Compstat and Organizational Change in the Lowell Police Department

Challenges and Opportunities

POLICE
FOUNDATION

Compstat and Organizational Change in the Lowell Police Department

Challenges and Opportunities

James J. Willis
Stephen D. Mastrofski
David Weisburd
Rosann Greenspan

POLICE
FOUNDATION

WASHINGTON, DC

The Police Foundation is a private, independent, nonprofit organization dedicated to supporting innovation and improvement in policing. Established in 1970, the foundation has conducted seminal research in police behavior, policy, and procedure, and works to transfer to local agencies the best information about practices for dealing effectively with a range of important police operational and administrative concerns. Motivating all of the foundation's efforts is the goal of efficient, humane policing that operates within the framework of democratic principles and the highest ideals of the nation. The Police Foundation's research findings are published as an information service.

This project was supported by Grant Number 98-IJ-CX-007 by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. Points of view or opinions contained in this document are those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice or the Police Foundation.

Additional reports are forthcoming from the larger project, Compstat and Organizational Change, from which this report on the Lowell, Massachusetts, Police Department's implementation of Compstat is derived. A Police Foundation Report, *The Growth of Compstat in American Policing*, will describe the national survey that assessed the number of American police agencies using Compstat and measured the degree to which the elements of Compstat were part of their routine and structure. A third report will describe intensive examinations of Compstat's implementation in three police departments–Newark, New Jersey, Minneapolis, Minnesota, and Lowell, Massachusetts.

©2003 by the Police Foundation. All rights, including translation into other languages, reserved under the Universal Copyright Convention, the Berne Convention for the Protection of Literary and Artistic Works and the International and Pan American Copyright Conventions. Permission to quote readily granted.

Library of Congress Cataloging-in-Publication Data

CompStat and organizational change in the Lowell Police Department :
challenges and opportunities / James J. Willis ... [et al.].
p. cm.
ISBN 1-884614-19-1 (alk. paper)
1. Lowell (Mass). Police Dept. 2. Police administration—Massachusetts—Lowell.
3. Police administration—Data processing. 4. Law enforcement—Data processing.
5. Crime analysis—Data processing. I. Willis, James J.

HV8148.L85C66 2004
363.2'0285--dc22
2004001900

ISBN 1-884614-19-1

1201 Connecticut Avenue, NW
Washington, DC 20036-2636
(202) 833-1460 • Fax: (202) 659-9149
Email: pfinfo@policefoundation.org
www.policefoundation.org

Table of Contents

Foreword v

Acknowledgments vi

I. **Introduction** 1
    Background on Lowell and its police 2

II. **Overview of Compstat at Lowell** 3

III. **Origins and Development of Compstat at Lowell** 5
    The influence of the NYPD 5
    The role of the superintendent 5
    Government support—City Hall and the Office of Community Oriented Policing Services . . . 6
    Early Compstats—fuzzy memories and change 7

IV. **Research Methods** 8

V. **Analysis of Lowell's Experience with Compstat** 9
    Mission Clarification 9
    Internal Accountability 13
    Geographic Organization of Operational Command 18
        Organizational structure 19
        Decision making 19
        Coordination issues 22
        Geographic versus temporal organization 23
    Organizational Flexibility 24
        Manpower 26
        City politics 27
        Rivalry between sectors 28
    Data-Driven Problem Identification and Assessment 30
        A history of Compstat—overcoming technical and learning obstacles 31
        What kinds of data are used? 33
        Visibility of crimes at Compstat 33
        How are the data collected, processed, and analyzed? 34
        How are the data used? 35
        Quality of the data—timeliness and accuracy 38
        The Crime Analysis Unit (CAU)—autonomy, time constraints, and frustrations 39
    Innovative Problem-Solving Tactics 41
        Problem solving and brainstorming during Compstat meetings 42
        Follow-up 43
        Traditional police responses 44
        Traditional and innovative police responses 45
        Innovative police responses 46
    External Information Exchange 48

VI. Discussion .51
Mission Clarification .52
Internal Accountability .53
Geographic Organization of Operational Command .54
Organizational Flexibility .55
Data-Driven Problem Identification and Assessment .55
Innovative Problem-Solving Tactics .56
External Information Exchange .57

VII. Conclusions .58

Appendices .61
Appendix I: Lowell Police Department Organizational Chart .63
Appendix II: Map of the City of Lowell and City Neighborhoods .67
Appendix III: Patrol Officer Survey .71
Appendix IV: Sample Compstat Prep Sheet .81

References .87

Authors .89

Foreword

The birth of Compstat dates back to 1994, when former NYPD police commissioner William Bratton asked a team of officers to create a simple database with information about the major crimes that cities must report to the FBI. A significant change in police practice ensued when the simple database became an elaborate program where police entered crime reports into a computer system that sorted them by type. With the continuing evolution of the program, officers began scrutinizing the statistics it generated to create maps and charts showing notable changes and emerging problem spots. Meanwhile, department heads convened regular meetings to discuss crime trends, to question district commanders on their responses to crime, and to work out future strategies.

The systematic use of hard data and heightened accountability to reduce crime has been heralded as a seminal innovation in police management. Compstat's many advocates claim that it has spurred the development of innovative, local, crime-fighting strategies and improved public safety. These perceived successes have caused an exuberant Compstat movement to rapidly sweep the nation. A Police Foundation survey found that a third of the country's 515 largest police departments had implemented a Compstat-like program by 2000 (Weisburd et al. 2001).

The aura that surrounds Compstat in policing circles stems from the marvels that it reportedly worked in New York, where crime plummeted in the 1990s. Faith in the program is not universal, however, and a number of detractors have arisen to contest the Compstat dogma. They have argued that crime dropped in New York as a result of factors such as demographic shifts, the end of the crack epidemic, and a strong economy. They have pointed to other U.S. cities that saw crime similarly decline in the 1990s though they lacked the benefit of Compstat. They have also challenged Compstat by questioning the ability of police work to significantly affect crime trends that reflect factors beyond the control of the police. Bratton launched Compstat in the conviction that police can manage for better outcomes, but skeptics have contended that police reforms, including Compstat, make little dent on the economic trends and social pathologies that spawn crime.

This report provides another challenge to Compstat's proponents by showing the program to be a tool whose potential is unfulfilled. According to Bratton, Compstat meetings created a sense of immediate accountability that galvanized New York's local commands, fostered innovative problem solving, and guided the department in rationally allocating resources to precincts that most needed them. Implementation of the program in the much smaller Lowell Police Department reveals, however, that a gap divides the theory and practice of Compstat.

Lowell, Massachusetts, like New York City, stoked Compstat's reputation for working miracles in crime-ridden streets. Lowell's crime rate began to decline in 1994 and continued to drop after the department implemented Compstat. Like New York, Lowell conducts biweekly Compstat meetings where the department's leaders question sector commanders on problems and crime spikes. While many cities that use Compstat only call meetings when a particular sector needs attention, Lowell holds regular meetings where commanders present statistics on their sectors and face an unnerving grilling if crime has increased.

The theory of Compstat notwithstanding, Lowell's program was subject to internal conflicts that made it deviate from New York's prototype. Scarce resources and a veiled sense of competition made commanders reluctant to share resources with sectors that were hardest hit by crime. Lack of training in data analysis and general exclusion of rank-and-file officers from the Compstat process bred indifference toward the program among many department members. Conservative attitudes toward crime fighting led to continued reliance on traditional police responses rather than the innovative, problem-solving strategies that are central to the Compstat process. The absence of systematic follow-up at Lowell's Compstat meetings often caused the department to plot strategy on the basis of officers' impressions of what had previously worked, not on the basis of the data. Moreover, the hefty burden of accountability carried by sector commanders may have made them reluctant to try new approaches to problems, though Bratton had seen accountability as a catalyst that would energize police to attack crime. The prospect of being publicly criticized by the superintendent may have made more impact on some sector commanders than Compstat's venturesome ideal of crime fighting.

This report suggests that we should temper our enthusiasm for Compstat, but it also acknowledges the valuable impact that the program has made on the Lowell Police Department. The department's decision makers have become more familiar with the use of data and better informed about what is taking place in their areas. Sector captains feel more accountable for identifying and addressing crime problems, and there has been some successful use of innovative, crime-fighting strategies. At the same time, the endurance of traditional practices and structures appears to have inhibited Compstat's potential for innovation. Additional training is necessary if police are to put more faith in Compstat's data-driven approach than in time-honored responses to crime, and other members of the department must shoulder some of the burden of accountability that weighs so heavily on sector commanders. The most advanced technology is pointless unless the police themselves understand its value and have the training to use it. By exploring both Lowell's failures and successes in carrying out Bratton's vision, this report reveals the fallible, human dimension of the Compstat process.

Hubert Williams
President

Acknowledgments

We are deeply indebted to Superintendent Edward F. Davis III for granting us access to his police department and for his unconditional backing of this project. We would also like to thank Deputy Superintendent Kenneth Lavallee for all his assistance during our time at Lowell, especially when it came to administering the officer survey. A note of appreciation also goes to Deputy Superintendent Dennis Cormier and Captain William Taylor for their support. We would also like to acknowledge Jill Casey, Stephanie Hunter, and Suzannah Hacker for all their administrative help. In addition, we would like to thank Officer Mark Trudel for his encouragement. Thanks also to Sergeant David Abbott for explaining the intricacies of the detail.

This case study would have been impossible without the unfailing support of the sector captains, Captain Arthur Ryan Jr., Captain Susan Siopes, and Captain Robert DeMoura. Their candid and intelligent remarks contributed mightily to the overall quality of this project. Moreover, their thoughtful observations provided invaluable insights into the complexities, rewards, and challenges of modern police work.

We would like to thank Carol Fitzgerald and Brenda Bond for their immeasurable help in explaining how Compstat works in the Lowell Police Department. We very much appreciated their time and effort in answering our queries and providing us with relevant documents. Thanks also to the rest of the Crime Analysis Unit: Officer Tom Lombard, Dawn Reeby, Derek Desrochers, and Robin Smith. Their comments and patience contributed significantly to our understanding of the overall Compstat process.

We would especially like to thank the dozens of precinct personnel who we interviewed and observed in meetings, as well as those patrol officers who completed our survey.

We would also like to thank Ann Marie McNally, a former research associate at the Police Foundation, for her help with the data entry process.

Finally, we wish to express thanks to Dr. Lisa Yarkony, Police Foundation research associate and editor of this report, and to Police Foundation Communications Director, Mary Malina, managing editor, who oversaw its production.

I. Introduction

What the late Jack Maple, formerly deputy police commissioner of the New York Police Department, pithily called "putting cops on dots" has rapidly become a fixture in many large police departments across the country. Between 1994, when the NYPD first implemented Compstat,[1] and 2001, when we completed our national survey, a third of departments with one hundred or more sworn officers had implemented a Compstat-like program and 26 percent were planning to do so.[2] Widely vaunted and even referred to as an "emerging paradigm" in law enforcement, Compstat is an information and management tool that maps crime statistics and holds command staff more accountable for the level of crime in their beats (Walsh 2001, 347). Its sweeping popularity among police and policy makers has been fueled by a flurry of national publicity that attributes the recent plummet in New York's crime rate to Compstat's innovative use of geographic information systems technology and cutting-edge management principles.

Much of the literature on Compstat consists of brief studies that rely heavily on anecdotal evidence or concentrate on the nation's largest and most exceptional police department, the NYPD.[3] To date, there has been little systematic analysis of the elements of Compstat and their implementation in smaller departments. This report, which is an in-depth evaluation of how Compstat works in a much smaller agency, the Lowell Police Department (LPD), is part of a project funded by the National Institute of Justice and conducted by the Police Foundation. In an earlier component of the project, "Compstat and Organizational Change: A National Assessment," we identified seven core elements of Compstat: (1) mission clarification; (2) internal accountability; (3) geographic organization of operational command; (4) organizational flexibility; (5) data-driven identification of problems and assessment of the department's problem-solving efforts; (6) innovative problem-solving tactics; and (7) external information exchange (Weisburd et al. 2001). Using these elements as a general framework, we analyzed how Compstat is being implemented across the country. The project's initial stage consisted of a national survey that assessed the number of local police departments that were using Compstat and measured the degree to which these Compstat elements were part of a department's structure and routine. The second stage involved sixteen short site visits to identify emerging patterns and differences among Compstat programs across police agencies. Finally, we selected three police departments, Newark, New Jersey; Minneapolis, Minnesota; and Lowell, Massachusetts, as sites suitable for lengthier and more intensive research and sent a researcher to each department for a period ranging from two to eight months. He or she was responsible for gathering detailed information that explained how Compstat worked at all levels of the police organization.

There are three primary reasons for selecting the Lowell Police Department as a case study: (1) Its high score on our national survey indicated that it had fully implemented Compstat; (2) It had received considerable publicity as an innovative department under Davis' leadership;[4] and (3) It was relatively small compared to most other departments that had received publicity for their

---

[1] There is some disagreement about what the acronym "Compstat" actually means. Former NYPD police commissioner William Bratton suggests that it stands for "computer-statistics meetings" (Bratton 1998, 233), but Silverman attributes its name to "compare Stats," a computer filename (Silverman 1999, 98). Some commentators have collapsed these interpretations and argue that Compstat refers to "computer comparison statistics" (U.S. National Agricultural Library 1998, *http://www.nalusda.gov/pavnet/iag/cecompst.htm*).

[2] Forty-two percent had not implemented a Compstat-like program. For the first detailed analysis on the extent of Compstat's implementation by police departments across the country, see *Compstat and Organizational Change: Findings from a National Survey*, Weisburd et al., Police Foundation (2001).

[3] James L. Heskett, "NYPD New," *Harvard Business School Report* no. N9–396–29 (April 1996); Eli Silverman, *NYPD Battles Crime*, Northeastern University Press (1999); Phyllis McDonald, Sheldon Greenberg, and William J. Bratton, *Managing Police Operations: Implementing the NYPD Crime Control Model Using COMPSTAT*, Wadsworth Publishing Co. (2001); Vincent E. Henry, *The COMPSTAT Paradigm: Management Accountability in Policing, Business, and the Public Sector*, foreword by William J. Bratton, LooseLeaf Law Publications (2002).

[4] In May 2002, Superintendent Davis was awarded one of only two Leadership Awards by the Police Executive Research Forum (PERF) for his role "in bringing major changes in the department that greatly benefited the city." In this context, Compstat was recognized as "an innovative crime-tracking program" (Skruck, 2002).

Compstat efforts, notably, New York City, Baltimore, New Orleans, Newark, and Philadelphia. The last reason was the most compelling because an examination of Lowell had potential to provide insights into the special challenges and opportunities that arise when small departments try to institute a program of organizational change that originated in much larger agencies. On the one hand, smaller departments typically have fewer resources to mobilize for new tasks, programs, and structures. On the other hand, they may find it easier to overcome some of the internal resistance that is so endemic to large police organizations (Mastrofski, Ritti, and Hoffmaster 1987). What could Lowell's experience with Compstat teach us and other researchers?

This report serves three purposes: (1) to provide a detailed description of Lowell's Compstat program that should interest police chiefs and other police personnel who are curious about Compstat; (2) to explain the benefits and challenges of implementing the various key elements of Compstat; and (3) to use our knowledge of Lowell to provide some insights into Compstat's future in law enforcement.

Compstat's primary goal is to make police organizations more rational and responsive to management's direction. The seven elements of Compstat had been discussed in the organizational development literature and used by numerous police departments for many years before the NYPD launched its Compstat program. The NYPD's contribution was to assemble these elements into a coherent package (Weisburd et al. 2001). According to Compstat's principal proponents, Compstat's various elements interweave to form a program with its own logical integrity and to make Compstat work like a well-oiled machine. Indeed, Compstat as a crime-fighting tool is intuitively appealing, with its use of sophisticated technology for the timely identification of crime problems and practice of holding middle managers accountable for reducing them (Bratton 1998, 233–39; Maple 1999, 31–33; Kelling and Sousa 2001, 2–3; Silverman 1999, 97–124). Our examination of Lowell's Compstat, however, challenged the program's accepted image as a smoothly functioning machine by revealing numerous paradoxes and incompatibilities among its various elements.

Background on Lowell and its police

The City of Lowell, Massachusetts, is located thirty miles northwest of Boston on the banks of the Merrimack and Concord Rivers. Formerly a powerful center for U.S. textile production, Lowell began to decline during the Great Depression. The city's long slump came to a halt, however, when the late Senator Paul Tsongas spearheaded the launch of the Lowell Plan in the early eighties. The plan provides for a partnership between public and private sectors to encourage and guide business development in the city. Its ultimate goals are to strike a balance between manufacturing and knowledge-based industries and to create an attractive downtown that encourages use of public spaces for civic, cultural, and recreational activities (Bluestone and Stevenson 2000, 54–56, 72).

According to the 2000 census, Lowell had 105,167 residents within its fourteen square miles. The city is divided into several neighborhoods and is moderately diverse: 62.5 percent white, 16.5 percent Asian, 14.0 percent Latino, 3.5 percent black, 0.2 percent American Indian and Alaskan Native, and 3.3 percent other race or two or more races (U.S. Census Bureau 2002). Income levels for 2000 are currently unavailable, but in 1990 Lowell's median family income was $29,351, with 18 percent of families living below the poverty line. The Lowell Plan envisions a thriving and livable city for the twenty-first century, and an important element of this vision is a strong emphasis on controlling crime and disorder. Since Edward F. Davis III became superintendent in 1995, Lowell has increased the number of patrol officers from 159 to 210, a 32 percent increase, and implemented a nationally recognized community-policing program. As part of a joint city government and com-

Compstat's primary goal is to make police organizations more rational and responsive to management's direction.

munity initiative, the department has established seven precinct stations and formed fourteen neighborhood groups that meet regularly with police officers to identify their most pressing concerns and offer suggestions for their resolution. A combination of efforts by city government, community members, and local police led Lowell to win the prestigious "1999 All-America City Award" from the National Civic League in recognition of "exemplary community problem solving."

There were 260 sworn officers and approximately eighty civilians in the Lowell Police Department when we visited in 2000.[5] In terms of its organization, the department consisted of an Investigative and Prevention Bureau, an Operations Bureau, and an Administrative Division (see Appendix I). The bureaus were each headed by a deputy superintendent, and the Administrative Division was supervised directly by the superintendent. The city's neighborhoods were divided into three sectors determined by both census block population and the presence of physical boundaries, such as rivers and roads: North (Pawtucketville, Centralville, and Belvidere), East (Back Central, Downtown, and South Lowell), and West (The Highlands and The Acre) (see Appendix II). These sectors or "service divisions" were under the command of a sector captain and contained within the Operations Bureau, along with the Traffic Division, Headquarters Division, and Community Response Division. The Merrimack and Concord Rivers provided clear, natural boundaries, with a major road further subdividing the East and West Sectors. The different sectors covered approximately the same area, but their different demographic groups and socioeconomic structures presented each sector captain with a unique set of problems. A department report, based on the 1990 census, indicated that the North Sector was the most populous with a population of 40,635, followed closely by the West with a population of 40,442, and finally the East with a population of 22,617. In general, the North Sector had the highest median family income of about $35,000, compared to the West, where half of Lowell's poor now reside, and the East, which covered Lowell's downtown and contained a large elderly population. All of Lowell's patrol officers were assigned to a sector, aside from the handful that covered various housing developments throughout the city and were assigned to specialty positions. As of August 2000, there were approximately the same number of patrol officers in each section, with forty-eight assigned to the North, fifty-one to the East, and fifty-two to the West.

In addition to the Operations Bureau, the department was divided between an Investigative and Prevention Bureau, also headed by a deputy, and an Administrative Division that answered directly to Davis. The Crime Prevention Division, Evidence Response Division, Special Investigation Section, Criminal Investigation Section, and Legal Division fell under the command of the deputy in charge of the Investigative and Prevention Bureau. Finally, the Administrative Division consisted of the Accreditation Section, Budget and Finance Section, Communications Section, Detail Section, Information Technology Section, Intelligence Crime Analysis Section, Professional Standards Section, Training Section, and Employees Assistance Section.

II. Overview of Compstat at Lowell

This section provides an overview of how Compstat has operated in recent years. It introduces its major features and provides a reference point from which to assess how much Compstat has evolved since its inception. An in-depth discussion of the major features of Lowell's Compstat program will appear in subsequent sections.

Superintendent Davis first implemented the existing format for a Compstat presentation on February 22, 2001. It calls for one of the three sector captains to be present at each biweekly Compstat meeting and for data to be presented for all sectors over a six-week period. Meetings take place on alternate Thursdays, when approximately twenty to thirty members of the department's top brass, plus a handful of invited guests, sergeants, and patrol officers, file into a large room at Lowell's Cross Point Training Facility. Davis sits at one end of several tables that form an orderly rectangle and is flanked on either side by members of his command staff. He or one his deputies, in his absence, begins the meeting at 9 a.m. with some introductory comments. Then the lights dim to focus attention on the lone figure of the sector captain who stands in the front of the room. Members of the Crime Analysis Unit (CAU) use laptop computers to project crime data and maps onto a nearby screen, and over the course of the next two-and-a-half hours the sector captain, who is entirely responsible for the policing of his or her area of the city, reports on the sector's crime incidents, trends, and tactical responses. The sector captain also faces questions, suggestions, and comments from audience members. Typical remarks might include: "What are you doing about motor vehicle breaks on East Street? They seem to be up from the last Compstat period;" "I have always felt that traffic stops are useful for identifying potential suspects;" "Has anyone got any suggestions about how we should deal with this latest outbreak of graffiti in the downtown area?"

---

[5] In addition to the superintendent and the 210 line officers, there were two deputy superintendents, eight captains, thirteen lieutenants, and twenty-six sergeants.

The multiple goals of this Compstat meeting include eliciting collective input on crime patterns and problem-solving strategies; encouraging information sharing on crime locations, victims, and suspects; and facilitating the deployment of department resources. In addition, the forum acts as a mechanism for holding the sector captain accountable for crime in his or her beat. Even though conversation is shared around the room, the primary focus of audience members remains on the sector captain. Any failure to provide a satisfactory response to the various inquiries may lead to a rebuke from Davis.

The Compstat presentation at Lowell is the end product of a lengthy process that begins when an individual patrol officer files an incident report. Once this report is scanned into the department's mainframe, the members of the CAU are responsible for inputting relevant crime data into a database and using these data to aggregate, analyze, and map crime incidents. Prior to 1996, when Compstat came to Lowell, crime analysis barely existed, since Lowell's administration, like that of many agencies across the country, merely conducted an annual review of local Part I crime rates collected in the FBI's *Uniform Crime Reports* (UCR). The purpose of this brief examination was to provide the department with a general indication of its overall success in controlling crime during the previous year. In contrast to this relatively narrow focus, Lowell's Compstat program plays a continuous and critical role in the department-wide process of identifying specific crimes as soon as they emerge, driving decision making, and facilitating problem-solving strategies.

Lowell's CAU now inputs data on a daily basis for a wide variety of crimes ranging from aggravated assaults to traffic accidents. Some of these data are made available via the mainframe to all department personnel, as well as through roll-call announcements and a daily newsletter. The CAU also uses these data to prepare maps, spreadsheets, and descriptive statistics, which are given to sector captains on the Monday before the Compstat meeting. The presenting captain is then responsible for examining the detailed analysis for his or her sector—a process that may take a period of several hours over the next few days—in order to prepare fully for Thursday's meeting. In addition to preparing for Compstat, Lowell's sector captains and their executive officers are responsible for accessing and reviewing all daily police reports from their sectors and for responding to crime problems.

Before Compstat, the use of timely crime data for the implementation of crime-reduction strategies had no place in the organization and operation of the LPD. The following section will examine the factors that led to the formation of Lowell's program. It will also show that departments can implement and adopt Compstat with a modest outlay of resources and can readily adapt it to work within their existing organizational structures. Hence, Compstat is not a program that is prohibitively expensive for small departments, nor does it require a great deal of organizational change. Indeed, Compstat's low cost and flexibility contributed to its rapid development within Lowell's relatively small police department.

III. Origins and Development of Compstat at Lowell

Our examination of the implementation and development of Lowell's Compstat program reveals several key points that are worth highlighting: (1) Lowell's program drew heavily on the NYPD experience; (2) Nearly all of the impetus for its implementation came from Davis; (3) The superintendent's innovative reforms received strong political support from city hall, while external government grants enabled the initial formation and rapid growth of the CAU; and (4) The Compstat format has changed significantly in the few years since its inception.

The influence of the NYPD

Davis and his command staff tailored Compstat to suit their own department's priorities but also borrowed heavily from the NYPD's program. Some background on the NYPD experience, therefore, will help frame our understanding of Lowell's efforts. When William Bratton became commissioner of the NYPD, he sought to transform a sluggish, bureaucratic organization with demoralized personnel into an outfit that responded keenly and effectively to crime problems. He did so by adopting management principles advanced by organizational development experts, such as using data to make informed decisions, giving priority to operational rather than administrative concerns, and holding key personnel accountable. Commissioner Bratton, as a result, managed to "turn around" the NYPD and reduce crime throughout the city (Bratton 1998).

The NYPD's Compstat is a "strategic control system" that identifies and disseminates information on crime problems and tracks efforts to address them by implementing four basic principles: (1) accurate and timely intelligence about crime made available to all levels in the organization; (2) the selection of the most effective tactics for specific problems; (3) rapid deployment of people and resources to implement those tactics; and (4) "relentless" follow-up and assessment to learn what happened and make subsequent tactical adjustments as necessary (Bratton 1998, 224). These principles are most evident at the department's regular, twice-weekly meetings where precinct commanders tell top brass about ongoing crime problems and their efforts to address them. In its use of these basic principles, Compstat represents a transformation in police operations and management, as well as in attitudes toward the capacity of law enforcement to influence crime rates (McDonald et al. 2001).

According to our national survey, the NYPD's experience has had a powerful impact on departments across the country, since about 70 percent of police departments with Compstat programs reported attending a Compstat session in New York City (Weisburd et al. 2001). The NYPD also influenced Lowell's implementation of Compstat as a result of a casual conversation that took place between Davis and Bratton at a promotion ceremony in New York during 1996. Bratton, as Davis recalled, described Compstat as a useful way of bringing "a private sector mentality to the public sector," and this remark made him eager to try out the program. Davis, as one officer remarked, "came back from one of his visits with Bratton and said, 'Let's have a Compstat here.'" Shortly thereafter, he followed Bratton's basic model, or "took stuff from their [New York's] game plan book," as another officer put it, and brought Compstat to Lowell.

The role of the superintendent

Davis' brief encounter with Bratton in 1996 convinced him to implement Compstat, but he has remarked that two other factors contributed to its development. Around the same time, he read James Heskett's case study of the NYPD (1996) as a participant in the Senior Executives in State and Local Government Seminar at Harvard's Kennedy School of Government. Davis explained that this informative article gave him some ideas for Lowell's Compstat program by emphasizing the relationship between crime strategies and crime statistics, as well as the value of breaking cities down into sectors. He also recalled how a meeting with Frank Hartmann at Harvard's Senior Management Institute for Police underscored the value of data for driving the decision-making process, a perspective that mirrored his own organizational philosophy.

Convinced that Compstat would be a useful addition to the department, Davis ran the idea by his civilian staff and commanding officers during one of the department's annual strategic planning retreats in late 1996. The retreat's purpose was to continue exploring the possibility of decentralizing the department geographically as part of a major transformation toward community policing. The initial impetus for this move to community policing had emerged from a 1994 strategic planning session. The department was still implementing the strategic plan in 1996 when Davis suggested that they implement Compstat.

Proponents of community policing argue that police reform requires geographic decentralization and devolution of decision making down the chain of command (Eck and Maguire 2000, 218). In keeping with this school of thought, these factors, rather than the implementation of Compstat, drove Davis' decision to reorganize the department under the twenty-four-hour supervision of the sector captain (Thacher 1998, 36). The creation of this sector structure was certainly consistent with Compstat's requirements, but the department went much further. Stating that one of the basic tenets of community policing was "one officer, one neighborhood," Davis explained that assigning officers to specific sectors encouraged them to get to know the residents on their beats and to be responsive to community problems. He highlighted the importance of line officer decision making by commenting that he wanted his patrol officers to recognize their responsibility for "their beat" and by quoting former LAPD chief Edward M. Davis, who talked about the significance of "territorial imperative." Ironically enough, as we shall see, community policing and Compstat operate at cross-purposes in relation to the decentralization of command. Community policing delegates decision-making authority as far down the chain of command as possible, while Compstat concentrates decision-making power among middle managers and holds them directly accountable to the top brass. Since district commanders are primarily responsible for identifying and solving problems, the capacity of the rank and file to exercise discretion is necessarily constrained.

Davis may have been the catalyst for decentralizing the organization geographically, but he attributed the ultimate decision to a strategic planning process involving all his command staff. He also noted that there was generally a lot of difficulty getting officers to think geographically, despite command's support for the change. Officers had mixed responses to the change, according to the recollection of one Lowell lieutenant:

> You know, you got a variety of responses at all levels. Some were kind of interested. A lot were on the fence. And there were a few adamantly opposed to any kind of change whatsoever, who feel it's just constitutionally wrong to change (quoted in Thacher 1998, 35).

