

# Data-Driven Approaches to Crime *and* Traffic Safety (DDACTS)



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## DDACTS

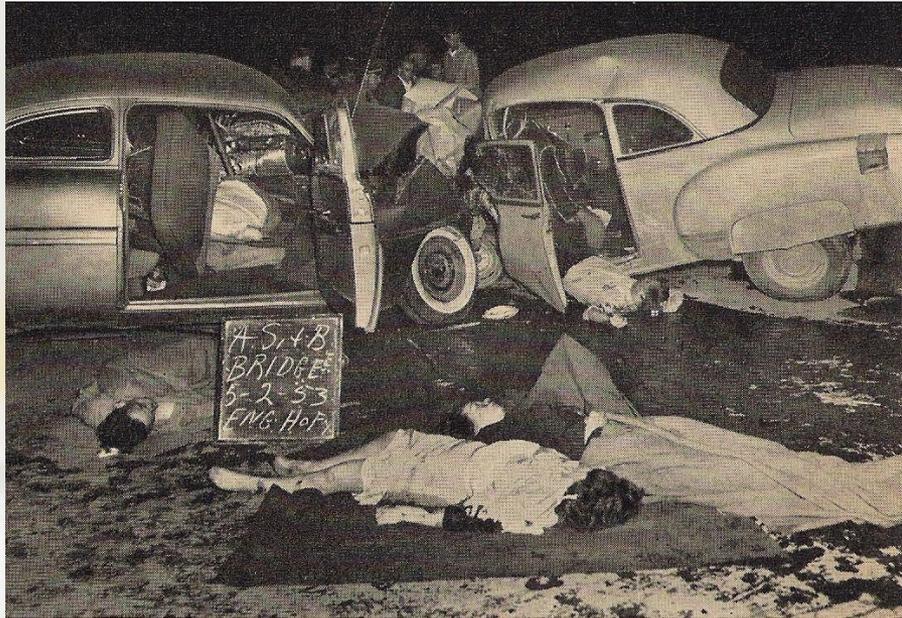
**DDACTS is an operational model that uses the integration of location-based crime and traffic data to establish effective and efficient methods for deploying law enforcement and other resources.**

Data-Driven Approaches  
**Why DDACTS?**  
Crime and Traffic Safety

- **Increasing Demands and Limited Resources**
- **Executives Must Prioritize Competing Demands for Service**
- **Conflict Between Resources and Priorities**
- **Crime and Crashes Often Occur in Close Proximity**
- **Many Crimes Involve a Motor Vehicle**
- **Vehicle Stops Can Yield to Criminal Identification and Arrest**



Data-Driven Approaches  
**DDACTS Goal**  
Crime and Traffic Safety



**Reduce the  
incidence of  
crime, crashes  
and traffic  
violations in a  
community**

**Reduce  
Social  
Harm**

# Data-Driven Approaches to Crime and Traffic Safety

- **“However beautiful the strategy, you should occasionally look at the results”**
- **Winston Churchill**



# The Simple Explanation of DDACTS

- Map where your crimes occur
- Map where your crashes and traffic problems occur
- Where these areas overlap, you create hot spots
- Work the hotspots with high visibility traffic enforcement



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# High Visibility Traffic Enforcement Philosophy

- IACP & NHTSA believe an increase in traffic enforcement in a community results in a decrease in motor vehicle crashes, injuries, and fatalities and they have the studies to prove it! In fact, *no single other program or strategy works as well as law enforcement in making the roads safer.*



# DDACTS Advantages

**Collaborative Effort**

**Grounded in Community-Oriented Policing**

**Evidence Based Problem-Solving**

**Provides Focused Area for Enforcement**

**Ensures Accountability**

**Applies High Visibility Enforcement**

**Fewer Ethical and Legal Concerns**

# National Organization of Black Law Enforcement Executives

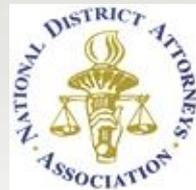
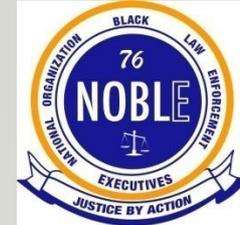
**“If the data analysis reveals that criminal activity and traffic crashes occur at a specific place within a community, then it is at that place that law enforcement activities need to be focused. A non-biased, data-driven approach to crime and traffic safety delivers law enforcement services at the right place and at the right time.”**

