

Performance Management in New York City

Compstat and the revolution in police management

Dennis C. Smith and William J. Bratton

Introduced in 1994 in the New York City Police Department, Compstat soon established itself as an important breakthrough in local government performance management. Credited with dramatic improvements in safety and crime reduction, this management system continues to be studied and emulated by others more than a decade later.

Scholars may argue about the effectiveness of the “reinvention movement” at the state and federal level. At the local level, the managers of urban police forces have in fact reinvented American police administration, and in doing so have contributed to dramatic reductions in crime all across the nation. The story of this reinvention is complex, but central to it is a radical shift in the way police organizations strategically use *information about performance* to achieve greater managerial accountability. Because these new performance management techniques were pioneered in New York City in the mid-1990s, the development and implementation of Compstat by the New York City Police Department (NYPD) is a valuable case study of this new approach to policing.

Excerpted from Dennis C. Smith and William J. Bratton, “Performance Management in New York City: Compstat and the Revolution in Police Management,” pp. 453-482, in Dall W. Forsythe, ed., *Quicker Better Cheaper? Managing Performance in American Government* (Albany, N.Y.: Rockefeller Institute Press, 2001). Reprinted with permission of the Rockefeller Institute Press, Rockefeller Institute of Government, 411 State Street, Albany, NY 12203.

At the heart of the reinventing government movement that has flourished in the past decade is the idea of "managing for results." In New York City, a leading example of reinvention is the change in police management introduced by Police Commissioner William Bratton at the start of the administration of Mayor Rudolph Giuliani in 1994. In an institution long noted for its resistance to fundamental change, the introduction of a new system of management now known by the acronym for Computerized Statistics (Compstat) was remarkable for its scope, speed of implementation, and its impact on performance. The development of the Compstat system of police management involved not only a focus on measuring outcomes but also on managing for improved outcomes. Since the introduction of Compstat, various kinds of crime—the outcomes of policing—have plummeted to 1960s levels.

A 1996 article appearing in NYPD, published by the police department, entitled "Managing for Results: Building a Police Organization That Dramatically Reduces Crime, Disorder, and Fear," described Compstat in the following words:

For the first time in its history, the NYPD is using crime statistics and regular meetings of key enforcement personnel to direct its enforcement efforts. In the past crime statistics often lagged events by months and so did the sense of whether crime control initiatives had succeeded or failed. Now there is a daily turnaround in the "Compstat" numbers, as crime statistics are called, and NYPD commanders watch weekly crime trends with the same hawk-like attention private corporations paid profits and loss. Crime statistics have become the department's bottom line, the best indicator of how police are doing precinct by precinct and citywide.

At semi-weekly "Compstat" meetings the department's top executives meet in rotation with precinct commanders and detective squad commanders from different areas of the city. These are tough, probing sessions that review current crime trends, plan tactics, and allocate resources. Commanders are called back to present their results at the "Compstat" meetings at least every five weeks, creating a sense of immediate accountability that has energized the NYPD's widely scattered local commands. The meetings also provide the department's executive staff with a way of gauging the performance of precinct commanders, who have a better opportunity to be recognized for what they have accomplished in their commands and how effectively they are applying the NYPD strategies.

Since the introduction of Compstat in 1994 through fiscal 1999, major declines were reported in all categories of crime in New York City and *in all 76 precincts*.

In fact, New York City outperformed the nation in all categories, often by a wide margin, and was an early and leading contributor in the crime reductions reported nationally. The FBI's total crime index in New York City from 1993 to 1999 declined 50 percent compared with a drop of 17 percent in other major U.S. cities. Specifically, from 1993 to 1999 in New York:

- Murder and non-negligent manslaughter declined 66 percent (this crime rate for major cities in the United States, *excluding NYC*, dropped 34 percent);
- Larceny theft declined 40 percent (11 percent in the U.S.);
- Motor vehicle theft fell 66 percent (U.S.: 24 percent);
- Burglary dropped 59 percent (U.S.: 26 percent);
- Robbery declined 58 percent (U.S.: 35 percent);
- Grand larceny decreased 37 percent (U.S.: 6 percent);

