

DATA-DRIVEN APPROACHES TO CRIME AND TRAFFIC SAFETY (DDACTS)

CASE STUDY OF THE METROPOLITAN NASHVILLE, TENNESSEE, POLICE DEPARTMENT'S DDACTS PROGRAM



16 OCTOBER 2009

PREPARED FOR THE

**NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT AND JUSTICE SERVICES DIVISION**

BY

**ANACAPA SCIENCES, INC.
SANTA BARBARA, CALIFORNIA**

NASHVILLE, TENNESSEE

DISTINGUISHING FEATURES

Superstars exist in many fields, including music, business, politics, science, and even in law enforcement. The Chief of the Metropolitan Nashville Police Department is well-known for his accountability-based management techniques, which are emulated by law enforcement leaders throughout the United States. A data-driven approach is the key component of his method and has fueled the rise of Chief Ronal Serpas to superstar status in law enforcement.

SETTING

Located on the Cumberland River, Nashville grew out of Fort Nashborough, which was established in 1779 and named for the Revolutionary War general, Francis Nash. The city lies in Davidson County, of which it is the county seat as well as the state capital. While Memphis edges out Nashville as the most populous city in Tennessee (populations of 670,000 and 626,000, respectively), Nashville is considerably larger in area, with the incorporated city stretching over approximately 530 square miles, making it one of the largest cities in the United States in area.

The city is rich in history. It is the site of Andrew Jackson's plantation home, The Hermitage, and is famed for its more than 700 churches, earning it the nicknames "The Buckle of the Bible Belt" and "The Protestant Vatican," but Nashville is most known for being "Music City." The



city's music business tradition can be traced to the publication of a popular hymnbook in 1824, and since then Nashville has attracted musicians of all genres. Elvis Presley, Bob Dylan, and contemporary bands such as Matchbox 20 and The White Stripes have all recorded at studios on Music Row, and for more than eighty years, Nashville has hosted the Grand Ole Opry. It is also the location of the Country Music Hall of Fame and Museum.

Nashville's culture has a wide breadth beyond its musical heritage. Two major league sports teams are based in the city, the NFL Tennessee Titans and the NHL Nashville Predators. A spectacular, full-scale replica of the Greek Parthenon houses an art museum; Nashville's original version of this building was built for the 1897 Centennial Exposition as a nod to another of the city's numerous nicknames, "The Athens of the South."¹ Nashville is also known as a center of learning and is home to many colleges and universities, most notably Vanderbilt University. A diverse city, it was in Nashville that the first African-American-owned bank and architectural firms were established. Nashville has a growing Hispanic population and during the 2005 election in Iraq, it was one of the international polling sites for Iraqi expatriates, due largely to the city's community of approximately 11,000 Kurdish immigrants.



¹ It is the only full-scale replica of the Parthenon in existence and although it is constructed of concrete, rather than stone, it houses a statue of Athena, as did the original until the Fifth Century CE.

It is fitting that the largest of the four remaining vinyl record plants is located in Nashville, contributing to the 19,000 jobs provided by the city's music business. The healthcare industry is Nashville's largest employer, with 250 healthcare companies operating in the city, including the headquarters of HCA, Inc., the world's largest private operator of hospitals. Nashville is also the seat of many other major companies, including Bridgestone-Firestone, Dell Computer Corporation, Gibson Guitars/Baldwin Pianos, and the US division of Nissan Motors. Nissan also has its largest North American manufacturing plant in nearby Smyrna, and with the concentration of economic interests in Central Tennessee, Japan recently moved its office of consulate-general from New Orleans to Nashville.



BACKGROUND

Ronal W. Serpas served as the first Chief of Operations of the New Orleans Police Department (NOPD) from October 1996 to July 2001, a period during which the City of New Orleans led the nation in reducing violent crime (i.e., 1997, 1998, 1999 and 2000). He retired as the Assistant Superintendent of the NOPD to become Chief of the Washington State Patrol (WSP) where he implemented his trademark Compstat Accountability Method, which resulted in a 37 percent increase in DUI arrests and a 22 percent decrease in interstate fatalities, among other objective measures of success; he became the sixth Chief in Metropolitan Nashville Police Department (MNP) history in January 2004. In addition to his three decades of law enforcement experience, Chief Serpas earned a Doctorate in Urban Studies, with an emphasis in Urban Crime, from the University of New Orleans, and has taught undergraduate and graduate level courses and published several articles on the Accountability-Driven management philosophy he created.