*Joseph A. McMillan, NOBLE President*



# Data-Driven Approaches to National Partners

## Crime and Traffic Safety



# Data-Driven Approaches to Crime *and* Traffic Safety (DDACTS)

## Operational Guidelines

August 2009



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# DDACTS Guiding Principles

**Partners / Stakeholder Participation**

**Data Collection**

**Data Analysis**

**Strategic Operations**

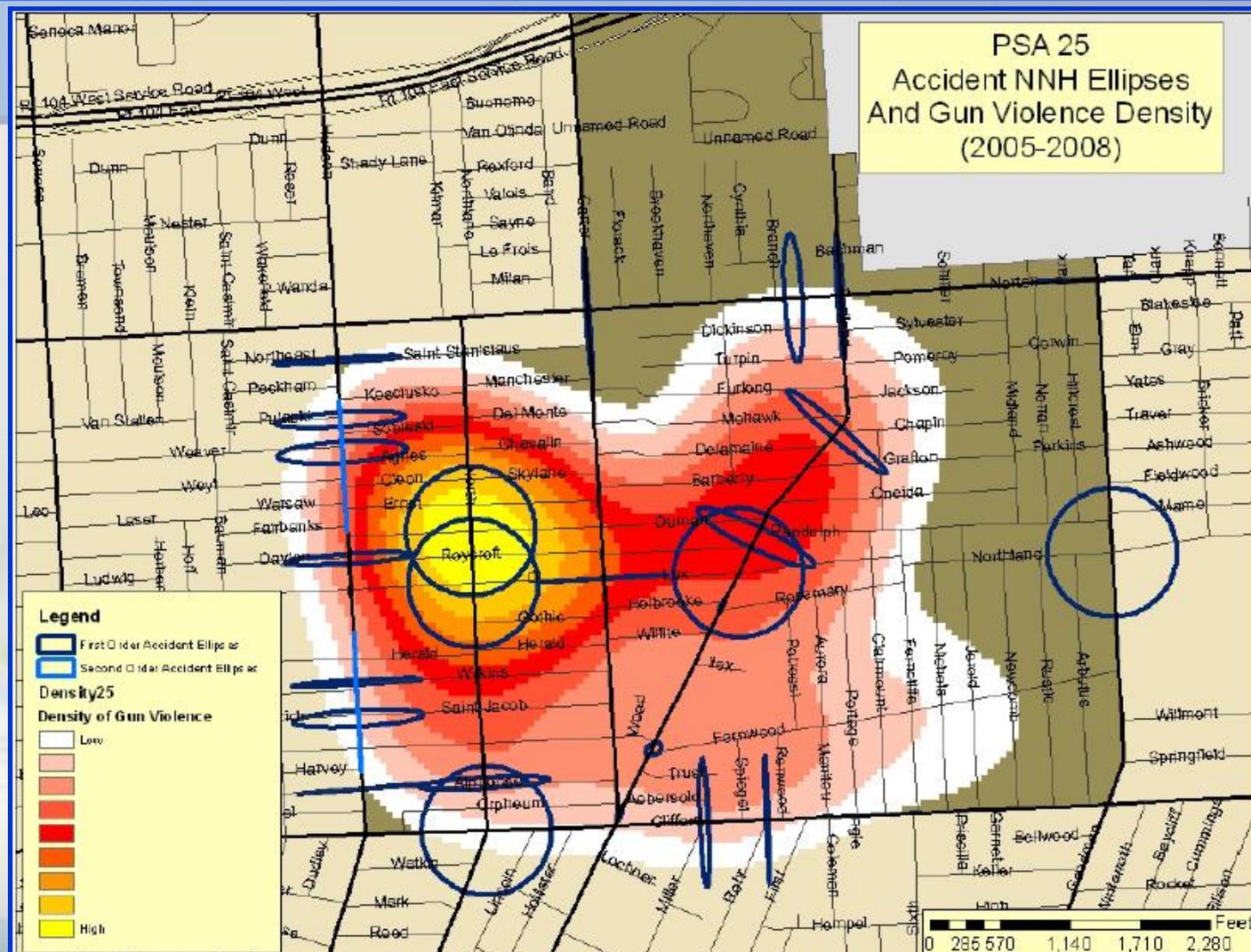
**Information Sharing and Outreach**

**Monitor, Evaluate and Adjust**

**Outcomes**



# Identifying a Hot Spot

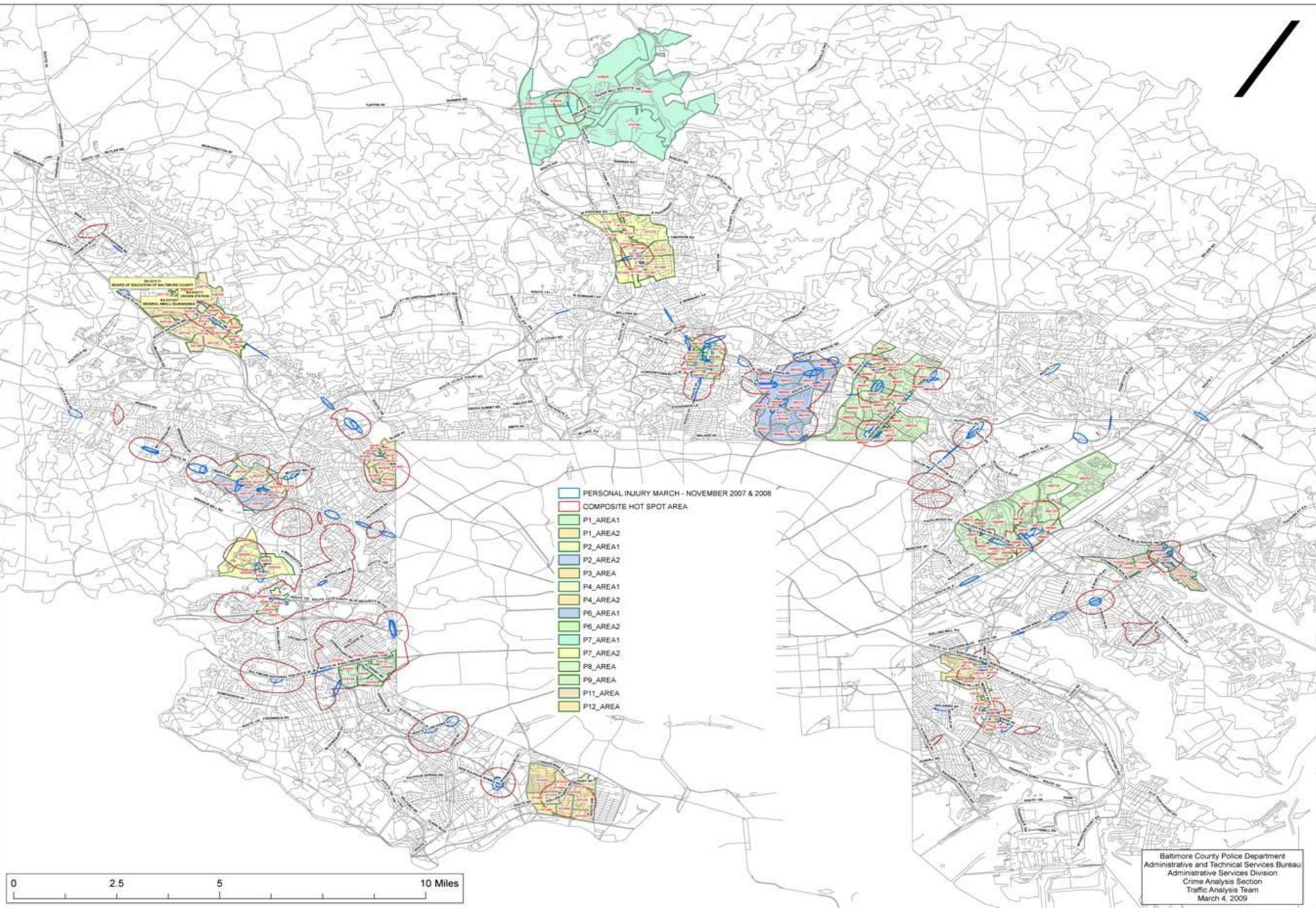


\*Data extracted from the Rochester, NY (DDACTS Pilot Site).





# DATA DRIVEN APPROACHES TO CRIME AND TRAFFIC SAFETY SELECTED DDACTS AREAS



# Data-Driven Approaches

## Baltimore County Police Department

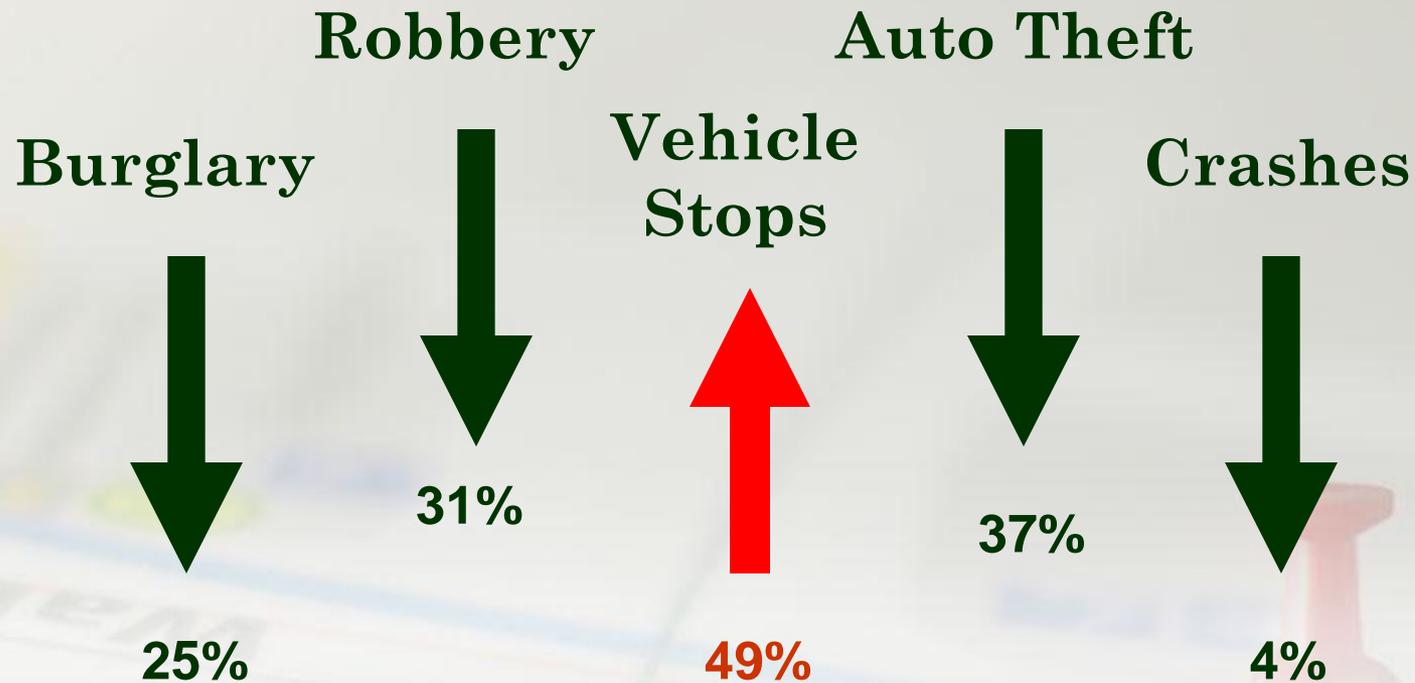
Nine-Month Enforcement Activity, 2008

- 51,625 on-duty patrol hours
- 1,169 arrests
- 20,945 citations issued
- 31,010 written warnings