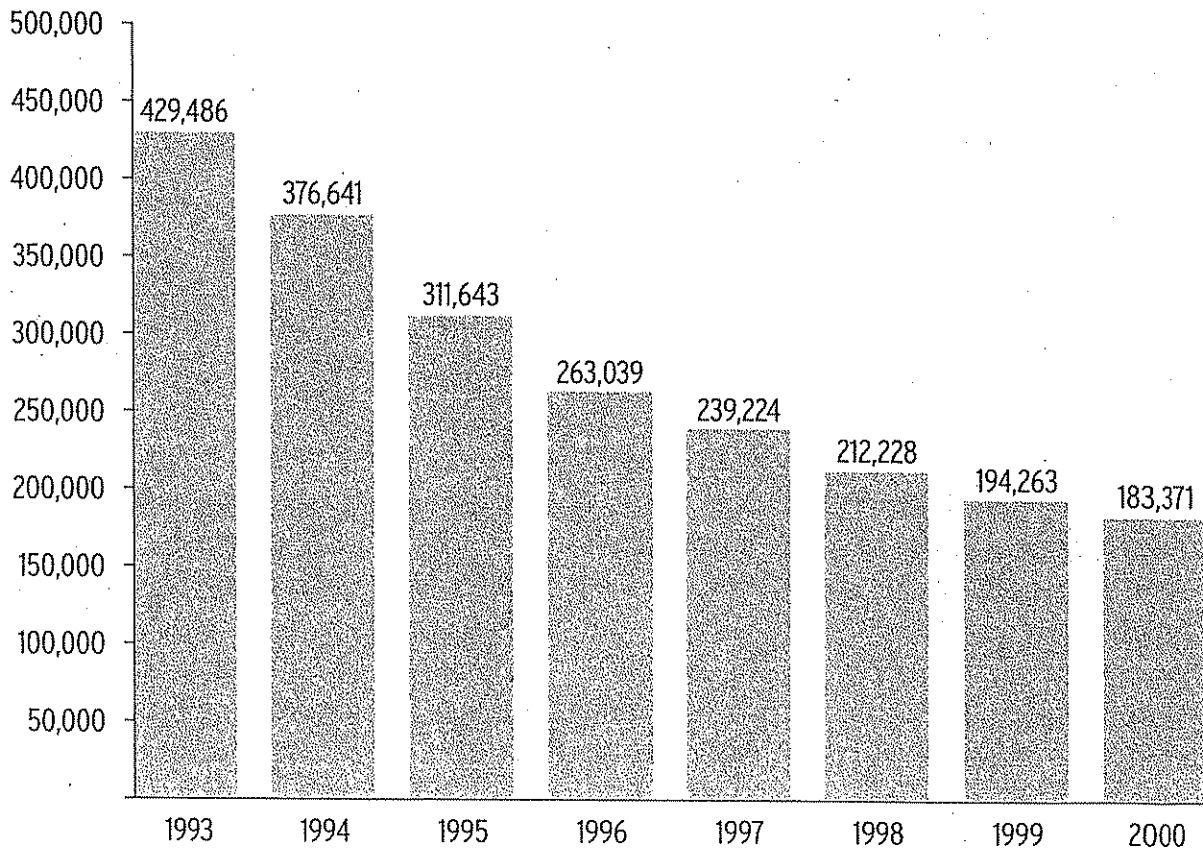
- Aggravated assaults dropped 36 percent (U.S.: 19 percent);
- Forcible rape declined 40 percent (17 percent in the U.S.).

Moreover, New York City's relative crime rate ranking among the nearly 200 U.S. cities with populations of 100,000 or more also improved, dropping from 88th place to 165th. New York is now the safest large city in the country.

Police management reform: The Compstat model

Compstat was introduced in NYPD by the management team assembled by William Bratton when he became police commissioner at the start of Mayor Rudolf Giuliani's administration in 1994. After reaching a peak in the early 1990s, when homicides exceeded 2,000, and after a historic build-up in police personnel under Police Commissioners Lee Brown and Raymond Kelly,¹ funded by the 1991 Safe Streets, Safe City Act passed by the legislature at the insistence of Mayor Dinkins, index crime in New York had begun to decline. Nevertheless, in the 1993 mayoral election the incumbent David Dinkins had trouble winning credit for the success of his "community policing" approach to reduction in crime, and confronted a candidate who ran on the issue that public safety was still a leading problem.

Figure 1. Major felony crimes in New York City.