Ultimately, the department moved toward a system that established three sector captains, or "sector bosses" in department vernacular, each responsible for a separate area of the city. In contrast to the decision to decentralize, no respondents, including Davis, remembered any resistance within the department to the decision to implement Compstat. It seems likely that officers regarded the implementation of Compstat as a relatively minor event when compared to the large-scale, structural transformation implied in the move to community policing. Since management is structured geographically under both Compstat and community policing, Lowell's Compstat program was easily adapted to the department's preexisting community-policing model. None of those interviewed suggested that Compstat was revolutionary, and our overall impression was that most remembered it as somewhat of a novelty.

Government support—City Hall and the Office of Community Oriented Policing Services

In *NYPD Battles Crime*, Eli Silverman (1999, 181) argues that a major factor in Compstat's success in New York was the strong "external backing" it received from Mayor Rudolph Giuliani. Similarly, Davis was appointed superintendent with the staunch support of City Manager Richard Johnson, the head and arguably most powerful member of city hall. In contrast to New York, this political backing was based upon Davis' ardent commitment to community policing. Davis' appointment in 1994 corresponded with federal passage of the

Violent Crime Control and Law Enforcement Act. The act provided for over $8 billion over a six-year period to deploy 100,000 additional community-policing officers and also created the COPS Office to oversee the process and administer extensive funding for nationwide implementation of community-policing programs (U.S. Department of Justice 1994). Davis was able to use the new resources earmarked for community policing to implement Compstat. The years 1994 and 1995, therefore, represented a "unique" opportunity for him, as he recalled, since he had both the powerful support of city government and the sudden availability of considerable federal and state funds. In addition, Davis and the department were gaining popularity with local residents who were thrilled when the city established its first community-policing precinct in Centralville, a tough neighborhood in the North sector.

Davis reminisced fondly about this unique political environment. He remembered watching Senator John Kerry at 3 a.m. on C-SPAN talking about the funds available through the 1994 crime bill, and he commented that any motion dealing with crime that came before the city council around this time would pass by a wide margin of either seven to two or eight to one in the department's favor. As a further illustration of this political support, he noted that the department's budget had doubled in the five years between 1996 and 2000 from $10 million to $20 million. This support transferred into the "considerable leeway" that the city granted Davis in the hiring process.

The COPS Office contributed significantly to the emergence and development of Compstat in the Lowell Police Department. To get Compstat off the ground, Davis reassigned an input clerk, who was already working in Records, and a patrol officer familiar with databases to form a new Crime Analysis Unit. The creation of the first civilian crime analyst position was supported through a COPS MORE grant (Thacher 1998, 51).[6] Using Computer-Aided-Dispatch (CAD) data, the fledgling CAU prepared and disseminated simple crime sheets that helped identify crime trends and patterns in the city by listing the location, address, and time of calls to the police.

Since its first appointments in 1996, the CAU has grown to five full-time members, three of whom have master's degrees in criminal justice, and several student interns from local universities. Further financial support for full-time positions and for computer hardware and software came from additional local, state, and federal grants that were made available for community policing and problem-solving policing (Thacher 1998, 51). Clear indications that Compstat does not require significant new resources are evident in Davis' decision to implement Compstat by mobilizing the department's existing personnel and his use of available community-policing grants to expand the CAU rapidly. Davis noted, "The cost is mainly people" and estimated that it took only $100,000 to hire four additional employees for the first year of the program (Anderson 2001, 5). Compstat's relatively low cost and adaptability are likely to contribute to its speedy adoption by smaller police departments across the nation, as our survey indicated. At the time of our survey, in 1999, only 11 percent of departments with between fifty and ninety-nine sworn officers had implemented Compstat. The popularity of the program can be seen, however, by the fact that 30 percent were planning to adopt it (Weisburd et al. 2001).

Early Compstats—fuzzy memories and change

Memories fade with time, and after the passage of several years, it is hardly surprising that individual accounts of the first Compstat sessions at Lowell differ. Many people gave conflicting statements on whether Compstat was actually implemented sometime in 1996 or early in 1997 and how the first meetings were managed. Several of those interviewed remembered the early Compstats as being confrontational "pressure cookers" where Davis played the role of a "hard man" and put command staff "on the spot" by peppering them

---

[6] COPS MORE (Making Officer Redeployment Effective) grants were to help increase the amount of time officers could spend on community policing by covering up to 75 percent of the total cost of technology, equipment, or civilian salaries for one year.

. . . Lowell's Compstat program, which required little change to the existing organizational structure, has evolved considerably since its inception.

with questions about crime rates in their sectors. One lieutenant recalled that what made Compstat particularly tough was "people did not know where they were going with it."

Officers who attended the first Compstats also gave varying accounts on the primary focus of the meetings. Davis commented that initial Compstats centered on "crime issues," but other attendees remembered spending a significant amount of time dealing with administrative concerns. One officer commented that Compstat meetings often included discussions on the utility of decentralizing the entire department, including the Criminal Investigation Section. Another recalled that the early Compstats were "very administrative and largely concerned questions about the work detail and problems with manpower, while crime only occupied about 20 percent of the 'talk time.'"

These accounts clearly indicate that Lowell's Compstat program, which required little change to the existing organizational structure, has evolved considerably since its inception. When we first arrived in October 2000, several captains and members of the administrative staff had been discussing the possibility of changing a Compstat format that had not been altered for two years. At the time, the three sector captains all presented crime data on a biweekly basis. Unfortunately, by the time the third presenter walked to the podium, two to three hours had passed and members of the audience were weary, having difficulty concentrating, and less capable of providing useful feedback on crime problems (the NYPD had experienced a similar scheduling problem). On February 12, 2001, Davis met with several of his command staff and senior members of the CAU to discuss some changes. He was concerned, as he told them, that the sector captain who presented last received short shrift and that the two-week reporting period might be too short for identifying meaningful crime changes because the "quality of analysis was lacking." Ten days later the department implemented Lowell's existing Compstat with only one sector captain present at each meeting.

IV. Research Methods

Between October 2000 and June 2001, we observed eight biweekly Compstat meetings and seven weekly operations meetings in Lowell. We also conducted thirty-one formal interviews with city and police department personnel including: the mayor, city manager, superintendent, middle managers or sector captains, civilian staff, captains, lieutenants, detectives, first-line supervisors or sergeants, and patrol officers. We tried to gain the trust of department members by guaranteeing interviewees anonymity, whenever possible, and by ensuring confidentiality through our unconditional refusal to act as a conduit for information within the department. Despite some initial suspicion, most of those interviewed felt comfortable enough to engage in lengthy and candid discussions about Compstat. On average the interviews lasted one-and-a-half to two hours, with many running over the allotted time.

We conducted six post-Compstat debriefings, each lasting about fifteen to twenty minutes, in order to help us identify the main crime problems in each sector and track responses to these problems over time. We debriefed Davis or the deputy superintendent who ran Thursday's biweekly Compstat meeting immediately after the meeting and usually talked to the presenting sector captains on the following Monday or Tuesday. We distributed surveys to 124 patrol officers in which we asked them to describe their involvement in Compstat and their views of the program; and we collected ninety-seven completed surveys, yielding a response rate of 78 percent (See Appendix III). We also collected documents that could further our understanding of Compstat, including all the Compstat maps, spreadsheets, and crime analyses that were provided to sector captains; internal department memos; research grants; articles on Lowell; community handouts; and copies of the department's newsletter, the *Daily Bulletin*.

We promised respondents that we would do our best to conceal their identities. It was obviously impossible to guard against the identification of the superintendent of police, city manager and mayor, as we made clear. It was also challenging in such a small police organization to protect the confidentiality of those who occupied the few specialized and mid/upper-level management positions, especially the sector captains. We consequently decided to omit identifying characteristics, such as a respondent's ethnicity or number of years in the department, in our initial draft of this report. We also made a concerted effort in our final revision to identify and amend any text that could possibly breach a respondent's confidentiality.

V. Analysis of Lowell's Experience with Compstat

Using the seven key components we identified as Compstat's general framework, we compared Lowell's Compstat program with data from our national survey to help assess how typical Lowell's program was of programs in other departments. We also used our qualitative data to assess the dosage or amount of each element within the department to determine the extent to which each of Compstat's key components had been institutionalized throughout the organization. We tried, finally, to elucidate some of the problems associated with Compstat by examining the challenges the department faced. This gave us some insights into Compstat's ability to operate as a coherent program and a clearer sense of its long-term prospects.

Mission Clarification

The first element of Compstat is *mission clarification*. Compstat assumes that police agencies must have a clearly defined organizational mission in order to function effectively. When Bratton assumed command of the NYPD, one of top management's first tasks was to clarify a mission statement that embodied the organization's fundamental reason for existing. In order to convey a clear sense of the department's commitment, top management reasoned that the mission statement should include specific terms, such as reducing crime by 10 percent in a year, for which the organization and its leaders could be held accountable (Bratton 1998, 252). The establishment of a mission statement, therefore, helps police agencies to function more effectively by encouraging leaders and line officers to commit to a clearly defined goal, like crime reduction, that is highly valued by the department's leadership. Despite these seemingly obvious benefits, our analysis of Lowell's Compstat program suggests that mission statements might resonate differently with the public than they do with those inside the department. Furthermore, mission statements might present a set of challenges to police agencies with potentially negative outcomes. A mission statement that is inappropriate, for instance, or exceeds the organization's capacities might contribute to organizational dysfunction and ultimately undermine the police chief's credibility if the agency fails to meet its stated goal.

Our general survey showed that 92 percent of large departments that had reported implementing a Compstat program had also reported that they "set specific objectives in terms that could be precisely measured." In other words, a general statement that clarified a department's overall mission was closely associated with implementing a Compstat program, and Lowell, in this sense, was typical of other Compstat departments. The overall mission that it clearly promulgated in much of its literature and on its new Web site was: "To work with the community to reduce crime, the fear of crime, and improve the quality of life in the City of Lowell."

Compstat demands that departments establish a clear and specific organizational mission rather than a general commitment to a broad set of objectives. When our national survey asked, "In the last twelve months has your agency publicly announced a goal of reducing crime or some other problem by a specific number?," only 49 percent of departments responded in the affirmative, and almost a third of these departments reported focusing on "many different goals" (Weisburd et al. 2001). Since Lowell had announced a clearer and more specific goal—that of making Lowell the safest city of its size in the United States—it was atypical of other Compstat departments.

When Davis was first appointed superintendent, he occasionally met with the late Senator Paul Tsongas, a resident of Lowell, who initially suggested that, "they come up with a vision for the city." He did not recall having a particularly lengthy discussion with Tsongas on this topic but noted that these meetings enabled them to create the goal of making Lowell "the safest city of its size in the United States." According to Davis, Tsongas believed it was important for them to articulate a goal that would be clear to everyone and help Lowell with its steep crime rate. Around 1995 to 1996, Davis told us earnestly, "Lowell was getting beaten down," and coming up with the goal was about "more than just trying to make people safer . . . the city's future was hanging in the balance . . . [and] the goal gave people in the city some hope." Not only were city residents in crisis in the early 1990s, so was the Lowell Police Department. Public confidence in the department had deteriorated to the point that "the association of downtown businesses voted to hire private security to patrol Lowell's rapidly deteriorating commercial district" (Thacher 1998, 9).

Given that the mission statement's intention was to rally public support for a department that seemed incapable of stemming crime in a dangerous city, it is not surprising that Davis and Tsongas' proclamation was unburdened with technical details and emboldened with powerful symbolism. Similar to the NYPD, crime reduction lay at the heart of Davis' mission for the department—a goal that he associated closely with Compstat. An important point to note: Davis stated that Compstat allowed one to examine data *before* making any decisions. "If you approach problems any other way," he commented, "you are allowing the 'cause du jour' to set your priorities when you should be dealing with the *crime rate*" (emphasis added). However, in contrast to the NYPD, the resolution to make Lowell "the safest city of its size in the United States" did not contain potentially confusing percentage reductions. Furthermore, it appealed directly to residents by creating an attractive vision of Lowell as a pleasant or desirable place to live (again). One respondent stated that the mission statement was a "big deal" and remembered that it was popular in the newspaper and among community members. More importantly, he believed that the "articulation" of this goal gave momentum to the Davis' overall plan to change the department. He told us, "The safest city phrase was what brought it all together."

Lowell's mission statement differed from that of the NYPD by not committing the department to reduce crime by a specific percentage. It also diverged from the NYPD by primarily targeting city residents. Commissioner Bratton used the department's mission statement to motivate police personnel and hold them accountable, while this appeared to be a less important consideration in Lowell. Davis was more concerned with the mission statement's appeal to external constituents than to department members, as another respondent recalled: "It was really used for the benefit of those outside of the department . . . it was never used within the department . . . it was not like the department rallied around it . . . the statement is not part of the guys' [line officers] daily . . . you know . . . what they talk about."

Since Lowell's broad mission statement was designed to appeal primarily to city residents, its implementation did not resonate quite so strongly within the police department. In contrast to a crime-reduction goal defined by a modest percentage over a finite period (a year, for example), the adoption of such an ambitious and enduring goal as becoming "the safest city of its size in the United States," may have further mitigated its impact within the police organization—it was just too ambitious for police officers to incorporate within their daily operations. One officer characterized the statement as more of a slogan than a mission because it was "not realistic," and he embellished his claim by comparing it to the New England Patriot's recent win in the 2002 Super Bowl: "Just like the Patriots winning the Super Bowl, sure, they might have won . . . but now we expect them to do it again . . . it is not a practical statement." In using this analogy, he was drawing attention to the unrealistic expectations conjured up by the "safest city" analogy and the fact that "crime cannot continue to drop forever." The ambitious nature of the mission statement helped explain why the few times he heard reference to it within the department was when an officer at a crime scene joked: "Uh-huh . . . another murder in the safest city in America."

Some department personnel might then have regarded the mission statement as unrealistic, although our observations and survey data suggested that patrol officers did recognize and accept the relationship between Compstat and the department's approach to fighting crime. Even if most doubted the practicality of the department's "safest city" mission, they endorsed the focus of the effort. One patrol officer described Compstat's explicit focus on the identification of crime patterns by saying, "It enables the department to give a focused effort on policing as opposed to haphazardly driving around in circles . . . it allows the department to focus on a specific area." Results from our patrol officer survey further supported this observation that the rank and file clearly associated the goal of crime reduction with Compstat. Approximately 92 percent of those surveyed responded that "reducing violent crime in the city" and "improving the quality of life in the city" were very or somewhat important to the department's Compstat strategy. The power of Compstat's image as a crime-fighting tool is further reinforced when we consider that: (1) Davis did not devise a mission statement that explicitly defined Compstat's goal but incorporated it within the department's goal of making Lowell the safest city of its size in the nation; and (2) The implementation of Compstat was not accompanied by any department-wide training. Despite the absence of these means of fostering a shared understanding of Compstat's purpose, there was still a general consensus that Compstat was a means of refocusing the department's energy on reducing crime.

What police department . . . would not want to adopt a program whose clear purpose is to reduce crime through the implementation of a well-defined set of technologies and procedures?

It seems likely that officers had a broad understanding that the fundamental objective of Compstat was to control crime. The simplicity and long tradition of this goal in police departments helps to explain the program's popularity, especially in comparison to more ambiguous strategies or programs that appear to challenge the canonical crime-fighting role of the police. Community policing, for example, has been the focus of a prodigious amount of scholarship over the last twenty years, but its goal and key elements are still subject to much debate among police practitioners and academics. What police department, however, would not want to adopt a program whose clear purpose is to reduce crime through the implementation of a well-defined set of technologies and procedures? The appeal of Compstat's crime-fighting goal to the police increases the likelihood that it will endure.

There is an implicit and important consideration contained within the preceding comments about Compstat's objective. What measures or benchmarks will the department use to evaluate its progress toward a specific goal? This became an issue every October or November, when the FBI published its annual *Uniform Crime Reports*, and Lowell's crime analysts examined the sixty-two U.S. cities with populations between 95,000 and 100,000. Lowell's analysts listed these cities alphabetically and used them to create a table, which they sent to Davis but not to the rest of the department. Since the rankings were not disseminated more widely, and we did not observe any specific reference to the "safest city" goal during our stay, it appeared that the table served primarily to give Davis an annual impression of how Lowell was doing in relation to other cities of its size. In short, the "safest city" goal remained an implicit rather than a highly visible element of daily operations. This does not mean that the goal was merely symbolic, particularly since Davis described worrying about the extent to which the department was meeting its goal at every biweekly Compstat meeting. It may suggest, however, that the six-year-old "safest city" imagery had become so commonplace as to no longer provoke much interest within the department.

Underlying the simplicity of the Compstat mission is a more complex set of challenges: What happens to Compstat when a police department fails to meet the crime-reduction goal of its mission? Will failure to meet the goal lead to cynicism both within and outside the department? Will the end result be the termination of Compstat, as city residents and police officers question the value of the entire program?

Tsongas and Davis were aware of the danger of establishing a mission statement that set an unattainable benchmark for success. Davis commented that in coming up with a vision for the department, he remembered thinking that the "safest city" statement was "kind of reaching." He noted that even though he recognized that the "safest city" goal was ambitious, he felt it was tangible. They both believed, he said, "Lowell was a place that they could get their hands around . . . that there was real potential for serious gains." The department has indeed had considerable success in achieving its goal, notwithstanding the risks involved in setting such an ambitious benchmark for success. For cities with populations between 90,000 and 110,000, Lowell ranked the forty-fifth safest in 1993 and jumped to the fifteenth safest in 1997. This drop in crime is among the reasons why many police administrators and scholars continue to pay close attention to the department's achievements (Lehrer 2001).

Davis, who was reluctant to attribute the decline in crime to Compstat alone, cited three additional causes: an improving economy, an increase in the length of jail sentences, and the efforts of the police. Public opinion, however, focused on the impact of Compstat, as shown in a newspaper headline from October 1999 which reported that "Crime in Lowell Continues to Plummet" and attributed "much of the success in combating crime" to "targeted policing through the Compstat program" (Iven 1999). This success, notwithstanding, there is reason to be cautious about Compstat's ability to reduce crime. Silverman, like Kelling and Sousa, has argued that the NYPD's success in reducing crime was a direct result of its Compstat program (Silverman 1999, 125–177; Kelling and Sousa 2001, 2), but many criminologists remain unconvinced. Crime, they argue, is too complex a phenomenon to be mitigated by any single approach (Bouza 1997; Eck and Maguire 2000; Harcourt 2002). In Lowell's case, the implementation of Compstat roughly corresponded with the hiring of fifty-one new police officers, and it is this increase that might have contributed to the overall reduction in crime. Furthermore, Lowell's recent crime *increase* appears to lend credence to a more cautious standpoint in attributing crime reductions to the police in general or, more specifically, to Compstat. In Lowell, index crimes for 2001 increased 12.7 percent over 2000 (4,507 index crimes compared to 3,999). As a result of its increasing crime rate, Lowell fell to the twenty-eighth safest city of its size in 2000.[7] After a period of rapid decline, this reversal has been met with some disquiet. In 2000, the local newspaper reported, "If the past year is any indication, Supt. Ed Davis and the Lowell Police Department will have their work cut out for them in the next 12 months" (*Lowell Sun* 2000).

Whatever the causes for mounting crime rates, some evidence suggests that Davis was feeling apprehensive as the local press reported on the slight upturn in crime. In a November 2000 interview he expressed concern that crime was rising for the first time in six years, and by December 2000 we overheard a comment that Davis was now paying for previous statements he had made in which he claimed credit for Lowell's declining crime rate. One respondent noted that the first response to any news of an increasing crime rate was "damage control," and he expressed disappointment that the department was not looking at the 10 percent increase more critically and asking questions such as, "What's different from last year; what's happening nationally?" Two recent articles in the local paper also suggested that criticism of Davis was becoming more acute. One remarked that Davis' reluctance to attend city council meetings appeared to reflect a lack of focus on public safety issues (Scott 2002), while the other expressed disappointment with the upward crime trend given the department's $20 million budget (*Lowell Sun Online*, April 4, 2002).

These comments illustrate the conflicting pressures that Compstat imposes on police chiefs and their departments. Compstat requires chiefs to formulate highly visible, public mission statements that set tangible organizational goals for reducing crime, as well as hold them and their departments accountable for meeting these standards. Increased expectations for lower crime rates, therefore, put police chiefs under considerable pressure to claim some responsibility and generate positive press for any successes. Absent convincing evidence that police departments possess the capacity to reduce crime and that managers have the will and skill to mobilize that capacity, setting a specific crime-reduction goal is like a batter of untested capabilities pointing to center field each time he comes to bat. This works only if he delivers a home run more often than not.

---

[7] According to the 2000 Uniform Crime Reports, Lowell experienced 3,803 Part I crimes per 100,000 people. In comparison, the crime rate for Simi Valley, CA, America's safest city with a population between 90,000 and 110,000, was 1,441 per 100,000 people (US Department of Justice 2001).

Mission statements can do more than create unrealistic expectations; they can also be dysfunctional in other ways. An increasing crime rate is likely to foster a great deal of public scrutiny and concern over a department's failure to fulfill its goals. The pressure that this places on a chief and his organization may provoke a knee-jerk reaction from the police ("damage control") rather than a more thorough investigation of the crime increase. A chief will probably respond to this pressure by exhorting his officers to work harder. This, in turn, might alienate managers and rank-and-file officers who feel the chief is blaming them for crime problems that stem from factors beyond their control, such as poverty, drugs, and unemployment.

Typical of such officers was one respondent who specifically noted the impact of broader structural factors to support his earlier comments that the department's mission was not attainable in a practical sense: "There are cities of the same size, say in California, where people have much higher incomes," and it is consequently easier to control crime. The department's failure to achieve its goal, as we have seen, threatened to breed this type of cynicism among civilians and department members who accused Davis, as the easiest target, of disingenuously claiming responsibility for previous successes. In short, depending on the department's capacity to meet its objectives, mission statements might motivate the organization to succeed or exacerbate its continuing failure to meet those same objectives.

These observations suggest an obvious means of reducing the dissonance caused by a department's failure to live up to its goal—modify the mission statement. Davis suggested that this was currently happening at Lowell. He acknowledged that the department had recently experienced "some drawbacks with the crime rate," and continued to say, "Some people have come in and given a qualifier" to amend the mission statement. He noted that it was important to take into account Lowell's socioeconomic and demographic characteristics in comparison to other cities, and he added that they were now referring to Lowell as the "safest city of its size *and type* in the United States" (emphasis added). Of course, the department could decide to drop, rather than merely refine, its vision entirely, but this seemed very unlikely at Lowell. Davis said firmly that Lowell's "safest city" statement was still "vitally important today."

Internal Accountability

For a department's mission statement to be effective, workers need to be held responsible for meeting the goals that the department espouses. Compstat does this by holding operational commanders accountable for knowing their command, being well acquainted with its problems, and measurably reducing them—or at least demonstrating a diligent effort to learn from the experience. Compstat, in short, makes *someone* responsible for tackling and reducing crime and imposes adverse career consequences, such as removal from command, on those who fail to comply. In conducting our fieldwork, we discovered that accountability was experienced most intensely by district commanders and far less so by those further down the chain of command. In addition, our research revealed the paradox that holding officers to a very high standard of accountability inhibited two other Compstat components: Compstat's ability to facilitate innovative problem solving through brainstorming and its capacity to reallocate resources to crime problems that most needed them, a component we address more fully under the section "Organizational Flexibility." Finally, we discovered that there are two challenges to the potency of accountability's ultimate threat to replace district commanders for poor performance: (1) There may only be a small pool of suitable replacements who are willing or able to do the job of district commander (this is particularly the case in smaller departments); and (2) Union and civil service requirements make it exceedingly difficult to remove officers for poor performance.

Responses to our national survey and intensive site interviews suggested that departments that have implemented a Compstat-like program consider internal accountability to be a very important feature of Compstat. Almost seven in ten of these departments told us that a district commander would be "somewhat" or "very likely" to be replaced if he or she did not "know about the crime patterns" in his or her district. Almost eight in ten of these departments told us, in turn, that a commander of a specialized unit would be "somewhat" or "very likely" to be replaced if he or she regularly failed to fulfill requests for cooperation from district commanders. A much smaller proportion of these departments reported that a district commander would be replaced simply if crime continued to rise in a district. Few departments take this extreme position because Compstat generally requires commanders to be familiar with problems and develop solutions to them but does not hold them too accountable for achieving outcomes that may be unresponsive to well-planned police interventions (Weisburd et al. 2001).

Internal accountability was an integral part of Lowell's Compstat program, as it was in many other Compstat programs examined in our national survey. In fact, Davis explicitly recognized the importance of this feature when he defined Compstat as a means "to manage the police department in a timely manner with an eye toward accountability." He was not alone in acknowledging the value of this element, as the comments of other department members reveal. When asked what was particularly useful about Compstat, one sector captain responded that it prevented "slacking off." Another sector captain noted that Compstat was a way of "keeping them honest" since "having things up there on a map can show you how bad things are, and you cannot say, 'Ooh, I missed those reports; I did not see them.'"

Internal accountability was an integral part of Lowell's . . . program, as it was in many other Compstat programs examined in our national survey.

These sector captains clearly recognized and accepted that Compstat held them accountable for all that occurred in their respective beats. Their comments also brought out the central role that Compstat meetings played in fostering accountability by allowing Davis to visibly assert his leadership. Since all the command staff attended the biweekly meetings, Compstat provided Davis with an ideal opportunity to display his authority and hold his sector captains publicly responsible. Compstat may provide a suitable venue, but our research suggests that the accountability mechanism also relies upon the leadership style of the individual who runs Compstat.

Davis' leadership style, as observed at Lowell's Compstat meetings, was to constantly ask questions and make suggestions. Davis remarked that he was seeking to foster "data-driven decision making in a learning organization" by interrogating his command staff about their responses to various crime problems and encouraging others to promulgate helpful solutions. In an interview with David Thacher (1998, 37), a researcher who visited Lowell in 1997 as part of a national COPS evaluation, Davis explained, "You have to be 90 percent a teacher when you have this job and that's what I do." He hopes that by asking people, "What they're working on and how they've come to this conclusion . . . in front of people . . . eventually they'll get the idea of it—that it's their responsibility."

In addition to promoting an information and data-driven environment, a chief can use Compstat as an arena to reward or punish his command staff in order to convey his expectations about acceptable performance. Holding command staff accountable for crime in their beats was a controversial element of the NYPD Compstat program. There is a well-known story in police circles that during one Compstat meeting Jack Maple repeatedly flashed up a slide of Pinocchio while a member of the command staff struggled to explain crime in his precinct (Maple later apologized). In contrast, Davis recognized that commanding officers might be apprehensive or fearful about being held accountable. Referring to this infamous "beating-up" scenario in New York, he argued that it was "counterproductive" to humiliate individuals during Compstat and adopted a more humanistic approach: "Police officers are competitive by nature and all you really need to do is give them the facts and ask them a question. They will go from there." Just asking them a question in front of their peers, Davis opined, would make sector captains feel accountable. That said, there have been occasions when Davis has been so displeased by the lack of initiative of his command staff in response to his queries that he has taken a harder line and "balled them out."

Compstat's potential for confrontation accounts for why there is some concern that it can result in command staff members being reprimanded. Outside of the usual command staff participants and audience, Compstat has a more pronounced reputation for being brutal. Despite providing a forum for making "people do the job they do," many are clearly discouraged by the confrontational atmosphere that can characterize Compstat meetings. One officer described Compstat as a forum where officers had their "balls ripped off" and surmised that this only served to make individuals "reluctant to speak up . . . reluctant to do their job."

Compstat's reputation as a pressure-cooker environment that holds sector captains accountable was widespread at Lowell. Even patrol officers, who rarely attended Compstat, recognized this feature. Based on the survey we distributed at roll call, 61 percent of officers reported that holding sector captains accountable for crimes in their beats was "very important" (26 percent) or "somewhat important" (35 percent). Only 34 percent reported that holding sector captains accountable for crime in their beats was "not at all important." Five percent responded that they "don't know" to the question. In contrast, a slightly smaller proportion of officers, 56 percent, responded that, "Holding *officers* accountable for crimes in their beats" was "very important" (18 percent) or "somewhat important" (38 percent). The fact that a greater proportion of patrol officers believed that Compstat was "very important" for holding sector captains, in particular, accountable suggests that there is some general recognition that accountability is experienced most acutely by middle-level managers.

The conventional notion that grilling precinct commanders on crime-reduction efforts "reinforces the patrol officer's desire to combat crime" seems to overstate the case in Lowell (Silverman 1999, 194–5). Our research suggested a greater likelihood that the sense of accountability became diluted as one moved down the command structure. As one patrol officer put it when asked about Compstat, "If you don't go, you don't know." Nearly the entire command staff attended Compstat, but only two or three patrol officers were present at any given Compstat meeting. They might answer a question or two, and they might participate in a brief presentation, but they generally played a peripheral role, leading one high-ranking officer to remark, "Patrol officers can hide in the meeting and get away without saying anything."

