

Testing How Management Matters in an Era of Government by Performance Management

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ABSTRACT

Public administration finds itself in an era of government by performance management, which is reflected in the widespread assumption that management is a key determinant of performance, and that it is reasonable to expect managers to measurably improve organizational effectiveness. This article joins a growing literature in seeking to conceptualize and empirically test how external environmental influences and internal management factors combine to create performance, relying on data from the 2002–2003 National Administrative Studies Project (NASP-II) survey of state government health and human services officials. We categorize managerial efforts to facilitate organizational performance as determined either through their interactions with the organizational environment, or through employing workable levers to change internal organizational culture, structure, and technology. Among the external environmental variables we find that the support of elected officials and the influence of the public and media have a positive impact on effectiveness. Among internal management choices, the ability to create a developmental organizational culture, establish a focus on results through goal clarity, and decentralize decision-making authority are all positively associated with organizational effectiveness.

AN ERA OF GOVERNMENT BY PERFORMANCE MANAGEMENT

Frederick Mosher's *Democracy and the Public Service* (1982) characterizes the history of public administration in the United States as falling into different eras. He portrays the twentieth century as dominated by two phases: government by the efficient (1906–1937),

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and government by managers (the post-1937 era). The era of government by the efficient treated administration as a science led by the goal of efficiency: the best management system was that which most efficiently performed a specific task (Taylor 1919; Wilson 1887). The era of government by managers placed greater emphasis on management expertise and generic management principles. It recognized that public management was usually more complex than simple time and motion studies allowed. In theory, the application of the generic principles raised government performance. However, such approaches were largely untested or made contingent on context, allowing Simon (1946) to characterize them as “proverbs” rather than principles.

Mosher’s historical account of public administration in America, thoroughgoing in most respects, did not recognize the trends that were only beginning to emerge when the last edition of the book was published in 1982. One of these emergent trends was an emphasis on outcomes and performance, giving birth to a new management era in the public sector: that of government by performance management. This era reflects a fusion between the key values of the previous two, efficiency—now redefined more broadly as performance—and management. The expectation of this era is that the public sector demonstrate that it can perform well and consistently seek to change management systems in ways that foster performance. The concept of performance has become increasingly the central goal of public management, but the emphasis on management expertise continues. Professional training of public administrators has become more and more common, with master’s degree programs continuing to emphasize generic management skills. But these managers face increased calls to justify their management choices in the context of performance. This call is reflected in both actual reforms and in a growing public management literature.

The most frequent and widely adopted reforms of the last quarter century have focused on the concepts of performance and effectiveness (Ingraham and Moynihan 2000). Reforms that have incorporated pay-for-performance, total quality management, strategic planning, performance measurement, benchmarking, contracting out, increased managerial flexibility, and decentralization have consistently claimed the improved performance of the public sector as their ultimate goal. The clear assumption of these reform movements, whether classified as New Public Management (NPM) or reinvention, was that changes in management systems could and should be made in ways that enhanced performance.

MANAGING THE ENVIRONMENT AND FINDING WORKABLE LEVERS

A burgeoning literature also reflects this era of performance management. A common assumption across this literature is that management matters to performance and effectiveness, and that performance is the ultimate goal of public management systems and actions. As indicated above, a widely known literature associated with government reform and the NPM was based on these assumptions (Barzelay 2001; Brudney, Hebert, and Wright 1999; Gore 1993; Osborne and Gaebler 1993).

A variety of approaches have been undertaken that seek to develop theories that explain organizational effectiveness in the public sector (Boyne 2003; Ingraham, Joyce, and Donahue 2003; Lynn, Heinrich, and Hill 2000; Milward and Provan 1998; Nicholson-Crotty and O’Toole 2004; O’Toole and Meier 1999, 2003; Rainey and Steinbauer 1999; Wolf 1993, 1997). Such efforts have sought to identify and formally model existing knowledge about public organizations. We propose a model of organizational

effectiveness that reflects a frequent, but usually implicit assumption of the theoretical models mentioned above: that it is possible and desirable to divide explanatory factors into two main categories: environmental and organizational. For instance, O'Toole and Meier's (1999, 2003) model of public sector effectiveness is characterized by the focus on stability, but in creating such stability management must exploit and buffer the external environment while ensuring the regular maintenance and improvement of internal operations. This implies that public managers deal with two broad challenges in the pursuit of organizational performance: managing the external environment on one hand, and organizational technologies on the other. Such a basic division of labor is consistent with portrayals of public managers as both actors in a political environment and professionals who effect and are affected by administrative systems (Boyne 2003; Meier 2000; Wilson 1989).

