UNC SCHOOL OF GOVERNMENT

PUBLIC MANAGEMENT BULLETIN NO. 21 | APRIL 2021

# Drivers of Innovation: Environmental Stress and External Pressures

Obed Pasha and Kim Nelson

CONTENTS



## Introduction

Unprecedented environmental transformation during the 2020 pandemic has forced public organizations be innovative at very short notice. Local governments in North Carolina had to change the way they provided services to citizens, rethink their internal systems, and adopt new policies and systems. In this bulletin, we focus on how and to what extent environmental stress contributes to innovation adoption, and what lessons can be learned by local governments. We use the example of adopting CompStat, a popular innovation in policing, from 2000 to 2013. Although our example does not include the 2020 pandemic, this study does offer guidance on innovation adoption during periods of environmental stress.

Obed Pasha is an assistant professor of public management at the School of Government. He specializes in performance management and strategic planning.

Kim Nelson is a professor of public administration at the School of Government, specializing in local government management and public-sector leadership.

This bulletin is based on earlier research that was published in Obed Pasha, "Does Substandard Performance Encourage Innovation Adoption?" *The American Review of Public Administration* 49, no. 5 (July 2019): 572–84.

Innovations are ideas, practices, or concepts intended to help organizations improve performance and clarify the available means of achieving their desired outcomes. Innovations need not be completely novel inventions, but they are new to the organization and typically require some contextual adaptation to work well in that organization.[1] In government, most innovations are new to an organization but not new to government overall. Local governments are increasingly tasked with doing more with less: even when experiencing declining revenues, many local governments continue to offer the same level of services. One solution is to find ways to be more innovative or creative in doing the work of local government.

Research suggests that organizations that adopt innovations earlier than others outperform their counterparts.[2] As organizations experience success with an innovation, other organizations learn about that success and attempt to replicate it in their organization. Eventually, the innovation is widely used. This process of successive adoptions of innovations is called *diffusion* of innovation.[3] There has been limited research on what factors are related to adopting innovations early. Gaining a better understanding of what leads to earlier adoption may help organizations better prepare for being early adopters. This bulletin uses research conducted on the adoption of CompStat in police departments to explore how and why innovations are adopted in local government organizations.

Developed in the mid-1990s by the New York Police Department, CompStat (short for *computer-statistics*) systems map crime to generate hot spots, delegate crime-control authority and accountability to frontline police officers, and relentlessly follow up with the officers to assess their progress.[4] CompStat is thus a performance-management tool that monitors crime incidents at the level of precincts, boroughs, and zones, producing periodic performance reports that show crime statistics by jurisdiction. Police and political leadership review these performance reports in meetings with leadership. In an effort to improve accountability, during these meetings, the zone or precinct commanders explain their progress toward crime reduction in their areas.[5] Police leadership gives the commanders considerable discretion and autonomy to allocate resources and choose tactics. At the same time, it holds the commanders personally and directly responsible for crime reduction (or lack of it).[6] In sum, CompStat is a process innovation that modifies and combines disparate organizational and technological components of law enforcement organizations to improve policing outcomes.[7]

---

1. Everett M. Rogers, *Diffusion of Innovations,* 5th ed. (New York: Free Press, 2003), 12–13.

2. Shaker A. Zahra and Gerard George, "Absorptive Capacity: A Review, Reconceptualization, and Extension," *Academy of Management Review* 27, no. 2 (April 2002): 194–96.

3. Rogers, 5–6.

4. Jon M. Shane, "Performance Management in Police Agencies: A conceptual framework," *Policing: An International Journal of Police Strategies & Management* 33, no. 1 (January 2010): 6–29.

5. David Weisburd and John E. Eck. "What Can Police do to Reduce Crime, Disorder, and Fear?" *The Annals of the American Academy of Political and Social Science* 593, no. 1 (May 2004): 51.

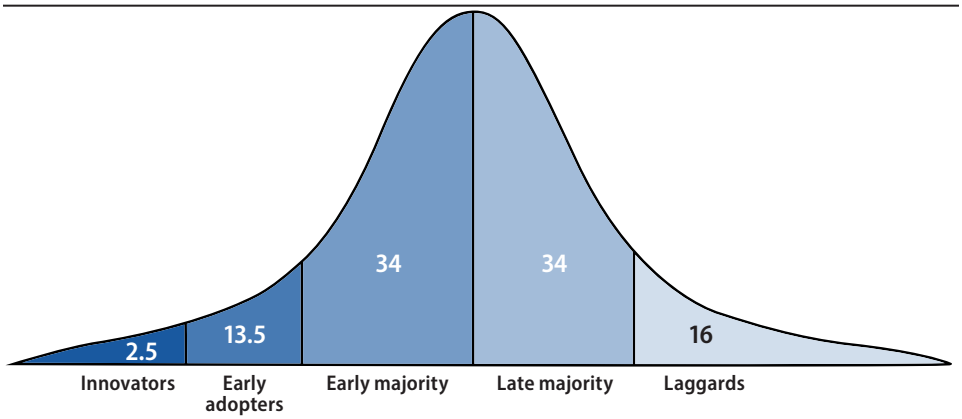
6. William Bratton and Peter Knobler, *Turnaround: How America's Top Cop Reversed the Crime Epidemic* (New York: Random House, 1998); Gennaro F. Vito, William F. Walsh, and Julie Kunselman, "CompStat: The Manager's Perspective," *International Journal of Police Science and Management* 7, no. 3 (Autumn 2005): 188.