# Preliminary Results

Four Months, 2009



On-duty hours in target areas (April-July) 24,000+

# Resources for DDACTS Implementation

## Crime and Traffic Safety

*Advice from  
NHTSA:*

*“You can start a  
DDACTS  
program with a  
shoebox full of  
3x5 cards and a  
warm patrol  
unit.”*



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National  
Institute  
of Justice

NHTSA  
www.nhtsa.gov

*Earl Hardy, NHTSA*

# DDACTS

Implementation in  
Lafourche Parish

Lafourche Parish Sheriff's Office

SHERIFF

193062

171

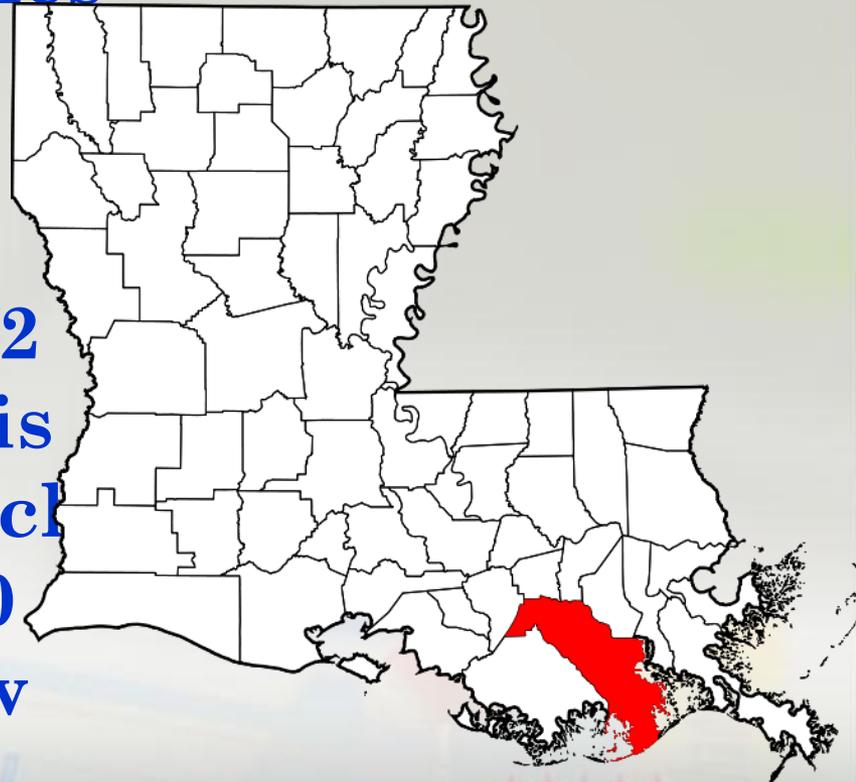
[www.lpsso.net](http://www.lpsso.net)



# Parish Demographics

## Crime and Traffic Safety

- Approximately 95 miles long
- 20 miles across at its widest point
- Total Sq miles is 1,472
- One-quarter of total is water – Bayou Lafourche
- Population of 100,000
- 50 miles south of New Orleans



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# Crash Crisis

## *Louisiana Highway Safety Commission rates Lafourche Parish as Tier 1*

- 2008 – 34 Fatal Crashes (21 alcohol-related)
- Highest in State

# Crime Crisis

- **Post Katrina Lafourche Parish experienced spike in transient population.**
- **Increased Part 1 Personnel and Property Crimes.**
- **No accurate data capture or analysis.**



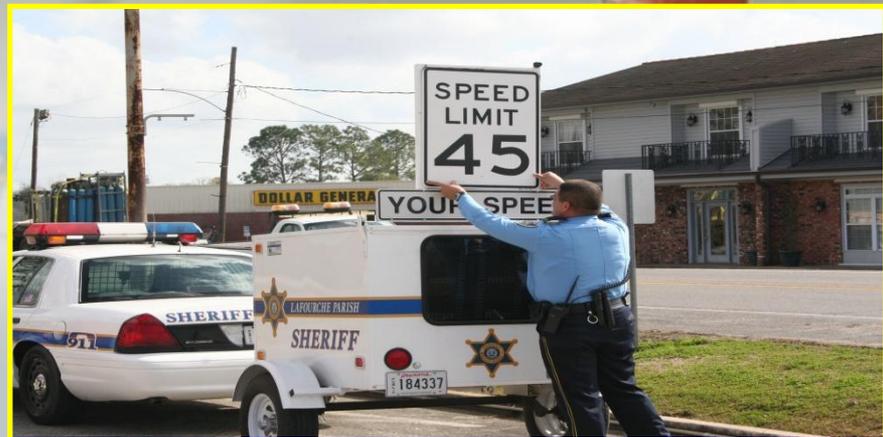
# Challenges to DDACTS Implementation

## Crime and Traffic Safety

- **No Crime Analyst Dedicated to Project**
- **No Data-Driven Ideology**
- **Minimal RMS Capabilities**
- **Minimal Crime/Crash Mapping Capabilities**

# Data-Driven Approaches to Crime *and* Traffic Safety

- Two Hot Spots staffed five days per week for two hours per shift
- Combined Hot Spot allocation investment:
  - 8760 elapsed hours since program began
  - 540 total man-hours assigned to project
  - ZERO overtime!!
- DDACTS assignments built into daily operations



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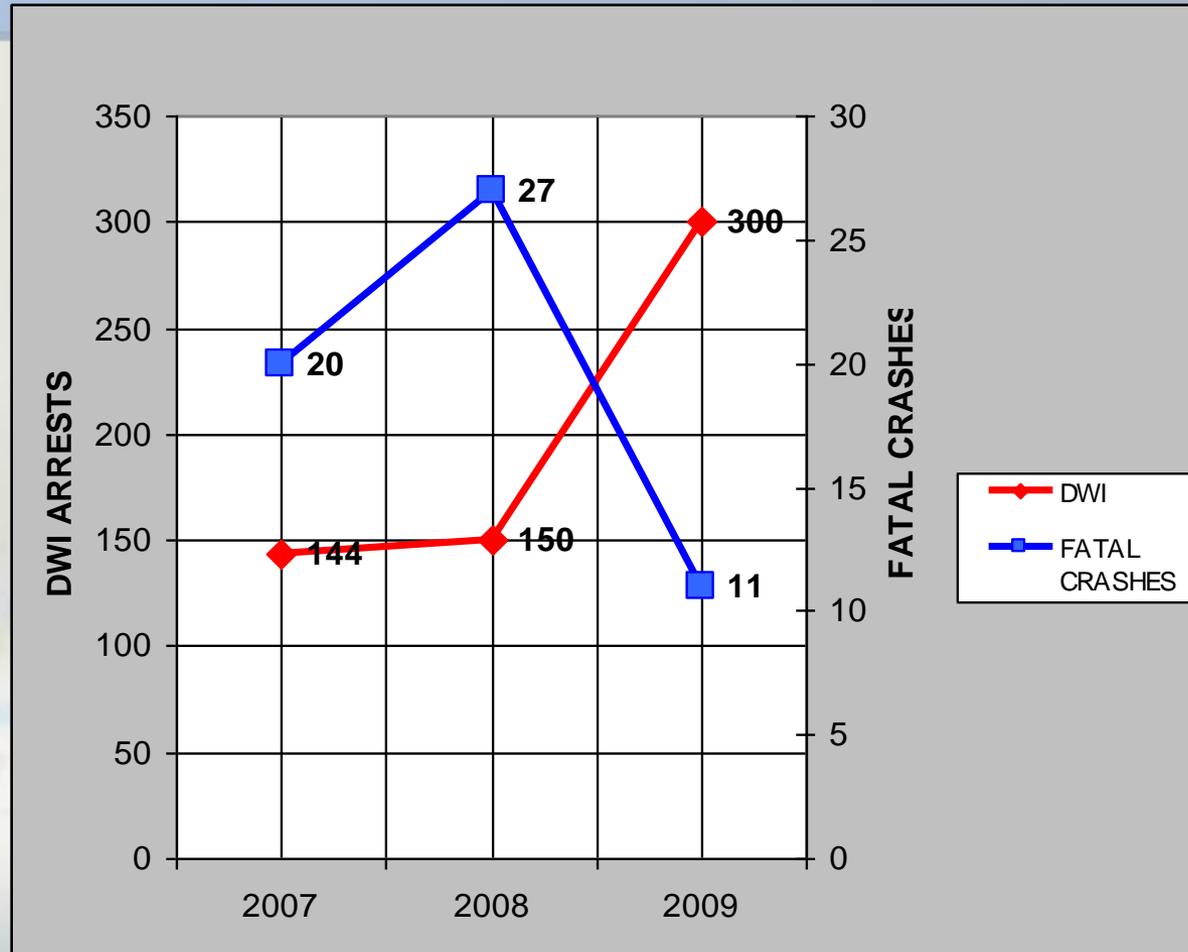
**SA**  
nhtsa.gov