While there are a variety of ways to consider the concept of organizational environment, publicness is defined in part by the oversight of political actors, the influence of the public, and agency clients and stakeholders (Bozeman 1987). The interaction of these groups shapes perceptions on the worth of agency mission, public and political support for the agency, the degree of agency autonomy, and the supply of resources (Meier 2000; Hargrove and Glidewell 1990). The "galloping elephants" theory, proposed by Rainey and Steinbauer (1999), reviews existing literature on public organizations to develop some broad hypotheses about what factors are associated with effective public organizations. Wolf (1993, 1997) employed a similar approach but used meta-analyses to allow for actual theory testing. The common findings, echoing the assertions of Wilson (1989), are that agencies with strong political support, high autonomy, a clear and attractive mission, and effective leadership will tend to perform better than agencies without these characteristics.

Rainey and Steinbauer propose hypotheses about internal aspects of management (referred to later in this article), including employee motivation, task design, use of human resources, and technology. Lynn, Heinrich, and Hill (2000) argue for a logic of governance that seeks to explain measurable outputs/outcomes. They propose that factors that influence performance not only include environmental factors and client characteristics, but also factors that to varying degrees are under the control of managers: treatments (primary work/core process and technology), structure, and managerial roles and actions. Boyne (2003) also points to aspects of management that are associated with public sector performance, including leadership, organizational culture, human resource management, and strategy process and content.

To an even greater degree, the black box theory of government, associated with the Maxwell School's Government Performance Project, argues for examining managerial factors. A basic premise of the theory is that we know little about the process by which the public sector transforms inputs into outputs (Ingraham, Joyce, and Donahue 2003). The black box approach argues that better specification of management capacity was necessary before plausible theoretical or empirical links could be established with performance. Generic management systems were identified (financial management, information technology, human resource management, capital management, and managing for results), along with a set of criteria of desirable standards for each system. The explicit assumption was that management capacity was a "platform" for performance, and that performance data would inform future capacity changes. However, the black box model also acknowledges the need for strong political support, leadership, and resources as essential components for building and utilizing management capacity.

As suggested by these theories, the environmental/organizational distinction proposed here is not an either/or trade-off. Both will be essential to a complete model of public performance, in part because of overlap between the two categories. The products of a successful interaction with the environment—autonomy and resources—should aid the ability of managers to manipulate organizational variables. However, there are some basic distinctions: in the environmental model, managers are usually senior leaders who employ political skills to persuade actors external to the organization (e.g., Kaufman 1982; Moore 1995). Their success will depend partly on the cause they pursue—managers with attractive and influential clients are at an advantage—but also on the political skills of the agency managers, particularly its leader. The actors they seek to influence, primarily elected officials, will be aware of not just the arguments of the agency, but also of the perspectives of stakeholders and the general public when assessing how to treat the agency.

In dealing with organizational variables, managers have a greater degree of control, notwithstanding external checks on uses of authority, such as civil service systems. In this context, according to the underlying justification for the study of management, skilled individuals can employ workable levers in a way that will raise performance. Managers believe that such levers influence performance, and the levers are subject to their control. Training, experience, and professional identity will provide the basis for such beliefs, many of which are reflected as hypotheses in the public management literature discussed above and examined in this article. We test whether organizational goal clarity improves performance; how culture affects performance; the role of managerial discretion and central control in improving decision making and reorganization and, ultimately, in increasing effectiveness.

Thus far, there have been limited efforts to actually test such models of performance in the public sector (a summary is provided by Boyne 2003, with recent notable examples including Andrews, Boyne, and Walker 2003; Brewer and Selden 2000; Heinrich 2002; Heinrich and Fournier 2004; and Wolf 1993, 1997). This article seeks to add to this emerging empirical literature by focusing on key environmental and organizational predictors of performance.