7. Robert D. Behn, *The PerformanceStat Potential: A Leadership Strategy for Producing Results* (Washington, DC: Brookings Institution Press, 2014), 9.

## Stages of Innovation Diffusion

Everett Rogers developed the theory of diffusion of innovations in the early 1960s to explain how an idea spread through a social system over time. Diffusion theory has been applied to a host of disciplines and industries. Rogers proposed five categories of adopters based on the timing of adoption: (1) innovators (i.e., earliest adopters), (2) early adopters, (3) early majority, (4) late majority, and (5) laggards. Innovators (the first 2.5 percent of the adopters) are venturesome and take the initial risk with the innovation. The NYPD, where CompStat originated, and large cities such as Chicago and Los Angeles were innovative organizations with regard to adopting CompStat. Early adopters (the next 13.5 percent of the adopters) are well-respected and open to change, but they are not as open to risk as the innovators. The early majority (the next 34 percent of adopters) are more deliberate and careful about the innovation, while the late majority (the next 34 percent of adopters after the early majority) are skeptical and risk averse. Finally, laggards (the last 16 percent of adopters) are suspicious of the innovation and prefer to follow tradition. As Figure 1 illustrates, most adoption occurs in the two middle stages, early and late majority.[8]

**Figure 1. Distribution of Innovation-Adoption Stages (%)**




Reprinted from Everett M. Rogers, *Diffusion of Innovations*, 5th ed. (New York: Free Press, 2003), 281.

CompStat was an established system in criminal justice during the time period our study covers (i.e., 2000 to 2013). Rather than creating a new system, police organizations choosing to adopt the system in our sample were emulating an existing innovation. Since most organizations in the population studied were small and medium-sized police agencies, the adopting organizations in this study would likely fall in the "early majority" and subsequent categories because CompStat systems were first implemented and adopted by larger police organizations.[9] Our research shows that almost half (48 percent) of the police departments we surveyed in 2013 had adopted CompStat or a related system (see table 1). This study thus examines the diffusion of an existing idea rather than its creation.

8. Rogers, 280–85.

9. Weisburd et al., "Reforming to Preserve: Compstat and Strategic Problem Solving in American Policing," *Criminology and Public Policy* 2, no. 3 (July 2003): 430–34.

## CompStat and the Mechanisms of Innovation Adoption

The time it takes for an innovation to become widely adopted varies based on several factors. Kyu-Nahm Jun and Christopher Weare classify these factors using three categories: (1) the characteristics of the individual or organization making the adoption decision, (2) the environmental and social system in which the adoption occurs, and (3) the characteristics of the innovation itself.[10]

### Organizational Characteristics

When considering organizational factors, issues such as the organization's culture, the attitude of leadership and staff toward change, and the organization's risk tolerance can all affect the rate and likelihood of an adoption choice. There have been a host of research studies investigating internal determinants of innovation adoption. Studies by Berman and Kim and by Jacobsen, Hvitved, and Andersen have focused on internal organizational characteristics by examining the role of creativity management and performance management, respectively, in innovation adoption.[11] Research by Bernier, Hafsi, and Deschamps and by Nelson and Svara has found that the type and size of an organization can predict innovation.[12] Kim and Yoon argue that goal-oriented leadership makes organizations more innovative.[13] Other studies have concluded that the characteristics of the innovation itself, such as ease of use, trialability, and perceived advantage, influence the adoption of the innovation.[14] Aside from internal factors that influence diffusion of innovation, external factors may also play a role in whether an organization chooses to adopt an innovation. Research by Carassus, Favoreu, and Gardey; Walker, Berry, and Avellaneda; and Jun and Weare has found external characteristics, such as political influence and environmental complexity, to be strong predictors of innovation.[15]

---

10. Kyu-Nahm Jun and Christopher Weare, "Institutional Motivations in the Adoption of Innovations: The Case of E-government," *Journal of Public Administration Research and Theory* 21, no. 3 (July 2011): 497.

11. Evan M. Berman and Chan-Gon Kim, "Creativity Management in Public Organizations: Jump-Starting Innovation," *Public Performance and Management Review* 33, no. 4 (June 2019): 619–52; Christian Bøtcher Jacobsen, Johan Hvitved, and Lotte Bøgh Andersen, "Command and Motivation: How the Perception of External Interventions Relates to Intrinsic Motivation and Public Service Motivation," *Public Administration* 92, no. 4 (December 2014): 790–806.

12. Luc Bernier, Taïeb Hafsi, and Carl Deschamps, "Environmental Determinants of Public Sector Innovation: A Study of Innovation Awards in Canada," *Public Management Review* 17, no. 6 (June 2015): 834–56; Kimberly L. Nelson and James H. Svara, "Form of Government Still Matters: Fostering Innovation in U.S. Municipal Governments," *The American Review of Public Administration* 42, no. 3 (2012): 257–81.

13. Soonhee Kim and Gyunsoo Yoo, "An Innovation-Driven Culture in Local Government: Do Senior Manager's Transformational Leadership and the Climate for Creativity Matter?" *Public Personnel Management* 44, no. 2 (June 2015): 147–68.

