

# Smarter Cities Rio de Janeiro



#### **Professor W. Richard Janikowski**

Director, Center for Community Criminology and Research, and Associate Professor, Department of Criminology and Criminal Justice, *The University of Memphis* 

# Blue C.R.U.S.H. (Crime Reduction Using Statistical History)



**SmarterCities** 



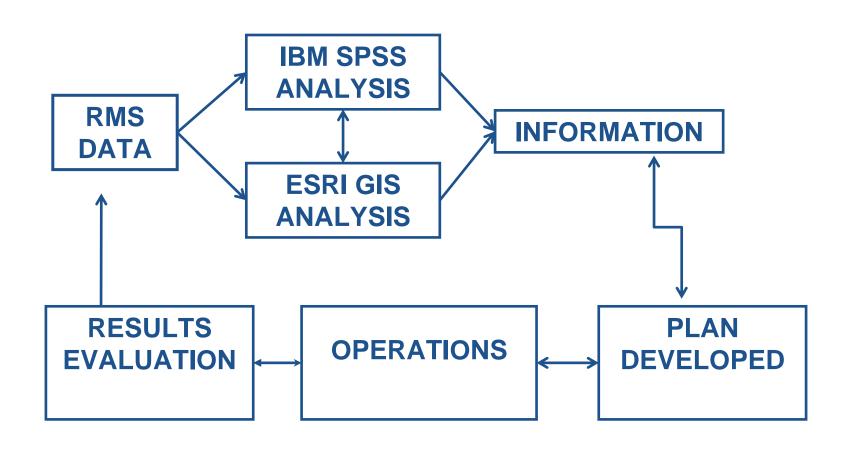
#### Beginning of Blue C.R.U.S.H.

- Crime spiking across country
- Needed information on where to deploy limited resources
- Partnered with University of Memphis
- Created plan to analyze data and predict where to deploy personnel
- Results phenomenal!



#### Actionable Knowledge

#### FROM DATA TO INFORMATION TO ACTIONABLE KNOWLEDGE





# Blue C.R.U.S.H. Strategy

- Replaced CompStat meetings with T.R.A.C.
  - (Tracking, Responsibility, Accountability, Credibility)
- Crime has no borders
  - Communication with adjoining precincts key
- Blue C.R.U.S.H. drawn from numerous evidence-based practices
  - Integrated with data analysis
  - Utilized consistent presentation format



# Steps to Implementation

- Selected IBM SPSS Software
  - Statistical Analysis Tool: steps to implement program
- Integrated statistical analysis with mapping program –
   GIS crime mapping
- Partnered police offers with researchers
- Developed and evolved data results format
- Implemented pilot programs for testing



#### Blue CRUSH I (August 25, 2005)

#### **Targeting Acute & Chronic Crime Patterns**

# Police hit crime 'hot spots'

Record day produces 67 arrests in sweep aided by 'smart' data

By Sherri Drake drake@commercialappeal.com

With the help of information compiled by university researchers using cutting-edge techniques, law enforcement officers made dozens of arrests in a record-breaking sweep Thursday called "Operation Blue CRUSH."

Memphis police officials set up a command post at the Central Precinct, plastering the room with crime maps detailing hot spots down to the day, time and street.

"It is smart policing that you're seeing," said Richard Janikowski, chairman of the U of M's Criminology and Criminal Justice Department. "We've been able to target down to real areas."

The University of Memphis Center for Community Criminology and Research compiled maps, charts and other information from police reports filed between July 16 and Aug. 12. The researchers tracked murder, aggravated assault, robbery, rape, burglary, motor vehicle theft, arson and larceny.

Operation Blue CRUSH,



Alan Spearman/The Commercial Appeal

Organized Crime Unit officers load items from a house at 3378 Range Line in Frayser where two arrests were made Thursday. It was part of a citywide targeted crime sweep.

which stands for "crime reduction utilizing statistical history," kicked off early Thursday. By 9 p.m., nearly 200 city, state and federal officers had arrested 67 people for various offenses, particularly drug charges.