A MODEL OF ORGANIZATIONAL EFFECTIVENESS

We test the impact of a number of environmental factors (the support of elected officials, the influence of clients, the influence of the public) and organizational factors (culture, centralization of decision authority, goal clarity, barriers to reorganization). The data come from the National Administrative Studies Project (NASP-II) survey of state government health officials undertaken in the fall of 2002 and winter of 2003. More details on the data and methods can be found in the next section. Additional detail is presented in the appendixes, with specific information on measurement of study constructs in Appendix 1 and on data collection in Appendix 2. The various hypotheses of this model are now examined in turn.

Environmental Factors

The most critical and immediate constituency for any public agency is the body of elected officials who oversees it. Political support for an agency's mission is useful for increasing resources and autonomy (Meier 2000). Previous work from Wolf (1993) and Rainey and Steinbauer (1999) found that political support was a key factor in instances of successful

agencies, reducing the potential for micromanagement on the part of elected officials and allowing bureaucrats to focus consistently on long-term goals. To win such autonomy, organizations seek to develop a sense of trust among elected officials in the management of the agency. We employ an index of political support that captures elected officials' trust in the ability of an agency to carry out its mission competently and effectively, a measure based on the work of Gianakis and Wang (2000).

H₁ Organizations that enjoy the support of elected officials will have higher levels of effectiveness.

Political support is not solely a matter of elected officials: Meier (2000) identifies public opinion and client groups as two additional and salient sources of political support. We use measures for these sources of political influence that are based on the work of Waterman, Rouse, and Wright (1998). Depending on the nature of the agency and the diversity of views among its clients, stakeholders can serve either to support or undermine an agency's objective (Meier 2000; Rainey and Rainey 1986). In the case of health and human service agencies, client groups receive public services at no (or low) cost. Indeed, politically mobilized client groups have significant influence on agency operations (Grogan 1993; Pandey 2002). These client groups are therefore likely to be concerned about ensuring adequate resources to provide a service and about raising the quality of a service. Both of these attributes are likely to result in improved performance for the agency. However, the "iron triangle" (Lowi 1969) and public choice (Boston 1991) approaches present an alternative scenario, which suggests that while client groups will seek to increase resources and raise service quality, they will do so with little emphasis on either allocative or technical efficiency and, therefore, will negatively affect performance. In light of reasonable arguments for both a positive and negative effect of client influence on agency performance, we propose a nondirectional hypothesis:

H₂ The influence of client groups will be associated with organizational effectiveness.

The influence of the public and media on performance is less ambiguous than that of client groups, given a greater cost sensitivity relative to benefits received. The common popular complaints about government—that it does not focus on results, and it wastes money—are indicative of public demands for quality services at affordable prices—in short, better performance. Greater public influence might reflect itself through citizen participation, which on balance improves the performance of agencies through closer oversight, innovative input, greater understanding of public preferences, and co-production possibilities (Thomas 1995). Public managers are also likely to look toward the media as the most immediate source of public opinion. We employ an index that reflects both public and media influence on an agency.

H₃ Higher levels of public and media influence will be associated with higher organizational effectiveness.

Organizational Factors

Studies of effective organizations frequently emphasize the importance of developing a mission-based culture, one that frames for employees a focus on results rather than

a procedural approach toward work (Boyne 2003; Rainey and Steinbauer 1999; Wilson 1989; Wolf 1993; Zigarelli 1996). Given that mission will vary from agency to agency, the concept of mission-based culture offers only a limited amount of information about what types of organizational cultures are more likely to lead to success. In part, this failing has been due to the perceived inability of quantitative approaches to deal with context-specific cultural attributes relative to more in-depth but less generalizable qualitative aspects of work. Brewer and Selden (2000) provide an exception, specifying culture in terms of a number of proxy variables demonstrated by actions: teamwork, efficacy, concern for the public interest, and protection of employees. We assess the impact of culture by employing well-known value-types in the organizational culture literature, based on the competing values model of Quinn and Rohrbaugh (1981), and operationalized by Zammuto and Krakower (1991). The Quinn and Rohrbaugh model argues that organizational approaches to performance vary along three dimensions: (1) organizational focus (people versus the organization), (2) differing preferences about structure (control versus flexibility), and (3) different foci on important organizational processes and outcomes (means and ends). The four cultural types that emerged from this model were group, developmental, hierarchical, and rational (Quinn and Kimberly 1984; Zammuto and Krakower 1991).