14. Lemuria Carter and France Bélanger, "The Utilization of E-government Services: Citizen Trust, Innovation and Acceptance Factors," *Information Systems Journal* 15, no. 1 (January 2005): 5–25; Fariborz Damanpour and Marguerite Schneider, "Phases of the Adoption of Innovation in Organizations: Effects of Environment, Organization and Top Managers," *British Journal of Management* 17, no. 3 (2006): 215–36; Evelien Korteland and Victor Bekkers, "The Diffusion of Electronic Service Delivery Innovations in Dutch E-policing: The Case of Digital Warning Systems," *Public Management Review* 10, no. 1 (January 2008): 71–88.

15. David Carassus, Christophe Favoreu, and Damien Gardey, "Factors that Determine or Influence Managerial Innovation in Public Contexts: The Case of Local Performance Management," *Public*

### Environmental Factors

In the public sector, politics often play a significant role. This may be in the form of public pressure to improve services, a desire to "keep up with the Joneses," or demands by elected officials for management responsiveness to their goals. Innovations are also more likely to be adopted when they make sense from a rational perspective. In other words, when management is seeking methods for improving performance, it may evaluate multiple options. If the innovation appears to be the best of those multiple options, it is more likely to be adopted by the organization.

CompStat owes much of its popularity to media coverage of New York City's significant decline in crime rates during the 1990s after its implementation. Bill Bratton, the former NYPD chief of police, rose to national prominence as a pioneering leader using an innovative system to win the war against crime.[16] Regardless of whether CompStat was truly responsible for this reduction in crime, some experts consider it to be the most important innovation "in policing during the latter half of the 20th century."[17] Within five years of CompStat's implementation by the NYPD, a survey of large police departments showed that more than half of the departments in the sample either had already adopted CompStat or were planning to.[18] This rapid implementation was partially aided by the migration of many NYPD police commanders to other cities, like Miami, Los Angeles, and Philadelphia, to lead the process of CompStat adoption in those cities.[19] Some researchers suggest that this type of diffusion of innovation may be occurring due to the public attention given to the new tool.[20]

### Characteristics of the Innovation Itself

Other significant factors in its rapid adoption were the organizational, political, and social aspects of the innovation itself. Mark Moore describes CompStat as a technological innovation that uses geographic-information-system technology to replace pins on maps and uses computer-generated reports in place of phone calls to police leadership to share periodic crime statistics. So, although CompStat brings substantial technological and behavioral changes, it does not challenge the traditional function, mission, or goals of policing.[21] In fact, CompStat reinforces traditional methods of crime reduction such as preventive patrol and aggressive/reactive response to crime, which are consistent with the paramilitary organizational orientation

---

*Organization Review* 14, no. 2 (June 2014): 245–66; Richard M. Walker, Frances S. Berry, and Claudia N. Avellaneda, "Limits on Innovativeness in Local Government: Examining Capacity, Complexity, and Dynamism in Organizational Task Environments," *Public Administration* 93, no. 3 (September 2015): 663–83; Jun and Weare.

16. See, for example, the cover of *Time* magazine, January 15, 1996, http://content.time.com/time/covers/0,16641,19960115,00.html.

17. George L. Kelling and William H. Sousa Jr., *Do Police Matter? An Analysis of the Impact of New York City's Police Reforms*, Civic Report 22 (New York: Center for Civic Innovation, 2001), 2.

18. Weisburd et al., 430–34.

19. Heather Mac Donald, "The NYPD Diaspora," *City Journal*, Summer 2008, http://www.city-journal.org/html/nypd-diaspora-13097.html.

20. James J. Willis, Stephen D. Mastrofski, and David Weisburd. "Making Sense of COMPSTAT: A Theory-Based Analysis of Organizational Change in Three Police Departments," *Law and Society Review* 41, no. 1 (2007): 147–188.

21. Mark H. Moore, "Sizing up COMPSTAT: An Important Administrative Innovation in Policing," *Criminology and Public Policy* 2, no. 3 (July 2003): 473–74, 478–79.

of policing.[22] As with other organizations, police departments encounter less resistance from management and staff in adopting a system that is easy to understand, conforms to their existing ideals of their work, and combines established management practices that they trust and are already familiar with.[23] Studies of other types of innovation have added support for these ideas, finding that organizational culture and ideology are related to propensity to adopt an innovation.[24]

## Innovation Adoption as a Response to Environmental Stress

The relationship between past organizational performance and innovation adoption is complex and not thoroughly understood. Early innovation adopters are well-respected in most social systems. They are the leaders and top performers in the field, serving as role models for others.[25] Building upon their previous knowledge and practices, early adopting organizations are thought by researchers to be well-networked and forward-looking organizations that implement innovations, mitigate future threats, and benefit from imminent changes in their environment.[26] Such organizations are more likely than others to generate organizational slack, and their stakeholders are more likely to trust the leadership to try new ventures.[27] Organizational leaders have the ability to frame innovations as opportunities to the stakeholders and hence adopt them more readily.[28] In contrast, it is more difficult for organizations struggling with inferior performance to think beyond their immediate needs. The day-to-day stress and firefighting can diminish managers' capacity and motivation, reducing their likelihood of adopting innovative practices.[29]

---

22. See Brenda J. Bond and Anthony A. Braga. "Rethinking the Compstat Process to Enhance Problem-Solving Responses: Insights from a Randomized Field Experiment," *Police Practice and Research* 16, no. 1 (January 2015): 22–35.