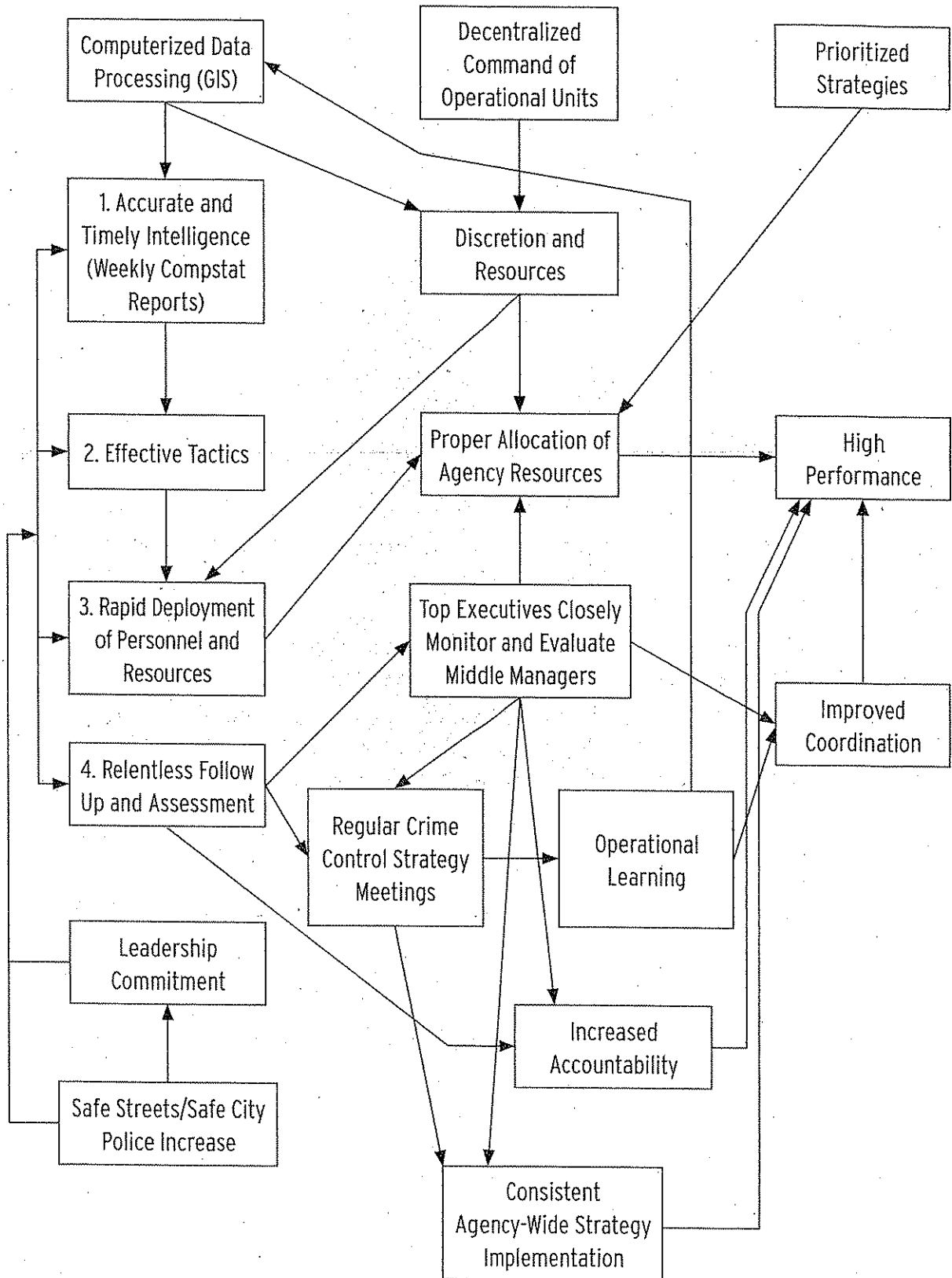
Most analysts and certainly newly elected Mayor Giuliani believed that the voting public's continuing concern about crime and public safety were critical to his victory at the polls. However, Wayne Barrett, in his biography of Giuliani, takes pains to point out that candidate Giuliani had offered no specifics about how he would achieve his goal of reducing crime. Barrett also criticizes Dinkins's second Police Commissioner Raymond Kelly, under whose leadership index crime had declined, for attributing the crime wave to "family values...young people out there on the streets with no supervision...the out-of-wedlock birthrate," but failing to give credit for the decline to changes by the community (Barrett, 2000, p. 352).