# Changing Traffic History

	2005 to 2008 Average Crashes	2009
20	2531	1972
20I	802	643
20F	23	11
22.09%	Crash Reduction from 05-08 to 2009	
19.83%	Injury Crash Reduction from 05-08 to 2009	
52.17%	Fatal Crash Reduction from 05-08 to 2009	



# DWI to Fatal Crashes



# Crime Data

January to March 2009 v. 2010

**Persons Crimes:**

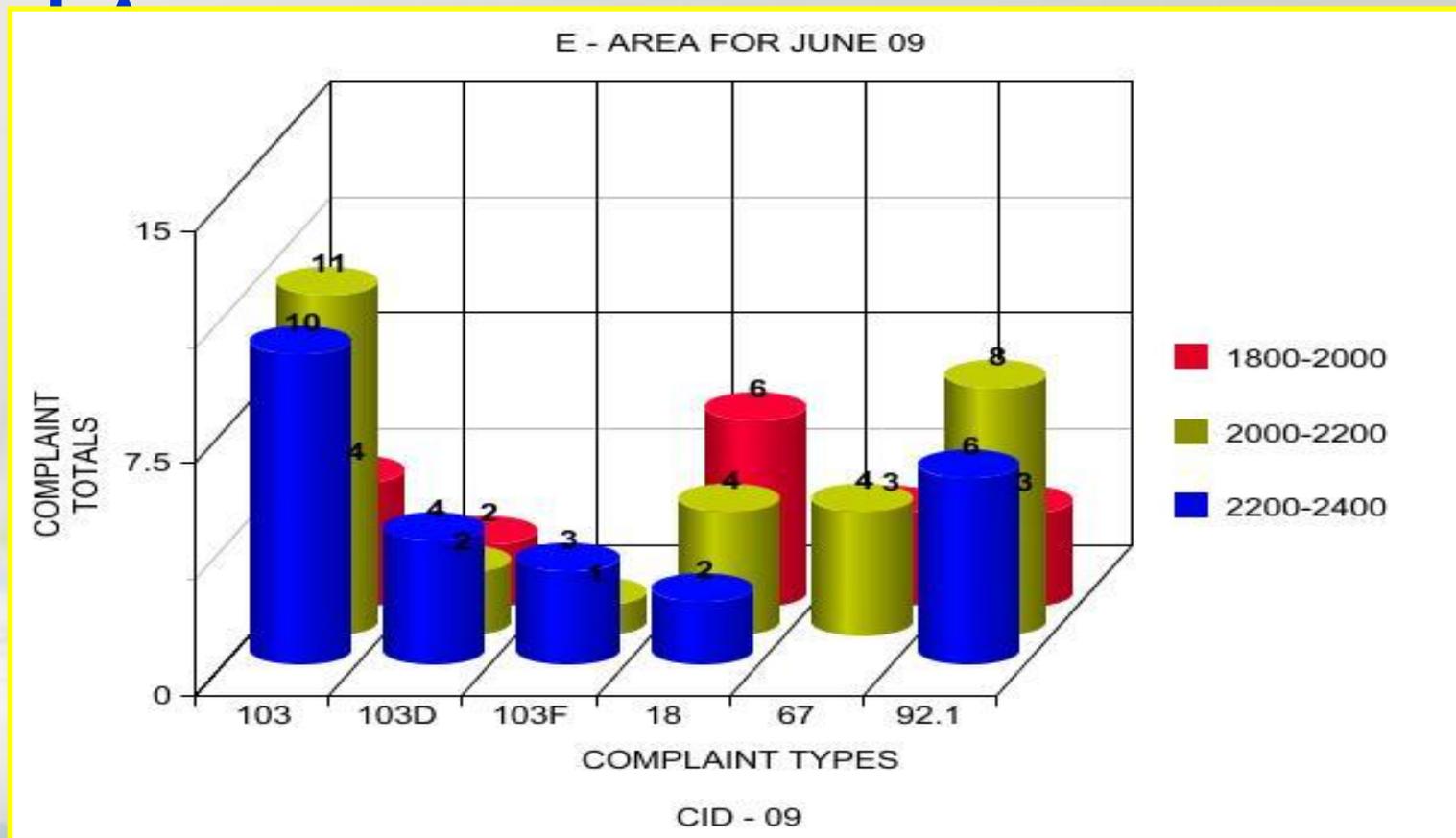
42% reduction

**Property Crimes:**

11% reduction

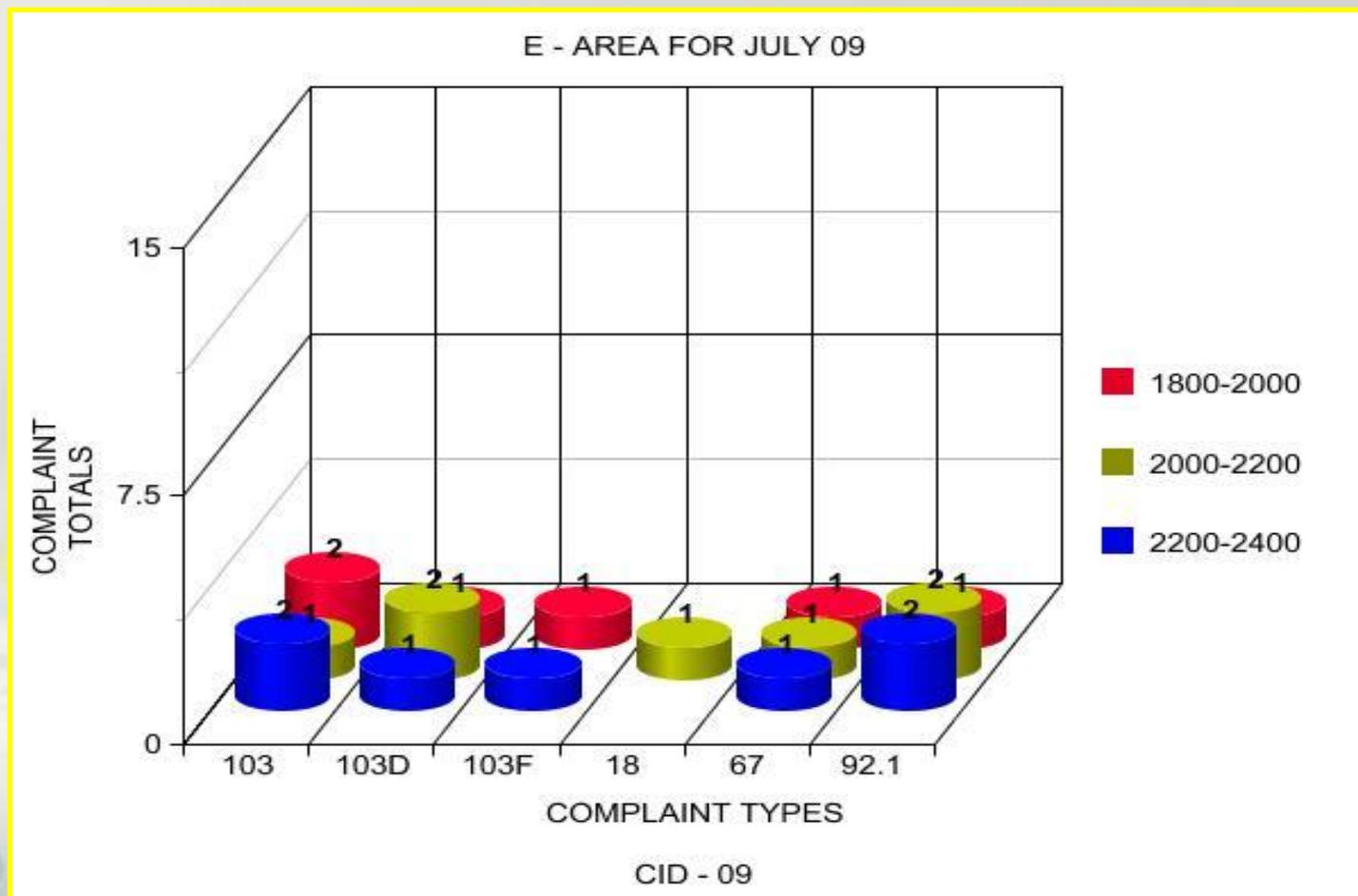
# DDACTS Highlights

## Crime and Traffic Safety Lafourche Parish



# DDACTS Highlights

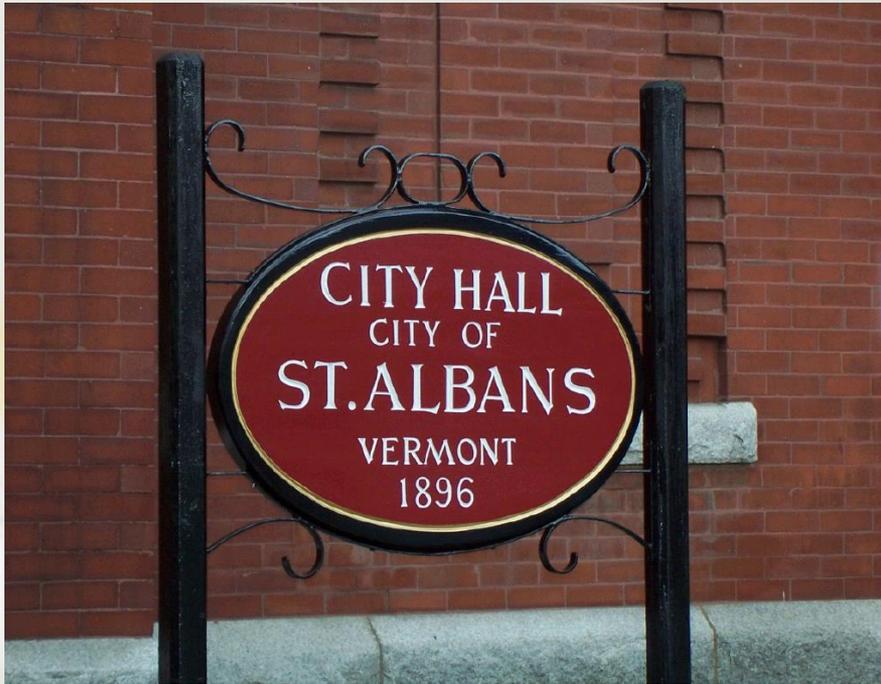
## Lafourche Parish LA



# Data-Driven Approaches

## St. Albans, Vermont

### Crime and Traffic Safety



- **Maple Sugar Capital of the World**
- **County seat of Franklin County, near Canadian border**
- **Population 7,500**
- **County Population 48,000**
- **Rising crime problem**
- **DDACTS pilot site**
- **City PD partner with the State Police, County S.O.**



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## St Albans Operations

### Crime and Traffic Safety

- **“The challenge we have is being smart about doing our business and getting away from the old practices of just routine patrols and going up on the interstate and running radar. If you’re going to run radar, you need to do it in an area where you are having traffic or crime problems. Don’t spend the majority of your time in areas where you aren’t seeing any significant increases or aren’t seeing any traffic- or crime-related issues.”**



