision: Criminal Probation GPS: 
PO: STACHELEK, STEPHEN
Charge:ATT CPW
Judge: Judge Cuffy

#### Drugs: No

Alias

DOB:

HGT:

Address

WGT: 230

Associates: Derrick Thomas; Keith Horton; Elonzia Armstrong; Deonte Spencer; Maurice Files; Reddell Smith

Intel: - Poss Forg Instruments 2nd; CPF; CPW 4th; CMIS 4th - DR#17-360167; Stopped on 7/8/17 in a rental vehicle. Breland C-12 for AUO 2nd (Active Warrant). Passenger Shaheem Grant vas C-12 for CPM 5th. - DR#17-141307; Shot on 2/1/17 in the 200 blk of Valley Dr. (uncooperative) - Known to occupy rental vehicles - Involved in orgoing Brickbwn vs. 110 dispute - Custom Notification letter delivered on 3/29/17 -Pending VOP

#### Follow-up:

Assigned: Intel/GVTF & Probation

#### Assignments:

d	ditional In	te	<u>l:</u>				
	Probation HV	//	7/31/2017	//	Probation	//	Home Visit positive
-	Probation HV	//	8/10/2017	//	Probation	//	Probation Office Visit, negative drug screening
-	Probation HV	//	8/17/2017	//	Probation	//	Probation Office Visit
-	Probation HV	//	8/18/2017	//	Probation	//	Home Visit negative
-	Probation HV	11	8/20/2017	11	Probation	//	Home Visit negative
-	Probation HV	//	8/31/2017	//	Probation	//	Office Visit
-	Probation HV	//	9/7/2017	//	Probation	//	Office Visit
-	17450907	//	9/11/2017	//	GVTF	//	Stopped in a 2016 Nissan Pathfinder NY Reg. HEA1909 with Georvan Harris.
-	Probation HV	//	9/14/2017	11	Probation	//	Office Visit
-	Probation HV	//	9/20/2017	//	Probation	//	Home Visit, observed sitting in black Mitsubishi SUV NY Reg HEY4052
-	17465454	11	9/21/2017	11	GVTF	//	Stopped with Jaaron Cole in 1500blk Stolp Ave in black, Ford Taurus NY HRM7245 (RO Natasha Oates); Cleared by 01 and 67
-	Probation HV	//	9/21/2017	//	Probation	//	Positive Home Visit
-	Probation HV	//	9/25/2017	//	Probation	11	Positive Home Visit
-	Probation HV	//	9/27/2017	//	Probation	//	Positive Home Visit

01-Feb-18 9:47

511 S. STATE ST., ROOM 205, SYRACUSE, NY 13202 TEL (315) 442-5645

Policing Innovation

- Offender review.
- Surveillance.
- Drug/weapon enforcement.
- Supervision enhancements.
- Warrants.
- Traffic enforcement.
- Domestic Violence.

#### **Offender Focused Process and Outcome**

- Process evaluation will provide feedback to partners, based on tracking enforcement activity against targeted CORE offenders.
- Also, semi-annually, will conduct a comparison against enforcement activity directed toward offenders whose risk scores placed them just below the identified CORE offenders.



#### **Offender Focused Process and Outcome**

- Periodic interviews with program personnel to identify barriers to inter-agency cooperation and effective implementation.
- Outcome evaluation will be quasi-experimental, assessing impacts in terms of pre-/post-intervention trends in shootings and shots fired in the Southside hotspots relative to hotspots in other areas of the city.



#### **Offender Focused Process and Outcome**

- Pre-intervention period will extend from January 2009 to June 2017, with a postintervention period from July 2017 through March 2020.
- Monthly counts of gun violence in each (Southside and control) hotspot will form the basis for estimating intervention impacts.





#### Successful Gun Violence Reduction Strategies

- Careful assessment/data analysis.
- Partnerships.
- Evidence-based interventions.
- Accountability.
- A focus on prevention.





# **Questions?**