Chief Serpas implemented his Compstat Accountability Method in Nashville soon after his arrival. The method involves weekly performance reviews, beginning with individual officers reporting assessment data to sergeants and culminating with precinct and division commanders reporting to the Chief in a public setting. This data-driven review process focuses on accomplishments, challenges, and the use of resources, and it encompasses all operations of the agency. Preparation for and conduct of the reviews are time consuming and, occasionally, uncomfortable for individual managers, but the frequency of the reviews and the emphasis on personal accountability leave little within the agency unscrutinized. The relentless emphasis on accountability seems harsh at times, especially when a manager is forced to explain a sudden increase in crime or crashes, or respond to probing questions about some other problem in his or her area of responsibility. However, the reviews are conducted within the cooperative atmosphere generated by the approach and the objective always is to improve performance in the pursuit of public safety.²

² The tough questioning during Compstat meetings is usually performed by a surrogate while Chief Serpas hovers in the background with arms crossed, missing nothing. He tempers the strict, public accountability that is his trademark style with compassion for agency personnel who are injured, ill, or troubled, and by personally presenting awards to MNP) officers and civilians to recognize exceptional performance; the ceremonies are as public as the Compstat meetings and the positive effects on morale are evident to observers.

Ronal Serpas and the managers of the MNPD are sincere about fostering diversity within the organization; women and minorities serve as members of the senior staff and others occupy key positions of responsibility throughout the agency. It is notable that the MNPD developed an active *El Protector* program soon after Chief Serpas assumed command in 2004; the award-winning unit is staffed by Hispanic officers and modeled on the successful outreach efforts of the California Highway Patrol.³

The MNPD's 530-square-mile jurisdiction, which encompasses all of Davidson County, is divided into six precincts and served by 1,320 sworn officers and 310 full-time civilian personnel. Each precinct commander has a dedicated crime analysis officer on staff who is responsible for compiling the precinct-level performance measures and conveying them to the MNPD's Analysis Unit in time for the Compstat meetings, which are held each Friday.



PLANNING PROCESS

The MNPD's analysts use statistical and geographic information system (GIS) software to prepare standardized summaries of crime and crash incidence and to calculate trends. The weekly Compstat Reports include:

- Zone Intensity Maps that present county-wide perspectives based on the most recent four-week periods.
- Statistical tables that present data, such as incident, arrest charge, calls for service, response time, and quality of life measures.
- Point and Hotspot Maps that can be overlaid to identify emerging crime and traffic safety trends.
- Temporal Analysis that provides a rolling 10 week perspective.

³ Changing demographics also led Chief Serpas to direct the formation of an *El Protector* program while Chief of the Washington State Patrol.

Mission Statement and Goals

The overall objective of the MNPD's data-driven approach is to improve the quality of life in Nashville by reducing the numbers of crimes and crashes. The agency's primary method for achieving this objective is a chain of personal accountability that links all levels of the organization, from officer to chief, and all divisions of the MNPD together. Data—information about the time and location of incidents—fuels the enterprise.

ENFORCEMENT METHODS

The MNPD uses the full range of law enforcement tactics to reduce crime and improve traffic safety. However, a characteristic that is common to all efforts is that implementation is prompted and then guided by objective data.

FREQUENCY OF OPERATIONS/DURATION OF PROGRAM

The MNPD's data-driven approach began in February 2004, soon after Ronal Serpas became chief of the agency. For the officers and managers of the MNPD, DDACTS is not a program with a specified period of performance, but rather, a method for conducting law enforcement that is integrated into all activities of the agency.

PUBLIC AWARENESS/PROGRAM VISIBILITY

The MNPD's public information personnel ensure that the department receives publicity whenever it is needed to elevate awareness of events and special enforcement initiatives. The department also maintains a website with the capability to present crime and crash information as interactive, geographic displays.



FUNDING



Impaired driving is a central focus of the MNPD's attempts to improve traffic safety and the department vigorously pursues grant funds to support high-visibility, special enforcement efforts. For example, a grant from the Governor's Highway Safety Office recently resulted in 30 arrests for DUI. Officers are not redirected from other duties to perform these tasks, but rather, work overtime hours and target specific areas between 7 PM and 5 AM on Fridays, Saturdays and Sundays. MNPD officers routinely make 30 to 40 arrests for DUI during the three-day special enforcement operations.

LESSONS LEARNED

Chief Serpas offers the following comments and suggestions concerning obstacles and lessons learned. More information about these topics can be found in the articles cited.

Quality data, timely managed, shared and used to direct field activities is a successful strategy. We have also devoted tremendous effort to ensure that our data are valid and reliable.⁴ There have been unfortunate examples in American policing in which the focus has been on "counting the numbers" instead of "fighting crime and reducing crashes." We believe strongly in the later; therefore, we developed aggressive auditing processes to ensure that the information on which we base our efforts is sound and usable. Moreover, auditing the data reinforces that we are "crime fighters" not "number counters."