By most accounts, Mayor Giuliani selected William Bratton as his police commissioner because Bratton believed the police could reduce crime. Commissioner Bratton had his own reasons to believe in the efficacy of police action. When he served as head of the New York City Transit Police, he had succeeded in dramatically reducing serious crime. The best example of his approach was the strategic enforcement of the laws against the minor criminal offense of "fare beating." The rationale was that persons entering the subways intent on robbery and other crimes were unlikely to pay to ride. By targeting stations where fare beating was most common, by using plainclothes officers to arrest and interrogate fare beaters, by checking for outstanding warrants, by searching those arrested for weapons, and by prosecuting those with weapons, the Transit Police reduced fare beating, but more importantly drove knives and guns out of the system. This kind of strategy-based law enforcement—more akin to "problem-solving policing" than community policing—became a cornerstone of Compstat.²

Police Commissioner Bratton's approach to management, which relied on computer-mapped crime statistics, departed from both the traditional model of a highly centralized, reactive bureaucracy and from the newer model of community policing. In fact, Compstat differs in philosophy, structure, and management process from its predecessors. Compstat is based on a complex set of interrelated assumptions about cause and effect in the production of public safety (Figure 2). The official police presentation of Compstat focused on only four factors: accurate and timely intelligence, rapid deployment, effective tactics, and relentless follow-up and assessment (Safir n.d.). Increased police personnel (provided by Safe Streets/Safe Cities), leadership (from the commissioner *and* the mayor), and the new role of precinct commanders (decentralization) are also critical inputs. The detailed tracking process cast a net around more than just index crimes. Compstat includes indicators believed to be warning markers, such as shooting incidents, shooting victims, and gun arrests, all displayed in geographically pinpointed detail for regular management review at every level.

The philosophical change entailed in this model rested on the belief that police action can affect crime and public safety. To the consternation of many of his police management colleagues and a chorus of disbelief among academic criminologists, Bratton began his tenure by setting a target of cutting crime by 10 percent the first year. (The actual drop was 12 percent.) The new philosophy was informed by the idea of "broken windows" articulated most clearly by George Kelling and James Q. Wilson who argued that effective crime control starts at the bottom of the scale of seriousness, not the top. However, Bratton

Figure 2. The Compstat model of performance management.



emphasized targeting both top (serious felonies) and bottom-ranked (quality-of-life) crimes simultaneously, winning back the city "block by block." Jack Maple, Bratton's deputy commissioner for operations, maintains that the "broken windows" idea actually formed only a limited part of the New York City intervention. He wrote, "While I applaud tactics that reduce disorder and the public's fear of crime, implementing quality-of-life tactics alone is like giving a face-lift to a cancer patient. . . . For quality-of-life enforcement to make a significant contribution to crime reduction, it has to be supported by a larger strategy" (Maple 1999). The key element of "broken windows" was not the specific focus of enforcement but the belief that police intervention could have a major impact on crime.

Compstat also includes a significant structural change: the identification of precinct commanders as the locus for operational authority and accountability, and community-oriented problem solving. The traditional NYPD structure centered command, information, and accountability on higher-level officials and specialized units. Community policing could have empowered precinct commanders, but as practiced in New York by Commissioners Ward and Brown it focused more on empowering individual police officers as problem solvers (McElroy, Cosgrove, and Sadd 1993; Ward 1988).

Also under the old system, the job of precinct commander was either the icing on the top of a long career at NYPD or a short stopover on a fast track in the career of upwardly mobile officers. In either case, the performance goal tended to be limited: escape the position before an incident or scandal marred the record.

Under Compstat, precincts became the locus of problem solving and performance management, guided by centrally devised strategies and aided by centrally deployed supplemental resources. Precinct commanders have been given the tools to analyze up-to-date statistics, find patterns of crime and police activity, and devise solutions to problems they identify within the context of priorities and strategies for reducing crime established by the central administration. Precinct commanders know that Compstat staff have the same data they do, and are analyzing it for review.