Group cultures are associated with a focus on people rather than the organization, flexibility rather than control, employee cohesion, and morale. Developmental cultures are associated with a focus on the organization, flexibility, adaptability and readiness, growth, and resource acquisition. Hierarchical cultures tend to focus on people, control, managing information and communication, and ensuring organizational stability. Finally, rational cultures are associated with organizational goals, control, planning and goal-setting, and production and efficiency. As Zammuto and Krakower (1991) note, all organizations are likely to exhibit these types to varying degrees, rather than simply fall into one type or another. We therefore test the influence of the degree of existence of each type of organizational culture on performance. Quinn and Kimberly (1984) hypothesize that the rational culture will be more focused on production efficiency than the other types, and recent reform efforts in the public sector have argued that hierarchical cultures reduce effectiveness. But there is not compelling empirical evidence for either claim. We therefore test a general hypothesis on the relationship between types of culture and performance.

H₄ The type of organizational culture will affect organizational effectiveness.

A well-established hypothesis is that agencies with clearly defined missions and goals are more likely to perform better (Peters and Waterman 1982; Rainey and Steinbauer 1999; Wilson 1989). Goal ambiguity is an oft-cited characteristic of public organizations that undermines organizational performance (Meier 2000; Rainey, Pandey, and Bozeman 1995). A main goal of the NPM and reinvention-style reforms was to introduce a strategic “clarity of task and purpose” to public organizations through a variety of organizational reforms (Holmes and Shand 1995). Boyne (2003) distinguishes between strategy processes—the procedural aspects of goal-setting—and strategy content—the actual strategic stance and actions that organizations undertake. The distinction implies that success depends on employee adoption and employment of strategy content, consistent with the measurement approach employed in this research.

Recent work on the motivational context in the public sector provides insight into the ways in which successful communication of clear goals leads to higher performance. Wright (2001) argues that goal theory is based partly on the assumption that public employees with clear and specific goals will be motivated to perform better, a claim supported by Rodgers and Hunter's (1992) meta-analysis of management-by-objective programs that found higher group and organizational performance for both public and private organizations. A clear task allows the organization to communicate goals easily, develop a mission-oriented culture, and reduce the potential for rival, confusing, and contradictory management systems and actions because of conflicting goals. To this end, strategic planning and performance measurement are among the most widely adopted state government reforms in recent years (Brudney, Hebert, and Wright 1999), and most state agencies face mandates to adopt mission statements. Weiss and Pederit (1999) argue that the adoption of mission statements reflects an assumption that this will improve performance, and they find that such steps have real consequences for agency effectiveness.

H₅ Goal clarity is associated with higher organizational effectiveness.

The structure of authority and control is a major topic in public management, with shifting emphases between centralized control and managerial flexibility across time and different tasks (Kaufman 1956; Quinn and Rohrbaugh 1981). The NPM and reinvention movements argued that traditional bureaucracies had become too centralized, removing autonomy from the managers with the knowledge to make positive improvements in operations (Barzelay 2001). The result was poor performance. By contrast, organizations that empowered employees, at least with operational decisions, were associated with high performance (Hale 1996; Osborne and Gaebler 1992; Peters and Waterman 1982).

H₆ Centralization of decision-making power will be associated with lower organizational effectiveness.

The black box theory argues that the capacity of human resource management systems would have an impact on performance. This theory reflected a well-established assumption that effective employees made for effective organizations. Boyne (2003) cites empirical evidence that provides general support for this perspective, with the caveat that the "soft" aspects of human resource management (morale, satisfaction) appear to be more important than the "hard" aspects (job security, pay for performance). Brewer and Selden (2000) find that efforts to build and retain high performing human capital have a positive relationship with performance, but that training or maintaining adequate human capital did not. Also using the black box model, Donahue, Selden and Ingraham (2000) argue that aspects of human resource capacity will in turn shape performance. They employ measures of capacity that reflect the ability to organize human resources to match governmental needs. The greater the ability of public organizations to reorganize processes and match individuals to the right position within a mission-based organization, the greater the ability of the organization to achieve performance. We therefore adopt a measure of human resource capacity that reflects this assumption.