23. John R. Firman, "Deconstructing CompStat to Clarify Its Intent," *Criminology and Public Policy* 2, no. 3 (July 2003): 457–58. Rogers identifies perceived complexity and perceived compatibility with existing values as attributes that can influence an innovation's diffusion (15–16).

24. See, for example, Sandford Borins, "Encouraging Innovation in the Public Sector," *Journal of Intellectual Capital* 2, no. 3 (2001): 310–19; Liang Ma, "Political Ideology, Social Capital, and Government Innovativeness: Evidence from the US States," *Public Management Review* 19, no. 2 (March 2008): 114–33; Naresh Kumar and Raduan Che Rose, "The Impact of Knowledge Sharing and Islamic Work Ethic on Innovation Capability," *Cross Cultural Management: An International Journal* 19, no. 2 (April 2012): 142–65.

25. Rogers, 283.

26. Damanpour and Schneider, "Phases of the Adoption of Innovation," 215–36; Wesley M. Cohen and Daniel A. Levinthal, "Absorptive Capacity: A New Perspective on Learning and Innovation," *Administrative Science Quarterly* 35, no. 1 (March 1990): 128–52.

27. Francis E. Bowen, Mahdi Rostami, and Piers Steel, "Timing Is Everything: A Meta-analysis of the Relationships between Organizational Performance and Innovation," *Journal of Business Research* 63, no. 11 (November 2010): 1180.

28. Jane E. Dutton and Susan E. Jackson, "Categorizing Strategic Issues: Links to Organizational Action," *Academy of Management Review* 12, no. 1 (January 1987): 85–87.

29. Barry M. Staw, Lance E. Sandelands, and Jane E. Dutton, "Threat Rigidity Effects in Organizational Behavior: A Multilevel Analysis," *Administrative Science Quarterly* 26, no. 4 (December 1981): 501–24; Mark A. Mone, William McKinley, and Vincent L. Barker III, "Organizational Decline and Innovation: A Contingency Framework," *Academy of Management Review* 23, no. 1 (January 1998): 115–32.

Other scholars propose just the opposite. Studies by Michele Bolton and by Sarah Kiesler and Lee Sproul argue that substandard performance *stimulates* the adoption of innovations because organizations are more likely to take risks when confronted with challenges and performance issues. Such organizations are thus open to taking risks with new methodologies and tools to mitigate trouble.[30] Organizations with deteriorating or lower-than-expected performance are more likely to search for existing strategies within the industry and elsewhere to deal with their environmental complexities, stakeholder pressures, and internal structural problems.[31] In contrast, well-performing organizations are more likely to be risk averse since they do not have the pressure or need to implement change.[32]

Cognitively speaking, the gains from an innovation may be more salient than the losses for leaders of organizations operating under stress, resulting in a higher tolerance for risky innovations.[33] Such leaders and managers pin their hopes on these innovations, expecting them to help avoid further performance deterioration.[34] On the other hand, organizations operating in a stable environment and with superior performance have scant reason to amend existing procedures and structures that serve them well in sustaining satisfactory performance.[35]

Poorly performing organizations in the public sector also face increased pressure due to negativity bias from the community. Research has shown that citizens and politicians are more likely to assign causal responsibilities when the outcomes are not satisfactory, compared to assigning responsibility when the outcomes meet their expectations.[36] External stakeholders are more likely to assail public leaders and managers when performance is substandard than they are to applaud them when performance is exceptional.[37] Such accountability pressures may not always be justified since the external environment or deep-standing internal issues might not be entirely under the control of the managers being held responsible.[38] For example, crime statistics

30. Michele Kremen Bolton, "Organizational Innovation and Substandard Performance: When Is Necessity the Mother of Innovation?" *Organization Science* 4, no. 1 (February 1993): 57–75; Sara Kiesler and Lee Sproull, "Managerial Response to Changing Environments: Perspectives on Problem Sensing from Social Cognition," *Administrative Science Quarterly* 27, no. 4 (December 1982): 548–70.

31. Oliver E. Williamson and William G. Ouchi, "The Markets and Hierarchies and Visible Hand Perspectives," in *Perspectives on Organizational Design and Behavior*, ed. Andrew H. Van de Ven and William F. Joyce (New York: John Wiley and Sons, 1981), 347–70.

32. Edward H. Bowman, "Risk Seeking by Troubled Firms," *Sloan Management Review* 23, no. 4 (Summer 1982): 33–42; Jitendra V. Singh, "Performance, Slack, and Risk Taking in Organizational Decision Making," *Academy of Management Journal* 29, no. 3 (September 1986): 562–85.

33. Bowen, Rostami, and Steel, 1179–85; Daniel Kahneman and Amos Tversky, "On the Interpretation of Intuitive Probability: A Reply to Jonathan Cohen," *Cognition* 7, no. 4 (1979): 409–11.

34. Kent D. Miller and Wei-Ru Chen, "Variable Organizational Risk Preferences: Tests of the March-Shapira Model," *Academy of Management Journal* 47, no. 1 (February 2004): 105–15.