This change in management process is symbolized by the twice-weekly crime strategy meetings at the Command and Control Center at One Police Plaza. The leaders of one of the City's eight borough commands assemble for a three-hour meeting with the department's top managers to review the performance of precincts—originally one by one, now in adjacent clusters to facilitate awareness of and response to larger patterns. In the early stages these reviews were scheduled well in advance, but precincts now receive only a couple of days notice. The review process is aided by geographic information system (GIS) maps, and trends are presented on computer terminals and projected on large screens. Precinct commanders are questioned about their analyses of patterns and trends, about their actions to solve crime problems, and about their coordination with other police department units. A review session typically covers, in one way or another, all ten central police strategies:³

- Getting guns off the streets.
- Curbing youth violence in the schools and on the streets.

- Driving drug dealers out of New York City.
- Breaking the cycle of domestic violence.
- Reclaiming public spaces.
- Reducing auto related crime.
- Rooting out corruption.
- Reclaiming the roads.
- Fostering courtesy, professionalism, and respect.
- Bringing fugitives to justice.

In addition to sharpening the focus on accountability, Compstat sessions have become major vehicles for organizational learning. In the past, no mechanisms were in place to share lessons learned or advances in crime-fighting tactics. The evidence presented at Compstat meetings is intensely scrutinized for insights into what works—and does not work—in the fight against crime, with the results widely and rapidly disseminated within the department. Since commanders are often grilled in Compstat meetings about their familiarity with successful methods, they have strong incentives to be prepared.⁴

Community policing and problem-solving policing

Compstat had its roots in the rise of two sometimes-related reforms in managing public safety: community policing and problem-solving policing. Faced with the need for new approaches to urban public safety, many police departments in the 1980s experimented with new strategies based on two findings: police contributions to public safety were highly dependent on citizen inputs, and police efforts were oriented to apprehension more than prevention. From the first came “community policing” and a return to the idea of the cop on the beat who knows a neighborhood’s people and places. From the second emerged “problem-solving policing,” which suggests that police can reduce crime by focusing not just on incidents of crime but also on community problems which lead to those incidents.

Some departments combined the two. In New York City a version of problem-solving community policing began in 1984 under Police Commissioner Benjamin Ward and continued into the early 1990s. Since 1994 the city has changed the orientation of problem-solving policing and dropped the rhetoric of community policing almost completely. As will be shown, there has been some distance between rhetoric and reality both during the ascendance of community policing in New York and its apparent eclipse.

As Commissioner Ward was addressing how the department should deploy new officers in the early 1980s, James Q. Wilson and George Kelling (1982) published “Broken Windows.” They argued that the neglect of quality-of-life crime enforcement in New York City in the late 1970s might be causally related to the rise in more serious crime in the early 1980s.⁵ In 1984, after an extensive study of the needs of the department by the Vera Institute of Justice, the Community Patrol Officer Program (CPOP) was launched to test problem-solving, community-oriented policing in one precinct. CPOP started in Brooklyn

with a 10-officer unit, supervised by a sergeant. The officers were assigned to work alone in fixed beat assignments, following a flexible schedule based on the needs of the beat. They were not responding to routine (911) calls for service, but learning neighborhood norms and folkways, identifying patterns of incidents ("problems"), and developing various strategies to address them. While community patrol officers were supposed to act on the information they obtained, they were also expected to serve as a communication link between the neighborhood and the department.

Before much testing of the model could occur, the idea grew wings and took off with a commitment in 1985 to extend it to every precinct in the city. [However] in his campaign for mayor in 1993, challenger Rudolph Giuliani characterized [Mayor David] Dinkins's community policing as "social work." A former federal prosecutor, he claimed to be a "real crime fighter." A "student" of George Kelling,⁶ he also promised to pay more attention to quality-of-life offenses, symbolized by the "squeegee men" jaywalking city streets at intersections to try to clean the windows of often reluctant and even frightened drivers.⁷

William J. Bratton, who became police commissioner in January of 1994 and directed the departmental reengineering effort, was recognized nationally as a proponent of community policing. A number of his closest advisors while he led the Boston Police, such as George Kelling of Northeastern University and Robert Wasserman,⁸ are considered founders of the community policing movement.

But New York in 1994 was a different story. Community policing was associated in the public mind with the Dinkins administration. In his book (1998, pp. 198-9), Bratton explains his view of community policing as practiced in New York City:

Beat cops are important in maintaining contact with the public and offering them a sense of security. They can identify the communities' concerns and sometimes prevent crime simply by their visibility. Giving cops more individual power to make decisions is a good idea. But the community-policing plan as it was originally focused was not going to work because there was no focus on crime. The connection between having more cops on the street and the crime rate falling was implicit. There was no plan to deploy these officers in specifically hard-hit areas...and there were no concrete means by which they were supposed to address crime when they got there. They were simply supposed to go out on their beats and somehow improve their communities.