# Map of Crimes and Traffic Accidents

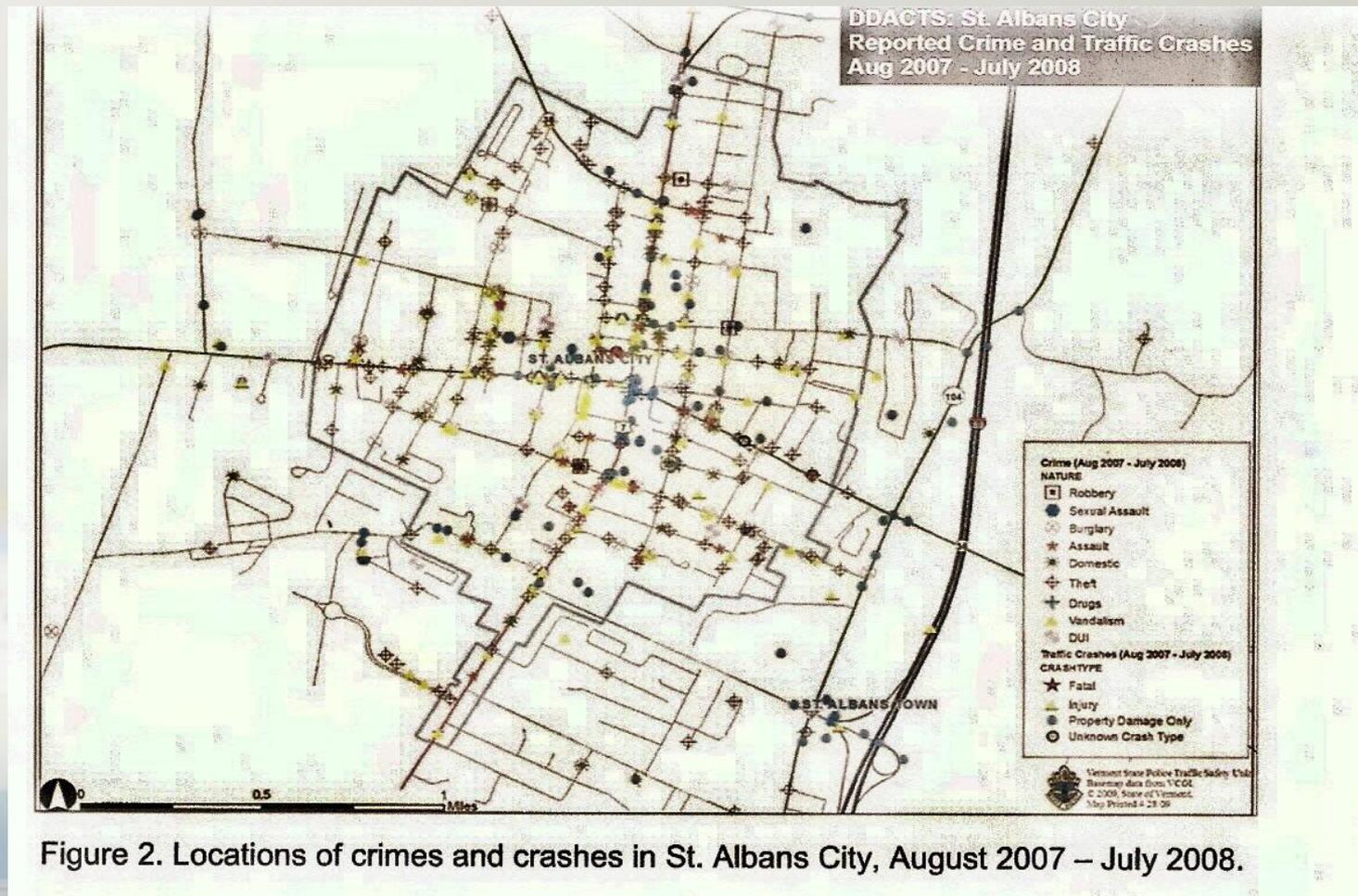
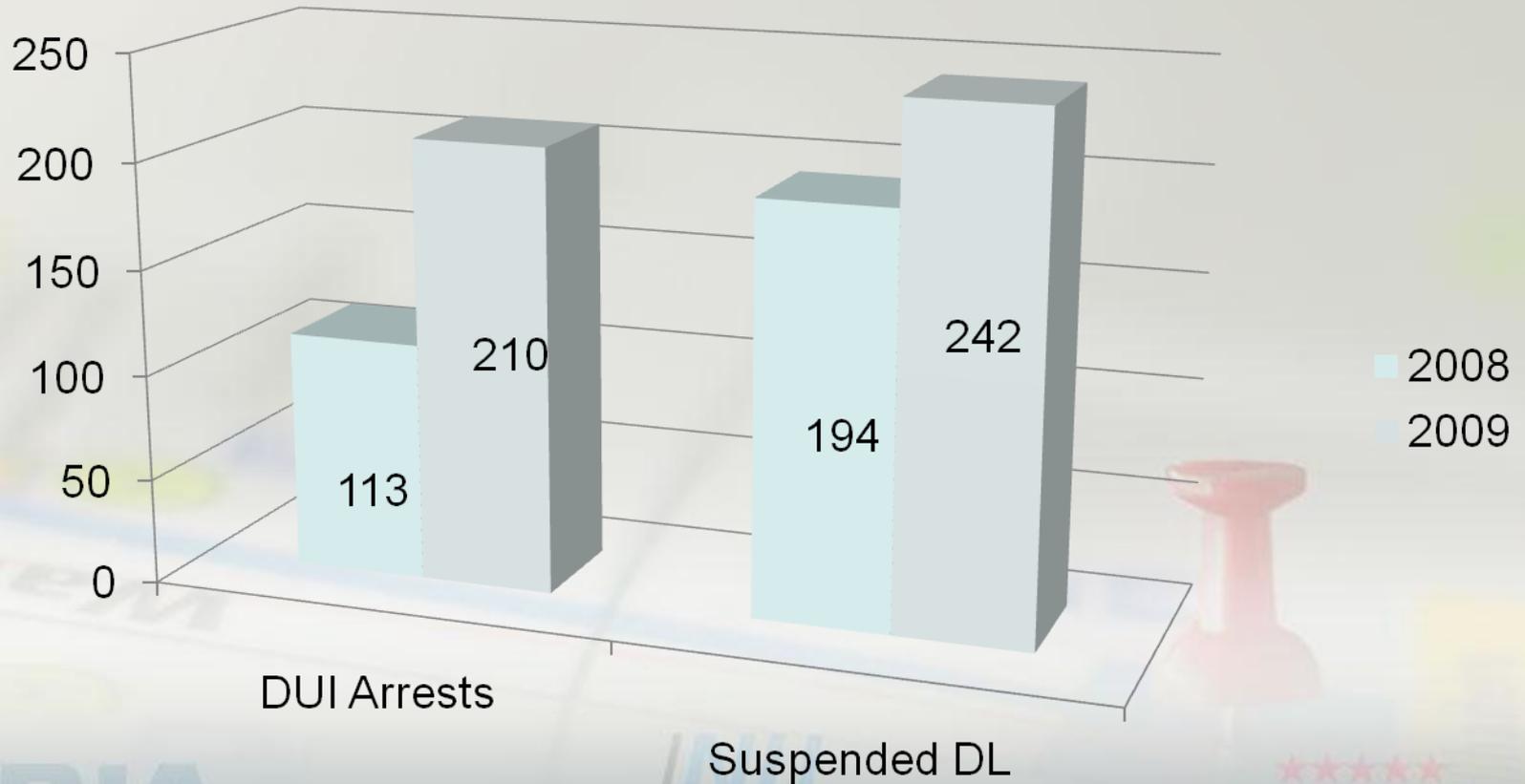


Figure 2. Locations of crimes