⁴ Ronal Serpas and Matthew Morley, Next Steps in Accountability Driven Leadership: Compstatting the Compstat Data, *Police Chief Magazine*, Vol. LXXV, No. 5, May 2008.

http://www.policechiefmagazine.org/magazine/index.cfm?fuseaction=display_arch&article_id=1501&issue_id=52008

We have also learned to pursue quality versus quantity.⁵ This is critical because we want to ensure that our first level managers and leadership teams are being measured in a manner that: 1) reinforces our DDACTS/COMPSTAT/ADL philosophies; and 2) uses a creative way of decision making analysis to guard against “fishing where the fishing is good,” that is, to use the important tools of modern law enforcement in a way that rewards the quality use of those tools, not just the numbers (quantity) of times the tools are used.

OBSTACLES

It is unfortunate, but many people believe that the police simply do not matter. We do matter! Using DDACTS, COMPSTAT, and ADL gives us the platform to show our internal and external critics that our work can and does make a difference. Far too much energy is wasted on considering what the police cannot do and what commanders do not have; valuable time and momentum are lost by focusing on these negatives. Our uses of valid and reliable data are fundamental to our efforts to direct positive change and to educate the public that we can and do make a difference.

SUGGESTIONS FROM THE PROGRAM ORGANIZERS

We hope that the American law enforcement community will continue to use strategies such as DDACTS, COMPSTAT, and Accountability Driven Leadership. More important, we hope law enforcement managers will expand and refine these strategies to improve the performance of their agencies in simultaneously reducing crime and crashes and improving the quality of life for the citizens they serve.



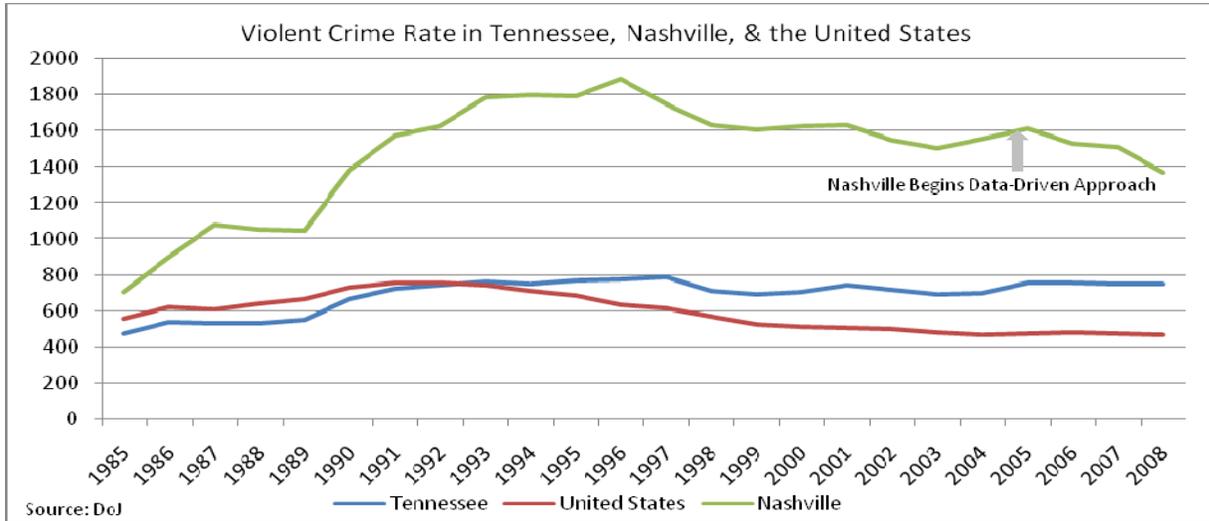
⁵ Ronal Serpas and Eric Cardinal, Accountability Driven Leadership: Assessing Quality versus Quantity, *Police Chief Magazine*, Vol. LXXV, No. 12, December 2008.
http://www.policchiefmagazine.org/magazine/index.cfm?fuseaction=display_arch&article_id=1692&issue_id=122008

EVIDENCE OF PROGRAM EFFECTS

Effects of the MNPД’s data-driven approach are presented in the following figures.