The previous record for a saturation by the Memphis Police Department was 66 arrests, police director Larry Godwin told reporters outside the precinct on Tillman.

Officers continued to work into the early morning hours.

Two arrests were made about 11 a.m. at a home at 3378 Range Line in Frayser. Officers found a large number of illegal pills, which were still being counted late into the night, and loaded a van with three large coolers and

machinery in unopened cases.

The hot spots in Memphis included most of Frayser, Hickory Hill and Whitehaven. Police also targeted two areas in East Memphis — one roughly bounded by Park, Prescott, Lamar and Kimball and the other, Summer, Tillman, Pope and Johnson.

Sherri Drake: 529-2510



# Challenges and Results

- Writing code for SPSS program
  - Now available from MPD at no charge to other police departments who want to adapt
- Community support required
  - Over 200 Community meetings in 2 years
- Results
  - Last City of Memphis Citizen Poll Memphis scored highest in history of poll
  - Substantial crime declines



#### How Blue C.R.U.S.H. Differs from CompStat

- CompStat direct accountability tool
- Blue C.R.U.S.H. integrated strategy
  - Evidence based practice
    - Uses data analysis, police experience and knowledge, process for strategy to continually evolve
  - Develops data analysis with input from officers on street
  - Distributes data directly to street officers for their patrol area
- Police knowledge and experience + data analysis = real impact



#### Successes!

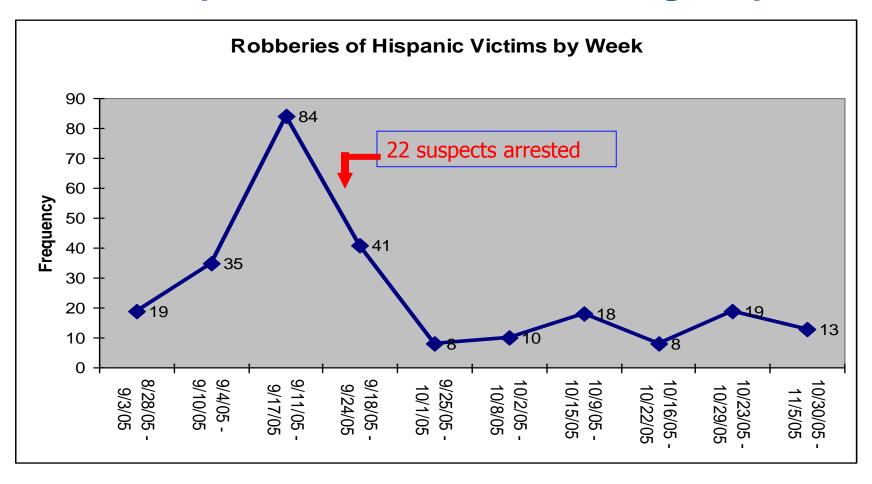
#### **Results from 2006 - 2010**

- 28% reduction in overall crime
- Reduction in violent crime
- Crime down in every category
- Citizen satisfaction increased
- Other police departments interested in adopting
- Real-time information distributed to officers
- Forcible rape and robbery at lowest level in 26 years