and crashes in St. Albans City, August 2007 – July 2008.



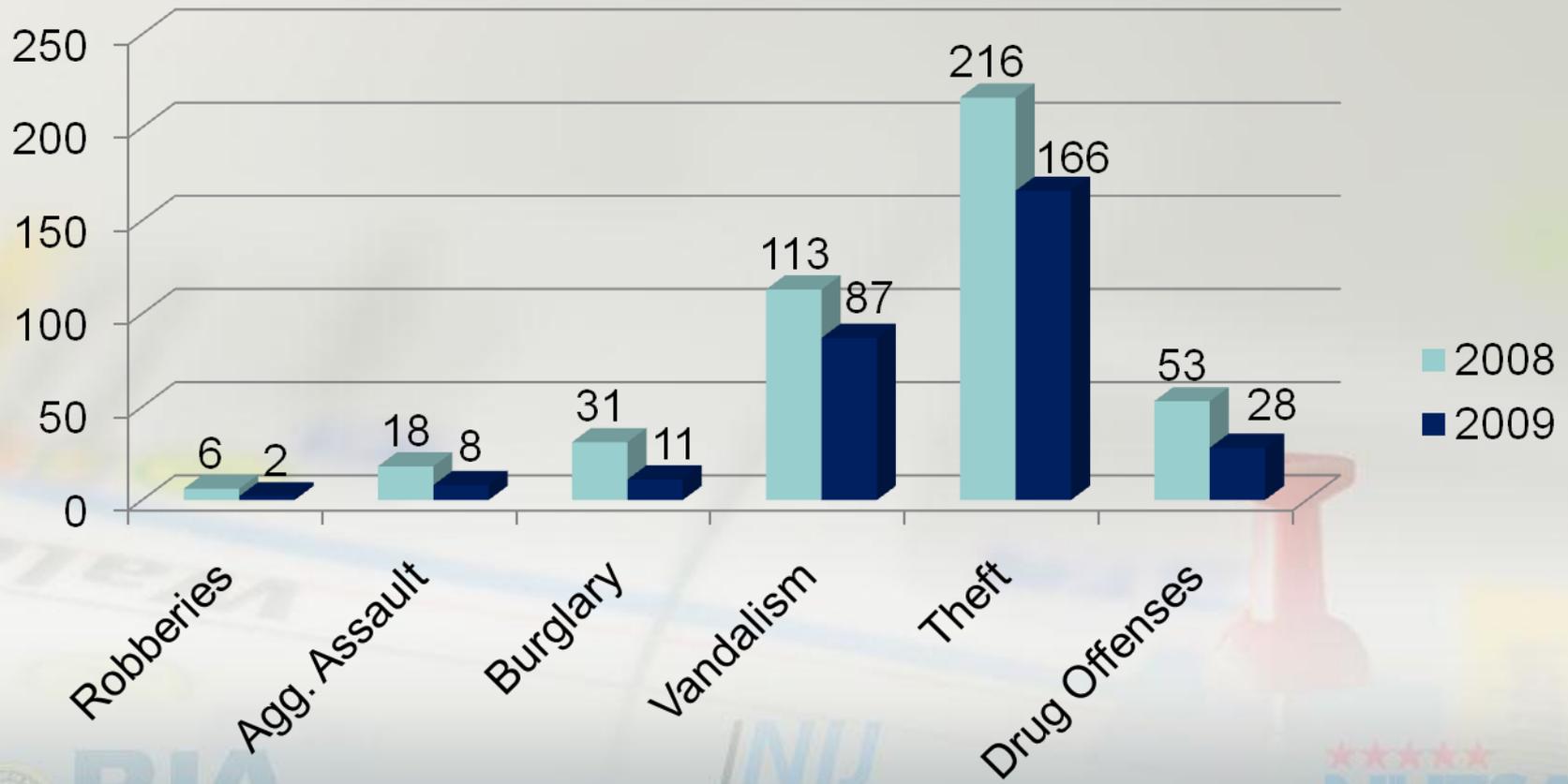
# Traffic Enforcement Results Franklin County