But did community policing disappear with the introduction of Compstat? Problem solving, its lesser-known twin, was infused into many parts of the new plan. While the operationalization of problem solving as a street-level police behavior remained problematic, it emerged in Bratton's 1994 *Plan of Action* for NYPD as a key to high performance reviews, favorable assignments, and promotions. However, the new version of problem solving centered on the precinct, and the primary accountable official was the precinct commander, not the individual community police officer.

Precinct commanders could design their own operating strategies and draw on the department's resources in making those strategies work, and were evaluated on their success in "reducing dramatically crime, disorder, and fear." Precinct commanders who had been trained in and believed in the efficacy of community policing almost inevitably relied on a partnership

between their police and the community to achieve significant crime reduction. Thus, community policing has played a role in New York City's crime reduction success story.

The case for Compstat

It was probably inevitable, given the central place of crime-fighting strategies in the campaign that ousted the City's first African-American mayor and brought Rudy Giuliani into office, that the subject of crime and police performance in New York would be highly politicized. Mayor Giuliani did not acknowledge as significant the fact that crime had declined each year under his predecessor, nor credit the Safe Streets/Safe City legislation achieved under Mayor Dinkins for creating a much larger police force with which to pursue the fight against crime. Returning the favor, opponents and critics of the mayor are reluctant to find any merit in the claim that the NYPD under his leadership has played a central role in reducing crime. Most critics are content to offer alternative explanations, but one recent book goes to great if sometimes tortured lengths to challenge even the basic facts of crime reduction.⁹

The case we make here is that, while crime statistics are flawed in well-established ways, there is no evidence that the credibility of crime statistics changed during the Giuliani administration. If anything, crime statistics have been more carefully scrutinized in the last decade than at any time in history. Statisticians recommend the use of multiple measures of almost any complex phenomenon as an antidote to biases. An unprecedented number of police performance indicators are available, and those statistics tell the same story: crime in virtually all categories and in all sub-areas of the City is dramatically down. Not only are homicides now at 1960s levels, but reports of shots fired, gun incidents, and gunshot injuries are also dramatically down. And some of those numbers come from agencies other than the police.

The key point is that there is a remarkably close link between the introduction of the new approach to police management and a dramatic drop in crime, and that other possible explanations do not fit the pattern of crime reduction as closely.¹⁰

Applying the model to other public services

The claim that the new Compstat approach to police management can reduce crime, disorder, and fear is not limited to the experience of NYPD. Compstat received a Ford Foundation Innovations in Government award, and has been replicated in a number of other cities both in the United States and abroad. The extent to which these communities adhere to the New York City model has not been systematically documented, nor have the results. In *Crime Fighter*, former NYPD Deputy Police Commissioner Jack Maple recounts successful use of the Compstat approach in a number of American cities that had not been part of the general downward trend. After introducing a Compstat-like approach, each of these cities saw significant declines in crime.

Two New York City departments that have attempted to follow the NYPD model in areas other than policing provide additional evidence of the effectiveness of public-sector

performance management. At the Department of Correction, the elements of accurate and timely intelligence combined with effective tactics, rapid deployment, relentless follow-up and assessment, and decentralized accountability produced a major turnaround in prisoner safety and drop in overtime expenses. From 1995, when the department introduced its Compstat-like management reform, through 2000, the number of violent incidents dropped from 593 to 54. The Rikers Island Jail, among the more dangerous facilities in the nation, became one of the safest (Smith 1997).

Using the principles of Compstat, the New York City Department of Parks and Recreation created PARKSTAT, which converted a very good systematic method of annually measuring park safety and cleanliness into a system for intensively managing those conditions. The department reported declining performance for two consecutive years after introducing the measurement tool. After using Compstat principles to convert its measurement system into a management system in 1996, the department more than doubled the percentage of park facilities rated as safe and clean, from 39 to 87 percent (Smith 1997).