35. Henrich R. Greve, "A Behavioral Theory of R&D Expenditures and Innovations: Evidence from Shipbuilding," *Academy of Management Journal* 46, no. 6 (December 2003): 685–702.

36. Poul A. Nielsen and Donald P. Moynihan, "Romanticizing Bureaucratic Leadership? The Politics of How Elected Officials Attribute Responsibility for Performance," *Governance* 30, no. 4 (2016): 541–59.

37. R. Kent Weaver, "The Politics of Blame Avoidance," *Journal of Public Policy* 6, no. 4 (October–December 1986): 371–98; Christopher Hood, "Blame Avoidance and Accountability: Positive, Negative, or Neutral?" in *Accountable Governance: Problems and Promises*, ed. Melvin J. Dubnick and H. George Frederickson (London: Routledge, 2015), 167–79.

38. See Kevin Arceneaux, "The Federal Face of Voting: Are Elected Officials Held Accountable for the Functions Relevant to Their Office?" *Political Psychology* 27, no. 5 (October 2006): 731–54.

are a product of myriad complex and interrelated factors, such as abortion rates, unemployment, social inequalities, and racial segregation, which police leadership cannot control.[39] When faced with such unjustified external pressure, organizational leadership often adopts innovation to communicate its willingness to do whatever it can to rectify performance issues. An innovation in such a case may become a communication tool rather than a tool to enhance performance.

## Methodology and Results

We set up this study to bring evidence to these competing perspectives. We seek to find out whether innovations are more likely to be adopted by high-performing organizations or by organizations operating under stress. To answer this question, we collected data from a survey of 1,000 randomly selected city police departments from the U.S. Uniform Crime Reporting (UCR) database. We selected small to medium-sized cities, with populations ranging from 10,000 to 300,000, because most existing research on CompStat pertains to larger cities, due to its origins in the NYPD. Small and medium departments not only face different organizational and environmental realities than large departments but also are more representative of the population as a whole.

We sent an email survey to police chiefs between October and November 2013, asking about the years when they adopted CompStat. The survey asked respondents when their departments adopted CompStat or a related performance-management system. Four hundred fourteen police chiefs responded to the survey (a response rate of 41.4 percent), but the final sample size stood at 362 after removing the cases with missing values or unreported crime statistics in the UCR database. The earliest adopters in the sample started using CompStat more than eleven years before the survey, while the latest adopters started using CompStat one to two years before the survey (see table 1). More than half (52 percent) of the surveyed police departments did not use CompStat in any form.

**Table 1. Frequency of Stages of CompStat Adoption**

| Years since initial adoption | Frequency (percent) | Adopter category |
|---|---|---|
| No formal system | 188 (52) | Nonadopters |
| 1–2 | 48 (13) | Latest |
| 3–5 | 59 (16) | Late |
| 6–10 | 47 (13) | Early |
| 11+ | 20 (6) | Earliest |
| **Total** | **362 (100)** | |

*Survey Question:* "We have a formal performance management system (for example, CompStat, CitiStat, CODEFOR, or any other such system) established at our agency that has been operating since . . ."

39. Alfred Blumstein and Richard Rosenfeld, "Factors Contributing to U.S. Crime Trends," in *Understanding Crime Trends: Workshop Report*, ed. Richard Rosenfeld and Arthur S. Goldberger (Washington, DC: National Academies Press, 2008), 13–43.

We used the UCR database to determine crime incidents per 100,000 people. The higher the crime rate, the poorer the performance, and vice versa. Crime rates are the bottom line of police performance and serve as surrogates for other important policing outcomes, including increasing safety and security in public places and reducing criminal victimization. Other outcomes related to crime rates include calling offenders to account, reducing fear, enhancing personal security, using resources fairly and effectively, and satisfying customer demands.[40] The UCR database allowed us to break crime down into two broad categories: violent crime and property crime. Violent crime represents an aggregate of subcategories, including murder, rape, aggravated assault, and robbery. Property crime represents an aggregate of offenses such as burglary, larceny and theft, motor-vehicle theft, and arson. We employed an event-history regression model in table 2 to consider both the timing and the adoption of CompStat.

**Table 2. Estimated Impact of Factors Leading to the Adoption of CompStat**

| | (1) | (2) | (3) |
|---|---|---|---|
| Violent crime per capita | **1.514* (0.198)** | | **1.504* (0.223)** |
| Property crime per capita | 0.854 (0.174) | | 0.879 (0.198) |
| Population density | | 1.140 (0.149) | 1.077 (0.150) |
| Employees per capita | | 1.275 (0.352) | 1.025 (0.342) |
| Income per capita | | 1.195 (0.345) | 1.648 (0.568) |
| Percent nonwhite | | **1.368* (0.166)** | 1.170 (0.154) |
| Year | **1.571* (0.049)** | **1.541* (0.041)** | **1.576* (0.049)** |
| Agencies | 342 | 342 | 342 |
| Agency fixed effects | Yes | Yes | Yes |
| Pseudo R-squared | 0.12 | 0.13 | 0.12 |

*Note:* All independent variables are transformed using natural log to reduce skew. Coefficients are presented as odds ratios. Standard errors, in parentheses, are clustered by police department. Robust standard errors shown in parentheses.
*p < .01.