Just because patrol officers were not regular attendees at Compstat did not mean that they did not learn about or experience accountability; it suggested, however, that they experienced it less intensely. Several comments made to us suggested that when someone was chastised in Compstat, news of their plight spread quickly throughout the department. The roll-call survey results, however, indicated that what happened in Compstat was more likely to be communicated informally than through a systematic process. Stories, anecdotes, and jokes expressing sympathy for, or humor about, an individual who was unfortunate enough to be chastened by Davis seemed to feed Compstat's powerful reputation for holding officers accountable. However, the absence of a formal mechanism for transmitting this message frequently and directly to patrol officers could mitigate its impact on those at the bottom of the police hierarchy. When asked, "How often does your supervisor discuss what has happened at Compstat meetings?," 61 percent of the patrol officers we surveyed responded "never" (43 percent) or "every few months" (18 percent).

Since accountability relies heavily upon a public setting with high-ranking officials in attendance, it follows that accountability is experienced less acutely outside of this forum. In brief, a sector captain who has been rebuked in Compstat for an inadequate strategy may return to his sector and admonish his line officers, but the force of the message is considerably weakened for three reasons: (1) Compstat ultimately holds middle managers, not line officers, accountable; (2) The message does not come from the highest ranking official in the police department, and (3) It, therefore, does not result in public censure on the same scale.

Lowell's Compstat is an independent program, but its impact on accountability relies heavily upon the individual personality and leadership style of the superintendent, as shown by differences in the tenor and operation of Compstat meetings. When Davis was present, he tended to dominate Compstat meetings. In his absence, Compstat meetings were more subdued. This difference in tone stemmed from a number of complex social dynamics, as Davis pointed out. He was aware that Compstat meetings ran differently in his absence and proposed the general nature of police departments as "paramilitary organizations" as a partial explanation for the difference. He observed that these kinds of organizations, with their presumed emphasis on the command structure, didn't encourage "free-thinkers," but he was optimistic that a "system" like Compstat could encourage individuals to think differently. Davis' comments reveal that even though the individual responsible for running Compstat influences how accountability is experienced within the department, the organization is simultaneously constrained by larger structural limitations. These present significant challenges to Compstat's purported goals to encourage information sharing and hold officers accountable for crime in their beats.

The department's organizational hierarchy, embodied in the rank structure, hampers the free exchange of crime-related information and problem-solving strategies at Compstat. Personal histories between officers intertwine with rank to form a complex set of social norms and relationships. Mutual exchange is clearly restricted by the expectation that, on account of their social position, higher-ranking officers are primarily responsible for communicating crime information during Compstat. In addition, department norms regarding camaraderie and respect curtail the freedom to share ideas by prohibiting officers from sharing potentially useful information that others could interpret as criticism.

This type of information might appear benign to outside observers who are unfamiliar with the department's "back-stage" environment, but insiders know the least vague suggestion that a superior is uninformed, misinformed, or incompetent carries significant risk. The adamant refusal of one lieutenant to "embarrass captains in Compstat" reflects a feature of paramilitary organizations embodied in the popular police maxim, "shit rolls downhill." Since information sharing at Compstat may put a member of the command staff at fault, an officer may take the safest course of action and choose not to participate in the meeting at all. He might also take the path of low risk by making only short and simple comments reiterating what has already been said. Of course, he could also dramatically increase the likelihood of negative repercussions by directly criticizing a superior, even though we never witnessed this behavior during our research at Lowell.

Davis openly acknowledged that displays of deference limited the value of information exchange by remarking that it was "extremely difficult" to facilitate questions at Compstat. He noted that an officer who is questioned by a peer or subordinate during Compstat might later confront the inquisitor and complain, "You really screwed me in there." To avoid this scenario, some members of the command staff made a practice of giving advance warning to colleagues whom they intended to call on at Compstat. One officer mentioned that he preferred to discuss Compstat-related matters in private with Davis, rather than bring them up at meetings; and Davis similarly appeared to choose discrete rather than visible settings when directing his most vociferous criticism at command staff. Members of the CAU also shared this tendency to bring discretion to the Compstat accountability process and described doing their best to inform sector captains of any changes in the Compstat format because Compstat was about "providing information, not catching people out."

We have already seen how Compstat's stress on accountability conflicts with its emphasis on brainstorming, limiting effective collaboration between department members. The size of the organization and its administrative rules and regulations, both factors independent of Compstat, limit, in turn, the level of accountability to which a chief can formally hold his sector captains. These factors also determine whether Compstat can live up to its claim for predictably improving performance by helping departments achieve greater accountability than they have in the past. Salient issues in this regard include how much a chief can punish those who fail to meet the goals of the organization, whether he can remove them from their position, and how much reward he can offer them.

Our research in the relatively small department of Lowell suggests that incentives are usually limited to public acknowledgement of good or bad performance. This can be attributed to two organizational features that exist independently from Compstat and are generalizable to other police departments: the size of the agency and the rules and regulations that govern its administration. In small departments, the chief's power is limited by the small pool of qualified candidates for the position of district commander, lowering the risk of an individual being fired for marginal performance. There are, furthermore, usually few positions above the rank of district commander, as was the case in Lowell, thus undercutting the incentive of promotion. Finally, the strict regulations that govern personnel decisions in police departments constrain a chief's ability to take action, though, in Lowell, Davis indicated that he would transfer a sector captain who was not performing up to Compstat's standards to another position in the department.

Commissioner Bratton was able to replace more than half of all the NYPD's middle-level managers during the first year of Compstat. There was some turnover of older officers when Davis took over, but it appeared that this was attributable to the department's commitment to community policing rather than a direct result of its implementation of Compstat. An officer recalled that the incentive program to buy out officers was a "sign of the times," since the department was "old." No one remembered Davis removing any of the original sector bosses from their positions, but Davis indicated that he would move a sector captain who was not doing his or her job at Compstat to another position. This is not to suggest that there was no turnover of sector captains. Respondents recalled that some individuals were uncomfortable with the Compstat process (the public speaking and the intense scrutiny) and asked to be reassigned. However, responding to a request for reassignment obviously differs from removing sector captains for failing to fulfill the obligations of their position. Not only was Davis' capacity to remove a sector captain limited by the small pool of qualified candidates, the magnitude of the responsibility commensurate with the position, not to mention the administrative burdens, also made it unlikely that all those who qualified would *choose* to serve as one of the three sector captains at Lowell. One interviewee pointed out that given the significant responsibilities of the position "maybe four out of eight captains [total] are willing to do this job." Finally, some respondents mentioned forcefully that the superintendent could not just remove sector captains with impunity. They noted that his authority in making personnel decisions, similar to chiefs across the country, was limited by civil service and union regulations: "A chief cannot hire, fire, or promote people at will" (Walker 1999, 368). Additionally, the provisions regarding discipline, such as numerous avenues for appeal, make it extremely difficult for chiefs to dismiss bad officers, or even to discipline officers for poor performance (Mastrofski 2002, 158).

Our research in . . . Lowell suggests that incentives are usually limited to public acknowledgement of good or bad performance.

The sense of accountability varied throughout the Lowell Police Department. Sector captains, who clearly recognized their responsibility for their beats, apparently felt more accountable than other members of the department. The failure of many department members to pose probing questions at Compstat meetings in Davis' absence also suggested the sense of accountability was less pervasive in Lowell than it was in Compstat sites like New Orleans whose department held district-level Compstat meetings to foster accountability through the ranks (Gurwitt 1998).

Davis plays an integral role as facilitator of questions and judge of sector captains' accountability, and his centrality raises concerns regarding Compstat's potential longevity in the Lowell Police Department. It remains unclear whether Compstat is institutionalized at Lowell and whether the department would be committed to continuing Compstat if Davis moved on. One respondent addressed this concern directly by suggesting that Compstat relied so heavily upon Davis' distinct leadership style that it would disappear if he left. Compstat also inspired some ambivalence among patrol officers, whose sentiments were equally divided along response categories, according to our survey.

Considerable ambivalence also exists among top brass, middle management, and patrol officers about the use of Compstat as a forum for holding officers accountable for crime. There is some evidence, however, that Compstat can be a powerful means for achieving this goal at Lowell. Sector captains understood that being interrogated in front of one's peers is a guaranteed method for ensuring some level of accountability. Sector captains *expected* Davis to ask numerous probing questions about crime and openly acknowledged their responsibility to come to Compstat fully prepared with an array of questions. This sense of accountability did not filter down to the rank and file with the same potency, but patrol officers understood that their sector captains carried a significant burden of responsibility. One lieutenant felt that Compstat held everybody accountable since no officer was anxious for command staff to see a "crime spike" on his route or for fellow officers to leave a Compstat meeting and pass around the news that "So and so got his ass handed to him." Humiliating as this is, hearing indirectly about someone else's misfortune is a less effective method of holding officers accountable than exposing them to the possibility of public censure on the same scale as their sector captains at Compstat.

Geographic Organization of Operational Command

Compstat holds police managers to a high level of accountability, but it does not do so without providing these commanders with the authority to carry out the Compstat mission. Mid-level managers are empowered in this model through the concept of geographic organization of operational command. Operational command is focused on the policing of specific territories, so primary decision-making responsibility is delegated to commanders with territorial responsibility (e.g., precincts). That is, the organization gives a higher priority to commanders who specialize in territory rather than function. Functionally specialized units—such as patrol, detectives, school resource officers, and traffic—are placed under the command of the precinct commander, or arrangements are made to facilitate their responsiveness to the commander's needs.

In this section, we describe how operational command was organized in the LPD, and we assess how much authority sector captains had over department sections and units that had traditionally operated independently of them. Furthermore, we highlight some of the specific challenges faced by a department that was only partially decentralized, with some detectives assigned to the sectors and others to a central division, and that was structured both geographically and temporally, with individual sector captains working eight-hour shifts and bearing responsibility for their specific territory over a twenty-four-hour period.

Results from our national survey suggested strong support for Compstat's emphasis on geographic organization of command. When we asked whether departments authorized middle managers to select problem-solving strategies for low-level problems, 90 percent of Compstat-like departments claimed to have given such authority to district commanders, line supervisors, or specialized unit commanders. This response clearly demonstrated that empowering middle managers with decision-making autonomy is an important feature of Compstat departments (Weisburd et al. 2001).

Since Davis assumed control of the Lowell Police Department, decision making has become more decentralized, a change that we can quantify by considering which levels in the organization bear geographical responsibility for spaces such as beats, sectors, or cities. Before the advent of community policing and Compstat, the department was organized temporally. A captain operated as a shift or watch commander and was responsible for supervising officers on a single shift for the entire city; once the shift was over, his or her responsibilities ceased. Under the old system, therefore, the lowest-ranking officer with twenty-four-hour responsibility for a geographic location held the command-level position of deputy chief in charge of operations. Compstat, however, was grafted onto the department's community-policing model and accordingly devolved this power down one level by giving sector captains twenty-four-hour responsibility for their sectors. So, for the 60 percent of officers assigned to the sectors, geographic organization of operational command had shifted from the very top of the organization (unitary command) down one level to the three sector captains, effectively cutting the scope of operational command to one third the previous scope (if measured by number of sworn officers).

Organizational structure

In some respects the Lowell Police Department under Compstat remained quite traditional. The physical structure of the LPD continued to be centralized with department headquarters dominating operations. While some of its precinct substations were equipped with computer terminals (connected to the department's mainframe) and could function as command bases, others were little more than storefront operations that were closed at night. Detectives could not use the precincts to conduct investigations because they did not have interview rooms. The fact that all police officers, no matter what their sector assignment, attended roll calls at department headquarters under the supervision of a single sergeant or lieutenant indicated that on one level the LPD remained fairly centralized.

In some respects the Lowell Police Department under Compstat remained quite traditional.

Decision making

Despite this traditional structure, decision making at Lowell is now significantly more participatory than it ever was under the traditional policing model that preceded the widespread introduction of community policing in the 1980s. Police executives in Lowell, as elsewhere, were responsible for making decisions on department policy and procedure without much input from middle managers. This began to change, however, when the LPD adopted community policing and moved toward decentralization in 1996. Since then the department's command staff of lieutenant through deputy superintendent, as well as civilians, have played a more integral role in the decision-making process through informal private conversations, weekly Operations Staff meetings, and annual strategic planning meetings, which also involve separate conferences for patrol officers and administrative personnel. Prior to this development, meetings between middle managers and the superintendent were infrequent, formal, and profoundly hierarchical in character (Thacher 1998, 17).

The decision-making autonomy of Lowell's sector captains in managing their own beats has increased significantly under Compstat. According to the department's organizational chart, sector captains reported to the deputy superintendent of operations, but they really reported directly to the superintendent, leading one former sector captain to state that he felt very much "like the captain of his own ship." Another former sector captain, now in charge of a large enterprise, expressed a similar sentiment by commenting that Davis allowed him to run his project how he wanted. Davis, who preferred his sector captains to rely upon their own judgment when making decisions about their sectors, echoed these statements. For example, he explained that he did not interfere when sector captains decided to allocate personnel equally within their individual sectors. Were he to make an executive decision in this instance, he continued, it would appear to sector captains as an edict and foster resentment within the department.

Despite the increased autonomy of sector captains, some evidence suggests that the authority to make decisions without supervisory approval does not extend further down the organization. In contrast to the autonomy of sector captains, one of Davis' responses to a sergeant's question during a Compstat meeting suggested that line supervisors feel far less certain about their capacity to make decisions without consulting a superior. When a sector sergeant mentioned to Davis that he should probably discuss his decision to reassign back-up cars with his immediate supervisor (a lieutenant), Davis used this as an opportunity to reinforce the message that sergeants generally had a great deal of decision-making autonomy within the department. Davis explained, "Some people might not be happy with sergeants taking initiative, and there could be some union grumbles," but he was willing to deal with this and was disappointed that sergeants did not realize "they could move people around" within their sectors. He reiterated this point at another Compstat meeting by stating that the official detail was only a guide, and that sergeants had the authority to put men "where they were needed." Although he noted that sergeants should still consult with their sector captains, he was trying to encourage his street supervisors to recognize that they should exercise more initiative.

Davis has decentralized decision making down to sector captains, but in contrast to Lowell some police departments have made more vigorous attempts to take geographic organization all the way down to line officers (Parks et al. 1998). In Saint Petersburg, Florida, for example, the police department assigned a small team of about five patrol officers to one of the city's forty-eight beats for their shifts. In addition, each beat was assigned a community-policing officer who could work any time during the day as long as he worked forty hours per week. Freed from calls for service, he was primarily responsible for working on developing problem-solving strategies for the beat and coordinating these plans with other beat officers. Finally, a single sergeant, who had twenty-four-hour responsibility for the team, was authorized to work any shift he chose so that he had the flexibility to meet with all the members of his team. The system in Saint Petersburg became unwieldy and collapsed after only three years, but it still serves as an example of how the level of decentralized decision making can vary dramatically between police agencies. At Lowell, sector captains definitely felt that they had the authority to make decisions without getting approval from above, but this level of clarity did not exist at lower levels in the organization.

Despite the extensive autonomy enjoyed by sector captains, the exact nature of this autonomy under Compstat is more complex than it might at first appear. Our national survey revealed that 90 percent of departments with Compstat-like programs gave district commanders, line supervisors, or specialized unit commanders the authority to select problem-solving strategies for low-level problems, but this percentage dropped to 70 percent when it came to authorizing middle managers to choose how to deal with *higher visibility problems* (Weisburd et al. 2001). These results suggested that middle managers under Compstat did possess a significant amount of decision-making autonomy, but Davis and his deputies might curtail their independence at times. When we examined the extent to which departments are willing to give middle managers greater responsibility for determining beat boundaries or staffing levels we found even less support for the concept of geographic organization of command. Only four in ten departments that claimed to have implemented a Compstat-like model gave district commanders, line supervisors, or specialized unit commanders the authority to determine beat boundaries. Even fewer, only 18 percent, gave these commanders the authority to determine routine staffing levels (Weisburd et al. 2001).

In Lowell, the sector captains were largely responsible for redrawing their beat boundaries during the department's bid process.[8] During our research period, the sector captains used their extensive familiarity with their sectors in redrawing cruiser and walking routes. This reconfiguration involved the deputy superintendent of operations and the sector captains, with Davis rarely interfering with his sector captains' decisions. This did not mean that he was unwilling to overrule any decision that he felt was inappropriate. Under pressure from both the community and the city to increase the total number of walking routes, Davis overturned a sector captain's decision to cut one of his officer's walking time in half (to four hours). Davis' commitment to community policing and the problem of scarce resources in the face of an increasing demand for beat officers contributed to the complexity of this issue, and good arguments were presented on both sides.

---

[8] As part of their union contract, every eighteen months, patrol officers were allowed to request reassignment to any beat in the city; priority was then given to those officers with the greatest seniority, or most years on the force.

This scenario illustrated that sector captains might have significant autonomy, but they always operated within certain limits defined by Davis. One observer summed up Davis' style as, "You can do anything you want, as long as I agree with you." Decisions over routine staffing levels also revealed the persistence of the traditional hierarchical command structure. A sector captain who required additional personnel was supposed to approach Davis or his deputies and they would accommodate him/her if possible.

In sum, the decentralization of decision making to mid-level managers in Lowell is complex. First, Compstat appeared to have consolidated decision-making power by creating the job of sector captains, putting more of the department's personnel under their command, and using that job as the focal point for twenty-four-hour responsibility. Previously, the organization's decision making was done at levels both above and below that rank (by the command staff at headquarters and by shift commanders). Second, sector captains possessed a great deal of autonomy. Davis encouraged them to solve problems in their sectors, to decide how to assign sector personnel, and to cooperate with one another. This suggested that decision making was considerably more decentralized at Lowell than at more traditional police agencies. However, this did not mean that sector captains possessed unrestricted authority. Our observations suggested that Davis liked to be kept informed of his sector captains' decisions, required that they provide supportable reasons for their actions, and was not averse to exerting his authority over them. On many matters, Davis invited the participation of sector captains in identifying problems and driving solutions. They engaged him on these matters, and he had the final say. This process is more accurately characterized as participatory management than as a pure delegation of Davis' authority to the sector commanders. In contrast to mid-level managers, our observations suggest, although we cannot state this definitively, that street supervisors seemed to feel that their decision-making autonomy was narrowly confined.

In addition to giving district commanders the authority to make decisions that once belonged to top management, Compstat also requires that functional differentiation, a conventional feature of police organizations, be replaced with "geographically based management" (Silverman 1999, 149), in which largely autonomous specialized units that focus on specific crimes or vices are placed under the direct command of district commanders or made responsive to their needs. While the accounts of respondents at Lowell suggested that specialized units would try to accommodate a sector captain's request for assistance, it was clear that the supervision of these units had not been transferred to sector captains because of Compstat. Before and after Compstat, captains remained responsible primarily for patrol officers, and the reassignment of detectives from headquarters to the sectors was part of the department's community-policing program rather than its Compstat initiative. Compstat, in fact, did not lead Lowell to provide sector captains with additional specialists. Lowell differed, in this respect, from the NYPD, which used Compstat to reconstitute some precincts so that "all detectives, drug investigators, and housing police who had previously reported to their separate borough and headquarters superiors" came under the direct control of the district commander (Silverman 1999, 149). At Lowell, on the other hand, the detectives responsible for drug and serious crimes did not come under the direct command of the sector captains following the implementation of Compstat, and the Lowell Housing Authority continued operating as a separate precinct.

Besides significantly increasing the input of sector captains in decision making and slightly modifying the department's division of labor, the geographic organization of operational command under Compstat contributed to a number of organizational challenges faced by the department. These included the difficulty of coordinating tasks between central and sector detectives, harmonizing duties across sectors and shifts, and dealing with the disproportionate burden of responsibility that falls on sector captains in an organization that is structured both geographically and temporally.

Coordination issues

Lowell differed considerably from more traditional police departments in the decentralization of its Criminal Investigation Section. The process began in 1998, when the section was split into a handful of detectives, who were assigned to each sector, and a number of central detectives, who retained responsibility for the most serious crimes, such as homicides and armed robberies. The task of coordinating investigations between sector and central detectives that began at this time was ongoing at Lowell, according to our observations. The officer in charge of the section made a point of using sector detectives on homicide divisions in order to provide them with much needed experience. He also acknowledged the authority of a sector captain over his or her own detectives and did not interfere in a sector investigation unless the sector captain requested assistance. He took this hands-off attitude toward sector captains because he believed his role was "to be aware of what is going on" and to offer assistance when he saw "problems develop." This approach was evidently productive according to a number of attendees at Operations Staff meetings who remarked that sector detectives were much more seasoned than they were two years ago and no longer had to rely upon the central detectives for direction. The officer in charge of the Criminal Investigation Section made a point of using sector detectives on homicide investigations. This was a way of providing them with much needed experience. Since the sector captain supervised his or her own detectives, the officer in charge of the section would not interfere in a sector investigation unless the sector captain requested assistance. In relation to the sector captains, he defined his role as offering assistance and seeing "problems develop . . . to be aware of what is going on."

The continuous flow of information among sector captains, their detectives, and the Criminal Investigation Section was the primary means of coordinating investigations within the department, a loosely defined coordination structure that has both benefits and drawbacks. Its most important advantages are to facilitate the flow of information and potentially enhance productivity by reducing red tape and turf battles. In other words, it can help mitigate bureaucratic dysfunction, though it does have the drawback of depending heavily upon individuals taking the initiative for contacting and coordinating with each other.

Under these circumstances, there is obviously some potential for organizational dissonance. Some members of Lowell's command staff were indeed concerned that coordination between sectors was not clearly defined and might breed confusion over the responsibilities of individual sector captains, particularly in the event of an ongoing multi-agency investigation. One sector captain, for example, asked other members of the command staff to define his responsibilities in a homicide investigation, given that homicide investigations in Massachusetts are the primary responsibility of the local district attorney and state police who coordinate their activities with local detectives. Officers responded thoughtfully by proposing that his responsibilities were to ensure a controlled response, such as "canvassing the neighborhood," or to "provide support by securing the crime scene and offering assistance." Davis also responded by commenting that the sector captain was doing exactly what was expected by empowering the community through crime prevention strategies.

The outcome of the investigation in question was a success, but this scenario illustrates how the lack of a clear process fostered a need for clarification and assurance. Speaking more generally, one high-ranking official suggested, "The department needs to put a plan together as to what supervisors should do." The absence of clear operational guidelines makes it more likely that the autonomous actions of lower-level managers may circumvent the chain of command and create discord at higher levels of the organization.

Communication breakdowns are inevitable in any organization, and it is unclear to what extent stricter rules and procedures would improve coordination. There was still some ambivalence in the department over whether the Criminal Investigation Section should be entirely decentralized and whether the current hybrid system was working effectively or, as one officer jeered, "It is working in spite of itself." Still, it is much easier for us to point to cases where coordination broke down than where it succeeded, since failures are much easier to detect.

Geographic versus temporal organization

Conflict between the department's geographical and temporal organization was the factor that most complicated coordination among department members. Sector captains were directly accountable for whatever happened in their sectors over a twenty-four-hour period, even though they were only on duty for eight hours during the day shift. When the sector captains were off duty, the early or late night shift commander or lieutenant was responsible for carrying out each sector captain's orders while simultaneously supervising all three sectors. This obviously raised difficult organizational issues, such as the need for effective communication between the sector captains and shift commanders and the problem of clearly establishing command responsibilities when the sector captain was off duty.

Once a problem strategy was recommended at Compstat, it was the sector captain's responsibility to inform the shift commander (most often through a phone call or e-mail) about any tasks that needed to be implemented and supervised on the early and late night shifts. The sector captain was also responsible for informing his or her lieutenant and sergeants of his actions so that the decision was conveyed down the organizational hierarchy. It was up to the shift commander to ensure that these instructions were followed, but it ultimately fell to the sector captain to "complete the loop" by making sure that the decision was actually implemented at the street level. Technically a sector captain had twenty-four-hour responsibility for everything that happened on his or her sector, but members of the command staff recognized that it was difficult, and somewhat unfair, to hold someone continuously accountable while off duty.

It is the sector captains who are entirely responsible for crime in the city and must answer to the superintendent during Compstat.

The issue of coordination between shifts was a topic of much discussion at Lowell and came up often at Operations Staff meetings. One observer suggested that the issue was confusing enough that some officers, in particular the department's sergeants, might not actually know who their direct supervisor was. "If they [the sergeants] are confused," he commented, "what do you think the patrol officers think?" He also described the department's hierarchy metaphorically, in terms of parents, or sector captains, and baby-sitters, or shift commanders, who are responsible for enforcing the parents' rules. This description might have been a slight exaggeration, but it suggested the existence of a feeling among some officers that they had two bosses, a sector captain and a shift commander. One sector captain disagreed, stating that his personnel clearly knew that he was their boss. After all, as he said, "I approve their vacation time, their schedule, and their time off." He did, however, acknowledge that a sector captain's relationship with a shift commander was complicated because the shift commander was working "in a sense" for the sector captains but simultaneously exercised a great deal of decision-making autonomy.

The core of the coordination problem takes us back to the challenges associated with accountability. It is the sector captains who are entirely responsible for crime in the city and must answer to the superintendent during Compstat. This essentially moves a major burden for managing the police organization onto the shoulders of only three people. The shift commanders, by contrast, "get a break" by being divorced from the whole Compstat process and "have little on their plates," when compared to sector captains, as one respondent said. In a thoughtful paper entitled "An Organizational Plan for Patrol Operations," one sector captain argued that the current system let everyone "else off the hook" and placed a disproportionate workload on the sector captains. In support of this perspective, another respondent noted that some shift commanders did not worry about conveying command decisions to the lower ranks because "the heat falls on the sector commanders." The sector captains did have some command support, since each sector was assigned a lieutenant who served as executive officer. The primary responsibility of the executive officer, however, was to convey the sector captain's orders down the chain of command rather than act as a key decision maker.

There are potential dangers that sector captains, who bear significant responsibilities, may burn out or become frustrated. The potential for burnout is high since sector captains carry a heavy administrative burden, including weekly Operations Staff meetings with Davis, regular department meetings, weekly meetings with community groups, and the preparation of information for Compstat meetings. In addition to all this, they have significant command responsibilities, including managing and staffing large events, such as Lowell's Winter Fest, and dealing with personnel issues, such as abuse of sick leave by officers. In fulfilling these responsibilities, sector captains had to satisfy Davis that they were handling his priorities; they had to coordinate with each other; and they had to exercise initiative in identifying and solving important problems. They also had to ensure that their subordinates fed useful information up the chain of command, carried out directives that came down the chain of command, and exercised the kind of problem-solving initiative that Davis hoped to foster in his department. As a result of these myriad responsibilities, sector captains spent so much time going to meetings that there was hardly any time for them to implement anything or to sit at their desks and talk to their staff, as one respondent observed. A sector captain described this difficult situation simply and poignantly by stating that, "Time is precious."

To sum up, the geographic operation of command at Lowell under the Compstat model did provide middle managers with considerable authority. To a large extent, just three individuals were primarily responsible for controlling crime in the city. To support them in this endeavor they possessed significant decision-making autonomy that was only, for all intents and purposes, directly curtailed by the superintendent. In comparison, Compstat had not resulted in a significant change to the overall structure of the department. Specialist units were, in theory, made available to sector captains, but they did not fall under their direct supervision. Sector captains continued only to be responsible for patrol officers. Decentralizing decision making clearly encouraged middle managers to take initiative and responsibility for policing specific territories, but it also created some difficult problems. An organization that is managed both geographically and temporally will have to establish clear and effective communication channels that bridge sectors and specialized units and also extend across shifts and sectors. This helps ensure cooperation between top and middle-level managers and helps minimize breakdowns in coordination and in the chain of command. There is also a danger that a few middle managers are burdened with too much responsibility in comparison to their peers and subordinates. Based on the impressions of our informants, Compstat may encourage many to slide, while increasing the likelihood that sector commanders may burn out or become frustrated with their considerable commitments and the high level of accountability to which they are held. However, without any specific examples of burnout within the department, these findings remain speculative.

Organizational Flexibility

Having the authority to respond to problems is a necessary but insufficient condition for middle managers to implement their decisions effectively. They must also have adequate *resources*. Compstat promises to respond rapidly and effectively to problems as they emerge, but it also requires flexibility in an organization's use of resources since problems often arise in patterns that are difficult to predict. Unfortunately, police organizations are ordinarily designed in ways that restrict their capacity for flexibility. First, they are highly bureaucratic and operate according to detailed rules and regulations that are often imposed or embraced by police administrators themselves. This makes them much more successful at performing routine tasks in response to highly predictable work demands than at developing the *capacity* for coping with unexpected problems. Second, administrators' ability to make their organizations flexible is constrained by other organizational forces, mainly those concerned with employees' rights and management's duty to negotiate changes in workplace routines. For example, the inflexible regulations that labor union contracts impose tend to discourage middle managers from changing work shifts and job assignments (Mastrofski 2002). Third, the department is subject to pressures from a host of interest groups, including politicians, business, the press, and neighborhood associations, that want to determine how and where officers spend their time. Sometimes these groups reinforce what management believes to be the department's priorities, but they often constrain what it may do to cope with unexpected problems and work demands.