CRIME DATA

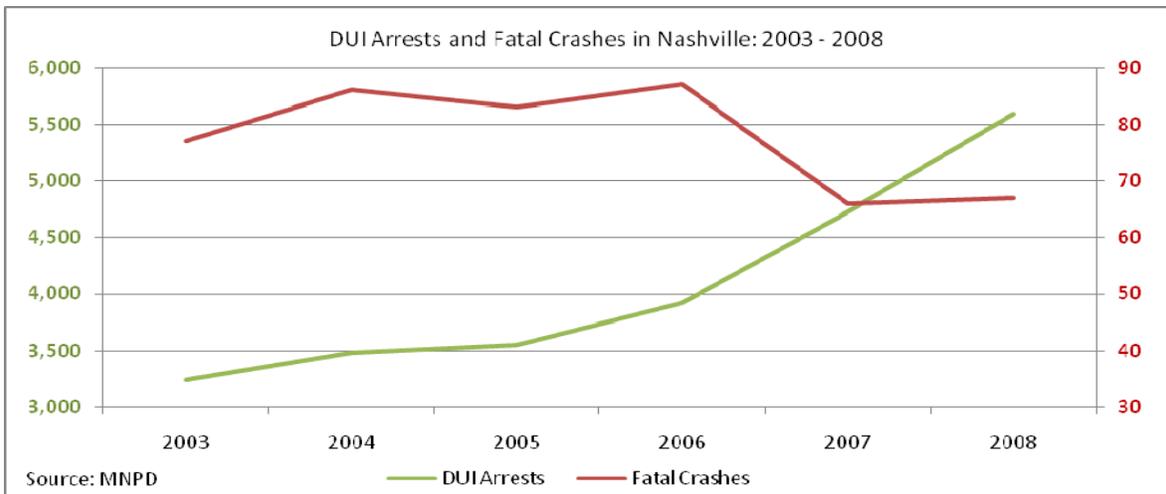
The year 2008 was the fifth year of Chief Serpas’s tenure with the MNPД and the fifth consecutive year that crime rates have fallen in Nashville. The 2008 overall crime rate was the lowest since 1985; the violent crime rate was the lowest since 1989; the property crime rate was the lowest since 1979; and the auto theft rate was the lowest since records have been maintained by the department.

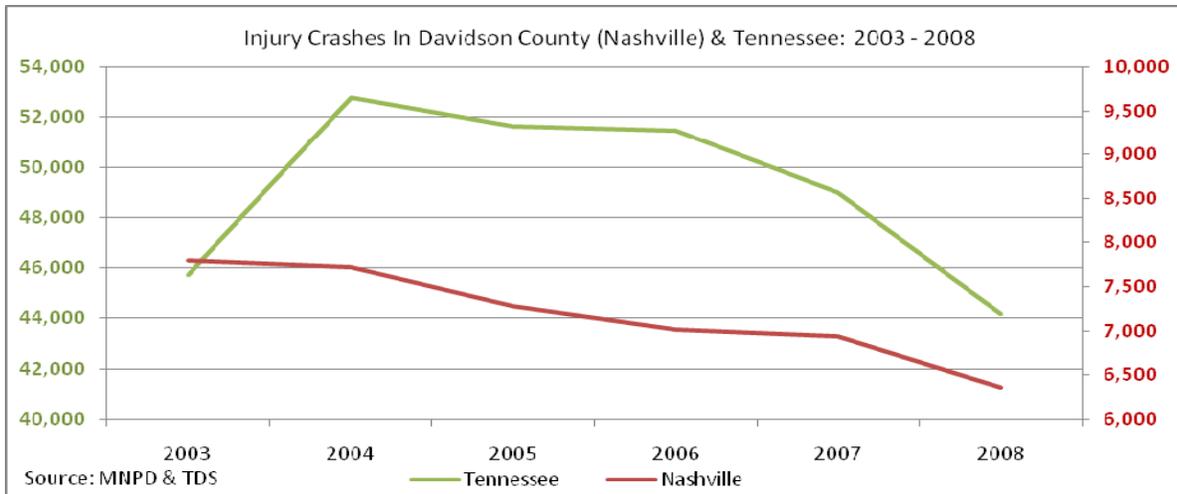


Note: The category, Violent Crime, includes murder, non-negligent manslaughter, forcible rape, robbery, and aggravated assault. The crime rate is generally calculated to be the incidence per 100,000 of population to facilitate comparisons among jurisdictions of different sizes.

TRAFFIC SAFETY DATA

The number of DUI arrests in 2008 increased by 12 percent from the previous year and totaled 5,595, the highest number in more than 15 years. MNPД officers made 298,935 motor vehicle stops during 2008, which represents a 14 percent increase over 2007; motorists received warnings following 53 percent of the stops. Fatal crashes have declined by 24 percent since 2004 and injury crashes by 16 percent—7.6 percent in 2008, marking five consecutive years with fewer injury crashes than the preceding year.





CONTACT

Commander Michael Alexander
 Metropolitan Police Department of Nashville and
 Davidson County
 5101 Harding Place
 Nashville, TN 37211
 Telephone: 615-862-7744
 Email: michael.alexander@nashville.gov