(first six months)



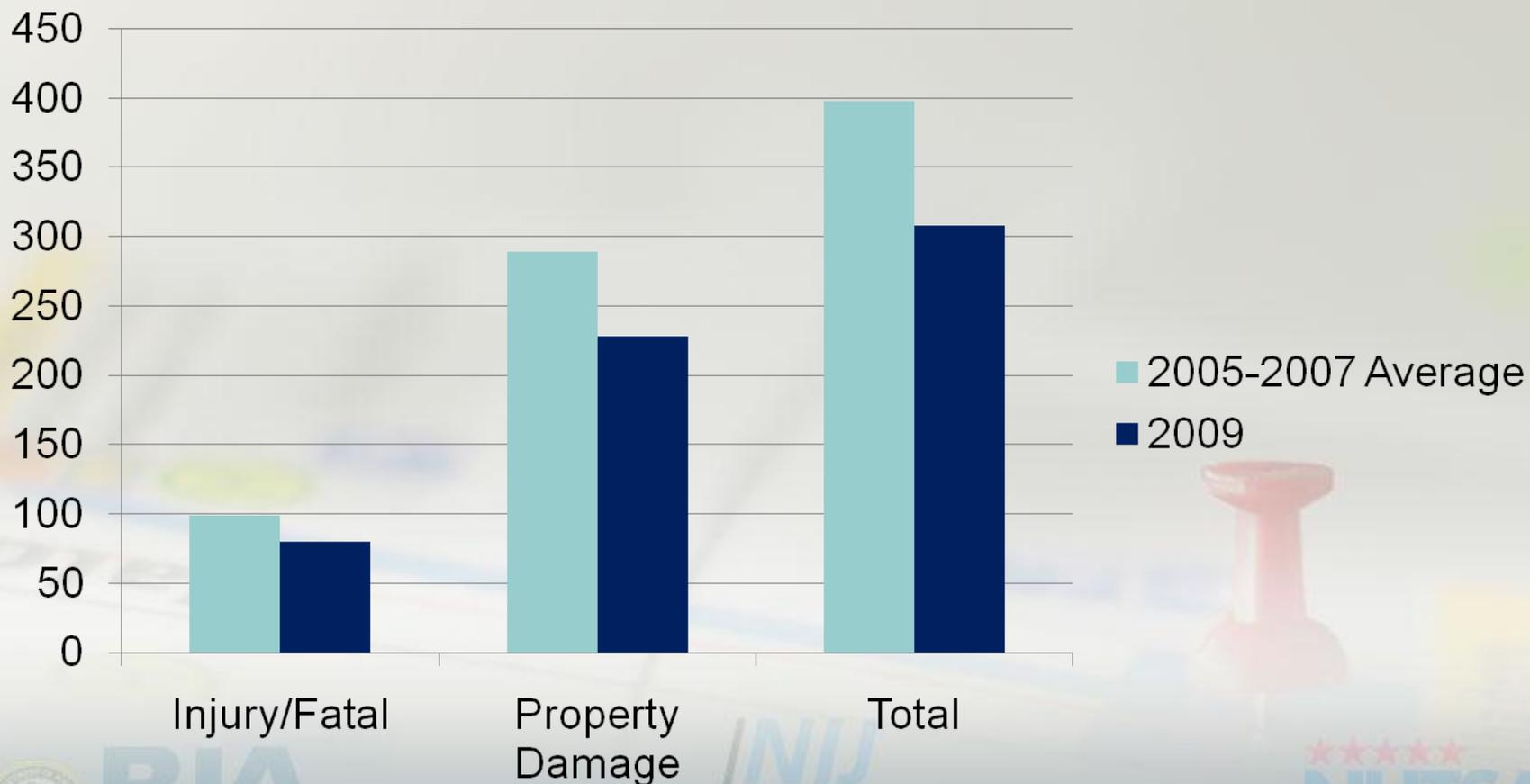
# St. Albans City Results

(first six months)



# Traffic Crashes Franklin County

(first six months of the year)



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# Data-Driven Approaches City of Shawnee, KS

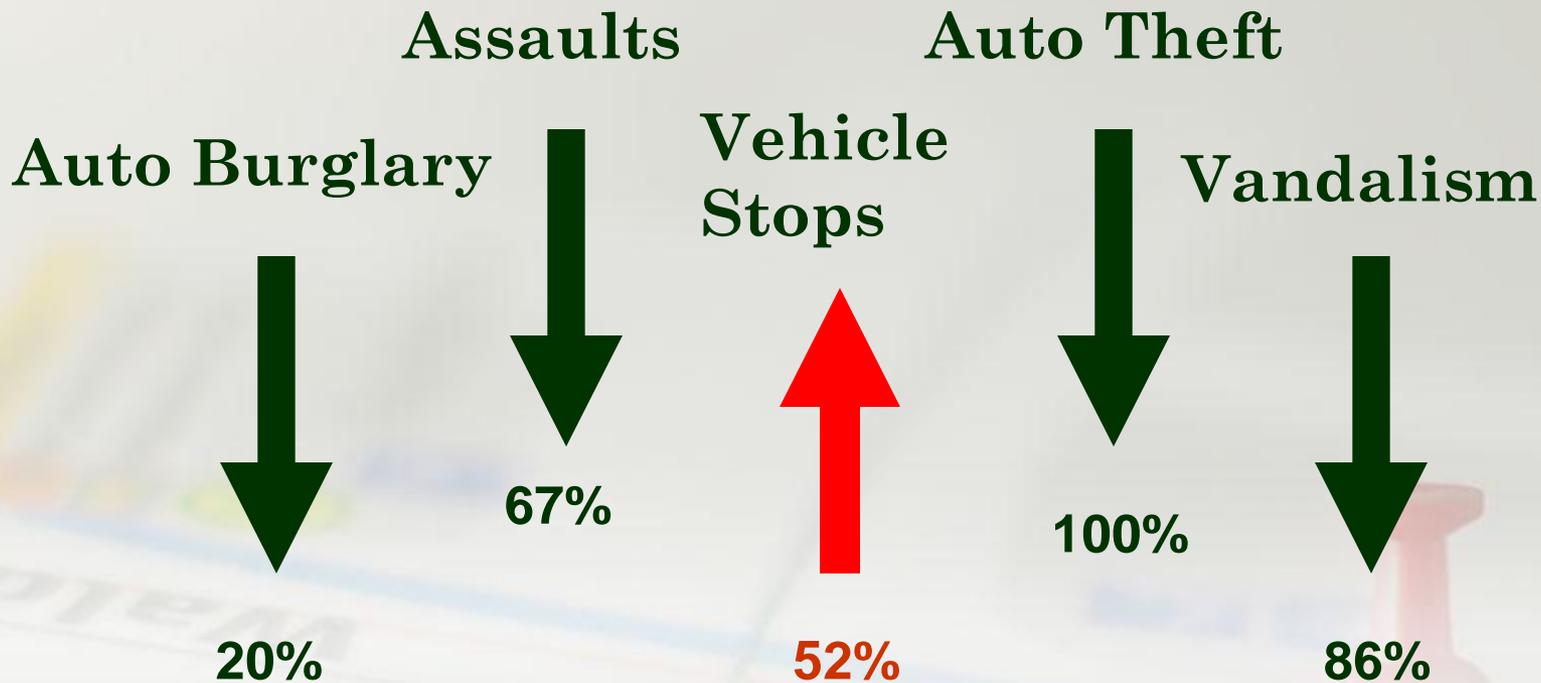
Crime and Traffic Safety

- Suburb of Kansas City
- Population 60,000
- PD started DDACTS effort July 6<sup>th</sup>
- Study area chosen approximately .8 square miles
  - 4,691 population
  - 15.2 % of all personal crimes
  - 17.4% of all property crimes
  - 13.1% of all crashes