One of the ways that police organizations traditionally coped with unpredictable fluctuations in work demand was to overstaff their patrol units relative to the demand they expected on a given work shift (Reiss 1992). That is, they built in slack time, during which officers engaged in preventive patrol, but their principal function was to be available for work that might arise, especially that which might require an emergency response. Police departments have tried to build in enough slack to deal with significant, and unexpected, catastrophes since the 1960s, when former Chicago police chief and policing theorist O.W. Wilson advocated the systematic incorporation of this flexible capacity into the calculation of staffing needs (Wilson and McLaren 1972).

For many years this approach was widely practiced by police departments and accepted by those who approved their budgets, but the ethos of more efficient, results-oriented policing has changed all that. Community policing, problem-oriented policing, and Compstat all call for officers to engage in directed activities focused on preventing and solving problems, spending time with the community, and engaging in crime-reduction activities—all of which diminish the slack time available through "preventive patrol."

In this even more constrained environment, how can police departments become more flexible? They can attempt to negotiate with collective bargaining units for greater flexibility in making job and shift assignments. They can budget for overtime, which allows managers to work around the constraints of set work shifts. They can create special units that are not bound to work in a particular geographic area or work shift, serving as "taxi squads" that are portable in when and where they work. They can also require or reward cooperation and teamwork within and across organizational units. Ultimately, the flexibility of the police organization is displayed when managers are able and willing to alter the allocation structures and routines in response to non-routine work demands.

In our national survey, we measured organizational flexibility by the department's response to two questions: (1) To what extent had the department reallocated resources such as reassignment and overtime to the primary crime or disorder problem of the last twelve months; and (2) To what extent did middle managers have general authority to approve requests for flexible hours or to mobilize SWAT units to specific operations? Although these two items reflected the department's commitment to geographic organization of command, they also focused directly on whether there was flexibility in the allocation of departmental resources. Departments in the national survey that claimed to have implemented a Compstat-like program did appear to have a great deal of organizational flexibility. Eighty-four percent of these departments had reassigned patrol officers to new units, areas, or work shifts to address their primary crime or disorder problem of the past year, and 80 percent of them had responded by using overtime to provide additional personnel (Weisburd et al. 2001).

What did Lowell do to develop flexibility? Officers were sometimes reassigned to other units, geographic areas, or work shifts, but by far the most common practice of reallocating resources outside of normal patterns was to do so on an ad hoc, informal basis that actually minimized disruptions to department routine. The most likely occurrence was for sector captains to direct a police officer or detective away from some of their more routine activities during their shift and ask them to pay particular attention to a specific problem area. In response to the ongoing problem of motor vehicle crimes in one sector of the city, Davis requested that a central detective be assigned to work more closely with the CAU. In addition, if necessary, the department would pay officers overtime as part of a crime-reduction strategy. For example, in response to the brutal mugging of a woman in the highly visible downtown area, Davis authorized overtime funds for additional patrol over a two-week period.

A clear example of the reassignment of a specialist to a crime problem was the decision made at an Operations Staff Meeting to temporarily move an assistant crime analyst from the CAU to the criminal division. In order to provide central detectives with greater access to gang information, the crime analyst was relocated and assigned specific gang-related cases. In relation to this move, the crime analyst stated that there was a need for someone in the detective division to "go over patterns" in regard to specific crimes. According to the national survey, almost three quarters of departments responded that they allowed district commanders, line supervisors, or specialized unit commanders to decide on flexible hour requests, and 65 percent allowed them to mobilize SWAT units. In line with this trend, Lowell's sector captains were responsible for making these kinds of decisions with little or no review by superior officers.

The paradox of resource flexibility is that the fewer resources the organization has to devote to flexible assignments, the more it needs that flexibility.

Other methods to increase flexibility were less common. We did not observe the department seeking concessions from labor. It did use overtime, but the funds available were not always sufficient to meet the demands, at least in the view of some below top management. Sector captains were assigned some specialists (some of the detectives), a measure that increased within-sector flexibility in responding to problems, but in general the department did not rely on "taxi squads" to enhance flexibility. The department's top leadership spoke of a desire for greater teamwork but had to contend with a number of disincentives and limitations on the organization's capacity to reward it. Thus, while the LPD did undertake to increase flexibility in resource allocations, it was significantly limited in its capacity to do so and hampered by traditional internal and external challenges that included lack of manpower, city politics, and rivalries within the organization. The following sections discuss these in greater detail.

Manpower

The paradox of resource flexibility is that the fewer resources the organization has to devote to flexible assignments, the more it needs that flexibility. Despite the considerable increase in the number of sworn personnel since Davis took over, several respondents still felt that there was a real need for more patrol officers in the police department: "More troops on the street," as one sector captain explained. This sentiment appeared to be widely shared, especially among the sector captains, and was particularly strong in the West sector where a disproportionate amount of gang and motor vehicle crime was concentrated. Silverman writes, "To its credit, Compstat is not tolerant when precinct commanders automatically respond 'we need more people' to questions about below-par crime fighting" (Silverman 1999, 203). That said, several members of the LPD did seem to feel that such a response was justified when discussing how to tackle crime increases. One sergeant believed that the department could use more patrol officers. He questioned the logic of keeping patrol officers in administrative or specialty positions, such as computing or training, when they could be used more effectively on the street. Another line supervisor believed that his officers felt that they were understaffed but added, "The administration doesn't want to hear this."

Given his budget constraints, Davis must respond to these general criticisms by exhorting his officers to work with what they have. At one

Compstat meeting, Davis expressed concern over a recent increase in motor vehicle crime in one area of the city, inspiring a sergeant to state that due to injuries, "We don't have a full contingent," and "this really hurt us." Davis pointedly reminded the sergeant, "There is a propensity to want more people, but there are one hundred more cops out there than five years ago." He continued by telling his audience that one way he was trying to increase the number of officers available was to put a system in place that closely monitored officer injuries and sick days. It was his hope that this would increase available personnel by decreasing the number of inexcusable absences. Davis and his deputies also tried to increase the number of patrol officers by asking those in specialist positions to consider moving to patrol during the department's bid process. Davis, however, was not keen on "pulling" specialists from their key positions because he felt, according to one respondent, that they fulfilled a necessary purpose where they were.

Compstat may not be particularly sympathetic to claims for more officers on the street, but by constantly bringing attention to crime problems and the need for rapid and effective solutions, it also brings a sharper focus to the old bugbear of the police organization—the lack of manpower. Since middle managers are held most accountable for crime problems in their sectors, they are the main proponents of an increase in personnel as one of the most effective strategies for reducing crime.

City politics

The department's budget must obviously be approved by the city council, which is unlikely to fund significant increases in police personnel during times of fiscal constraint. This reality of city politics has affected Davis who began his tenure in office with "carte blanche" to run things as he wished, according to one officer. Five years later, however, municipal funds were more limited, leading city hall to propose that the police department had enough resources to effectively maintain order, control crime, and provide services to Lowell.

City politics can also reduce the department's organizational flexibility by influencing officer deployment, as it did in early 2001 after a city councilor expressed concern about a spate of drug-related crimes in one area of the city. Contending that police should be more visible in the neighborhood, he told Davis and other city councilors that he wanted to see "more cops walking." Davis responded with some reservations, through he is a staunch advocate of community policing and foot patrol. Placing a higher priority on walking routes, he said, would reduce the number of available cruisers and provide some areas of the city with less patrol. The only way to avoid this problem, he continued, would be for the department to hire more officers or increase overtime. Since the city council was unable or unwilling to support either of these measures, the department's only alternative was to come up with a plan for "Advanced Community Policing" that assigned patrol officers to all the city's neighborhoods before filling cruiser route assignments.

In prioritizing the deployment of patrol officers, the police department was influenced by the politically powerful editor of the local newspaper, local business owners, and the Lowell Housing Authority, as well as city councilors. They too were keenly in favor of the department maintaining a high level of police visibility in the downtown area where their businesses were located. Davis responded to this political pressure by requiring his sector captains to maintain foot patrols in the downtown area on the day and early night shifts. These patrols were in addition to six officers and a lieutenant who were assigned to the Lowell Housing Authority precinct, according to an agreement between Davis and the city. In taking these actions, Davis emphasized that he was ultimately responsible for his department and would not do anything that that he considered "inappropriate," no matter who was putting pressure on him. He ultimately decided to assign additional patrols to the downtown area and housing precinct because he was just as committed to community policing as those outside the department.

This prioritization of patrol in certain areas placed considerable restrictions on the ability of sector captains to allocate resources and select tactics. On one occasion, a sector captain had much difficulty arranging for the regular deployment of a decoy car to catch perpetrators of motor vehicle crimes because of a lack of manpower. A respondent commented that using a decoy car " was not a practical application of manpower." Even though Compstat encourages the flexible deployment of resources, the department's organizational capacity is limited by city politics.

This daily reality became apparent during a reassignment meeting, when a sector captain noted that the department "was trying to do with doing without" and suggested that it use Compstat more scientifically to allocate manpower to high-crime areas. Another sector captain responded by pointing out that "there are politics" which make it impossible to base manpower entirely on Compstat. Given the limited supply of officers and overtime pay, the goal of maintaining a highly visible police presence competes with that of flexibly deploying officers to problem areas. Sector captains and those they command are consequently under frequent pressure to find alternative ways of controlling crime that do not increase the existing strain on manpower. One sergeant, whose territory covered the downtown area, noted, for example, how difficult it was at times for him to fill his route. Just that weekend, he complained, he had been unable to fill his cruisers because four officers had called in sick and he had to keep "two walkers" in areas designated as high priority by Davis and the city.

Rivalry between sectors

One way of improving deployment flexibility would be to increase the organization's ability to move officers from one sector to another on a temporary basis. Such flexibility requires that sector commanders have a strong sense of shared responsibility for the overall good of the organization and city, but an ethos like this clashes directly with another Compstat principle—accountability. We noted earlier that one of the paradoxes of accountability was that it limited Compstat's ability to facilitate innovative problem solving through brainstorming. Accountability similarly conflicted with organizational flexibility. How does one balance the need of sector commanders to simultaneously demonstrate that they are effectively addressing crime in their assigned areas and promoting organizational flexibility by readily "donating" their resources to another sector for assistance? In other words, is it more important to demonstrate performance in your own sector or to help out your neighbor?

Clearly, this is an issue for top management to resolve, which it can do in two ways. One is for the chief to get involved on a continuing and ad hoc basis, refereeing requests for additional resources between sector commanders. Of course, doing this undercuts the integrity of the principle of delegating operational control to sector commanders. How can a general run his army when the commander in chief may at any time take a significant portion of his troops from him to help out another general? The other alternative is for the chief to create one or more special units that are *not* assigned to a specific sector, but that he uses to fulfill special requests from sector commanders, like a "special forces" unit in the military. This provides for greater stability among sector units, but in most departments the creation of such a unit would require reductions in the allocation of resources to sector commands, thereby reducing the organization's commitment to geographic organization of command. Davis occasionally opted for the first strategy and not at all for the second, but, for the most part, resource allocation between sectors remained stable, suggesting that organizational flexibility was a constant challenge.

In this sort of environment, flexibility depends a great deal on informal cooperation between sectors, which depends, in turn, on the nature and extent of rivalries among sectors. There is an apparent contradiction in Silverman's praise for the NYPD's use of Compstat to compare statistics among precincts, such as coming up with top ten lists for those with the most arrests or the greatest drop in crime. Silverman argues that "rankings spurred analysis of precinct activities, crime trends, and results, and drove commanders to perform better" (Silverman 1999, 101), but this competition also had potential to hinder collaboration. In Lowell, the department did not encourage competition directly, but Compstat did help foster rivalries since it compared crime statistics across sectors.

Our observations suggested that competition between the sector captains over crime numbers was relatively subdued. Most often they expressed solidarity and sympathy when a crime spike occurred in one of their sectors. A sensitivity to competition was not, however, entirely absent. On one occasion a respondent said that he was slightly uncomfortable that detective follow-ups and arrests had been displayed at a Compstat meeting—this was not the norm. The respondent felt that this might reflect negatively, and unjustly, on the hard work that was being carried out in those sectors that were understaffed—in this case, due to injuries.

Most supervisors did not react like this respondent, though many line officers did have an acute perception of Compstat as a tool for fostering competition and a "big contest between captains to have impressive stats," as one patrol officer phrased it. Responses to our line-officer survey lent some support to this description since 75 percent of those surveyed "agreed" or "strongly agreed" that Compstat had made supervisors place too much emphasis on statistics. Sixty-five percent, moreover, "disagreed" or "strongly disagreed" with the statement, "Compstat has increased teamwork between my unit and specialist units in the department." This latter response, though it did not specifically address teamwork among sectors, did suggest that Compstat was not particularly successful at fostering the sharing of resources within the organization.

. . . many line officers . . . have an acute perception of Compstat as a tool for fostering competition and a "big contest between captains to have impressive stats" . . .

One of the areas where this competition manifested itself most clearly was in regard to manpower. Since sector commanders were held accountable for their own individual sectors, they focused primarily on what happened in their particular area of the city. Several current or former sector captains commented that they paid some attention to what was going on elsewhere, but the reality was that during Compstat they were only asked questions on *their* own sector. In addition, sector captains exercised ownership over their sectors and were proud to take individual responsibility for any problems that occurred on their turf. Any measure, therefore, that threatened to reduce their ability to reduce crime in their own sector would encounter resistance. One sector captain commented that if he was "down a sergeant" on one of his shifts, he could ask a sergeant from another sector "to keep an eye on things." He recognized, however, that, "It would be an exceptional sergeant who would be willing to take on the added responsibility of stuff going on outside of his/her sector."

Officers further down the ranks were also aware that Compstat did not encourage sectors to share manpower. One officer described this reluctance to share "route men" between sectors as "a turf thing" and explained that sector captains "don't go into each others' turf" because "they want their own officers to ride around in their own sector." A sergeant painted a similar scenario in response to a question about the problem of understaffing and the likelihood of borrowing officers from another sector to deal with a pressing crime problem. "It could happen," he conjectured, "but everyone in their own sector has their own problems they are dealing with." He went on to note that it had been much easier to get the people you needed when the department was centralized than it was under the existing sector system because sector captains think of the sectors "as their own little kingdoms and don't want to let people go." On one occasion, for example, detectives carrying a heavy workload received overtime pay when several injuries left the department understaffed. The department did not decide to provide additional detectives from other sectors, however, suggesting that it is easier to provide overtime than to shift resources across sectors.

There appeared to be greater organizational flexibility in the LPD than in more traditional police organizations because Davis encouraged teamwork and pared down bureaucracy. This flexibility was significantly limited, nonetheless, by both internal and external forces including: the lack of available manpower, city politics, intra-organizational rivalries, and the demands on an organization that was trying to pursue a number of conflicting objectives simultaneously. On the one hand, the organization was trying to be fair to its employees, by giving them stable shift assignments for example. On the other hand, it wanted to have enough flexibility in shift assignments to successfully address unforeseen community needs as they arose. It wanted to be fair to its citizens and provide them with equal protection against crime, but it also wanted to be responsive to politically powerful individuals and groups who want more resources for their priorities, regardless of how it affects safety throughout the community. Contemporary police organizations are not at liberty to pursue a single objective for any length of time, so they resolve the conflicting demands on them by making compromises that will not provoke a crisis or inspire negative publicity.

In Lowell, many respondents seemed to feel that "manpower" was an "issue," despite the significant increase in patrol officers over the past six years. Unlike some of the other Compstat departments we visited, organizational flexibility was not clearly facilitated within the structure of the LPD. For example, there were no "taxi squads"—officers that are part of a sector's operational force that do not have a specific geographic assignment but are available to a sector captain to use where he or she pleases. (One sector captain's comment that the amount of collaboration between sector detectives was due to "personalities" nicely encapsulates the ad hoc quality of organizational flexibility in the LPD.) Even though a sector captain would never interfere in the management of another sector—"Everyone needs to take care of their own house"—there was some cooperation across sectors. One sector captain acknowledged resources were tight, but this did not dissuade detectives from different sectors from collaborating with one another. However, he observed that he only had a few detectives and would make it clear to any of them who wanted to help work another sector's case that their primary responsibility was to their own sector's cases. This focus on intra-sector responsibilities rather than inter-sector collaborations is also evident during Operations Staff meetings. When Davis offers encouragement or praise to his sector captains it tends to be for the achievements of individual sectors rather than for teamwork that occurred across sectors.

In sum, the department's limited resources were frequently requested by, and provided to, sector captains for use within their own sectors and were only rarely shared among sectors for the overall good of the department. For instance, the increasing number of motor vehicle crimes in the West sector led the department to assign two central detectives to help solve the problem, but it did not result in a request for, or assignment of, additional personnel from the two other sectors. The absence of inter-sector cooperation that this instance indicates arose from several factors. The first was that budgetary constraints did not leave sectors with resources to share. The second was Compstat's apparent failure to systematize teamwork as part of accountability by making sector captains only accountable for their individual turfs. Last is the irony that Compstat's emphasis on organizational flexibility conflicts with the development of geographic organization of operational command. When a department strives to increase geographic organization of command by giving more resources to sector captains, it automatically increases the capacity of each sector captain to operate *within* his or her sector. At the same time, however, the department also decreases its capacity to shift resources *between* sectors, a process that is easier when more personnel are moved from sector commands to special units that can be allocated from one sector to another as needed.

Data-Driven Problem Identification and Assessment

Compstat relies heavily on crime statistics to restructure information for managerial decision making by shifting the focus from highly selective anecdotes of individual cases to the larger patterns and trends that might exist. The result, as our national survey suggests, is for Compstat departments to have the capacity to manage and analyze data in more sophisticated ways. Over 90 percent of these departments claimed that they conducted "crime trend identification and analysis," and nearly as many claimed that they used "database or statistical analysis software for crime analysis" (Weisburd et al. 2001). Lowell was typical of these departments in having a Compstat program designed to provide information that would help managers decide on their priorities in handling crime or safety issues. As one Lowell officer put it, "Information is always the name of the game."

Lowell designed its Compstat around accountability mechanisms so that systematically collected and analyzed data pulled from officer reports would guide decision making. The doubling in size of the department's CAU and the rapid changes in the way crime data was collected and analyzed attest to the importance of crime data for instructing decision making. There were, however, a number of challenges to data collection in Lowell. We hope to serve two purposes by briefly examining how Lowell attempted to overcome these challenges and routinely gather, analyze, and use crime data to understand and tackle problems. The first is to show police organizations how one department overcame serious, technical obstacles. The second is to provide a clearer understanding of the sophisticated, "data-driven" processes that fuel Compstat.

Our discussion also highlights a specific dilemma associated with using data to act strategically: What data should be selected for Compstat and what should be overlooked? In Lowell, when members of the department became aware that their high-priority problems were being dropped from Compstat, they exerted pressure by bending Davis' ear. Alternatively, they raised concerns during Compstat or made suggestions to the CAU to include or exclude a particular crime category. There was no forum for any kind of systematic discussion on what to include in Compstat, and both these ad hoc approaches contributed to Compstat's constant state of flux.

Finally, in addition to some of the technical obstacles Lowell faced in implementing its Compstat program and the decisions surrounding what data to include, we discuss some other challenges associated with gathering, analyzing, and presenting data. These include: (1) the burden put on district commanders to learn crime analysis; (2) the problem of encouraging detectives and members of the rank and file to participate in a program that is heavily oriented toward command staff; (3) the importance of ensuring timely and accurate data; and (4) the heavy workload carried by civilian crime analysts in a small department.

A history of Compstat—overcoming technical and learning obstacles

It is impossible to understand how Compstat operated at Lowell without considering how the department constructed its crime database and produced crime statistics. At the time of our visit, the ability of the department to gather and process crime data was seriously hampered by the absence of a Records Management System (RMS), or electronic filing system, that would have allowed the CAU to download crime information directly from a central database rather than enter it manually from individual police incident and arrest reports. The department contracted Lucent Technologies to remove the old Larimore RMS and install a new one by December 1999, but a host of technical and financial difficulties prevented Lucent from doing more than shutting down the old system and installing a Computer-Aided-Dispatch System or CAD. Members of the department were frustrated by Lucent's failure to completely honor its contract, but they managed to implement a series of stopgap solutions that allowed Compstat to operate.

The fact that any crime data could be systematically gathered and analyzed in a timely fashion was testimony to the innovative thinking and uncommon work ethic of members of the CAU. From Compstat's inception until the summer of 1998, a clerk in Records was responsible for photocopying every page of every individual police report, a process that could take up to eight hours for reports filed over the weekend, according to the officer in charge of the CAU. Copies of these reports were distributed to the three sectors, as well as the detectives, juvenile section, and CAU. At this time, the principal crime analyst inputted crime data from the Larimore RMS into MS Excel and used this to run Compstat. The crime analysts also exported CAD call data from the Larimore system, "eyeballed" the resulting printout to identify locations that appeared to generate a high volume of calls, and distributed hard copies of this data to the sector captains and shift commanders who attended Compstat meetings. Without any kind of mapping software, however, crime analysts had to rely on their own experience and observations for identifying hot spots. One crime analyst conjectured that "We probably missed a lot," though he thought that most of the CAD call data concerned simple quality-of-life problems, such as complaints about barking dogs. In January 1998, Davis recommended that the department begin using crime mapping, according to one crime analyst, and rely on officer reports rather than CAD call data, which tended to mislead the department by failing to tell the specific time or location of an incident. The members of the CAU responded to Davis' recommendations by inputting information from officer incident and arrest reports into MS Excel and then importing these data into MapInfo in order to generate maps. CAU members also had to learn to use MapInfo on their own since they were unfamiliar with mapping software.

Another innovation took place around summer 1998 when Records began using PaperPort to scan police officer reports into the department's server. PaperPort expedited the CAU's access to police reports, which had previously depended upon the speed with which the Records clerks could input data into the old RMS and provide the CAU with copies of officer reports. Now Records clerks could generally scan all officer reports from the previous day onto the department's server by 10 a.m. the following morning. The CAU could then print them off, read them, and use the information on crime they contained to supplement data that input clerks had entered into the Larimore RMS. This process provided timely information to Compstat participants, who had formerly used data that was often more than two weeks old.

Real administrative and technical problems in running Compstat began to materialize with the shutting down of the Larimore RMS at the end of 1999, leaving the LPD without any kind of centralized database. In January 2000, the officer in charge of the CAU and members of Lowell's Management Information Systems Division tried to overcome this problem by setting up a temporary MS Excel database as an indexing system on the department's server. The input clerks in the Records Division could use this to enter data from police officer reports. From January to March 2000, the CAU extracted the data it needed to run Compstat from this MS Excel database and continued to supplement it with information from officer reports on PaperPort. Compstat, however, depends upon up-to-date information, and the two input clerks—out of the four clerks in Records—were generally one-and-a-half to two months behind schedule with their data entry. The cause of this delay was that they were still entering old police reports into the temporary database for general departmental access. In order to run Compstat, the CAU needed to find out how far Records had proceeded with its data entry, locate the reports that had not been entered, and then enter data from these reports into its own CAU database. In addition to this cumbersome process and the tardiness of the data, the MS Excel data were not in a Compstat-friendly format. One of the department's crime analysts explained that there were no standardized codes for crimes. For example, simple assault might be entered as "s.a." or "simp. ass.," and street addresses were frequently misspelled.

The tensions that these problems created between Records and the CAU came to a flashpoint in March 2000, when a sector captain complained that the CAU was mapping data incorrectly. Members of the CAU thought they were being blamed unfairly for inputting errors, while those in Records felt they were being penalized for the limitations of their database. The officer in charge of the CAU and members of the Management Information Systems Division responded to the incipient crisis by replacing the temporary MS Excel database with an MS Access database that provided users with drop-down menus containing standardized data fields. This helped eliminate inputting errors but was only intended as a short-term solution until Lucent installed the new RMS.

MS Access provided a more user-friendly database, but the CAU still depended upon Records for inputting crime data. By September 19, 2000, the CAU decided that the whole process of coordinating data entry with Records was too difficult, particularly because the clerks in Records were entering only "the bare bones" of police reports, and the CAU demanded more detailed information for Compstat. Since then, the CAU alone has been responsible for inputting all the crime data that Compstat draws from police reports into its own MS Excel database.

What kinds of data are used?

At the time of our site visit, Lowell police officers generated approximately sixty incident and arrest reports on any given day, and the department drew heavily on these reports for its crime data.[9] The process of data collection and analysis began when an officer filled out an incident or arrest report at the end of his or her shift. The officer then gave the report to the sergeant or commanding officer responsible for approving it before it was scanned onto the department's server and made accessible to all personnel. A subsequent stage of the process took place every weekday morning when members of the CAU accessed the PaperPort database on the department's server and printed off the previous day's reports for eight categories, including traffic accidents and crimes dealing with assaults, burglaries, drug activity, breaking and entering motor vehicles, motor vehicle damage, motor vehicle theft, and other crimes. Information from these reports would then be presented at Compstat meetings.

Compstat at Lowell was in a constant state of flux as feedback from participants in the program generated future change. This was shown by the choice of crimes depicted during Compstat meetings. When Compstat first started, Davis, along with members of his command staff, selected those crimes they felt deserved the greatest focus. Part of this selection process involved dispatching a community liaison into Lowell's neighborhoods to identify their concerns. Over time, sector bosses would visit the CAU and make requests that might result in changes. In addition, members of the CAU would review each Compstat and any comments that arose during the meetings, where Davis often made suggestions. They would then use this information to make additional changes and improvements, such as choosing to display motor vehicle crimes at Compstat, on account of their prevalence.

Visibility of crimes at Compstat

Since 1998, the crimes selected for Compstat have generally remained the same. The disappearance and reappearance of domestic incidents—assaults, disputes, arrests, and violations of restraining orders—demonstrates the dynamism of the Compstat process, however, and shows that the high visibility of "Compstat crimes," as distinct from the low visibility of non-Compstat crimes, can influence how the department perceives and addresses crime. Domestic assaults were mapped separately at Lowell's Compstat until January 1999 when people began to recognize that domestic violence incidents did not lend themselves to a resolvable situation or "strategic technical response."[10] Although they were a priority within the department, the nature and prevalence of this type of crime made it difficult to identify patterns. Officers were bothered by seeing so many "dots" on display month after month and found the department's way of mapping domestic violence to be "a bit overwhelming and not instructive." The department responded by grouping domestic assaults into the general category of "assaults," which only distinguished simple from aggravated assaults. By January 2001, Davis publicly expressed concern about the change in Compstat's mapping procedures, a sentiment that several command staff members had also voiced over the past few months. The opening of Lowell's new Domestic Violence Center reinforced this concern a few months later, and the department reintroduced the mapping of domestics at Compstat meetings.

---

[9] The CAU did use CAD call data for Compstat, though this was mainly for reporting drug activity and to a far lesser extent than police/incident reports. In addition to its limited utility, the CAD system was a "locked" or self-contained system at Lowell. If crime analysts wanted to use CAD call data, they would have to print it out and then manually type it into MS Excel, putting additional time constraints on a system that was already seriously hampered by the absence of an RMS. The disadvantage of not using CAD call data, one captain pointed out, was that one address could be responsible for twenty-five calls a month, but it would not register at Compstat.

[10] In contrast, the Compstat process is well suited to identifying and solving traffic problems. Between 1997 and 2000, the American Automobile Association (AAA) gave Lowell several awards acknowledging the department's considerable success in reducing traffic accidents and problems.

Crimes displayed at Compstat maintained high visibility among the command staff, ensuring that they were subject to both ample attention and frequent discussion. Some sector captains may have continued to focus on domestic violence incidents following their removal from Compstat but found it difficult to give them the same level of scrutiny. This is because the department may ignore crimes that are absent from Compstat. After all, Compstat resembles police radar, and "If something is not on the radar, it is invisible," as one officer put it. It was therefore unlikely that the department would hold a sector captain to the same level of accountability for a crime that was not on the Compstat screen. A general rule of thumb as stated by one respondent was, "If something is not shown at Compstat, no one cares about it . . . it means that you are not paying attention to it . . . you are not accountable for it." It may be an overstatement to argue that non-Compstat crimes are "invisible" to the department, since those that are reported are usually documented and often receive some police response. However, these observations do raise an important issue: constantly holding district commanders accountable for the same crimes at Compstat may lead to potentially useful crime-related information being overlooked.

The decision to include a particular crime in Compstat reflected the pressures exerted by command staff members through conversations with each other, Davis, or the CAU, and, at times, through discussions that arose during Compstat. For the most part, therefore, individual initiative rather than a systematic decision-making process determined the types of crime data that were ultimately displayed at Compstat. Indeed, some non-crime-related issues that Compstat excluded could still be very important to the department, according to one captain, because Compstat directed discussion to specific crimes rather than quality-of-life issues in Lowell's neighborhoods.

How are the data collected, processed, and analyzed?