The results show that police jurisdictions with higher violent crime are more likely to adopt CompStat. These jurisdictions are also more likely to adopt CompStat earlier than others. The results for property crime are not significant, meaning that departments with high property crime are no more likely than others to adopt CompStat. We know that organizational performance for public agencies or departments is not a unidimensional construct. Public performance is a combination of several distinct yet related concepts such as effectiveness, efficiency, quality, customer service, equity, and social inequalities. Although crime figures represent police-department effectiveness, external stakeholders, like citizens and elected officials, care more about some statistics than others.[41] Violent crime such as murder or assault is likely to carry more weight for external stakeholders than property crime such as burglary

40. Mark H. Moore and Anthony A. Braga, "Measuring and Improving Police Performance: The Lessons of CompStat and Its Progeny," *Policing: An International Journal of Police Strategies and Management* 26, no. 3 (2003): 443–45.

41. Moore and Braga, 439–53.

or theft, so they receive more attention from the media and local citizens.[42] A rise in violent crime thus contributes more to the environmental complexity and pressure for police leadership than a rise in property crime. As a result, police leadership operating in jurisdictions with high violent crime may be more willing to take risks with innovations like CompStat to mitigate a performance crisis.[43]

An innovation-specific factor that contributes to the early and likely adoption of CompStat is its popularity and reputation. Citizen perception of safety and security is not always based on the level of crime. Rather, it is a complex product of memories, reputation, experiences, and media stories.[44] Sometimes police leadership might take popular and visible steps like adopting CompStat to respond to citizens' needs. Other such policies may include increasing personnel visibility after an incident or installing streetlights.[45]

The relationship between poor past performance and the adoption of CompStat may be strengthened by its explicit promise to reduce crime rates, in addition to the popularity of these systems. We can argue that it might even be politically risky for police leadership of a small, struggling agency to not adopt CompStat because of how popular this system is with politicians, scholars, and citizens. CompStat is far from being the only innovation in policing, but it is one of a handful of innovations that explicitly promise a reduction in crime. Police leadership facing environmental pressures due to poor performance in other areas, such as abuse of authority or citizen complaints, might decide to adopt other innovations, such as community-oriented policing, which promises improvement in police-civilian relations.

## Lessons for Local Government Managers

This research on CompStat provides guidance more generally for local government managers seeking to promote innovation in their organizations. The first lesson is that it is always easier to adopt innovations that are more popular in a given political system and are more compatible with the existing traditions of the organization. Such innovations serve as low-hanging fruit when dealing with external pressure. Instead of developing untried and untested innovations, perhaps public managers should look for successful innovations that have worked elsewhere to solve a given issue.

A second lesson about innovation adoption in local government that can be drawn from the CompStat example is that a cookie-cutter approach to innovation adoption is unrealistic. In other words, it is unlikely that an innovative policy, program, or tool can be implemented in one organization by borrowing it wholesale from another organization. Instead, just as CompStat was

42. Rachel Pain, "Gender, Race, Age and Fear in the City," *Urban Studies* 38, nos. 5–6 (May 2001): 899–913.

43. Jun and Weare, 495–519.

44. For some examples of how these influences on perception of safety and security can operate, see Hille Koskela, "'Bold Walk and Breakings': Women's Spatial Confidence versus Fear of Violence," *Gender, Place and Culture: A Journal of Feminist Geography* 4, no. 3 (1997): 301–19; Hille Koskela and Rachel Pain, "Revisiting Fear and Place: Women's Fear of Attack and the Built Environment," *Geoforum* 31, no. 2 (May 2001): 269–280.

45. Sunghoon Roh and Willard M. Oliver, "Effects of Community Policing upon Fear of Crime: Understanding the Causal Linkage," *Policing: An International Journal of Police Strategies and Management* 28, no. 4 (October 2005): 670–83.

customized to fit the law enforcement culture and needs of each organization, so too must any innovation be customized to be successful.

Third, given that a local government is an inherently political system, it is important for local government managers to consider the various stakeholders who can influence the innovation-adoption process. If the press or the public believe an innovation to be overly risky, they may object to its adoption. In these cases, educating the public about the benefits and risks associated with the adoption becomes critically important.

Finally, factors related to CompStat may also play a role in the feasibility of adopting other types of innovations. As an increasing violent-crime rate may push a police organization into seeking creative ways to solve the problem, so might economic stress or a major environmental shift (such as a pandemic) provide greater incentives for change. In these cases, elected officials and other stakeholders may be more accepting of risk in order to successfully adapt to these changes.

The year 2020 was one of immense change for local governments. Innovation was not optional. Local governments had to reconfigure their human-resource systems, reconfigure their buildings, and rethink some fundamental aspects of service provision. Most local governments faced significant resource constraints but still had to implement new policies, systems, and procedures. So, while this research on CompStat did not focus on the relationship between innovation adoption and fiscal constraints, the COVID-19 pandemic has demonstrated that local governments will find ways to innovate when they need to.

## Bibliography

Arceneaux, Kevin. "The Federal Face of Voting: Are Elected Officials Held Accountable for the Functions Relevant to Their Office?" *Political Psychology* 27, no. 5 (October 2006): 731–54.

Behn, Robert D. *The PerformanceStat Potential: A Leadership Strategy for Producing Results.* Washington, DC: Brookings Institution Press, 2014.