#### Operation Colaboracion

#### 71% Decline in Reported Robberies Involving Hispanic Victims



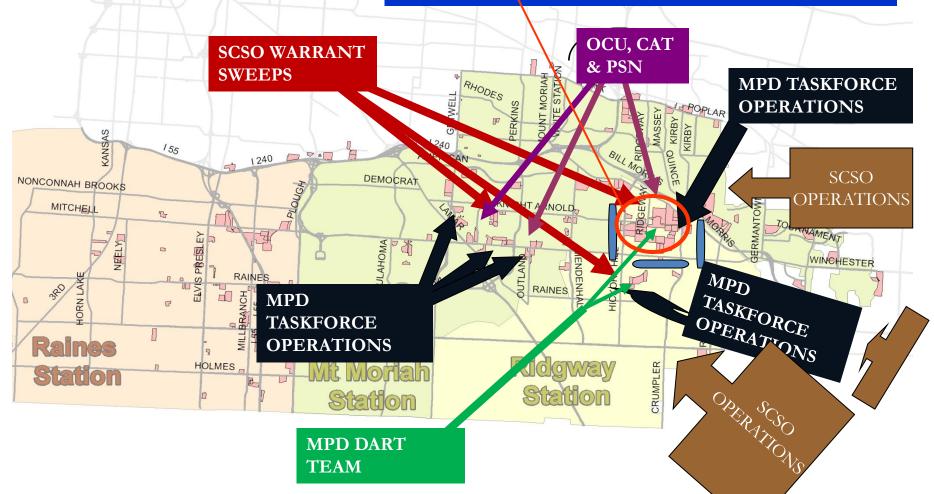
#### Safeways Law Enforcement Strategy

2006:2009 Crime % Change: -33%

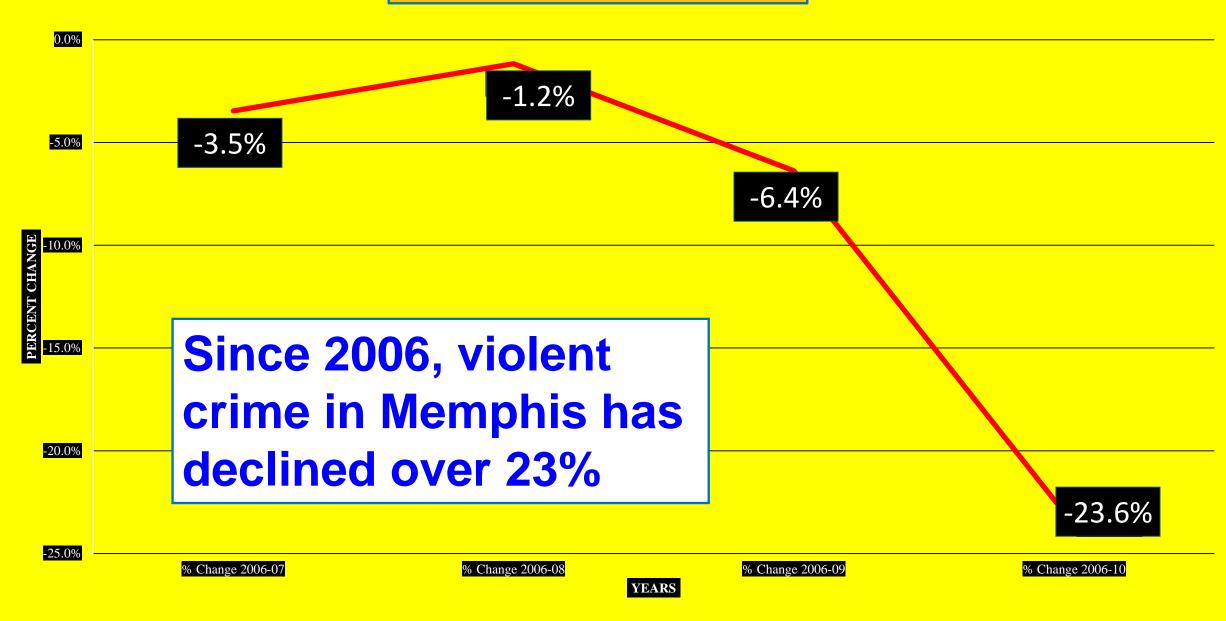
2006:2009 Violent Crime% Change: -28%

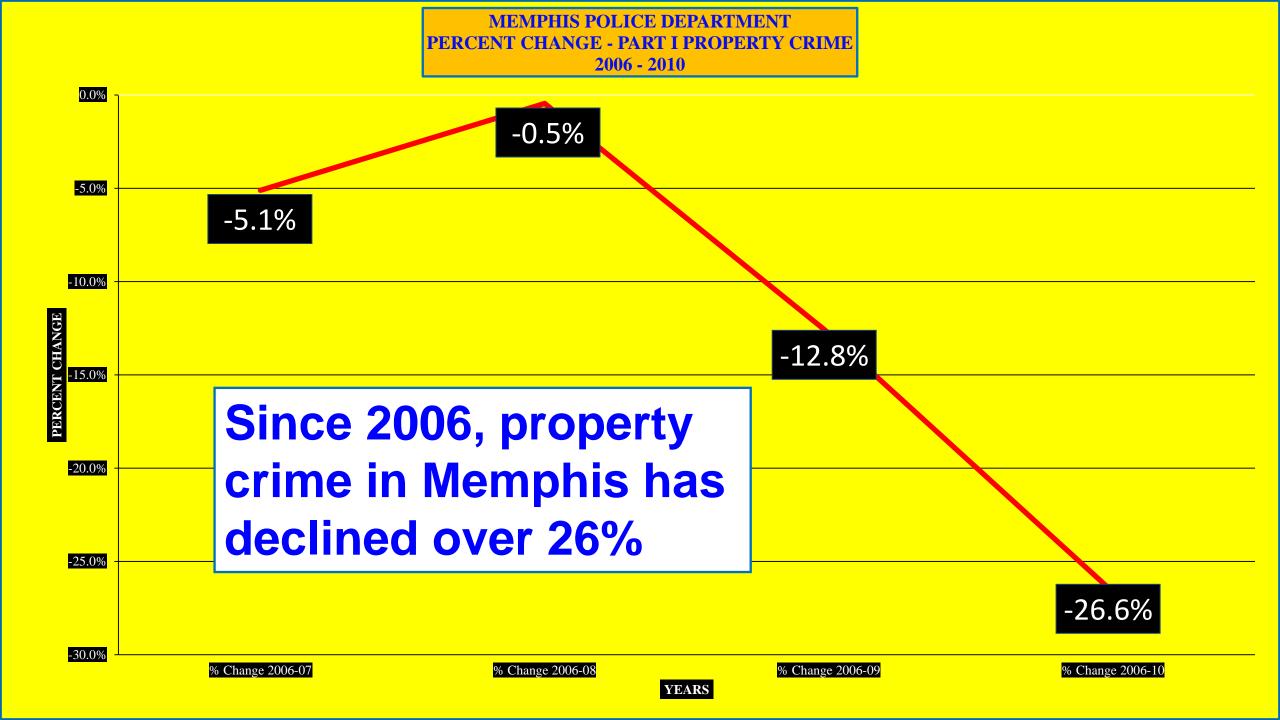
Homicides- 8/yr to 2/yr

2006:2009 Property Crime % Change: - 57%



MEMPHIS POLICE DEPARTMENT PERCENT CHANGE - PART I VIOLENT CRIME 2006 - 2010







#### What it Means for Real People

#### **Since 2006:**

- 105 human beings who are alive who were not the victims of homicide
- 4,235 people who were NOT victims of a Robbery
- 1,296 people who were NOT victims of a serious assault



#### Costs Saved: ROI

#### **Tangible VICTIM Costs Saved**

(medical, lost productivity, police services, social services):

- Homicide: \$107,364,600
- Robbery: \$9,702,385
- Aggravated Assault: \$2,012,688

NOT INCLUDING LOST QUALITY OF LIFE



# Future Steps

- Enhanced Use of Predictive Analytics Multivariate Analysis
  - Weather, events, school-data
- Integration of Non-Law Enforcement Data
- Support for Community Policing
  - Community Characteristics data
  - Center for Community Building & Neighborhood Action
- Strategic Planning and Monitoring
  - High Impact Offender Identification
  - Offender Status Monitoring



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