The absence of an RMS created problems, including the lengthy three to four hours per day that it took the CAU to input data from officer reports into its MS Excel database for the eight Compstat categories. The types of data that the CAU punched in for each crime included the field report number, the date, day of the week, platoon, and sector, as well as specific information that may or may not have appeared on a map. CAU members generally shared data inputting, though the most senior crime analyst took personal responsibility for any errors by saying that any mistakes were "on her." Besides potential errors, the lack of an RMS made it difficult for the CAU to compare current Compstats with those conducted before September 19, 2000, when the unit established its own database. This difficulty was only underlined by requests for longer-term comparisons from department members who did not seem aware of this restriction. In addition, the CAU's capacity for data analysis was seriously curtailed because half a day was spent on data entry. Theoretically, it would have been possible for Lowell's crime analysts to make comparisons of crime over periods longer than twelve months, but this would have been incredibly time consuming, requiring analysts to print hard copies of reports compiled before September 19, 2000 and to input the necessary data. Given that they were entering data every day in order to remain current, this was a tall order indeed. The CAU, however, was able to make shorter-term comparisons, such as comparing consecutive Compstat periods.

During this same period, the CAU made the following preparations for Compstat meetings. On the Monday or Tuesday before Thursday's meeting, the CAU provided each sector captain with copies of all the police reports for the previous two weeks. It also used MS Excel to manufacture spreadsheets that organized individual crimes by city sector and gave details, such as the suspects involved in an assault and battery case and the case's disposition, as well as recording variables, such as day, time, and total number of crimes. By late Tuesday night or early Wednesday morning, it gave sector captains copies of their sector crimes located on Compstat maps and MS Excel summary sheets that reported aggregates, including details on the number of assaults and the platoon or shift where they occurred (see Appendix IV).

This procedure remained in effect until 2001, when the department instituted a number of changes. As of February 2001, when each sector captain began presenting every six, rather than every two weeks, the CAU began giving sector captains copies of their sector's reports and the additional spreadsheets a week ahead of time, since there were now six rather than two weeks of reports to review. As of September 2001, the CAU has been using SPSS, which is a more powerful statistical package than MS Excel. It has also employed MapInfo, rather than PowerPoint, to project slides at Compstat meetings because MapInfo, unlike PowerPoint, allows presenters to zoom in on specific geographical areas. The Lowell Police Department generates all the data displayed at Compstat, but it encourages other agencies to share information. The department, for example, collaborated with Lowell's chief probation officer, who exchanged information with an assistant crime analyst during daily phone calls and regularly attended Compstat meetings where he participated in the department's discussion of crime data.

How are the data used?

Sector captains

Everyone in the department had access to officer reports on PaperPort, and each day the sector captains and their executive officers printed off the previous day's sector reports. Some sector captains read all the reports to familiarize themselves with the crimes in their sector, while others relied more heavily upon their executive officers for this purpose. The executive officer read all the reports and, in consultation with the sector captains, assigned detective follow-ups. The executive officer was also primarily responsible for notifying his sergeants of these joint decisions. The sergeants then relayed priorities to patrol officers. The sector captain also found out what was going on in the sector by communicating directly with line officers. The week before Compstat, the presenting sector captain would examine all of the sectors' police reports in order to reacquaint himself/herself with what had been happening in the sector. The sector captain might also skim reports from other sectors but paid far more attention to the crime reports from his or her own sector. The primary purpose of examining the reports, maps, and summary data was to identify crime patterns.

Maps and patterns

The originators of New York's Compstat program were very aware of the importance of crime mapping. Jack Maple observed, "It's easy to lose sight of the power of mapping. Maps are superior to numbers or narratives as a means of communicating to individuals at every level of an organization the immediate challenges in front of them. Maps tell a story in a way numbers and narratives simply can't" (Maple 2000, 105). The visual presentation of crime maps was a central component of Lowell's Compstat meetings. Crime maps were displayed for the presenting sector and for the entire city. This ensured that the department did not focus solely on one sector's crime figures—the sector that was being presented—since any of the sector captains could be asked to account for crime in their beats.

Sector captains did not receive maps daily, only during the week before Compstat. They used them, in combination with other available crime information, to identify crime patterns and prep themselves on incidents that were unfamiliar. Throughout the preparation process, they collaborated closely with their executive officers and communicated with the officers under their command to gather relevant information. Sometimes they also called or e-mailed the CAU in order to clarify any questions they had about data for their sectors. All sector captains noted that preparing for Compstat was time consuming, usually taking several hours over a period of two days. Particularly daunting were the maps. Since they displayed crime incidents over the long period of six weeks, one sector captain was inspired to playfully comment, "Oh crap! I did not think that there are as many of these [crime incidents]," when he recollected his feelings upon receiving them.

Sector captains and their executive officers were primarily responsible for identifying patterns

All sector captains noted that preparing for Compstat was time consuming, usually taking several hours over a period of two days.

and figuring out what was driving them. This was because Lowell, unlike a larger department such as the Richmond Police Department, did not have enough resources to provide sector commanders with their own civilian crime analysts. District commanders in smaller departments may have to develop crime analysis skills on their own, a challenge faced by Lowell's sector captains, none of whom had received any specific training on Compstat. It was clear from our discussions with them that some were more comfortable with this role than others, even though none of them directly addressed the challenges of becoming a crime analyst. From time to time, sector captains did contact the CAU at headquarters, but this tended to be for additional information or clarification on a particular report rather than an in-depth discussion of crime patterns. This may have been because members of the CAU were so busy that sector captains did not want to bother them with additional requests or because sector captains were so busy that they did not have time to consult with the CAU. It also may have been because sector captains felt they were better equipped to identify patterns, since they were able to combine Compstat data with their detailed street knowledge. Alternatively, it may even have been because sector captains felt no need for assistance since crime analysis consisted of identifying clusters on maps rather than engaging in sophisticated statistical analysis.

The importance of discovering patterns was most apparent during Compstat meetings, where sector captains felt compelled to acknowledge even the absence of a pattern during their presentations.[11] The failure to make an explicit statement, such as "there are no patterns here," could lead another audience member to identify spurious relationships between incident clusters. When this occurred, sector captains might respond that a cluster of dots on a map did not necessarily mean that a pattern existed because the dots might indicate a set of incidents that occurred at different times and on different days. This tended to make meetings drag on because sector captains, who did not have crime patterns to discuss, tended to fill the "dead air" with details of specific incidents. Though some presenters related incidents that were serious, unusual, or entertaining, others used the occasion to engage in tedious monologues, leading Davis to interrupt and ask them to move on.

The Daily Bulletin

Since March 2001, the CAU has tried to make Compstat more inclusive by putting together summary handouts for distribution to all attendees at Compstat meetings. Those who did not attend learned about some of the main issues raised at Thursday's Compstat from the *Daily Bulletin*, the department's quotidian publication. At the time, the *Daily Bulletin* was a two-page summary of crime-related material that was e-mailed to all members of the department and distributed in hard copy at roll call. The importance of the *Daily Bulletin* should not be underestimated. The officer in charge of the CAU praised it as "the most vital information tool that we have in the department," an opinion supported by a patrol officer who described it as a "very useful . . . little newspaper kind of thing." According to a crime analyst, the CAU took most of the material that appeared in the *Daily Bulletin* from police reports and regularly included announcements made at roll call. Occasionally, the CAU added a synopsis of a crime pattern or issued an officer safety warning, and Friday's edition often included a short summary of one or two crime incidents from each sector that had merited attention at the previous day's Compstat meeting. Patrol officers never made suggestions for the bulletin, the crime analyst noted, although command staff and detectives occasionally requested that the CAU include certain information.

Line officers

The dissemination of information through the *Daily Bulletin* raises questions about the availability of crime data and Compstat to line officers. Granted, Davis demanded that a couple of officers from the presenting sector attend Compstat, but members of the department's command and administrative staff dominated the meetings. Patrol officers and detectives played only a marginal role in both Compstat meetings and the overall Compstat process, and line officers, as a group, received no training in Compstat. When we distributed surveys at roll call, feedback from patrol officers suggested that they were, in fact, surprised to be asked their opinions on Compstat. They did not feel that their limited attendance at, and participation in, Compstat qualified them to answer any questions concerning its implementation and impact on the department. Compstat belonged to the "brass," not to them. Fifty-six percent of patrol officers had not attended a Compstat meeting, and of the 41 percent who had attended, approximately half responded that they had "observed meeting only," rather than participating or answering questions. Before March 2001, when the CAU began formatting Compstat data in SPSS and MapInfo, all personnel could easily access the information collected for, and presented at, Compstat by using a series of folders and drop-down menus on the department's server. Several respondents suggested, however, that line officers very rarely accessed Compstat in this way due to a range of factors that included lack of knowledge that Compstat could be accessed via a computer terminal, lack of interest, inadequate computer skills, and the inability of computer terminals in the department's cruisers to access crime data on the department's server. Compstat data on the department's server became even less accessible after the switch to SPSS and MapInfo because most of the department's computer terminals did not contain either of these programs. As a result, even officers who wished to access Compstat information after March 2001 were unable to do so.

---

[11] Sector captains understand the word "pattern" to mean an underlying factor that explains or ties together the occurrence of a number of crime events.

The majority of officers learn about Compstat and crime-related issues through information provided at roll call and in the *Daily Bulletin*. They can also access crime maps by "asking someone." Rank-and-file officers learn what happened at Compstat meetings from their fellow officers and supervisors, though the latter source tends to be fairly haphazard. Forty percent reported that their supervisors discussed what happened at Compstat either "every week" or "about once a month," while almost the same proportion reported that their supervisors "never" discussed what happened at Compstat. Comments from other respondents suggested that information is usually exchanged when line officers have informal conversations with captains, lieutenants, or sergeants. Following the chain of command, the sector captain or lieutenant may inform a sergeant to tell his or her patrol officers to "keep an eye on" a problem or "increase visibility" in a problem area identified by Compstat.

Members of the command staff and CAU were concerned that information generated at Compstat was not reaching the rank and file. One captain stated, "Quite honestly, I am not sure all the stuff at Compstat filters down to them." To help remedy this situation, the CAU placed a large pin map—measuring about six feet by four inches—that marks crimes for a given Compstat period in the roll call room. This has been in place since February 2001, and the hope is "it will bring policy-level decisions down to the patrol officer level." Still it would appear to have limited utility. Before roll call, a handful of officers wandered over to the map and examined it for a couple of minutes, but, for the most part, it was ignored. This did not necessarily mean that officers were unfamiliar with the major crime problems in their sector, only that they were not involved in the Compstat process of collecting, analyzing, and discussing crime data. Our visits to other Compstat departments suggested that they have made more of an effort to engage detectives and lower-ranking personnel at the sector level in Compstat. In New Orleans, for example, the department held sector-level Compstats the day before the precinct commander had to appear at the department Compstat. These could last as long as two-and-a-half hours and involved detectives, patrol supervisors, and some patrol officers.

Special presentations

At the request of Davis or a sector captain, the CAU may assemble a short presentation for Compstat or for organizations outside the department, such as the city council. The CAU, for example, gave two ten-to-twenty minute presentations on motor vehicle crime in the city during our research in Lowell. These presentations, which often took up to eight hours of preparation, generated more interest when Davis was present.

Detectives

Apart from the officers in charge of the Criminal Investigation Section and the Special Investigation Section, only one or two other central or sector detectives were present at any given Compstat, a low rate of attendance that disappointed one respondent. Fortunately, the officers in charge of the central detectives could tell them what happened at Compstat. In addition, the *Daily Bulletin* provided detectives with yet another means of gaining information about Compstat.

The CAU did receive requests from detectives, but they were infrequent and generally originated from concern over a specific "hot" issue, such as a series of robberies, motor vehicle crimes, or tagging incidents in a high-profile downtown area. The requests generally required the crime analysts to collect all the reports on a specific crime and identify characteristics, such as day of week and location, which they had in common. On one occasion, for example, a detective asked an assistant crime analyst to access his gang database in order to help identify suspects involved in a rash of graffiti incidents. These types of requests, as one member of the CAU related, were "retrieval requests," in which detectives asked, "can you get me all the reports on . . .," as opposed to calls for in-depth analyses of crime incidents. They required the CAU to simply collect the information and then present a short summary report to the detectives.

Quality of the data—timeliness and accuracy

Effective decision making under Compstat demands data that are timely and accurate. Police reports are generally available the next day on PaperPort, and updated crime statistics and maps for Compstat are available from the CAU every two weeks. Before the implementation of Compstat, Davis related, they only looked at the *Uniform Crime Reports*, which provided statistics that could be as much as a year old. "I believe in the utility of timely data," he added, "so Compstat seems like a smart approach."

The accuracy of the Compstat data was primarily affected by officer reporting errors and inputting errors by the CAU, compounded by the absence of a formal procedure for checking the accuracy of data entry and mapping by the CAU. Moreover, sector maps sometimes varied slightly in the way they displayed addresses or dates, perhaps because different crime analysts prepared data for different sectors. The variations were minor and seldom perceptible to Compstat participants. The officer in charge of the CAU worried, however, that the lack of standardization across maps could do harm by undermining the credibility of all the data. On occasion, an incident might be mapped incorrectly, but this was rare and usually caught prior to the Compstat meeting

Two major factors that contributed to the accuracy of data were that the most senior crime analyst felt personally responsible for inputting errors and that close collaboration among members of the CAU encouraged the discovery of data errors. These safeguards notwithstanding, the Lowell Police Department did not systematically verify its data by drawing a sample of records and double-checking them to see what percentage were entered incorrectly. Since information drives decision making in Compstat departments, unreliable data can be a major concern. For example, the accuracy of data on the frequency of juvenile crime in Lowell inspired heated debate at a command staff meeting between Davis and his captains after a lengthy report by the department's juvenile crime analyst showed that very few crimes against persons occurred in the local high school. Some captains proposed the analyst's figures reflected attempts by school officials to bolster the school's safety record by underreporting crimes, and they worried about making policy decisions on the basis of inaccurate information. Davis, on the other hand, was clearly apprehensive that comments like these from his command staff would undermine the department's general commitment to using data to drive policy. Such an approach, he feared, might lead officers to reject valid information that could help them tackle crime.

It is crucial for officers to record information correctly because almost all the information generated at Compstat comes from their reports. At Lowell, the shift supervisor was responsible for ensuring that officers wrote accurate reports, unlike New York where precinct commanders answered for any errors. Davis frequently urged commanding officers at Compstat meetings to make sure that officers' reports were accurate and sufficiently detailed. Despite his efforts, one respondent still felt that officers' reports had not improved very much over the last three years. He noted that he had never heard of a report being sent back for revision to either a shift commander or a patrol supervisor because it was so poor. He added, "Somewhere the message is not getting down [to the rank and file] crystal clear." Though there were some problems with officers' reports, one of the crime analysts estimated that only a small fraction of about 2 percent were illegible or incomplete enough to be considered terrible. Occasionally the CAU would put up a caption on a Compstat slide that reminded the audience about the problem of substandard officer reports, for example "*only* 9 of the [stolen motor vehicle reports] listed damages" (italics in the original). In terms of the bigger picture, a respondent noted that poor reporting hindered attempts to identify crime patterns. For example, an incident could be gang related, but this was left unrecorded. By relating this to the lack of direct communication between the CAU and patrol officers, the respondent was drawing attention to how much less line officers participated in Compstat than sector captains did.

In sum, CAU members had to depend upon their experience and familiarity with the data, their collaboration with one another, and their interactions with supervisors and managers in order to ensure reliability. In the absence of an RMS, CAU members had to input a great deal of data and had no time to systematically check for the kinds of errors associated with manually entering data or transferring data from one format to another. The CAU also joined Davis in expressing concern about the quality of officer reports. As far as we could tell, Davis conveyed this priority to sector captains and shift commanders by urging them to exhort their patrol officers to focus more intently on writing accurate reports.

Rather than being careless, patrol officers may simply not have known how important it was to write complete reports, a problem exacerbated by the department's ostensible failure to give patrol officers enough positive reinforcement for accurate reporting. Patrol officers did express considerable ambivalence about the amount of praise they received for writing accurate reports, when responding to a question in our survey that asked them to rank ten activities for which they might receive praise from their superiors. Responses to the question were divided between 54 percent of officers who ranked writing accurate reports one to five and 46 percent who ranked it from six to ten, with one being the activity that would receive the least praise from superiors and ten the most.[12] These closely divided responses showed clearly that the importance of accurate report writing, as indicated by perceptions of praise from superiors, seemed unclear to patrol officers. It seems likely that the lack of contact between the CAU and line officers also hindered the impact of this message. It might facilitate accurate reporting if CAU members were able to express their needs directly to line officers and explain to them that high quality reports are indispensable to the Compstat process. Officers need to understand that all decisions that emerge from Compstat rely on the quality of information they provide to the CAU. If the data are unreliable, decision making will be misguided.

The Crime Analysis Unit (CAU)—autonomy, time constraints, and frustrations

The CAU's authority to prepare for Compstat and run meetings with a high degree of autonomy mirrors the standard division in police departments between civilians who provide technical support and sworn personnel who focus on field operations (Crank 1989). Sometimes the crime analysts received requests from the brass, but they were left alone for the most part. Formal meetings between the CAU and the department's command staff were also very rare, occurring only once in the eight months we spent at Lowell. Some members of the department were disappointed by this lack of executive oversight in a process so central to the organization's operation and felt that command should invest more interest and energy in constantly evaluating and improving Compstat. This hands-off attitude also troubled the CAU when command asked it to run an analysis on a particular problem, such as motor vehicle crimes in city garages, but failed to explain the reasons for its request or provide any substantive feedback on the CAU's subsequent report.

---

[12] If we sort the activities according to the percentage of officers who ranked them one through three in terms of how much praise they might receive we get the following ranking: (1) recovering a weapon (62 percent); (2) making a large drug bust (53 percent); (3) reducing overall crime in their beat (43 percent); (4) writing accurate reports (33 percent); (5) identifying a crime pattern (32 percent); (6) working with community members to solve local crime or disorder problems (26 percent); (7) assisting crime victims in obtaining services and cooperating in prosecutions (22 percent); (8) rapid response to 911 calls (21 percent); (9) making misdemeanor arrests upon sight of persons known to the police (17 percent); providing legitimate activities for potential offenders (13 percent).

In addition to operating with little guidance from management, the CAU was under considerable time constraints. Preparing data for Compstat was labor intensive and placed a heavy burden on a couple of crime analysts and the unit's full-time interns. Assisting detectives, preparing special presentations, and producing the *Daily Bulletin* added to the CAU's duties. In addition, some members of the CAU were responsible for time consuming and onerous tasks that were unrelated to Compstat. One crime analyst, for example, had to take a week out of every month to count police reports by hand for the *Uniform Crime Reports*. Another analyst had a monthly commitment to tracking and recording information on recently released inmates as part of a national Prison Reentry Initiative program.

Besides this heavy workload, members of the CAU also had to contend with other disadvantages. CAU members were unable to fully utilize their research and technical skills in the absence of an RMS and were frustrated at having to spend many tedious hours in cramped quarters simply inputting rather than analyzing data. They also had to perform menial tasks, such as locating missing reports or retrieving reports from Records, at the request of officers who were unfamiliar with the integral role of crime analysts in the Compstat process. Additionally, crime analysts were funded by soft money from federal or state grants so they earned a relatively low wage, did not have comprehensive health benefits, had little job security, and generally lacked employment privileges, such as regular pay raises, that were enjoyed by members of the police union. One respondent outside of the CAU acknowledged that members of the CAU were "undervalued and underpaid," while another recommended that they and other civilian staff be integrated more fully into the department by becoming "a part of police business" and "a formal part of the organization."

Given the importance of data-driven policing in Compstat, it may seem strange that crime analysts were so undervalued in the Lowell Police Department.

Given the importance of data-driven policing in Compstat, it may seem strange that crime analysts were so undervalued in the Lowell Police Department. This might have been because Compstat was a relatively new program that operated on a shoestring budget from soft money grants. One of the indicators of Compstat's long-term importance in Lowell is, in fact, what happens to crime analysts' positions and the resolution of issues surrounding the soft money that funds them. Davis and members of his administrative staff expressed concern about the sustainability of the CAU, given that none of its members beside the officer in charge are on the payroll. Davis commented that the department was experiencing a bit of a "backlash" to the generous funding it had received in the previous five years. He also felt that it was clearly necessary to make Compstat a permanent part of the budget, even though he knew there was an "issue surrounding the internal capacity of Compstat."

William Walsh has recently argued that small departments may be unable to implement Compstat as a result of the costs of purchasing appropriate software and more sophisticated computer technology for collecting and analyzing accurate and timely data. (Walsh 2001, 357). This may be true in some cases, but the implementation of Compstat at Lowell demonstrates how even a small department with limited funds can use existing resources in personnel and software to get a Compstat-like program off the ground. A department can also be inventive and include modest requests for Compstat funds while applying for external grants earmarked for more popular programs, as Lowell did when requesting funds for community policing. The department can then use these funds to develop Compstat by hiring trained crime analysts, installing powerful computer servers and terminals, and purchasing sophisticated mapping software.

Despite Lowell's considerable success in implementing Compstat, obstacles remain. The continued gathering, processing, and analysis of data, that provides the foundation for the Compstat process, presents additional challenges, especially to small police departments that are under-resourced. Compstat requires district commanders to become skilled data analysts, but the complexity of advanced statistics makes it unlikely that they can achieve this without additional training. Our observations at Lowell, as well as the other departments we visited, suggested that crime analysis there focuses on descriptive statistics—such as percentages, frequencies, and means—not the kind of rigorous, analytic, and "evidence-based" research ideal advocated by Lawrence Sherman (1998). Without the resources to assign civilian crime analysts to individual precincts or sectors, it is unlikely that crime analysis within smaller police departments will become more sophisticated.

It is more likely that CAUs in smaller departments will be overwhelmed with commitments and feel underappreciated, given their significant workloads and lack of stable funding. The unavailability of adequate resources might also increase the likelihood that the reliability of the data will be compromised. We found similar problems to these in one form or another in several of our sixteen short site visits. Without more time or manpower, it is difficult for CAUs to conduct systematic checks for reporting and inputting errors. The peripheral role played by line officers in the Compstat process may further undermine the integrity of the data. Since rank- and-file officers are unaware of the importance of carefully written and unbiased police reports, they may contribute to the inaccuracy of the data—though we did not observe an instance at Lowell where anyone was embarrassed by a significant data error. Finally, in spite of general recognition that crime analysts play an invaluable role in data-driven policing, smaller organizations might be unable to secure the permanent and adequate funding necessary to attract and keep highly skilled civilian crime analysts. For all these reasons, it seems imperative that police departments should at least hold periodic meetings with members of the CAU and representatives from all police ranks to systematically monitor and evaluate the entire Compstat process for weaknesses in order to make improvements.

Innovative Problem-Solving Tactics

Police have long collected data and compiled statistics, but they rarely used these data to make important decisions about how to solve problems (Mastrofski and Wadman 1991). Despite its central purpose of reducing crime, Compstat's relationship to innovative problem-solving tactics is probably the least developed element in the existing Compstat literature. Middle managers are expected to select responses to crime problems that offer the best prospects of success, not because they are "what we have always done," but because a careful consideration of a number of alternatives showed them the most likely to be effective. Innovation and experimentation are encouraged: use of "best knowledge" about practices is expected. In this context, police are expected to look beyond their own experiences by drawing upon knowledge gained in other departments and innovations in theory and research about crime control and prevention. Silverman argues, "This innovative process [Compstat] radiates throughout the NYPD as the energizer of strikingly creative decision making at headquarters and in the field" (Silverman 1999, 123–4).[13]

In the national survey, this did not seem to be the case very often in Compstat programs across the country. When departments were asked how they decided upon a problem-solving strategy to address "the one crime/disorder problem that used more of the department's efforts than any other

---

13. Although in New York, units were also pushed to implement the same strategies that had guaranteed success in the past (Silverman 1999, 113).

problem in the last twelve months," they were most likely to tell us that they relied on the department's previous success with an approach. Sixty-seven percent of departments stated that this was "very important" followed by 39 percent who stated, "research evidence suggested that this was the best approach" (Weisburd et al. 2001). In other words, departments with Compstat still tended to rely on their own experience with traditional law enforcement approaches, such as saturating an area with police and making arrests.

In many respects, Lowell mirrored this national trend. Compstat facilitated the gathering and effective dissemination of information to a much greater extent than it contributed to the implementation of innovative problem-solving tactics, such as mobilizing other public/private agencies. On one occasion, a member of the command staff recommended the innovative strategy—in comparison to merely increasing patrol—of contacting insurance companies and asking them to notify owners of high-risk vehicles for theft. During Compstat, he suggested that some of the insurance companies might have been willing to provide anti-theft devices, such as "the club" to their customers. Unfortunately, the idea fomented little discussion and never came to fruition. We noted earlier that one of the significant challenges to brainstorming, an important element of the innovative problem-solving process, is Compstat's heavy emphasis on holding district commanders accountable for identifying and responding to problems quickly. This pressure hinders careful sifting of crime patterns, deliberation about them, and judicious review and discussion of the benefits and drawbacks of various approaches—the very kind of analysis that Compstat claims to encourage. A sector captain's failure to have a problem-solving strategy already in place by the time of the Compstat meeting is an additional limitation to the innovative problem-solving process. The absence of a strategy can be seen as a sign of incompetence, and questions and statements made in Compstat can be perceived as attempts to undermine a sector captain's authority.

These stumbling blocks did not prevent Davis and his sector captains from encouraging problem solving, and there were some instances in which Lowell police implemented innovative responses. The department tended, however, to resort to traditional law enforcement strategies. Thus, the problem solving stimulated by Lowell's Compstat generally replicated the classic street cop's ethos that it is more important to act decisively—even with an incorrect diagnosis and hastily considered solution—than it is to ponder the evidence and carefully weigh options before taking action.

Problem solving and brainstorming during Compstat meetings

Attendees at Compstat felt that there was a great deal of "reporting and brainstorming," as one sector captain put it. Our observations suggested, however, that this was an overstatement. The presentation of crime data from each sector did facilitate some sharing of information, and a little prompting from Davis encouraged participants to offer some insights on how sector captains might tackle important problems. In other words, audience members did exchange factual knowledge and provide suggestions drawn from personal experiences, but they were far less likely to engage in in-depth discussion of the advantages and disadvantages of a broad range of problem-solving alternatives.

The pressure that internal accountability placed upon sector captains limited the utility of the suggestions made at Compstat. In response to this pressure, sector captains felt compelled to have a crime strategy already in place *before* Compstat meetings. In addition, the onus on individual sector captains to come up with quick and effective solutions to crime problems—solutions that were likely to involve the sector captain investing precious resources in their successful implementation—increased the likelihood that potentially helpful criticism made during Compstat would be regarded as threatening or unhelpful. This likelihood increased when the source was perceived as being ill informed or inexperienced. At this point the sector captain had already invested his or her reputation, as well as the sector's resources in the chosen solution. The Compstat meeting might have revealed a problem-solving approach not previously considered in the sector, but at this point the sector and its commander had already invested in the chosen solution. Radical changes would be unnecessary, since the strategy had already solved the crime problem, or unwelcome, given the investment of resources and reputation.

Sector captains at Lowell informed us that they could start to identify patterns and problems well in advance, since they were familiar with daily officer reports. Their knowledge of the geography of their sectors also enabled them to map crimes in their heads while they were occurring, information that they supplemented through discussions with their staff and drives around their individual sectors. Given the importance that up-to-date crime maps play in Compstat, it seemed curious that sector captains felt no need for daily or weekly maps in order to identify crime problems in their beats. An explanation for this discrepancy may lie in one sector captain's approval of the department's decision to have each sector present every six weeks, rather than every two, and to come to each meeting with more data. If crime patterns become more detectable over longer periods of time, as this sector captain believed, daily maps would probably not be very helpful in identifying long-term patterns.

The ability of sector captains to discern patterns without access to daily maps and have a crime strategy in place before Compstat would seem to undermine the value of maps as a crime-fighting tool. A cynical interpretation of this development would be that the maps were primarily for show or entertainment, but a more balanced assessment would be that the maps contributed usefully in a number of ways. They encouraged and reminded sector captains to think geographically and "see" patterns. They informed department members who were less familiar with a sector's geography about its crime topography; and their display at Compstat identified patterns that sector captains may have missed before meetings. In short, our observations at Lowell suggest that Compstat maps may be helpful but not indispensable to the problem-solving process—a finding that challenges the highly touted utility of crime mapping claimed by Compstat advocates.

The Compstat format raised other problematic issues. Since sector captains were held accountable for having effective crime control strategies already in place, they regarded some comments or suggestions from audience members at Compstat as a challenge to their authority and expertise, superfluous, ill informed, or merely as an attempt to try and impress Davis. Audience questions very noticeably interrupted the rhythm of Compstat presentations whose familiar routine seemed almost scripted at times. One respondent observed that if Compstat was really intended to solve problems then "it would not be in its present form." Eliciting problem-solving responses from administrators or civilians, who lacked experience in the complexities of police work, was unhelpful, since their comments were sometimes perceived as "slings and arrows" designed to expose the sector captain to criticism. One respondent remarked trenchantly that Compstat, despite all the hype, still promoted a traditional "reactive" response to crime. He supported his statement by noting, "People have never comprehended technology to be proactive." Since the information displayed at Compstat was as much as six weeks old, Compstat participants were clearly reacting to incidents rather than implementing preventive measures. He asked, "Why are we still seeing so many dots?" meeting after meeting if Compstat was so effective.