That these successes occurred immediately after the introduction of Compstat management principles provides additional weight to the argument that a change in police management deserves significant credit for the greater safety of New York City. These experiences suggest that performance management can significantly improve complex urban services.¹¹

Endnotes

1. Bratton notes in his book *Turnaround* that only a fraction of the more than 6,000 additional officers funded by Safe Streets legislation were on the streets of New York during the critical summer before the fall election of 1993 (1998, p. 198).
2. Maple emphasizes these follow-on actions in what he calls the "quality-of-life-plus" strategy (1999, p. 155).
3. During the first several years, there were only eight strategies; the last two were added by Commissioner Howard Safir.
4. The positive effect of this rapid transmission of "lessons learned" depends on the quality of the learning.
5. This neglect was exacerbated in New York City by NYPD's response to the 25 percent cut in uniform staff that occurred in the wake of the 1975 fiscal crisis. In a form of triage, NYPD significantly reduced its attention to "lesser crimes" to focus on "real police work"—index crimes (see Smith 1981).
6. Both Andrew Kirtzman (2000) and Wayne Barrett's biographies of Mayor Giuliani recount that he met with and was influenced by Professor Kelling during the period between his first unsuccessful and his second successful run for mayor. Both authors of this article participated in the candidate's policy "seminars" organized by Richard Schwartz.
7. The disappearance of "squeegee men" is often cited as an early success of the Giuliani quality-of-life law enforcement. However, William Bratton notes that in the summer of 1993, before the election, Commissioner Raymond Kelly used problem-solving methods to remove the squeegee men from intersections (Bratton and Knobler, 1998). One might concede that candidate Giuliani set this agenda as Mayor Dinkins's compassion for people who were washing car windows on the streets of New York was a matter of public record.
8. Robert Wasserman also played a central role in NYPD as a consultant to former Commissioner Lee Brown, who made community policing "the dominant operational philosophy of the Department."
9. In a chapter entitled "These Statistics Are Crime," Wayne Barrett (2000) argues: 1) that crime statistics clearly show that police efforts under Mayor Dinkins deserve credit for reducing crime, 2) that crime reductions during the Giuliani administration were the result of other factors, such as a changing drug culture, 3) that any reduction in crime that did occur is the work of Police Commissioner Bratton and his management, not the mayor, and 4) that crime statistics supporting the credit claims of Mayor Giuliani are not to be believed. (The same statistics, if issued during the Dinkins adminis-

tration or other jurisdictions apparently can be believed.) Even after he conjures every manner of challenge, Barrett's bottom line is not that crime has increased, nor that it has not declined, but rather that it has gone down less than claimed, and that other factors deserve credit besides the police.

10. *Editor's note:* In the lengthier, original version of this article appearing in Dall W. Forsythe, ed., *Quicker Better Cheaper? Managing Performance in American Government* (Albany, N.Y.: Rockefeller Institute Press, 2001), the authors include a section

addressing and rejecting alternate explanations tied to demographics, drugs, gun control, the economy, and incarcerations.

11. The City of Baltimore has introduced CitiStat, a Compstat-inspired approach to performance management, for all city agencies. See Francis X. Cline, "Baltimore Uses Data Bank to Wake Up City Workers," *New York Times*, June 10, 2001, p. 24. See also Christopher Swope, "Restless for Results," *Governing*, April 2001.