# Preliminary Results

First Month



On-duty hours in target areas (July) 283



# Shawnee Police Department

to Crime and Traffic Safety

- **Overall Crime in Study Area down 26.7%**
- **Traffic crashes are up 3 crashes**



# Data-Driven Approaches

## Shawnee Kansas 90 Days Out

### Crime and Traffic Safety

- **154% Increase in Pro-Active Enforcement (214% Increase in Traffic Stops)**
- **60% increase in Pro-Active Reports (103% Increase in Warrant Arrests)**
- **44.8% Decrease in reported targeted crimes in DDACTS area**
- **Crime Decreased 7.7% in the non-DDACTS area of the City**
- **Crashes were up slightly**
- **Note: after 150 days crashes are now down 35%**

# **DDACTS**

## **Return On Investment**

**Reduction in Crashes**

**Reduction in Crime**

**Less Time Investigating and Reporting**

**Increased Time For High-Visibility Patrols**

**Increased Deterrence**

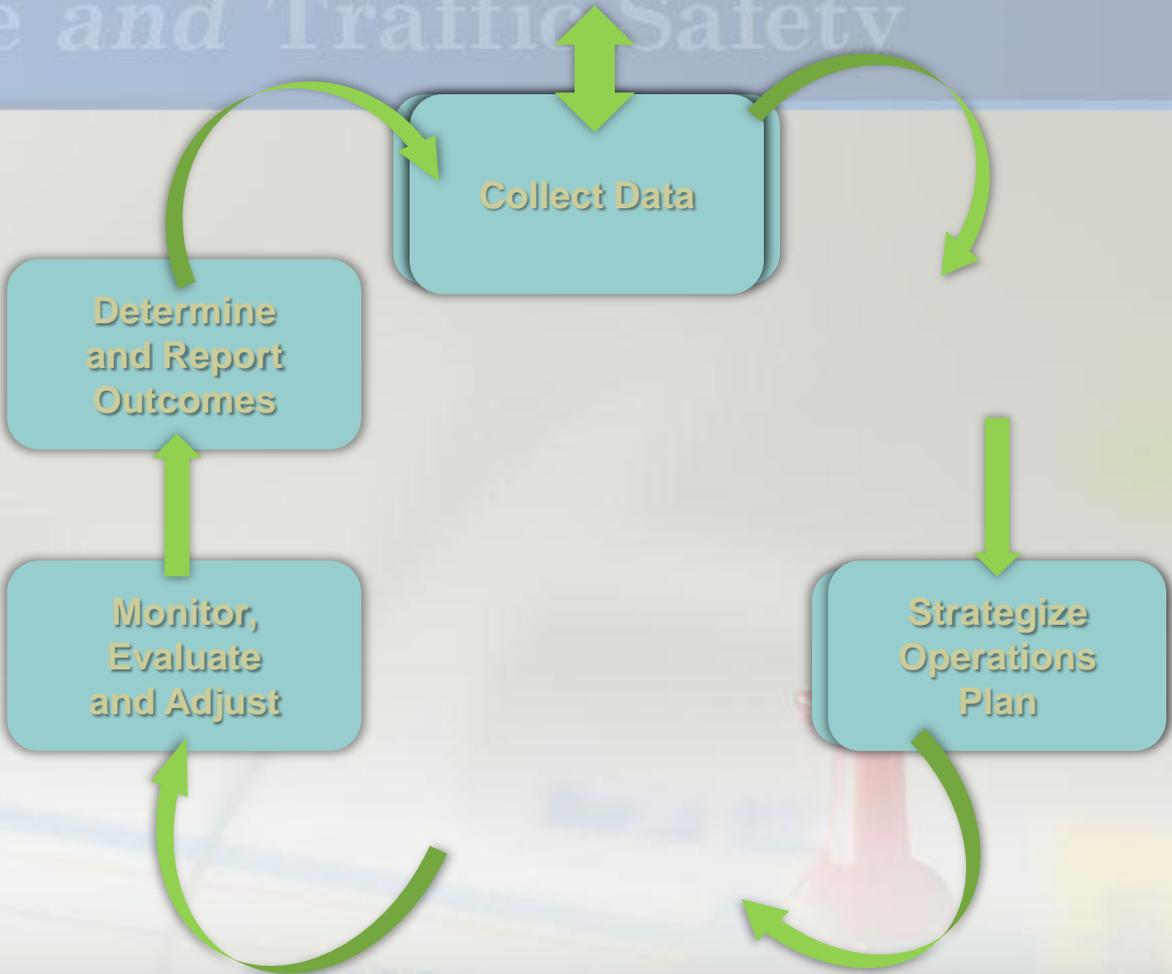
**Improved Information Gathering**

**Reduced Social Harms**

**Improved Quality of Life**

# Data-Driven Approaches to Crime and Traffic Safety

So you've heard about DDACTS. Your department is engaged and ready to launch. **Where do you start?**



# Technical Assistance for Starting DDACTS

- **Currently, No Grant Money**
- **Agency Assessment (where are you now)**
- **What are your needs**
- **Analysis/Mapping Assistance**
- **Operational Assistance**
- **Site Visit by DDACTS Implementation Team**
- **Presentations to Staff and Stakeholders**
- **Ongoing Assistance and Mentoring**



# National Institute of Justice (Research, Development, Evaluation)

- ▣ **NIJ's Mapping and Analysis for Public Safety (MAPS) program supports research that helps agencies use GIS to enhance public safety. The program examines:**
  - ✓ How to use maps to analyze crime
  - ✓ How to analyze spatial data
  - ✓ How maps can help researchers evaluate programs and policies
  - ✓ How to develop mapping, data sharing, and spatial analysis tools

# Data-Driven Approaches Crime Mapping

Free Training and Software:

<http://www.ojp.usdoj.gov/nij/maps/welcome.htm>



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U.S. DEPARTMENT OF JUSTICE

★★★★★  
**NHTSA**  
www.nhtsa.gov

# DDACTS Implementation Workshop

- Training and technical assistance using peer to peer facilitated interactive sessions
- Command, supervisors, and analysts attend
- 16 hours, afternoon, full-day, morning
- Defines the 7 Guiding Principles and agency specific roles
- Develop an agency specific implementation operational plan
- No cost to agency, register at [DDACTS@dot.gov](mailto:DDACTS@dot.gov)



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# Further Information and Resources

- [www.DDACTS.com](http://www.DDACTS.com)
- <http://www.ojp.usdoj.gov>
- <http://stko.maryland.gov>
- [www.nhtsa.gov](http://www.nhtsa.gov)
- **Just Google “DDACTS”**



## Some Final Thoughts

- In times of diminishing resources and increasing public demands, law enforcement agencies must develop and implement effective enforcement strategies that produce multiple benefits and measurable desired outcomes.
- DDACTS simply gives you more bang for your buck; it is highly efficient and effective in reducing social harm.



Data-Driven Approaches  
Crime and Traffic Safety

# Questions

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