Follow-up

According to Silverman one of the key features of Compstat is the "particular emphasis on follow-up and constant monitoring" (Silverman 1999, 193). This is essential for ensuring that tactical responses are being implemented and desired results are actually being achieved (Walsh 2001, 355). At Lowell, an administrator took notes during Compstat, but these were cursory—maybe a line or two on each Compstat slide—and were for Davis' personal use rather than for command staff review. Immediately following Compstat, there was no meeting to discuss "reinforcement and follow-up." One respondent expressed disappointment that there was not a more effective "feedback" loop in the Compstat program. He noted that when a problem came up at one meeting, there was no guarantee that it would be addressed at a subsequent meeting. He commented that problems were "lost" because of this. His suggestion was to encourage an "intensive and formal examination of the data." An important crime problem could be addressed six months after its identification. If the problem had not abated, according to crime analysis, the comparison could be used to hold the sector captain accountable: "You have had six months to work on this problem, why is there no change?" Another regular Compstat attendee noted that the hot topic at one Compstat was usually forgotten two weeks later. Pointing vigorously to a handout showing a 132.14 percent increase in motor vehicle breaking and enterings for the last Compstat period, he asked rhetorically why it had not been addressed at the following Compstat: "Where did it go?" He added cynically: "Can you tell me that anything is honestly getting done because of Compstat?" Our observations supported the assertion—one made by other respondents—that there was a discontinuous relationship between Compstat meetings. Invariably, little reference was made to discussions that took place at a prior Compstat, as if each meeting was hermetically sealed in time and space.

Follow-up at Lowell may not be "relentless," but sector captains must provide some kind of answer to Davis' inquiries at Compstat—for example, "We have increased patrol in that area." We observed that Compstat was similar to a gunfight in the Old West. What appeared to matter at Compstat was that sector commanders were "quick-to-the-draw" and able to return fire with a suitable response. The speed and decisiveness of the response was more important than a clear diagnosis of why a particular course of action was chosen and why it was considered the most effective approach. One respondent used another analogy to illustrate that it was more important to appear knowledgeable about a problem than to demonstrate the development of strategies to ameliorate it. He said that presenting at Compstat was similar "to dealing with a term paper: You do it, turn it in, and then get ready for the next one." Another respondent compared it to taking a test: "Compstat is in some ways like being a student. As a student you study just so that you can pass a test; just like with Compstat you just prepare in order to pass it." These analogies point to a couple of interesting implications: (1) They draw attention to a pass/fail standard where turning *something* in—or, in relation to Compstat, being well enough prepared to have something intelligent to report—is enough to succeed. In contrast, getting a good grade for "doing well" would imply a different measure of success—one that ranked performances according to much more selective criteria, in this case, the careful selection and evaluation of an effective problem-solving strategy; and (2) They suggest that Compstat is far removed from the "real" world of police work. By being a student taking a test or turning in a paper, they seem to imply a disjuncture between what goes on in Compstat, or the classroom, and what is happening out there on the streets.

Follow-up at Lowell may not be "relentless," but sector captains must provide some kind of answer to Davis' inquiries at Compstat . . .

An unfortunate side effect of this lack of follow-up is that innovative ideas can go unrewarded, since there is no collective memory or positive reinforcement encouraging their implementation. The vulnerability of new ideas becomes clearer by returning to the insurance example cited earlier. At one Compstat, as we have seen, participants bounced numerous ideas around the table concerning how to reduce the problem of stolen motor vehicles in the city, including encouraging insurance companies to contact owners of certain high-risk vehicles. Since there was no concerted follow-up, this potentially effective approach was soon forgotten. Fortunately, Davis and other department members recognized the problem, which increased the likelihood it would be remedied. In general, however, as Davis admitted, "We do a lot of analysis here, but we don't track a lot of plans for a response."

Traditional police responses

Most of the problem-solving approaches identified at Compstat relied on traditional police strategies that had been used before—in particular, asking patrol officers to identify suspects and "keep an eye on things," area saturation, stepping up traffic enforcement, "knock-and-talks," and increasing arrests. For example, in response to two unrelated incidents—an increase in prostitution in a particular location and the constant use of a specific pay phone by suspected drug dealers—the sector captain put "extra cruisers" in the area. When one Compstat showed that the street-side windows of several parked cars had been smashed, Davis asked his deputy: "What kinds of things have we done in the past?" The deputy suggested that they clamp down on motor vehicle violations: "You know, chief, sometimes you just get lucky. You catch a kid and they just talk. We need to get people in to talk to them."

Traditional and innovative police responses

When a relatively minor problem, such as that of the smashed side windows, appeared isolated, random and offered few leads—"We don't know the 'who, what, when, and how?'" of the crime—the department was more likely to turn to traditional responses. When the problem was more serious and intractable, there was greater likelihood that the sector captains would employ a mix of traditional and more innovative police responses. There are probably a couple of reasons for this: (1) Sector captains have limited resources of time, money, and manpower, and they prefer to allocate them to more serious problems; and (2) Sector captains are under more pressure to solve serious than minor problems in their sector. Consequently, it is likely that they will try a broader array of strategies to demonstrate to Davis that they really are doing something and to increase the likelihood that a combination of these strategies, as opposed to a single approach, will succeed in mitigating the crime problem. We might also surmise that a combination of traditional and innovative strategies reduced the overall risk of censure to the sector captain. Should a sector captain implement an experimental and creative problem-solving approach in lieu of a more traditional response, the failure of the more innovative strategy may open him to possible ridicule and reprimand. Put simply, the implementation of a traditional response poses the lowest risk of opprobrium to district commanders in departments that do not particularly encourage or reward innovation. Of course, just because an approach is innovative does not mean that it will be more effective than a traditional law enforcement response. Nevertheless, it does appear that Compstat's claim to encourage responses that rely upon cutting-edge research and experimentation could easily be a serious overstatement.

During our research at Lowell, the department continued its attempts to reduce the long-term problem of motor vehicle crime—theft, damage, and breaking and enterings. This was a citywide concern, but it was a major problem in the West sector. The high visibility of these types of crimes in the department and city put pressure on sector captains to remain "on top of the problem." Over the eight-month period we visited Lowell, the sector captain from the hardest hit sector responded by blanketing particularly vulnerable neighborhoods with crime- prevention information, presenting this information at weekly community meetings, identifying targeted motor vehicles and publicizing this information in the local newspapers and on local radio stations, increasing motor vehicle enforcement and patrol, and making more arrests. He also took less traditional approaches, such as requesting the CAU to run an analysis of motor vehicle crime for Compstat, soliciting a problem-oriented-policing approach from one of his sergeants, using the assistant crime analyst's gang database, contacting twenty other police departments about suitable responses—Davis suggested that he contact Newark—and using this information to deploy a decoy car.

In most cases, the sector captain had overall responsibility for coming up with problem-solving tactics and implementing a crime-reduction strategy in the sector. While assuming the lead in the decision-making process, the sector captain may have taken suggestions from Davis and other participants at Compstat and may have also elicited advice and feedback from lieutenants and sergeants; it was less likely that he would approach line officers for suggestions. In other words, there may have been some "bubble-up" from the lower ranks, but ideas tended to originate from the top and trickle down the chain of command.

Since Compstat rewards "something being done"—otherwise, as one sector captain put it in reference to the persistent motor vehicle problem, "You might get your head broken"—problem-solving efforts tended to center on the implementation of a series of alternative approaches rather than the meticulously researched, carefully coordinated, in-depth problem-solving response advocated by Herman Goldstein (1990). If approach A did not work at first, the sector boss might try A again, move on to approach B, or try a combination of A and B, and so on. In all fairness, it is important to acknowledge that motor vehicle crime is a difficult problem to resolve. A sector captain explained that motor vehicle crimes were very often scattered throughout the city rather than concentrated in specific areas or hot spots, took place at different times, were perpetrated by many different types of suspects, and were committed for a variety of reasons, including vandalism, gang-related retaliation or initiation, drug-related thefts, joyriding, selling the parts to chop shops, and defrauding insurance companies. There was no magic bullet to the problem, Davis surmised. Another respondent wondered how useful Goldstein's approach was for solving these types of crime. Given the many victims, perpetrators, and locations, it seemed unlikely that there was one underlying cause for the problem. In deciding upon a suitable response, a sector captain must also balance how much attention can be focused on these crimes in comparison to other sector concerns. Putting out a decoy car might look good on paper, but "in terms of resources—time, money, manpower," as a respondent observed—"it was not a good method . . . it pulled cops away from other things, and it was not cost effective."

Despite these attempts to reduce motor vehicle crime, some still felt that more needed to be done: "We need to put more emphasis on this." In January 2001, one respondent suggested that it might be time for the department to "look at this differently" and perhaps put together a coordinated response between sectors and outside agencies, including other police departments. Another felt that there was a pressing need for a task force, and he suggested collaborating with the state police and insurance companies. At the beginning of 2002, the department eventually formed an auto theft task force with the city's fire department inspectors and city inspectional services. The task force focused on closing down auto shops operating without a license.

Innovative police responses

Many incidents that are identified at Compstat are temporary crime blips that will disappear by the time the next Compstat period rolls around. For instance, following a period of heavy January snowfalls, several motor vehicles had their tires slashed on one of Lowell's streets during a single night. Compstat encourages a focus on patterns over time and the identification of underlying causes, but this does not mean that there are any. In this case, the crime series only occurred once and may have been motivated by frustration over the lack of available parking, which was already at a premium in the congested area and exacerbated by snow clearance. Once crime analysis did not reveal any patterns, a routine response was appropriate—take a report and assign follow-ups.

There are some incidents, in contrast, that are clearly related, and their resolution may demand significant time, resources, and creative efforts. Such was the case when the department dealt with a dilapidated boarding house whose residents engaged in a great deal of criminal activity. The sector captain's response was at once one of the most innovative and effective problem-solving strategies we witnessed at Lowell, an illustration of how the department can use city agencies to tackle difficult crime problems and a demonstration of how problem-solving strategies can "bubble up" from line officers. This was not a commonplace occurrence, but it cautions us not to overgeneralize about a department's limited capacity to implement innovative strategies and use the decision-making abilities of its rank and file.

When we arrived at Lowell, the department was having serious and persistent problems with the residents of an old, derelict rooming house, known as the Surf Building, in downtown Lowell. Located near several bars and occupied by vagrants, criminals, and down-and-outers, the Surf Building was recognized by the police as a "staging area" for crime. The department responded almost every day to numerous incidents involving alcohol abuse, drug activity, vandalism, and serious crimes involving robberies and stabbings. These problems continued unabated despite increased police activity and enforcement and ultimately inspired the sector captain, who inherited them upon assuming command, to make the Surf Building his sector's major concern. To address the problem he implemented some traditional strategies and also pursued two innovative problem-solving approaches to great effect. The first was for patrol officers to conduct bed checks after 10 p.m. and to arrest all those who were not legal residents of the building. The second was for the department to encourage city administrators to secure a court order requiring the recalcitrant landlord to close down the building. These police activities, as the sector captain noted, required active involvement from both administration and patrol and represented a clear example of a coordinated response to a difficult problem.

Sector sergeants and patrol officers contributed to the department's response by coming up with the idea of asking officers who walked the Surf beat to conduct bed checks. Thrilled by this display of initiative, the sector captain proposed that the police use this method to take names, conduct arrests, and generally make it clear that they would no longer tolerate crime and disorder in this area. In addition, the information gathered by officers promised to help to identify suspects, provide evidence for the wide variety of criminal incidents associated with the Surf Building, and facilitate the city's efforts to resolve the problems associated with this location.

One obstacle to this goal was that Lowell residents generally recognized the Surf as a historic building, so city officials worried that closing it and displacing its residents would be legally difficult and politically unpopular. This official reluctance notwithstanding, the sector used crime data, with the aid of the CAU, to demonstrate that the Surf Building had accounted for some three hundred calls to the department between January and November 2000. The department then illustrated the magnitude of the problem by presenting this data at a city council meeting. Its efforts to thus end the city's legal foot-dragging succeeded in December 2000, when the city evicted and relocated the Surf's residents and finally shut down the building.

. . . crimes that police regard as particularly prevalent, random, difficult to prosecute, and obviously symptomatic of much larger structural problems . . . may be less likely to be the focus of a Compstat-related, problem-oriented-policing strategy.

The Surf example shows how innovative problem-solving strategies that come from both upper and lower levels of police organizations can work together to solve intractable, long-term crime problems. Compstat also played a role in this process by enabling the department to identify recurring incidents and maintain its focus on a specific problem area. The department then used the data to convince external parties, including the municipal government, local newspaper, and city residents, that only prompt and vigorous action would provide an effective and lasting solution

Since the appearance of Goldstein's (1990) seminal work on problem-oriented policing, innovative problem-solving responses have been closely associated, at times uncritically, with progressive or "cutting-edge" police departments. Compstat claims to encourage innovative problem solving, but crimes that police regard as particularly prevalent, random, difficult to prosecute, and obviously symptomatic of much larger structural problems—poverty, unemployment, drug addiction, and disenfranchised youth—may be less likely to be the focus of a Compstat-related, problem-oriented-policing strategy. Certainly the likelihood of a successful outcome to these types of crime is limited. There may be some patterns to domestic violence and motor vehicle crimes, but their complex and persistent nature generally interacts with other important considerations, such as limited police resources and a need to focus on more serious crimes, to mitigate the likelihood that they will be the focus of a particularly innovative crime-control strategy. Interestingly, the sector captain who helped close the Surf Building believed that having a physical location on which to focus significantly enhanced her problem-solving success. She contrasted this to the "multi-dimensional location" of motor vehicle crimes, as well as the multiple reasons for why youths were vandalizing, breaking into, and stealing automobiles. These factors made finding approaches that would dramatically reduce motor vehicle crimes significantly more elusive (Sherman and Weisburd 1995; Weisburd and Braga 2003).

In sum, based on our findings at Lowell, the claim that Compstat fosters problem-solving innovation and experimentation, based upon brainstorming in Compstat meetings, collaborations between departments, and a close examination of research evidence, is a serious overstatement. Compstat's data orientation did seem to affect what problems were identified and, thus, when and where responses would be mobilized, but it had generally done little to stimulate analysis of how to actually respond on the basis of the data. This is not entirely surprising, inasmuch as the sort of sophisticated data analysis that might go beyond targeting problems and hot spots was not yet part of the department's routine. Unable to break down general crime patterns, such as those involving motor vehicles, into the multiple patterns that contributed to them, department personnel were "flying blind" as to how to innovate effectively. That they did find ways to innovate on some serious problems must be duly acknowledged. Innovation in the police response was not absent from the Compstat process in Lowell, but it was hardly the hallmark that Maple said was an essential element.

External Information Exchange

A final element in the Compstat process is external information exchange, which is composed of two critical components. Compstat provides a police department with: (1) the means of communicating information to the public, other municipal actors and organizations, the press, and peers about what the department is doing and how well it is accomplishing its mission; and (2) a potential mechanism for outside constituents to provide departments with input in the form of evaluations and expressions of needs and priorities from the community and even to create consequences for performance. In New York Bratton, gave the "elite" community—the press, researchers, local government officials, and visitors from other police department—greater access to the department's inner sanctum in order to encourage favorable stories and "to help push the police force into an aggressive law enforcement mind-set" (Silverman 1999, 91). The department did not focus on disseminating Compstat maps and crime data more generally to facilitate input on crime issues and its performance, but Compstat could provide the police with the opportunity to garner feedback from a mass audience.

In communicating information about the department's mission, Compstat can be used to create knowledge about what the department is doing and accomplishing and to acquire information from others. Members of the organized community play an important role in this process. By inviting members of the press, representatives from other municipal organizations—including public works, inspectional services, and probation—local dignitaries, and visitors from other police departments, a police agency can use Compstat to secure community support and enhance its legitimacy. With its sophisticated maps, officers in full regalia, and tension-filled atmosphere, Compstat is impressive theater. Consequently, it is a powerful means of helping the organization earn credit for its accomplishments and enhancing its professional reputation among peer agencies and other police leaders. In addition to public recognition, Compstat meetings allow municipal actors to share useful information and offer their services. These collaborations might help district commanders implement more effective crime strategies and enable the department to attain its goals

At Lowell, members of the press, command staff from neighboring police departments, local dignitaries, such as a visitor from Boston's Attorney General's office, and academics from nearby universities all attended Compstat at some time during our research. These visitors often appeared dazzled by the show, and Compstat made a similar impact on the local press. When it was first implemented, it received significant and positive publicity in *The Lowell Sun*, but interest seemed to have waned by the time we arrived at Lowell. Even though reporters continued to be granted free access to Compstat meetings—although they were not allowed to release crime details—they attended far less frequently than other visitors. An archival search of *The Lowell Sun* only revealed one reference to "Compstat" in the past year—

subsumed within an article on Davis' recent leadership award from the Police Executive Research Forum (PERF).

The chief probation officer of Lowell's district court was the only representative of a municipal organization who attended Compstat regularly. He often participated in discussions with the sector captains, providing information on the names and addresses of suspects, and he was especially knowledgeable about the city's gangs—their members and turfs. We did not observe officials from other local municipal organizations attending Compstat on a regular basis, but this did not suggest that they were absent from the Compstat process. Sector captains communicated frequently with city agencies in order to help them implement their crime strategies. For example, in an attempt to reduce thefts from automobiles in the city's parking garages, a sector captain was in constant contact with Lowell's parking authority. Through phone calls and memos, the sector captain urged officials in city hall to post signs encouraging citizens to remove valuables from their parked cars.

Although the department did not actively discourage community members from attending Compstat, we did not observe any of them at the meetings. That information was shared primarily at the macro-level with local officials and the press is consistent with our more general observation that Compstat functions as a top-down approach to policing. Much of the information sharing and brainstorming occurs among the high-ranking members of the department and some of the "insiders" who attend Compstat. In addition, these meetings help publicize the department's efforts to reduce crime. Certain visitors are afforded privileged access because they can help generate positive attention for the department's accomplishments and offer information that may contribute directly to the department's success in meeting its goals. In comparison, ordinary citizens and members of the rank and file do not generally attend or participate in the Compstat process. In this respect Compstat differs from community policing, where departments are encouraged to elicit input from community members at a grass-roots level rather than just contact city leaders and municipal organizations.

But Compstat certainly *could* operate as a mechanism for acquiring input from ordinary citizens on crime problems and making the department accountable for its performance—the second principal component of external information exchange. Perhaps Compstat does not resonate as powerfully with local citizens as community policing because the responsibilities of district commanders and the utility of computer maps do not have the same allure as the promise of extra officers walking their beats. When Davis mused that he was unsure whether Compstat had "won the public relations battle like community policing" and added, "It is just management people that look with interest on Compstat," he might have been acknowledging these particular characteristics. Nevertheless, a department could use Compstat to disseminate crime data and information on its efforts to reduce crime through media outlets, such as the press and department Web site, and through existing community policing programs, such as neighborhood meetings. Thus, Compstat has the potential to encourage a mass audience to play a more integral role in policing. Davis was keen on the using the local newspaper and the department Web site to disseminate Compstat information, but he was constrained by outside forces. The local paper's editor was worried about portraying the city in a negative light, Davis told us, and the city council was unable to provide the department with additional funds to improve its information technology.

Despite these constraints, our observations at Lowell suggested that the department had moved Compstat in this direction. The department provided timely crime data to the local newspaper, mentioned Compstat on its Web site, *http://www.lowellpolice.com/index.htm*, and discussed Compstat maps at community meetings. Nevertheless, its use as a mechanism for eliciting community input was infrequent and extremely limited, and Compstat hardly functioned at all to promote external accountability. We should note that time constraints restricted our ability to explore this element of Compstat as fully as we would have liked. We only attended one formal meeting between a sector captain and a local neighborhood group, and we did not have the opportunity to interview local residents. As a result, our analysis of this component of external information exchange draws more on our general impressions and on comments made during interviews than on systematic observation of the interactions between police and community.

One way that Compstat can be used to foster community feedback is if its products—maps and statistical analysis—are made available to the local media. At Lowell the department did use monthly crime statistics in its statements to the press. For example, one newspaper story identified how an increase in motor vehicle crimes in one area of the city was contributing to the city's annual crime increase. This Compstat-generated information was in the form of percentages and did not contain any maps, crime analysis, or reference to Compstat. Our observations and a brief review of *The Lowell Sun* from 2002 gave us the impression that the LPD used Compstat data to help explain annual or monthly crime increases or decreases but did not provide the press with the sophisticated and up-to-date crime statistics and maps that were produced regularly by the CAU. This was a small change from the convention of releasing statistics from the *Uniform Crime Reports* once or twice a year; a more significant change might have involved reporting crime patterns or providing an assessment of problem-solving strategies to the local newspaper. Thus, Compstat seemed to serve more as a means for the department to establish legitimacy by showing that it was knowledgeable and responsive to crime trends than as an important accountability function through the press.

Many police departments have constructed, or are in the process of building, their own Web sites. Currently these are used to give some general background on a department, including its key personnel, community programs, organizational structure, and mission statement. Some of these Web sites, like that of Newark, New Jersey, are also used to disseminate crime statistics that serve to illustrate how well the agency is doing in accomplishing its goal of crime reduction. It is possible to envision Compstat as a more comprehensive mechanism for encouraging community members to provide the department with helpful information. Should departments post Compstat maps on their sites, residents could learn the types and general locations of crime in their neighborhoods and could offer specific insights into possible causes and solutions. Even though the LPD did post descriptive information on each of the city's sectors, it did not make any Compstat-generated data available.

Sometimes Compstat maps and crime statistics were made more visible at regular monthly meetings between sector captains and local neighborhood groups. Since there were four or five neighborhood groups for each sector, on average a sector captain would attend a community meeting every week, though sometimes another officer would appear on the sector captain's behalf. At these meetings, sector captains were responsible for soliciting crime-related information, addressing community concerns, and suggesting crime-prevention techniques. In order to help accomplish these goals, a sector captain might mention Compstat and provide a few Compstat maps. Several respondents observed that the frequency with which Compstat-generated maps were used depended on the style of the individual sector captain, but the maps were present at the neighborhood group meeting we attended. Our observations suggested that these products mainly served to reassure residents that local crime problems were being quickly identified and tackled, and, on a much more modest level, to get some feedback from the community.

It is possible to envision Compstat as a more comprehensive mechanism for encouraging community members to provide the department with helpful information.

At the one community meeting we attended, the sector captain provided a one-page crime map depicting burglaries, motor vehicle breaking and enterings, traffic accidents, and stolen cars over a two-week period. The rest of the handout contained contact information and crime-prevention tips, such as "How to keep you and your property safe." The sector captain stated that he selected the crimes because, "From my experience, these seem to be what people care about." In addition, he noted that any information from community members on these crimes would really help the police. Finally, the sector captain explained that the Compstat map "not only gives a geographical illustration of neighborhood crimes to my community members, but it also provides me with a specific focus" and ensured that the community meeting "did not wander all over the place." The maps could also be used to show residents that the department was successfully tackling quality-of-life and crime problems. A precipitous decrease in traffic accidents provided the sector captain with the opportunity to convince his audience of Compstat's utility and a notable department success: Later in the meeting he revisited this theme of closely monitoring crime problems by telling his audience that the police "visit everything [not just the crimes depicted on these maps] daily." He also introduced another key Compstat element when he stated, "We are truly held accountable for what is going on."

In raising the issue of accountability, the sector captain was clearly referring to the pressure that Compstat places on middle managers to reduce crime. But Compstat may also serve as a mechanism for holding an entire department accountable for meeting its goals. For example, information on a department's problem-solving strategies could be disseminated to the public to enable community members to assess the department's efforts to reduce crime. During our time at Lowell we did not observe Compstat operating in this way, but this is not surprising. Such a finding would be consistent with research that suggests that even with the advent of community policing and its promise of closer police-community partnerships, police departments remain reluctant to cede any of their decision-making autonomy to community members (Lyons 1999).

In sum, Compstat's symbolic capacity, or "dramaturgy," to impress audiences about departments' efforts to reduce crime and its focus on the utility of information exchange with other municipal officials help explain why members of the elite community were granted much greater access to Lowell's Compstat program than local residents (Manning 2001). Other external constituents, however, were not entirely removed from Compstat. The community meeting we attended demonstrated that it could be used as a tool to encourage community members to support their local police department. Giving community members less restricted access—no matter how small—to "internal" information and police crime control strategies than under more traditional policing models may help increase local residents' overall investment in the success of the department's efforts to reduce crime.

VI. Discussion

Results from our national survey suggested that Compstat was a policing phenomenon sweeping across the nation. We have argued elsewhere that this is probably due to the publicity it received as a creation of the NYPD which is the nation's most visible police department, the fact that some departments had already implemented Compstat elements *before* the term Compstat was coined, and Compstat's easy adaptability to the traditional hierarchical organization of U.S. police departments (Weisburd et al. 2003). However, the popularity and praise afforded Compstat by many police practitioners and scholars is fueled more heavily by rhetoric and anecdotes than a body of systematic research. Rather than focus on the NYPD, we decided to contribute to a more comprehensive understanding of Compstat by examining how it was implemented and operated in a police agency of much smaller size and different organization. What insights could Lowell teach us about Compstat?

We focus our main findings around three basic questions: (1) What was the dosage or amount of each Compstat element within the department—very high, high, moderate or low?; (2) What were the opportunities and challenges associated with each element?; and (3) How well did each element integrate with the others to form a coherent program? Our responses to these questions suggest that each core element can be quickly adopted by police agencies, even smaller ones with more limited resources, and can have some positive effects on how they operate. However, the dosage level of those specific elements that demand significant change to a department's daily work and management is likely to be lower than those that reinforce traditional structures and activities. Thus our qualitative research supports the finding from our national survey that Compstat is easily adapted to the traditional police organization but does not move the entire organization in a new direction. Resistance to change in police organizations is well documented (Guyot 1979; Sparrow, Moore, and Kennedy 1990), but our findings suggest that Compstat contains some hidden dilemmas and paradoxes that further limit its ability to work effectively as a fully functioning, crime-fighting program. The most important of these in Lowell is the premium that Compstat places on making district commanders responsible for having an immediate strategic response to crime in their specific beats. We argue that the powerful effects of internal accountability compromise the integrity of other elements of the program: They undermine the innovative problem-solving process, and they discourage the flexible reallocation of resources to crime problems across sectors.

Mission Clarification

In contrast to the confusion surrounding the specific goals of community policing (Bayley 1988), Compstat's objective is elegantly simple: to fight crime. Compstat revitalizes the attitude that the police are primarily crime fighters, one that has fallen into disfavor over the last thirty years among progressive reformers who underscore the importance of community problem solving (Goldstein 1979; Wilson and Kelling 1982). More ambitiously, Compstat's proponents argue that the police actually have the *capacity* to influence crime rates (McDonald 1998; Bratton 1998; Kelling and Sousa 2001). The articulation of a clear mission statement centered on results, not effort, is designed to make a major contribution to the thrust of this message.

When Bratton became commissioner of the NYPD, he rejected the "kinder-gentler" community-policing style of his predecessor, Lee Brown, in favor of a stance that was tough on crime. His promise to reduce crime by 10 percent in the first year encapsulated this approach in a bold mission statement that left little uncertainty about his vision inside and outside of the department. Aware of the department's focus on formal bureaucracy, one that had exacerbated divisions between management and the rank and file, Bratton's rallying cry was positively received within the NYPD. Upon his arrival, patrol officers had ranked fighting crime a lowly seventh on a list of activities that they believed the department wanted to see from them. They afforded administrative and management concerns the highest priority; writing summonses and holding down overtime ranked first and second respectively (Heskett 1996). By appealing to the self-image of the police as crime fighters, Bratton reconnected line officers with the organization's primary purpose. In addition, he made its symbolism more authentic and enduring by repeatedly rewarding officers who came up with effective crime-reduction strategies. He also packaged his mission for consumption outside the department through frequent and highly visible press releases and news conferences. Realizing that the public was disenchanted with department scandals and rising crime rates, Bratton's promise of a more aggressive approach toward corruption and public safety appealed directly to city residents (Heskett 1996, 5–7; Silverman 1999, 88–91). In essence, the power of Bratton's mission as a belief system rested upon it being "concise, value-laden, and inspirational" (Simons 1995, 82).

Davis, like Bratton, provided a bold and visible mission statement with crime reduction as its *sine qua non*. The mission to make Lowell "the safest city of its size in the United States" appealed to city residents and has been widely accepted in the department. In our survey, nine out of ten of the rank and file recognized that reducing violent crime and improving the quality of life in city neighborhoods were "very" or "somewhat important" to the department's Compstat strategy. Since the value of fighting crime was widely shared, we assess the overall dosage of this core element as "high." We also note that the Compstat mission does not need to be antithetical to community policing. Bratton may have dramatically shifted the NYPD's focus away from community policing, but Superintendent Davis continued to balance his department's crime-fighting efforts with a focus

Lowell's Compstat meetings put sector captains under considerable pressure, as widely recognized by the rank and file.

on working with citizens, city agencies, and community groups to identify and solve problems.