References

- Barrett, Wayne. 2000. *Rudy! An Investigative Biography of Rudolph Giuliani*. New York: Basic Books.
- Bayley, David. 1994. *Police for the Future*. New York: Oxford University Press.
- Bratton, William. 1995. "Measuring What Matters." A presentation at a conference convened by the National Institute of Justice Policing Research Institute. Washington, DC. November 28, 1995.
- Bratton, William. 1998. "Crime Is Down in New York City: Blame the Police." In Norman Dennis, ed., *Zero Tolerance: Policing a Free Society*, 2nd ed. London: IEA Health and Welfare Unit.
- Bratton, William with Peter Knobler. 1998. *Turn-around: How America's Top Cop Reversed the Crime Epidemic*. New York: Random House.
- Brown, Lee P. 1991. "Policing New York City in the 1990s: The Strategy for Community Policing." New York City Police Department, January.
- Brown, Lee P. and Elsie L. Scott. 1992. *Executive Session Training Implications of Community Policing*. New York City Police Department.
- Citizens Budget Commission. *Making More Effective Use of New York State Prisons: A Report of the Citizens Budget Commission*, May 25, 2000.
- Cline, Francis X. 2001. "Baltimore Uses Data Bank to Wake Up City Workers." *New York Times*, June 10, p. 24.
- Eck, John. 1982. *Solving Crimes: The Investigation of Burglary and Robbery*. Washington, DC: Police Executive Research Forum.
- Eck, John E., and William Spellman. 1987. *Problem Solving: Problem-Oriented Policing in Newport News*. Washington, DC: Police Executive Research Forum.
- Goldstein, Herman. 1990. *Problem-Oriented Policing*. Philadelphia: Temple University Press.
- Greene, Jack R., and Stephen D. Mastrofski. 1986. *Community Policing: Rhetoric or Reality?* New York: Praeger.
- Greenwood, Peter, Joan Petersilia, and Jan Chaiken. 1977. *The Criminal Investigative Process*. Lexington, MA: D.C. Heath.
- Kelling, George L. 1974. *The Kansas City Preventive Patrol Experiment: A Summary*. Washington, DC: The Police Foundation.
- Kelling, George L., Tony Pate, Duane Dieckman, and Charles E. Brown. 1977. *The Kansas City Preventive Patrol Experiment: A Summary Report*. Washington, DC: The Police Foundation.
- Kirtzman, Andrew. 2000. *Rudy Giuliani: Emperor of the City*. New York: William Morrow.
- Lawrence, Paul, and Jay Lorsch. 1967; 2nd ed. 1986. *Organizations and Their Environments*. Cambridge, MA: Harvard University Press.
- Maple, Jack, with Chris Mitchell. 1999. *The Crime Fighter: Putting the Bad Guys Out of Business*. New York: Doubleday.
- Mc Elroy, Jerome, et al. 1993. *Community Policing: The CPOP in New York*. Newbury Park, CA: Sage.
- New York City Mayor's Office of Operations. 2000. *Mayor's Management Report*. September.
- Safir, Howard. Office of the Commissioner, New York City Police Department, Compstat, n.d.
- Silverman, Eli B. 1999. *NYPD Battles Crime: Innovative Strategies in Policing*. Boston: Northeastern University Press.
- Skogan, Wesley-G. 1990. *Disorder and Decline: Crime and the Spiral of Decay in American Neighborhoods*. New York: Free Press.
- Smith, Dennis C., and Robin Barnes. 1998. "Making Management Count: Toward Theory-Based Performance Management." Paper prepared for the

- annual research conference of the Association of Public Policy and Management. New York, October.
- Smith, Dennis C. 1981. "Police." In *Setting Municipal Priorities, 1982*. Charles Brecher and Raymond Horton, eds. New York: Russell Sage Foundation.
- Smith, Dennis C. 1993. "Performance Management in New York City: The Mayor's Management Plan and Report System in the Koch Administration." Paper prepared for the annual meeting of the Association of Public Policy and Management. Washington, DC, October.
- Smith, Dennis C. 1997. "What Can Public Managers Learn from Police Reform in New York? Compstat and the Promise of Performance Management." Paper prepared for the annual meeting of the Association of Public Policy and Management. Washington, DC, November.
- Sparrow, Malcolm K., Mark H. Moore, and David M. Kennedy. 1990. *Beyond 911: A New Era for Policing*. New York: Basis Books.
- Swope, Christopher. 2001. "Restless for Results." *Governing*. April.
- Thompson, James D. 1967. *Organizations in Action*. New York: McGraw-Hill.
- Tracy, Paul E., Marvin E. Wolfgang, and Robert M. Figlio. 1990. *Delinquency Careers in Two Birth Cohorts*. New York: Plenum.
- Ward, Benjamin. 1988. *Community Patrol Officer Program: Problem-Solving Guide*. New York City Police Department City. New York, September.
- Wilson, James Q. 1967. *Varieties of Police Behavior*. Cambridge, MA: Harvard University Press.
- Wilson, James Q. and Richard J. Herrnstein. 1985. *Crime and Human Nature: The Definitive Study of the Causes of Crime*. New York: Simon & Schuster.
- Wilson, James Q., and George Kelling. 1982. "Broken Windows: The Police and Neighborhood Safety." *Atlantic Monthly*, March, pp. 29-38.
- Wolfgang, Marvin E., Robert M. Figlio, and Thorsten Sellin. 1972. *Delinquency in a Birth Cohort*. Chicago: University of Chicago Press.