Berman, Evan M., and Chan-Gon Kim. "Creativity Management in Public Organizations: Jump-Starting Innovation." *Public Performance and Management Review* 33, no. 4 (June 2019): 619–52.

Bernier, Luc, Taïeb Hafsi, and Carl Deschamps. "Environmental Determinants of Public Sector Innovation: A Study of Innovation Awards in Canada." *Public Management Review* 17, no. 6 (June 2015): 834–56.

Blumstein, Alfred, and Richard Rosenfeld. "Factors Contributing to U.S. Crime Trends." In *Understanding Crime Trends: Workshop Report*, edited by Richard Rosenfeld and Arthur S. Goldberger, 13–43. Washington, DC: National Academies Press, 2008.

Bolton, Michele Kremen. "Organizational Innovation and Substandard Performance: When Is Necessity the Mother of Innovation?" *Organization Science* 4, no. 1 (February 1993): 57–75.

Bond, Brenda J., and Anthony A. Braga. "Rethinking the Compstat Process to Enhance Problem-Solving Responses: Insights from a Randomized Field Experiment." *Police Practice and Research* 16, no. 1 (January 2015): 22–35.

Borins, Sandford. "Encouraging Innovation in the Public Sector." *Journal of Intellectual Capital* 2, no. 3 (2001): 310–19.

Bowen, Francis E., Mahdi Rostami, and Piers Steel. "Timing Is Everything: A Meta-analysis of the Relationships between Organizational Performance and Innovation." *Journal of Business Research* 63, no. 11 (November 2010): 1179–85.

Bowman, Edward H. "Risk Seeking by Troubled Firms." *Sloan Management Review* 23, no. 4 (Summer 1982): 33–42.

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

Carassus, David, Christophe Favoreu, and Damien Gardey. "Factors that Determine or Influence Managerial Innovation in Public Contexts: The Case of Local Performance Management." *Public Organization Review* 14, no. 2 (June 2014): 245–66.

Carter, Lemuria, and France Bélanger. "The Utilization of E-government Services: Citizen Trust, Innovation and Acceptance Factors." *Information Systems Journal* 15, no. 1 (January 2005): 5–25.

Cohen, Wesley M., and Daniel A. Levinthal. "Absorptive Capacity: A New Perspective on Learning and Innovation." *Administrative Science Quarterly* 35, no. 1 (March 1990): 128–52.

Damanpour, Fariborz, and Marguerite Schneider. "Phases of the Adoption of Innovation in Organizations: Effects of Environment, Organization and Top Managers." *British Journal of Management* 17, no. 3 (2006): 215–36.

———. "Characteristics of Innovation and Innovation Adoption in Public Organizations: Assessing the Role of Managers." *Journal of Public Administration Research and Theory* 19, no. 3 (July 2009): 495–522.

Dutton, Jane E., and Susan E. Jackson. "Categorizing Strategic Issues: Links to Organizational Action." *Academy of Management Review* 12, no. 1 (January 1987): 76–90.

Firman, John R. "Deconstructing CompStat to Clarify Its Intent." *Criminology and Public Policy* 2, no. 3 (July 2003): 457–60.

Greve, Henrich R. "A Behavioral Theory of R&D Expenditures and Innovations: Evidence from Shipbuilding." *Academy of Management Journal* 46, no. 6 (December 2003): 685–702.
Hood, Christopher. "Blame Avoidance and Accountability: Positive, Negative, or Neutral?" In *Accountable Governance: Problems and Promises*, edited by Melvin J. Dubnick and H. George Frederickson, 167–79. London: Routledge, 2015.
Jacobsen, Christian Bøtcher, Johan Hvitved, and Lotte Bøgh Andersen. "Command and Motivation: How the Perception of External Interventions Relates to Intrinsic Motivation and Public Service Motivation." *Public Administration* 92, no. 4 (2014): 790-806.
Jun, Kyu-Nahm, and Christopher Weare. "Institutional Motivations in the Adoption of Innovations: The Case of E-government." *Journal of Public Administration Research and Theory* 21, no. 3 (July 2011): 495–519.
Kahneman, Daniel, and Amos Tversky. "On the Interpretation of Intuitive Probability: A Reply to Jonathan Cohen." *Cognition* 7, no. 4 (1979): 409–11.
Kelling, George L. and William H. Sousa Jr. *Do Police Matter? An Analysis of the Impact of New York City's Police Reforms*. Civic Report 22. New York: Center for Civic Innovation, 2001.
Kiesler, Sara, and Lee Sproull. "Managerial Response to Changing Environments: Perspectives on Problem Sensing from Social Cognition." *Administrative Science Quarterly* 27, no. 4 (December 1982): 548–70.
Kim, Soonhee, and Gyunsoo Yoon. "An Innovation-Driven Culture in Local Government: Do Senior Manager's Transformational Leadership and the Climate for Creativity Matter?" *Public Personnel Management* 44, no. 2 (June 2015): 147–68.
Korteland, Evelien, and Victor Bekkers. "The Diffusion of Electronic Service Delivery Innovations in Dutch E-policing: The Case of Digital Warning Systems." *Public Management Review* 10, no. 1 (January 2008): 71–88.
Koskela, Hille. "'Bold Walk and Breakings': Women's Spatial Confidence versus Fear of Violence." *Gender, Place and Culture: A Journal of Feminist Geography* 4, no. 3 (1997): 301–19.
Koskela, Hille and Rachel Pain. "Revisiting Fear and Place: Women's Fear of Attack and the Built Environment." *Geoforum* 31, no. 2 (May 2001): 269–80.
Kumar, Naresh, and Raduan Che Rose. "The Impact of Knowledge Sharing and Islamic Work Ethic on Innovation Capability." *Cross Cultural Management: An International Journal* 19, no. 2 (April 2012): 142–65.
Lundblad, Jennifer P. "A Review and Critique of Rogers' Diffusion of Innovation Theory as It Applies to Organizations." *Organization Development Journal* 21, no. 4 (Winter 2003): 50–64.
Ma, Liang. "Political Ideology, Social Capital, and Government Innovativeness: Evidence from the US States." *Public Management Review* 19, no. 2 (March 2008): 114–33.
Mac Donald, Heather. "The NYPD Diaspora." *City Journal*, Summer 2008. http://www.city-journal.org/html/nypd-diaspora-13097.html.
Miles, Robert H., and Kim S. Cameron. *Coffin Nails and Corporate Strategies*. Englewood Cliffs, NJ: Prentice Hall, 1982.
Miller, Kent D., and Wei-Ru Chen. "Variable Organizational Risk Preferences: Tests of the March-Shapira Model," *Academy of Management Journal* 47, no. 1 (February 2004): 105–15.
Mone, Mark A., William McKinley, and Vincent L. Barker III. "Organizational Decline and Innovation: A Contingency Framework." *Academy of Management Review* 23, no. 1 (January 1998): 115–32.
Moore, Mark H. "Sizing up COMPSTAT: An Important Administrative Innovation in Policing." *Criminology and Public Policy* 2, no. 3 (July 2003): 469–94.