In contrast to Bratton, Davis established a benchmark for success that might have been overambitious, as he himself recognized. The superlative "safest" leaves no room for failure, and the goal implies a continued ability to meet the same exceptional standard for success—it is not enough to *become* the safest city, the city has to stay in pole position. Ironically, the same audacity that helped motivate residents and mobilize police officers also fomented criticism when crime, after a long decline, began to rise. Mission statements present chiefs with a dilemma: How do they reconcile the benefits of a bold objective with the lack of confidence and public disapproval that might accompany an organization's failure to attain its goal? As leaders of their organization, chiefs are particularly vulnerable to criticism from external constituents and their own officers. Despite these risks, Compstat requires that chiefs raise expectations of performance both inside and outside of the department. Perhaps that leaves three imperfect "solutions:" (1) Only propose a bold crime-reduction goal in cities where the existing crime problem is so bad that department efforts are likely to meet with a high level of success; (2) When success is less likely, sacrifice the motivational value of the mission for a more modest crime-reduction goal; or (3) Leave the organization after an initial success before crime rates have the chance to rise again. Given the pressure on chiefs to succeed, it is not surprising that John Diaz, an assistant police chief in Seattle stated that, "The politics of being a police chief have become so insane no one wants the job" (Bratton 2001).

Internal Accountability

In Lowell, many regarded internal accountability, or making a specific individual responsible for tackling and reducing crime, as Compstat's principal element. This component did have some positive effects: The top echelon and district commanders certainly seemed more aware of their crime environment than they were before. This was a major change from earlier operations, and sector bosses were motivated to do something about crime problems that arose—getting on top of problems—much more than before.

Lowell's Compstat meetings put sector captains under considerable pressure, as widely recognized by the rank and file. Even though line officers did not feel this pressure directly, what transpired at Compstat took on mythic proportions among the lower ranks. This suggested that internal accountability was a very important component of daily operations, and we assessed the dosage of this Compstat element as "very high."

Compstat appears to be a mechanism that makes district commanders highly responsive to the chief, but it does not provide a similar structure to facilitate the responsiveness of patrol officers to district commanders. This depends on the will and skill of the individual district commander. This finding differs from Kelling and Sousa's assertion that accountability, "Drive[s] the development of crime reduction tactics at the precinct level" (Kelling and Sousa 2001, 11). To overcome the challenge of disproportionately burdening district commanders with reducing crime, holding smaller meetings at the precinct level, and having sector captains, lieutenants, line supervisors, and patrol officers attend them, could help spread the sense of accountability among all officers.

In fact, we discovered that the onus of accountability placed upon sector commanders might actually *sabotage* Compstat's capacity to reduce crime. Paradoxically, two other Compstat elements—the practice of innovative problem solving and the organization's capacity to allocate resources to the most pressing problems—were undermined by the burden of accountability placed on district commanders. Compstat is intended to facilitate the creation of an information-seeking, data-driven, collegial, and reflexive environment that thrives on the willingness of its members to think creatively, to share information, to be critical of themselves and others, and to act on this criticism in a positive way. In many respects, this represents the ideal of how professionals, such as academics, engineers, and scientists, are supposed to operate within their different institutional environments. Atypical problems are presumably best resolved in a less hierarchical environment, or at least one that is buffered from the very sort of rapid-response-time accountability that Compstat inspired in Lowell (see Mastrofski and Ritti 2000 for an overview of the literature). Davis tried to foster brainstorming and believed that a system like Compstat could encourage individuals to think differently. Ironically, it is the operation of this system within a paramilitary, hierarchical organization—one that socializes officers to support one another and defer to rank—that hinders innovative thinking and collaborative learning. Given the high standard of accountability to which sector captains were held, many members of the command staff were reluctant to share their insights at Compstat out of concern that these might appear as criticisms of the sector captains. Lower-ranking officers were especially reticent to make suggestions. Since there is an unwillingness to appear disputatious, participants at Compstat express broad and supportive opinions rather than engage in incisive and critical debate.

Furthermore, since Compstat put pressure on Lowell's district commanders to have a crime strategy in place *before* the biweekly meetings, the utility of discussing alternative crime strategies was seriously curtailed. The pressure of Lowell's system of internal accountability hindered innovative approaches to crime by demanding so-much-so-quickly in a work culture that avoided contradicting those who felt this accountability most intensely. It did not, as Kelling and Sousa claim, "constantly challenge precinct commanders to develop new responses to crime problems" (2001, 12).

A final paradox associated with the premium Compstat places on accountability is that it reduces organizational flexibility by fostering competition rather than collaboration across geographical sectors or precincts. When resources are scarce, which is especially likely to be the case in smaller departments or departments that are now under pressure to stretch their limited resources to cover anti-terrorist activities, sector personnel may be reluctant to share resources with one another. In spite of its claim to encourage the shifting of resources to the most pressing problems, Compstat's emphasis on holding middle managers accountable for lowering crime statistics in their precincts hinders a more collective approach to crime.

Geographic Organization of Operational Command

Operational command at Lowell had been lowered one level to the sector captains who were given twenty-four-hour responsibility for their specific beats—a change from the period prior to Compstat's implementation. Sector captains were now empowered to make a wide range of administrative, managerial, and tactical decisions that included approving vacation time, solving personnel problems, and deploying officers to problem areas. In addition, sector captains were granted broad access to other departmental resources, such as specialized units, in their problem-solving efforts.

Despite this devolution of decision-making authority to the sector level, Compstat continued to reinforce the ideal of top-down control. Davis encouraged his sector captains to take initiative, but he also exercised his decision-making authority directly over them. In approving a request for overtime or abrogating a beat change, Davis demonstrated that he was willing to intervene when he disagreed with a sector captain's decisions. Furthermore, a high level of centralized command and control penetrated down the organizational hierarchy. Significant decision-making autonomy may have been granted to each sector, but it did not exist at the precinct level. In addition, specialist units were not placed directly under a sector captain's control, suggesting that many enforcement and deployment decisions continued to be functionally, not geographically, based. We estimated the dosage of this element as "moderate."

In sum, our findings suggest that operational command under Compstat may subvert one of the central tenets of community policing—decentralized decision making. By reinforcing the formal hierarchy of rank and giving sector commanders most of the decision-making power to identify and solve problems, Compstat works against the notion of many community-policing advocates that line officers must be granted greater decision-making autonomy. Absent an attempt to devolve this authority to the street level, Compstat contributes to the existing divisions between managers and line officers for which professional bureaucratic models of policing have been highly criticized (Kelling and Moore 1988).

Organizational Flexibility

Regularity is a necessary and desirable characteristic of the police organization, and it is achieved through permanent structures and routines. Many of the features of the traditional bureaucratic police organization, such as rules and regulations governing officer behavior or the hierarchy of rank, deliberately restrict flexibility in favor of predictability and order. Compstat, however, demands that police organizations develop flexibility to deal with emerging or unforeseeable problems. At Lowell, the top leadership did encourage teamwork and coordination, but the strategic reallocation of resources operated on an ad hoc basis. Patrol officers were commonly asked to pay attention to a particular area during their shift. Less frequently, a specialist was temporarily assigned to a crime problem. It was even less common for a sector captain to request additional funds, such as overtime, and the department did not rely upon taxi squads to enhance its flexibility. Davis told us that sector captains would willingly share their patrol officers if a crime occurred that warranted additional resources, but we never witnessed the redeployment of officers across sectors; and sector captains reported that it rarely occurred. We rated the treatment level of this element as “low.”

Why did the department continue to rely heavily on routines in response to crime problems? The LPD did attempt to increase its flexibility, but it was hampered by traditional internal and external challenges that are very difficult for an organization to overcome. Budget constraints prevented the hiring of additional officers, and the number of specialist assignments restricted how many officers were available for routine patrol. In addition, the department was under pressure from city politicians and business owners to deploy officers to certain areas of the city at specific times. The reallocation of officers was also hindered by Davis’ obligation to support the Lowell Housing Authority. It would be extremely difficult for any department to control these pressures from outside forces.

In addition to traditional internal and external constraints, Compstat itself limited organizational flexibility in one of the paradoxes we previously noted. By acting to ensure the responsiveness of each individual sector captain to the superintendent, internal accountability helped foster competition between the sectors and discouraged collaborations. As a system, Compstat explicitly rewards district commanders for handling their own beat problems effectively, but it does not contain a similar mechanism for rewarding the more efficient sharing of resources—even if this could contribute to an overall reduction in crime. A challenge to a police department implementing Compstat will be how to balance the requirement of holding district commanders accountable for specific territories against a capacity to shift resources across precincts—away from where they are needed to where they are needed *most*. Without a structure that specifically recognizes and rewards the willingness of district commanders to share valuable resources and collaborate with other precincts, it is unlikely that a small police department can maximize its organizational flexibility.

Data-Driven Problem Identification and Assessment

At Lowell, the department expended a great deal of effort to overcome several obstacles to the collection and processing of timely data. Its success is testimony to how Compstat can be implemented despite significant technical problems. Our research also suggests that small departments can start Compstat inexpensively by relying upon existing computer equipment and hiring civilian analysts. Whereas crime data was formerly used halfheartedly once a year or so, it has now become an integral part of the day-to-day dialogue between Davis and his middle managers, especially sector bosses. Compstat data now establish the structure and information used within the agency for identifying problems, establishing priorities, and deciding where and when to mobilize responses. As one Lowell officer stated bluntly, "Concern over information is different from ten years ago when police officers did not give 'two craps' about the UCR."

Despite this increased use of data to inform decision making, middle managers were not given any special training to help develop their data analysis skills. Identification of the location of crime problems had become significantly more rapid, but data were not analyzed to figure out exactly *how* to mobilize in order to decide exactly what to do. Sector captains were comfortable identifying patterns using descriptive statistics, but for the most part this only occurred during the two or three days before Compstat. Instead, they relied upon serially reviewing reports, without relying upon statistics or maps, and then forming impressions. Furthermore, the very little time that the CAU had to analyze data and check it for accuracy, and the modest level of appreciation among supervisors and the rank and file for the usefulness of data analysis, suggested that this element was underdeveloped in the LPD. Consequently, we assessed the dosage of this element as "moderate."

It is highly unlikely that sophisticated data analysis will play a fundamental role in shaping the adoption of specific crime strategies throughout police departments without additional training. Higher levels of data analysis require the kind of skills and knowledge that cannot be merely picked up while working on-the-job. For example, a familiarity with tabulating bivariate relationships—such as tabulating the frequency of drug crimes with homicides in a sector to see if an increase in homicides is likely drug related—would be a more powerful method for detecting plausible patterns than just relying upon maps. Resources permitting, departments could further enhance the use of data to identify and assess problems by providing middle-level managers with their own civilian crime analyst. Given the numerous command and administrative responsibilities of district commanders under Compstat, it is unlikely that they would have the time to conduct an in-depth data analysis of crime in their beats without this additional source of support. Finally, increased training could raise the level of appreciation for conducting, interpreting, and applying a more research-oriented paradigm among all of a department's supervisors and line officers. At the very least, it would help teach the rank and file the importance of writing accurate and complete reports.

It is highly unlikely that sophisticated data analysis will play a fundamental role in shaping the adoption of specific crime strategies throughout police departments without additional training.

Innovative Problem-Solving Tactics

Supporters of Compstat claim that it encourages innovation and experimentation. Police are encouraged and expected to look beyond their own experiences by consulting with other departments and examining theories and research on crime prevention. Our research suggests that, on occasion, Compstat has encouraged innovation, especially with more serious problems, and that this might occur, albeit on an ad hoc basis, at the sector level. On the whole, however, it has made only modest inroads into previous practice, so we estimated the dosage of this element as "low."

The department's continued reliance on traditional police responses can be attributed to two other reasons: (1) Based upon their experience police officers believe these tactics work; and (2) These practices may be the only realistic option given the limited resources available from the city. We heard many comments asserting the problem-solving effectiveness of increasing traffic enforcement and saturating areas with patrol. In regard to the use of a decoy car, some officers mentioned that the significant commitment of resources that this strategy required did not necessarily imply success. The time it took to organize the stakeout, the extra personnel assigned to the case, and the additional disbursement of overtime still could not replace the dose of luck needed to get the thieves to "hit" the decoy car. In all likelihood, a chief would be pleased that his district commanders only resorted to more creative and resource-rich strategies when absolutely necessary. In addition, the department's reliance upon traditional strategies could be explained by the paradox that we mentioned earlier. In Lowell, Compstat's intensive emphasis on internal accountability demands that district commanders rush to do something quickly about crime problems: Middle managers are now as concerned about response time as patrol officers once were. Compstat has just moved reactive policing to another level. A more innovative police response would require that district commanders have sufficient time to foster, develop, and test long-term preventive plans. Compstat has made this process more difficult.

Finally, the absence of any kind of systematic follow-up at Lowell's Compstat meetings hindered innovation. Since the department did not have the ability to evaluate whether different crime strategies were actually achieving their intended result, it tended to resort to officers' impressions of what appeared to have worked in the past. The implementation of a rigorous follow-up system to overcome this challenge, however, might present an additional set of challenges to a police organization. The careful assessment of the effectiveness of crime strategies would hold district commanders to an even higher standard of accountability than already exists. Not only would they be accountable for responding quickly to crime problems, their responses would be scrutinized for possible weaknesses. The challenge, therefore, is how to create a follow-up mechanism that facilitates the selection of the crime strategy that holds the best prospect for success but does not operate to penalize individuals for their creative failures. This is a tall order, given Compstat's emphasis on singling out district commanders and holding them directly accountable for the department's mission of crime reduction. Long-term success probably requires innovation, and we learn more from our failures than our successes. Compstat may be putting our future police leaders in a conceptual box of their own devising.

External Information Exchange

The final element of Compstat is external information exchange. Given the time constraints, our findings on this element are more tentative than those on the other six elements, which were supported by more intensive participant-observation research. Nevertheless, our research can provide some insights into how external information exchange operated at Lowell.

Compstat can be used to generate external support for a police department among peer agencies and community stakeholders, and it can also be used as a mechanism for providing external constituents with information about a department's goals and its progress toward achieving them. The interest with which the crime maps were received at the meeting we attended suggested that Compstat did have a positive effect on community members. In addition, our research suggests that Compstat facilitated the availability of timely crime data to the press. Even though the local newspaper did not print Compstat maps, department press releases sometimes used monthly data to provide statements on specific crime problems and police responses to them. Our impression is that this represents a change from previous police practice, when the data available through the annual release of the UCRs was less detailed and less timely.

Despite these modest changes, external information exchange appeared to be an underdeveloped element at Lowell: Compstat was not a well-publicized and well-understood police program outside of the department, and we assayed its dosage as "low." Certainly it enjoyed far less public attention than Lowell's community-policing program, and we are confident that those outside of the department could provide a far more comprehensive description of community policing than Compstat. In addition, Compstat was not used as a tool for providing external constituents with detailed knowledge about the department's progress toward meeting its goals. Organizations are obviously cautious about exposing their performance to public scrutiny, and the provision of detailed crime statistics and problem-solving efforts for external consumption could expose the police to the unwelcome pressure of increased criticism.

In the absence of strong, external pressure, it is likely that police organizations will be reluctant to give external constituents greater access to their decision-making process and measures of their performance. Doing so would expose a department to a higher level of accountability and a more critical assessment of its efforts to reduce crime. It is much easier for a police agency to convey a favorable public impression of itself if it can control what types of information are made publicly available. Nevertheless, just as internal accountability is used to motivate district commanders within the police department, "public information" about a department's crime-fighting efforts might "create the strongest pressure for improvement" (Sherman 1998, 10).

VII. Conclusions

When Mayor Giuliani gave his farewell address, he devoted a significant portion of his speech to New York City's success in reducing crime during his two terms in office. In the midst of the speech, he described Compstat as one of the "pillars" of the NYPD's policing model, and elsewhere he praised Compstat as "a rational, reasonable, sensible, strategic response to crime." His comments are not an aberration. Even though research on Compstat is still in its infancy, Compstat is the object of almost unconditional admiration from politicians, practitioners, and scholars who laud its capacity to operate as a sophisticated, effective, and coherent crime program. However, our intensive site research at the Lowell Police Department, a department that is nationally recognized for its adoption of some of the latest innovations in police management techniques and strategies for the delivery of police services, suggests that this fanfare is premature. Our study calls for a more textured assessment.

At the time of our observations, Compstat had been operating in one form or another in Lowell for nearly five years. We were unable to observe Lowell before Compstat was implemented, but based on accounts from our informants, it is clear that the implementation of Compstat has resulted in some impressive changes in organization practice. Over only a brief period, crime analysis has come to play an integral role in police operations. This would have been impossible without the department's tremendous efforts to overcome a number of technical data-entry and processing challenges. Decision makers are now more familiar with the use of data and better informed about what is going on in their areas. In addition, sector captains feel much more accountable for identifying and responding to crime problems. Finally, members of the department have a much stronger sense of the mission that their leader wants them to pursue. Although we determined that the dosage of several elements' implementation was low or moderate, all appeared to represent a significant change from past practice. Since police organizations are notoriously resistant to innovation and any substantial changes usually require many years to take effect, the achievements of the Lowell Police Department are especially noteworthy.

But the actual operation of Compstat in Lowell has produced a pattern of practices that does not readily fit with the idealized characterizations that have trumpeted its implementation in other venues. The unevenness of the implementation has placed greatest stress on elements that are most consistent with goals that have long been embraced by top police managers in the United States: fighting crime and getting subordinates to carry out their leader's priorities. Those elements that represent the greatest departure from past management ideals—organizational flexibility, data-driven decision making, and innovative problem solving—remain the least developed. Some of this underdevelopment is attributable to the paradoxical conflicts between Compstat's elements that we have highlighted. By opting to stress internal accountability, Lowell imposed costs on the other three. Such conflicts can be managed, of course, but that requires compromises that must be adjusted frequently, depending upon the presenting problem. And a dynamic program of compromise requires either: (1) continuing hands-on involvement by top management, or (2) middle managers who, with a good sense of the department's mission, develop a shared set of "rules" about how to reach compromises that promote the desired outcomes. In either case, a more balanced integration of Compstat's varied elements cannot be left to a static set of management practices that puts the Compstat process on "autopilot."

The underdevelopment of certain Compstat elements may also be attributed to a second cause. Lowell seems to present a classic case of creating a program for which department personnel received relatively little preparation. The prior career experiences of the sector captains did not prepare them well for developing organizational flexibility, data-driven decision making, and innovative problem solving. They received virtually no formal training in these areas before implementation, so they had to adapt and learn on the fly. We should expect, then, that these three elements should prove most problematic for the department. If Compstat endures in Lowell, we might well expect these elements to be strengthened. Over time the captains should increase their skills and inclinations to engage in these activities, and those who follow them may rise to those positions precisely because they have already achieved mastery of such things as crime analysis and problem solving.

Appendices

Appendix I **Lowell Police Department Organizational Chart**

Appendix II **Map of the City of Lowell and City Neighborhoods**

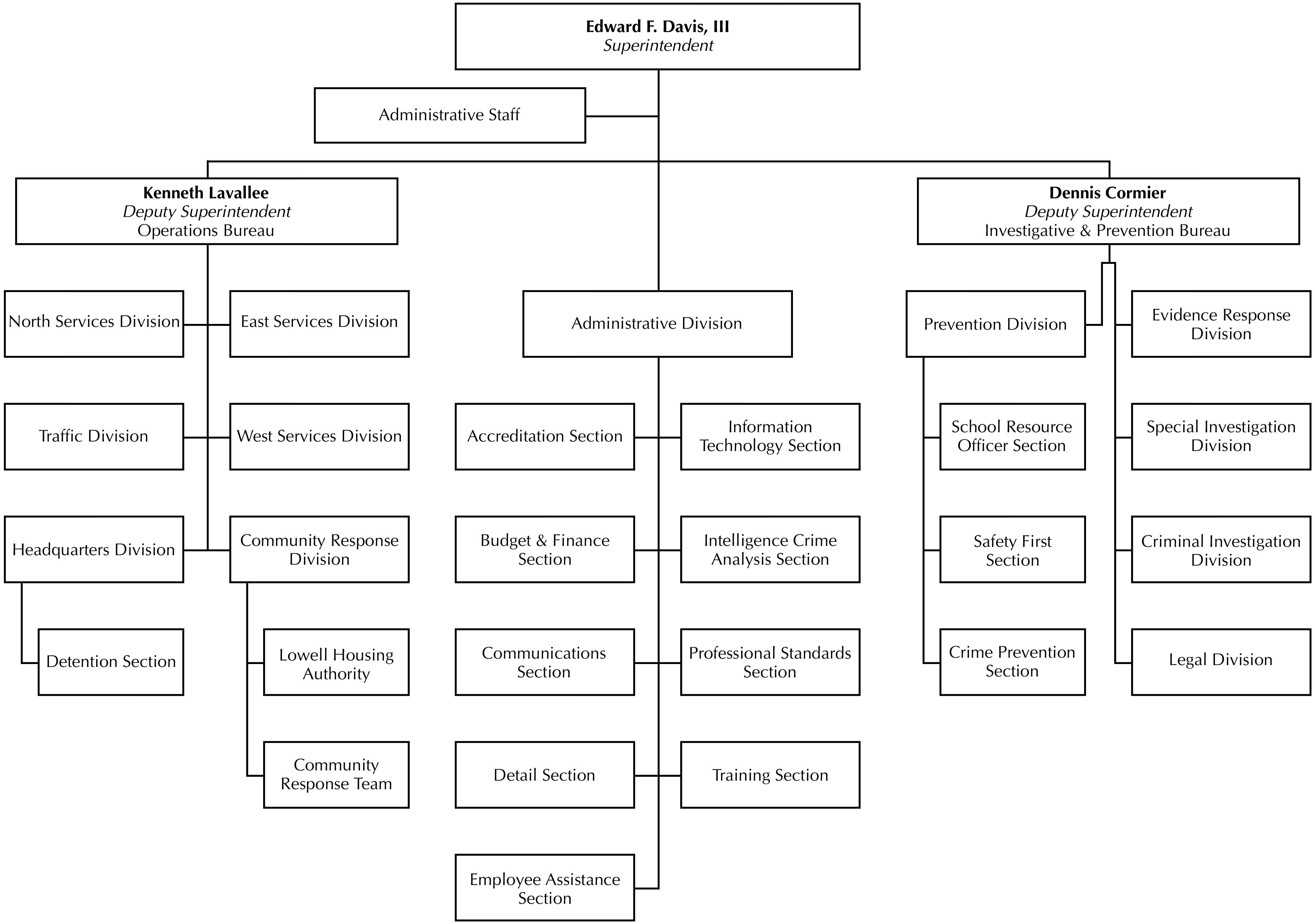
Appendix III **Patrol Officer Survey**

Appendix IV **Sample Compstat Prep Sheet**

Appendix I

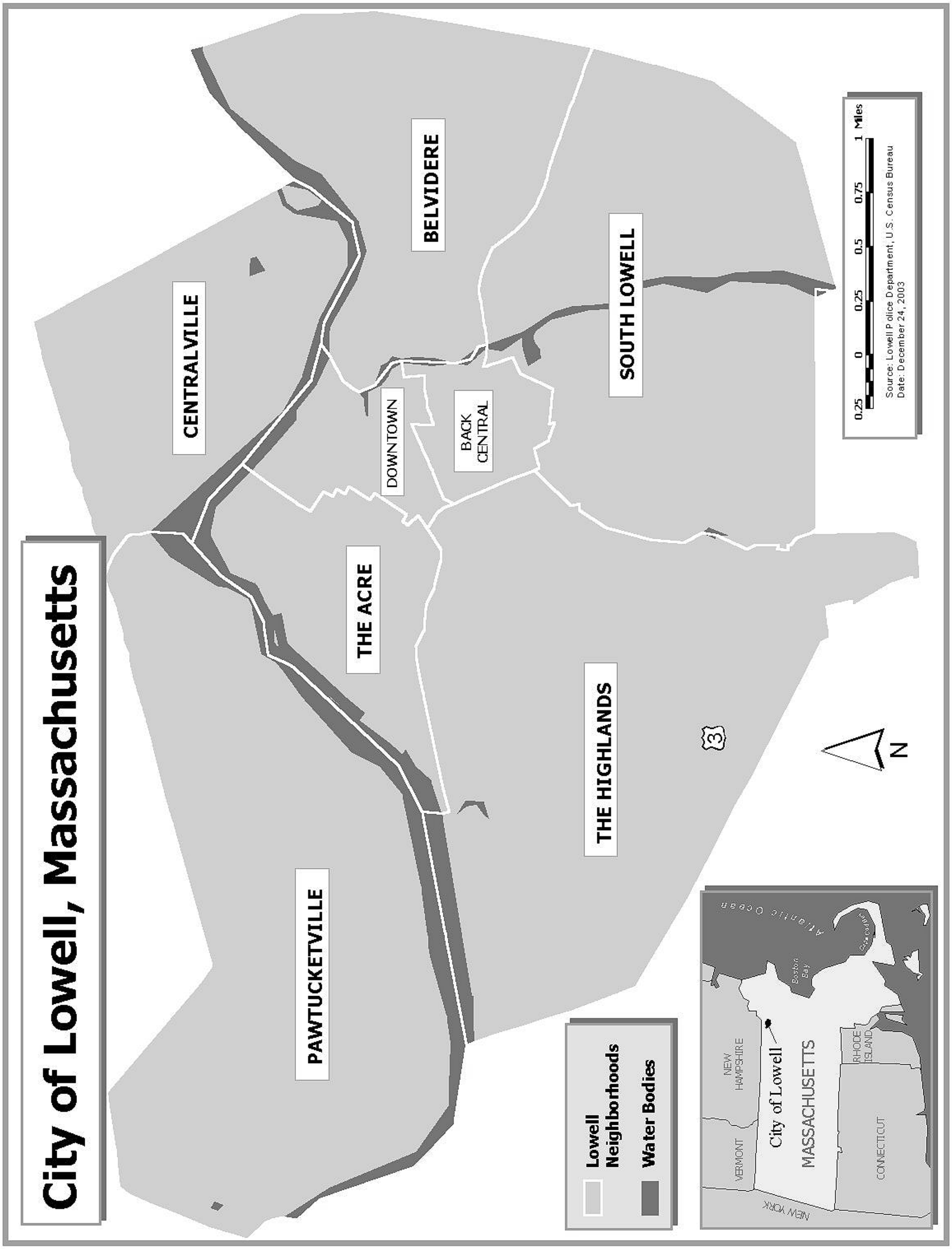
Lowell Police Department Organizational Chart

Lowell Police Department, 2000


Edward F. Davis, III
Superintendent
Administrative Staff
Kenneth Lavallee
Deputy Superintendent
Operations Bureau
Dennis Cormier
Deputy Superintendent
Investigative & Prevention Bureau
North Services Division
East Services Division
Traffic Division
West Services Division
Headquarters Division
Community Response Division
Detention Section
Lowell Housing Authority
Community Response Team
Administrative Division
Accreditation Section
Information Technology Section
Budget & Finance Section
Intelligence Crime Analysis Section
Communications Section
Professional Standards Section
Detail Section
Training Section
Employee Assistance Section
Prevention Division
Evidence Response Division
School Resource Officer Section
Special Investigation Division
Safety First Section
Criminal Investigation Division
Crime Prevention Section
Legal Division

Appendix II

Map of the City of Lowell and City Neighborhoods



City of Lowell, Massachusetts

Source: Lowell Police Department, U.S. Census Bureau
Date: December 24, 2003

CENTRALVILLE
BELVIDERE
SOUTH LOWELL
DOWNTOWN
BACK CENTRAL
THE ACRE
THE HIGHLANDS
PAWTUCKETVILLE
3
N
0.25
0
0.25
0.5
0.75
1 Miles
Lowell Neighborhoods
Water Bodies
VERMONT
NEW HAMPSHIRE
City of Lowell
MASSACHUSETTS
RHODE ISLAND
CONNECTICUT
NEW YORK
Atlantic Ocean
Boston Bay
Cape Cod Bay

Appendix III

Patrol Officer Survey

Patrol Officer Survey

The survey was distributed to patrol officers who attended roll call on the late night, day, and early night shifts (Platoons 1, 2, and 3 respectively). The officer in charge of the detail provided us with the department's monthly work schedule. Patrol officers were assigned to one of three groups (Group 2, 4, or 6) and worked four days on and two days off. On any given day, one group was off-duty. Surveys were distributed on two separate days to reach officers from all three groups across all three shifts.

The on-site researcher distributing the survey told officers that the study was being conducted by the Police Foundation to learn how Compstat worked at Lowell. He noted that input from patrol officers on police programs and procedures was not always solicited, but that the Police Foundation valued any feedback that they were willing to provide so that we might gather their insights into the Compstat process. Officers were advised that the survey was voluntary and responses would be anonymous, that the researchers would not attempt to identify individual respondents, and that completed surveys would be maintained in a secure space at the Police Foundation, accessible only to members of the research team.

In Lowell there were 145 patrol officers. Based on our examination of the detail, we estimated that approximately twenty officers were absent from roll call on any given day. This left us with an approximate sample size of 124 officers from which we received 97 completed surveys, a 78 percent response rate.

Officer Survey

Survey #L__ __ __ __ __

The Police Foundation is conducting a study of Compstat. This research project is funded by the Department of Justice. As part of the study, we are conducting a survey of officers in your department. The survey is completely anonymous and you will not be identified in any report. The surveys will be kept under lock and key at the Police Foundation. The survey will take about 10 minutes to complete. We greatly appreciate your participation. Please answer as many questions as you can. You may refuse to any question or stop at any time. Again, thank you for your participation.

1. Please indicate whether each of the following is very important, somewhat important, or not at all important to the Compstat strategy in the Lowell Police Department.

	Very Important	Somewhat Important	Not at all Important	Don't Know
a. Reduce complaints against officers	1 ☐	2 ☐	3 ☐	8 ☐
b. Reduce violent crime in Lowell	1 ☐	2 ☐	3 ☐	8 ☐
c. Improve the quality of life in Lowell	1 ☐	2 ☐	3 ☐	8 ☐
d. Arrest people committing misdemeanor offenses	1 ☐	2 ☐	3 ☐	8 ☐
e. Hold sector captains accountable for crimes in their sector	1 ☐	2 ☐	3 ☐	8 ☐
f. Provide timely and accurate crime data	1 ☐	2 ☐	3 ☐	8 ☐
g. Respond quickly to calls for service	1 ☐	2 ☐	3 ☐	8 ☐
h. Identify crime patterns and choose appropriate tactics	1 ☐	2 ☐	3 ☐	8 ☐
i. Respond quickly to emerging crime problems	1 ☐	2 ☐	3 ☐	8 ☐
j. Hold officers accountable for crimes in their beats	1 ☐	2 ☐	3 ☐	8 ☐
k. Follow up to assess whether solutions were successful	1 ☐	2 ☐	3 ☐	8 ☐
l. Make officers and equipment available to different sectors as needed	1 ☐	2 ☐	3 ☐	8 ☐
m. Encourage officers to take responsibility for their beat	1 ☐	2 ☐	3 ☐	8 ☐
n. Resolve disputes among different segments of the community	1 ☐	2 ☐	3 ☐	8 ☐
o. Create and maintain open lines of communication with the community	1 ☐	2 ☐	3 ☐	8 ☐

2. In the last five years, has your department's effectiveness in accomplishing each of the following increased, decreased, or stayed the same?

	Increased	Stayed About the Same	Decreased	Don't Know
a. Reduce complaints against officers	1 ☐	2 ☐	3 ☐	8 ☐
b. Reduce violent crime in Lowell	1 ☐	2 ☐	3 ☐	8 ☐
c. Improve the quality of life in Lowell	1 ☐	2 ☐	3 ☐	8 ☐
d. Arrest people committing misdemeanor offenses	1 ☐	2 ☐	3 ☐	8 ☐
e. Hold sector captains accountable for crimes in their sector	1 ☐	2 ☐	3 ☐	8 ☐
f. Provide timely and accurate crime data	1 ☐	2 ☐	3 ☐	8 ☐
g. Respond quickly to calls for service	1 ☐	2 ☐	3 ☐	8 ☐
h. Identify crime patterns and choose appropriate tactics	1 ☐	2 ☐	3 ☐	8 ☐
i. Respond quickly to emerging crime problems	1 ☐	2 ☐	3 ☐	8 ☐
j. Hold officers accountable for crimes in their beats	1 ☐	2 ☐	3 ☐	8 ☐
k. Follow up to assess whether solutions were successful	1 ☐	2 ☐	3 ☐	8 ☐
l. Make officers and equipment available to different sectors as needed	1 ☐	2 ☐	3 ☐	8 ☐
m. Encourage officers to take responsibility for their beat	1 ☐	2 ☐	3 ☐	8 ☐
n. Resolve disputes among different segments of the community	1 ☐	2 ☐	3 ☐	8 ☐
o. Create and maintain open lines of communication with the community	1 ☐	2 ☐	3 ☐	8 ☐

3. Listed below are 10 activities for which you might receive praise from your superiors. Please review all of these activities and then rank them from 1 to 10 in terms of how much praise you might receive. Write a 1 by the activity which would bring you the most praise, a 2 by the activity which would bring the second most praise, and so on.

	Rank
a. Identifying a developing crime pattern	
b. Rapid response to 911 calls	
c. Assisting crime victims in obtaining services and cooperating in prosecutions	
d. On-sight misdemeanor arrests of persons known to the police	
e. Working with community members to solve local crime or disorder problems	
f. Recovering a weapon	
g. Writing accurate crime reports	
h. Working to provide legitimate activities for potential offenders	
I. Making a large drug bust	
j. Overall reduction of crime in your beat	

4. Have you attended a Compstat meeting? Please check one.

1 ☐ Yes   2 ☐ No [SKIP TO Q6]

5. If “Yes,” please indicate what you did at the meeting. Please check all that apply.

1 ☐ Observed meeting only—did not participate
2 ☐ Assisted someone else make a presentation but did not speak
3 ☐ Answered questions
4 ☐ Offered an opinion or information
5 ☐ Made a short presentation (less than 2 minutes)
6 ☐ Made a long presentation (2 or more minutes)

6. How often does your supervisor discuss what has happened at the Compstat meetings? Please check one.

1 ☐ Every week
2 ☐ About once a month
3 ☐ Every few months
4 ☐ Never

7. To the best of your knowledge, how much has Compstat changed your job responsibilities? By job responsibilities, we mean what you are expected to do on a daily basis. Please check one.

1 ☐ A great deal
2 ☐ Somewhat
3 ☐ A little bit
4 ☐ Not at all [SKIP TO Q9]
8 ☐ Don(t know [SKIP TO Q9]

8. Please describe any changes.

9. Please indicate your view of each of the following statements by marking the appropriate box.

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
a. Compstat has made supervisors place too much emphasis on statistics	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
b. Compstat has made it possible for officers to get credit for doing quality work	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
c. Compstat has kept supervisors from spending enough time on the street	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
d. Compstat had made me more aware of what goes on in other parts of the department	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
e. Compstat has increased teamwork between my unit and specialist units in the department	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
f. Compstat will be an important feature of the department's organization in 5 years	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

10. Overall, how would you rate the impact of Compstat on the department's performance in serving the public? Please check one.

1 ☐ Highly beneficial
2 ☐ Beneficial
3 ☐ No effect
4 ☐ Detrimental
5 ☐ Highly detrimental
8 ☐ Don't know

11. Please briefly describe your view.

12. Overall, how would you rate the impact of Compstat on the department as a good place to work as a police officer? Please check one.

1 ☐ Highly beneficial
2 ☐ Beneficial
3 ☐ No effect
4 ☐ Detrimental
5 ☐ Highly detrimental
8 ☐ Don't know

13. Please briefly describe your view.

14. How many years have you worked for the Lowell Police Department in a sworn position?

1 ☐ Fewer than 3 years
2 ☐ 3–5 years
3 ☐ 6–10 years
4 ☐ 11–20 years
5 ☐ More than 20 years

15. What is your current rank?

1 ☐ Police officer
2 ☐ Rank higher than police officer

16. What hours do you work? from _____:_____ am/pm to _____:_____ am/pm

17. How old are you?

1 ☐ Under 21
2 ☐ 21–25
3 ☐ 26–29
4 ☐ 30–39
5 ☐ 40–49
6 ☐ 50–59
7 ☐ 60+

18. What is your highest level of formal education? Please check one.

1 ☐ Some High School
2 ☐ High School Graduate or GED
3 ☐ Some College / AA Degree
4 ☐ Bachelors Degree
5 ☐ Some Graduate School / Law School
6 ☐ Masters Degree / JD or LLB
7 ☐ PhD

19. Are you male or female?

$_1$ ☐ Male
$_2$ ☐ Female

20. What is your racial group? Please check one.

$_1$ ☐ White
$_2$ ☐ African American
$_3$ ☐ American Indian or Alaska Native
$_4$ ☐ Asian American or Pacific Islander
$_5$ ☐ Other

21. Are you Hispanic or Non-Hispanic?

$_1$ ☐ Hispanic
$_2$ ☐ Non-Hispanic

Thank you for completing the survey!

Appendix IV

Sample Compstat Prep Sheet

COMPSTAT PREP SHEETS January 11, 2001

ASSAULTS

	NORTH	*EAST*	*WEST*	*CITYWIDE*
Total #	6	14	10	30
Arrests	0	8	3	11
Aggrav/Simple	Agg-3 Simp-3	Agg-8 Simp-6	Agg-5 Simp-5	Agg-16 Simp-14
Day of Week	Sat-4	Sun-7	Sun-4	Sun-11
Time/Platoon	P1=3 P2=1 P3=2	(1-3) P1=6 P2=4 P3=4	P1=3 P2=2 (10-12) P3=5	P1=12 P2=7 P3=11
Liquor Related	1- Honkey Tonk	5- Brewery Shamrock Worthen	2-C'est La Vie House Party	8
Gang Related	No	No	1	1
Weapons Used				
Non-Lowell Residents	Victims= Suspects=	Victims= Suspects=	Victims= Suspects=	Victims= Suspects=
Suspects				
Additional Info				

BURGLARY

	NORTH	*EAST*	*WEST*	*CITYWIDE*
Total #	7	3	9	19
Comm/Dwell	Comm-2 Dwell-5	Dwell-3	Dwell-9	Comm-2 Dwell-17
Day of Week			Sat-4	Sat-5
Time/Platoon	P1=2 P2=1 P3=2	P1= P2=1 P3=1	P1=2 P2=2 P3=3	P1=4 P2=4 P3=6
Method of Entry	Forced Open	Forced Open	Forced Open	Forced Open
Property				
Suspects				
Additional Info	2 Arrests	1 Arrest		3 Arrests

DRUG ACTIVITY

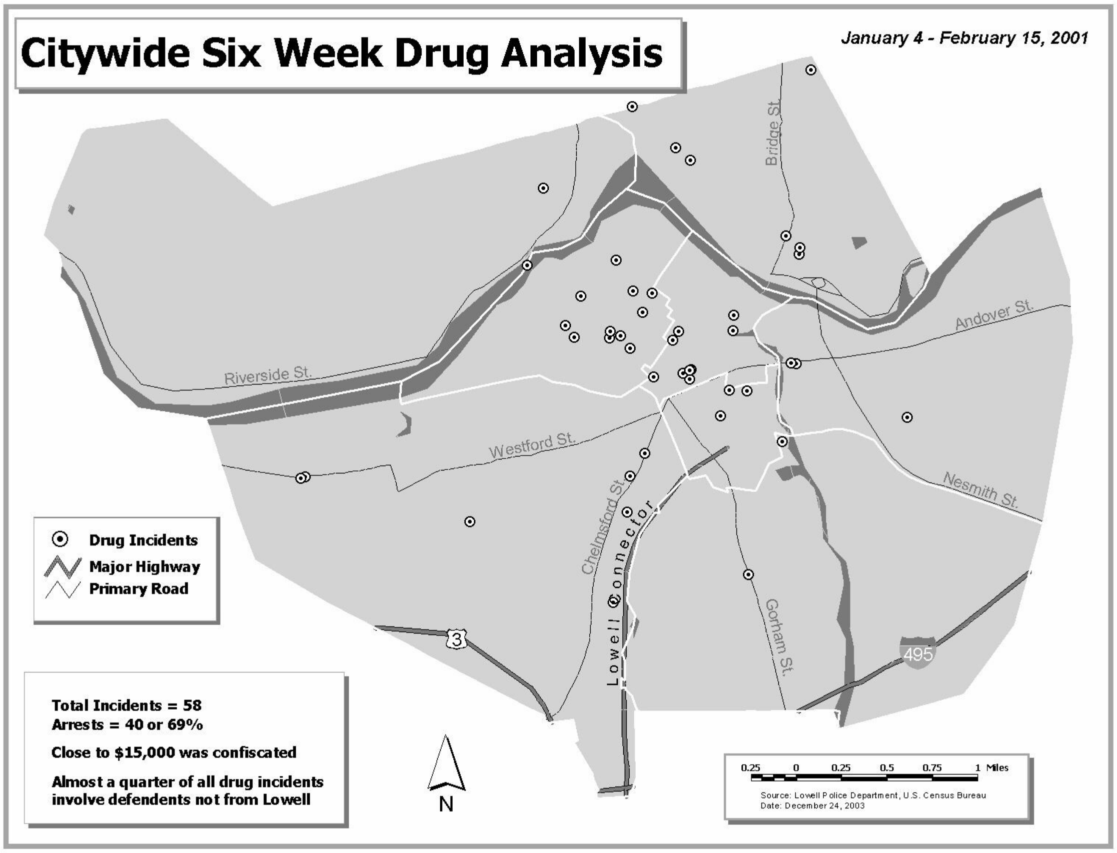
	NORTH	*EAST*	*WEST*	*CITYWIDE*
Total #	4	4	2	10
Arrests	3	2	2	7
SIS Involved		1	1	2
Neighborhood	Centra-2 Belv-2	S.Lowell-2 Down-2	Acre-2	
Day of Week		Sat-3		Sat-4
Time/Platoon	P1= P2= P3=	P1= P2= P3=	P1= P2= P3=	P1= P2= P3=
Drug Type	Cocaine	Cocaine, Marijuana, Heroin	Heroin	Cocaine, Heroin
Confiscated	1 Bag 2 Needles	25 MG Pills 39 Batman Bags	1 Needle 9 Bags	1 Bag Cocaine 48 Bags Heroin 3 Needles 25 MG Pills
Suspects				
Additional Info				

MV B&E

	NORTH	*EAST*	*WEST*	*CITYWIDE*
Total #	7	11	12	30
Day of Week		Wed-3	Mon-4	Mon-5 Fri-5
Time/Platoon	P1=2 P2=1 P3=1	P1=4 P2=2 P3=3	(9-11)P1=5 P2=1 P3=4	P1=11 P2=4 P3=8
Neighborhood	Belv-4 Centra-2	Down-7	High-10	High-10
MV Make		Honda-3	Honda-3	Honda-7
Point of Entry	Window-3	Window-7	Window-5	Window-15
Property Taken	CD Stereo-2		Stereo-3	Stereo-7
Suspects				
Additional Info				

MV DAMAGE

	NORTH	*EAST*	*WEST*	*CITYWIDE*
Total #	23	11	8	42
Day of Week	Sun-8 Fri-7	Mon-3		Sun-10
Time/Platoon	P1=4 P2=3 P3=9	P1=2 P2=2 P3=1	P1=3 P2= P3=4	P1=9 P2=5 P3=14
Neighborhood	Centra-10 Belv-6	Bck Cent-3	High-5	Centra-10
MV Make		Dodge-2	Acura-3 Toyota-2	Honda-5 Dodge-5 Toyota-5
Damage	Smshd Wind-9 Slshd Tire-7	Smshd Wind-5	Smshd-Wind-3	Smshd Wind-17
Suspects				
Additional Info				



Citywide Six Week Drug Analysis

January 4 - February 15, 2001

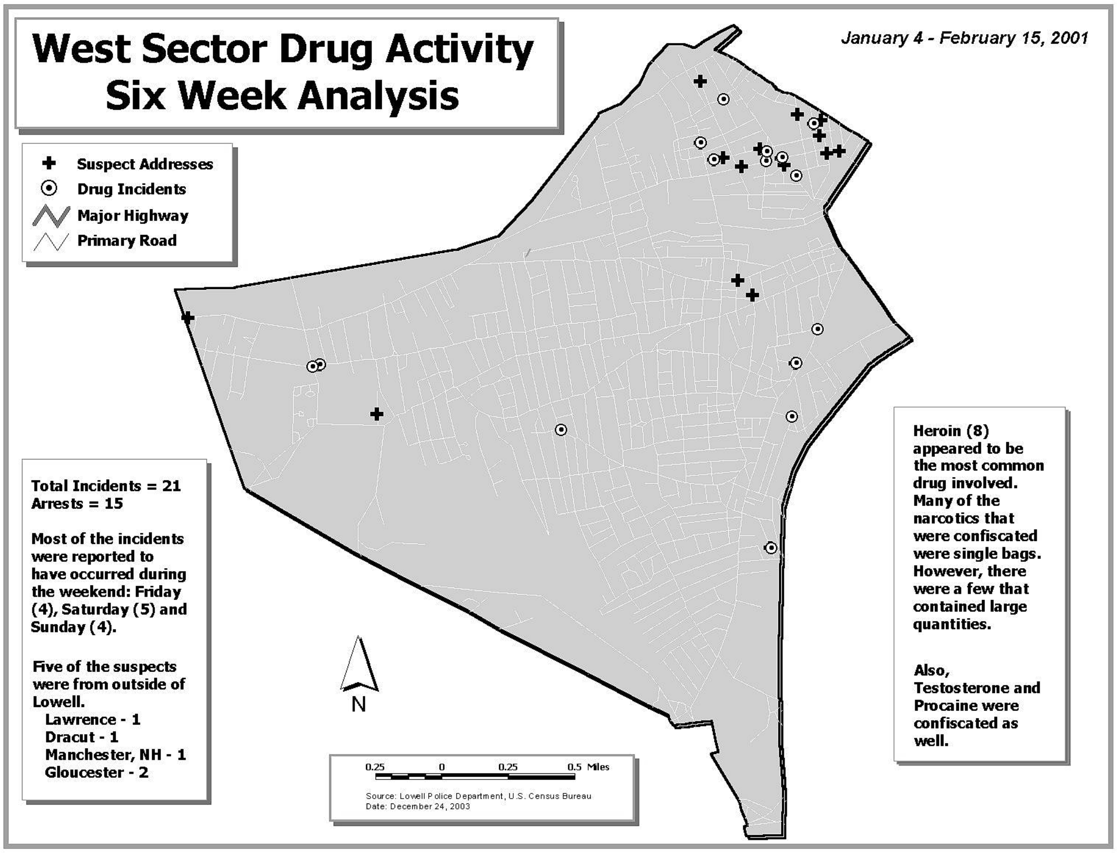
Total Incidents = 58
Arrests = 40 or 69%

Close to $15,000 was confiscated

Almost a quarter of all drug incidents involve defendents not from Lowell

Source: Lowell Police Department, U.S. Census Bureau
Date: December 24, 2003

Drug Incidents
Major Highway
Primary Road
Bridge St.
Andover St.
Riverside St.
Westford St.
Chelmsford St.
Lowell Connector
Nesmith St.
Gorham St.
3
495
N
0.25 0 0.25 0.5 0.75 1 Miles



West Sector Drug Activity Six Week Analysis

January 4 - February 15, 2001

Total Incidents = 21
Arrests = 15

Most of the incidents were reported to have occurred during the weekend: Friday (4), Saturday (5) and Sunday (4).

Five of the suspects were from outside of Lowell.
Lawrence - 1
Dracut - 1
Manchester, NH - 1
Gloucester - 2

Heroin (8) appeared to be the most common drug involved. Many of the narcotics that were confiscated were single bags. However, there were a few that contained large quantities.

Also, Testosterone and Procaine were confiscated as well.

Source: Lowell Police Department, U.S. Census Bureau
Date: December 24, 2003

Suspect Addresses
Drug Incidents
Major Highway
Primary Road
N
0.25 0 0.25 0.5 Miles

References

Anderson, David C. 2001. Crime Control by the Numbers. *Ford Foundation Report* (Winter 2001): 5.

Bayley, David H. 1988. Community Policing: A Report from the Devil's Advocate. In *Community Policing: Rhetoric or Reality*, ed. Jack R. Greene and Stephen D. Mastrofski, 225–237. New York: Praeger.

Bluestone, Barry, and Mary Huff Stevenson. 2000. *The Boston Renaissance: Race, Space, and Economic Change in an American Metropolis*. New York: Russell Sage.

Bouza, Tony. 1997. NYPD Blues—Good, Lucky, or Both? *Law Enforcement News*. (January 31): 8, 10.

Bratton, William J. 2001. A cloudy future for policing. *New York Times*, August 3.

Bratton, William J. 1998. *Turnaround: How America's Top Cop Reversed the Crime Epidemic*. With Peter Knobler. New York: Random House.

Crank, J. P. 1989. Civilianization in Small and Medium Police Departments in Illinois, 1973–86. *Justice Quarterly* 8: 170–185.

Eck, John E., and Edward R. Maguire. 2000. Have Changes in Policing Reduced Violent Crime? An Assessment of the Evidence. In *The Crime Drop in America*, ed. Alfred Blumstein and Joel Wallman, 207–265. Cambridge: Cambridge University Press.

Goldstein, Herman. 1979. Improving Policing: A Problem-Oriented Approach. *Crime and Delinquency* 25: 236–238.

Goldstein, Herman. 1990. *Problem-Oriented Policing*. New York: McGraw-Hill.

Gurwitt, Rob. 1998. The Comeback of the Cops. *Governing* (January): 14–19.

Guyot, Dorothy. 1979. Bending Granite: Attempts to Change the Rank Structure of American Police Departments. *Journal of Police Science and Administration* 7: 253–84.

Harcourt, Bernard. 2002. Policing Disorder: Can We Reduce Serious Crime by Punishing Petty Offenses? *The Boston Review* (April/May), *http://bostonreview.mit.edu/BR27.2/harcourt.html*.

Henry, Vincent E. 2002. *The COMPSTAT Paradigm: Management Accountability in Policing, Business and the Public Sector*. Foreword by William J. Bratton. Flushing, NY: Looseleaf Law Publications.

Heskett, James L. 1996. NYPD New. *Harvard Business School Report* no. N9–396–293 (April).

Iven, Chris. 1999. Crime in Lowell continues to plummet. *Lowell Sun*, October 22.

Kelling, George L., and Mark H. Moore. 1988. From Policing to Reform to Community: The Evolving Strategy of Police. In *Community Policing: Rhetoric or Reality*, ed. Jack R. Greene and Stephen D. Mastrofski, 3–25. New York: Praeger.

Kelling, George L., and William H. Sousa. 2001. Do Police Matter? An Analysis of the Impact of New York City's Police Reforms. *Civic Report* no. 22 (December 2001): Center for Civic Innovation at the Manhattan Institute, *http://www.manhattaninstitute.org/cr_22.pdf*.

Lehrer, Eli. 2001. The Police Behind America's Biggest Crime Drop. *American Enterprise* (March), *http://www.findarticles.com/cf_dls/m2185/2_12/71004740/p1/article.jhtml*.

Lowell Sun. 2000. Where's the good news? December 11.

Lowell Sun Online. 2002. Lowell won't tolerate rising crime rate. April 4, *http://www.lowellsun.com/*.

Lyons, William. 1999. *The Politics of Community Policing: Rearranging the Power to Punish*. Ann Arbor: University of Michigan Press.

Manning, Peter. 2001. Theorizing Policing: The Drama and Myth of Crime Control in the NYPD. *Theoretical Criminology* 5 (3): 315–344.

Maple, Jack. 1999. *The Crime Fighter: Putting the Bad Guys Out of Business*. With Chris Mitchell. New York: Doubleday.

Mastrofski, Stephen D. 2002. The Romance of Police Leadership. In *Theoretical Advances in Criminology: Crime & Social Organization*, ed. David Weisburd, and Lawrence W. Sherman, 153–196. New Brunswick: Transaction Publishers.

Mastrofski, Stephen D., and R. Richard Ritti. 2000. Making Sense of Community Policing: A Theory-Based Analysis. *Police Practice* 12: 183–210.

Mastrofski, Stephen D., and R. Wadman. 1991. Personnel and Agency Performance Appraisal. In *Local Government Police Management*, ed.

W.A. Geller, 363–397. Washington, DC: International City Management Association.

Mastrofski, Stephen D., R. Ritti, and D. Hoffmaster. 1987. Organizational Determinants of Police Discretion: The Case of Drinking and Driving. *Journal of Criminal Justice* 15 (5): 387–402.

McDonald, Phyllis, Sheldon Greenberg, and William J. Bratton. 2001. *Managing Police Operations: Implementing the NYPD Crime Control Model Using COMPSTAT.* Belmont, CA: Wadsworth Press.

Parks, R. B., Stephen D. Mastrofski, A. J. Reiss, Jr., R. E. Worden, W. C. Terrill, C. DeJong, M. Stroshine, and R. Shepard. 1998. *St. Petersburg Project on Policing Neighborhoods: A Study of the Police and the Community*. Report to the National Institute of Justice. Bloomington, IN: Indiana University.

Reiss, Albert J., Jr. 1992. Police Organization in the Twentieth Century. In *Modern Policing*, ed. Michael Tonry and Norval Morris, 11–97. Chicago: University of Chicago Press.

Scott, Christopher. 2002. Councilors' ire rises with crime. *Lowell Sun Online,* April 10, *http://www.lowellsun.com/.*

Sherman, Lawrence W., and David Weisburd. 1995. General Deterrent Effects of Police Patrol in Crime 'Hot Spots': A Randomized Controlled Trial. *Justice Quarterly* 12: 625–648.

Sherman, Lawrence W. 1998. *Evidence-Based Policing*. Ideas in American Policing. The Police Foundation: Washington, DC, *http://www.policefoundation.org/pdf/Sherman.pdf.*

Silverman, Eli B. 1999. *NYPD Battles Crime: Innovative Strategies in Policing*. Boston, MA: Northeastern University Press.

Simons, Robert. 1995. Control in an Age of Empowerment. *Harvard Business Review* 72 (2): 80–88.

Skruck, Jeff. 2002. Lowell chief wins award from police association. *Lowell Sun*, May 13.

Sparrow, M., M. Moore, and D. Kennedy. 1990. *Beyond 911: A New Era for Policing*. New York: Basic Books.

Thacher, David. 1998. National COPS Evaluation Organizational Change Case Study: Lowell, Massachusetts. Unpublished Manuscript, Harvard University, John F. Kennedy School of Government, Program in Criminal Justice Policy and Management, *http://www.ncjrs.org/nij/cops_casestudy/lowell4.html.*

U.S. Census Bureau. 2002. United States Census 2000, *http://www.census.gov/main/www/cen2000.html.*

U.S. Department of Justice, Federal Bureau of Investigation. 2001. *Crime in the United States 2000*. Washington, DC: U.S. Government Printing Office.

U.S. Department of Justice. 1994. Violent Crime Control and Law Enforcement Act of 1994, U.S. Department of Justice Fact Sheet, *http://www.ncjrs.org/txtfiles/billfs.txt.*

U.S. National Agricultural Library 1998. Compstat: A Crime Reduction Management Tool, *http://www.nalusda.gov/pavnet/iag/cecompst.htm.*

Walsh, William. 2001. Compstat: An Analysis of an Emerging Police Paradigm. *Policing: An International Journal of Police Management and Strategies* 24 (3): 347–362.

Weisburd, David, and Anthony Braga. 2003. Hot Spots Policing. In *Crime Prevention: New Approaches*, ed. Helmut Kury and Joachim Obergfell-Fuchs, 337–355. Mainz, Germany: Weisser-Ring.

Weisburd, David, Stephen Mastrofski, Ann Marie McNally, Rosann Greenspan, and James Willis. 2003. Reforming to Preserve: Compstat and Strategic Problem Solving in American Policing. *Criminology and Public Policy* 2 (3): 421–456.

Weisburd, David, Stephen D. Mastrofski, Ann Marie McNally, and Rosann Greenspan. 2001. Compstat and Organizational Change: Findings from a National Survey. Report submitted to the National Institute of Justice by the Police Foundation.

Willis, James, Stephen D. Mastrofski, David Weisburd, and Rosann Greenspan. Forth. *Compstat and Organizational Change: Intensive Site Visits Report*.

Wilson, James Q., and George L. Kelling. 1982. Broken Windows: The Police and Neighborhood Safety. *Atlantic Monthly* (March): 29–38.

Wilson O.W., and R. C. McLaren. 1972. *Police Administration*. 3d ed. New York: McGraw-Hill.

Authors

James J. Willis is Assistant Professor of Sociology at the University of Massachusetts-Boston. His research focuses on the impact of reforms and technological innovations on police organization and practice. His other research area is punishment and penal history.

Stephen D. Mastrofski is Professor of Public and International Affairs at George Mason University and Director of the Administration of Justice Program and the Center for Justice Leadership and Management. His research focuses on police and police organizations.

David Weisburd is Professor of Criminology at the Hebrew University Law School in Jerusalem, and Professor of Criminology and Criminal Justice at the University of Maryland, College Park. He is also a Senior Fellow at the Police Foundation and Chair of its Research Advisory Committee.

Rosann Greenspan is Associate Director, Center for the Study of Law and Society at the University of California at Berkeley and Lecturer in Residence, Boalt Hall School of Law. She was research director at the Police Foundation from 1997–2000.