Moore, Mark H. and Anthony A. Braga. "Measuring and Improving Police Performance: The Lessons of CompStat and Its Progeny." *Policing: An International Journal of Police Strategies and Management* 26, no. 3 (2003): 439–53.
Nelson, Kimberly L. and James H. Svara. "Form of Government Still Matters: Fostering Innovation in U.S. Municipal Governments." *The American Review of Public Administration* 42, no. 3 (2012): 257–81.
Nielsen, Poul A., and Donald P. Moynihan. "Romanticizing Bureaucratic Leadership? The Politics of How Elected Officials Attribute Responsibility for Performance." *Governance* 30, no. 4 (2016): 541–59.
Pain, Rachel. "Gender, Race, Age and Fear in the City." *Urban Studies* 38, no. 5–5 (May 2001): 899–913.
Rogers, Everett M. *Diffusion of Innovations*. 5th ed. New York: Free Press, 2003.
Roh, Sunghoon and Willard M. Oliver. "Effects of Community Policing upon Fear of Crime: Understanding the Causal Linkage." *Policing: An International Journal of Police Strategies and Management* 28, no. 4 (October 2005): 670–83.
Shane, Jon M. "Performance Management in Police Agencies: A conceptual framework." *Policing: An International Journal of Police Strategies & Management* 33, no. 1 (January 2010): 6–29.
Singh, Jitendra V. "Performance, Slack, and Risk Taking in Organizational Decision Making." *Academy of Management Journal* 29, no. 3 (September 1986): 562–85.
Staw, Barry M., Lance E. Sandelands, and Jane E. Dutton. "Threat Rigidity Effects in Organizational Behavior: A Multilevel Analysis." *Administrative Science Quarterly* 26, no. 4 (December 1981): 501–24.
Vito, Gennaro F., William F. Walsh, and Julie Kunselman. "CompStat: The Manager's Perspective." *International Journal of Police Science and Management* 7, no. 3 (Autumn 2005): 187–96.
Walker, Richard M., Frances S. Berry, and Claudia N. Avellaneda. "Limits on Innovativeness in Local Government: Examining Capacity, Complexity, and Dynamism in Organizational Task Environments." *Public Administration* 93, no. 3 (September 2015): 663–83.
Weaver, R. Kent. "The Politics of Blame Avoidance." *Journal of Public Policy* 6, no. 4 (October–December 1986): 371–98.
Weisburd, David, and John E. Eck. "What Can Police do to Reduce Crime, Disorder, and Fear?" *The Annals of the American Academy of Political and Social Science* 593, no. 1 (May 2004): 42–65.
Weisburd, David, Stephen D. Mastrofski, Ann Marie McNally, Rosann Greenspan, and James J. Willis. "Reforming to Preserve: Compstat and Strategic Problem Solving in American Policing." *Criminology and Public Policy* 2, no. 3 (July 2003): 421–56.
Williamson, Oliver E., and William G. Ouchi. "The Markets and Hierarchies and Visible Hand Perspectives." In *Perspectives on Organizational Design and Behavior*, edited by Andrew H. Van de Ven and William F. Joyce, 347–70. New York: John Wiley and Sons, 1981.
Willis, James J., Stephen D. Mastrofski, and David Weisburd. "Making Sense of COMPSTAT: A Theory-Based Analysis of Organizational Change in Three Police Departments." *Law & Society Review* 41, no. 1 (2007): 147–88.
Zahra, Shaker A., and Gerard George. "Absorptive Capacity: A Review, Reconceptualization, and Extension." *Academy of Management Review* 27, no. 2 (April 2002): 185–203.