H₇ Barriers to managerial ability to reorganize units will reduce organizational effectiveness.

DATA AND METHODS

The data for this study were collected in Phase II of the National Administrative Studies Project (NASP-II).¹ The theoretical population of interest for NASP-II consisted of managers engaged in information management activities, who worked in state-level primary health and human service agencies. Primary health and human service agencies were identified according to the definition used by American Public Human Services Association (APHSA, formerly APWA) and include agencies housing programs related to Medicaid, Temporary Assistance for Needy Families (TANF), and child welfare. Consistent with Caudle (1990), we employ a broad definition of information management that includes not only those who manage information systems applications but also those managers who are involved in research and evaluation, those who deal with public information and communication, and top-level program administrators. The average age of managers we surveyed was almost fifty years old; almost half were women; the average length of stay in the organization was over fifteen years; and the average salary was between \$50,000 and \$75,000. This demographic description sounds more consistent with our expectations of a typical career manager in a health and human service agency, and not the popular image of information technology staff as young men who frequently change employment. However, as with any survey of a particular group, caution needs to be exercised in generalizing the study's findings.

Details on the method of data collection, which provided an *N* of 274 and a response rate of 53 percent, can be found in Appendix 2. We test our model with ordinary least squares, estimating the effects of each independent variable on organizational effectiveness while holding the other independent variables constant. To determine whether ordinary least squares was the appropriate estimation technique, we examined our data for heteroscedasticity, multicollinearity, and influential data. A histogram of the standardized residuals shows that they are normally distributed. A scatter plot illustrates that the errors are relatively constant (homoscedastic) and independent of one another. We examined the bivariate correlations and the square root of the variance inflation factor (VIF) to detect multicollinearity (Fox 1991, 11). The highest correlations are between centralization and development culture (−.651), development culture and bureaucratic culture (−.563), and centralization and bureaucratic culture (.560)—no other correlation exceeds .416. Centralization of decision-making authority was the variable with the highest square roots of the VIF, under 1.625, with none of the other variables exceeding 1.301.

1 Given that the explanatory and dependent variables come from the NASP-II survey, one potential objection to our analysis is that of “common-source bias.” As Crampton and Wagner (1994, 67) highlight, in the decade following remarks on this issue by J. P. Campbell, “common-source bias” or “method variance” was overused for “general condemnation” of studies employing self-reported data. Although a range of plausible rationales are offered for this (see Crampton and Wagner 1994 for an overview), subsequent empirical scrutiny of Campbell’s assertion demonstrates that common-source bias is less methodological artifact and more a methodological myth (Crampton and Wagner 1994; Doty and Glick 1998; Spector 1987; Spector and Brannick 1995). The consensus is that while common-source bias does exist, its effect is not to invalidate relationships uncovered in studies employing self-reported data but to perhaps marginally attenuate the strength of the findings. Indeed, scholars argue that a more reasonable position with respect to effects of common-source bias is not to make the automatic inference that it is the alternative explanation of choice (and therefore has a pervasive and overwhelming influence) but to rely on empirical findings on this putative effect for guidelines about its relative importance (Spector 1987; Spector and Brannick 1995).

Measuring Performance

Providing empirical evidence of how management matters to performance is a central goal in much current public management research. The difficulty in developing a unitary or objective measure of organizational effectiveness as a usable concept for empirical research has prompted a willingness to adopt multiple measurement strategies, including both subjective and objective approaches (Cameron and Whetten 1983; Rainey 2003). In testing these relationships, we use as our dependent variable a measure of organizational effectiveness based on the perceptions of the organization's individual members. We asked managers to rank on a scale of 0 to 10 "the effectiveness of your agency in accomplishing its core mission," with "0" meaning not effective at all and "10" meaning extremely effective.

Because we ask about organizational effectiveness, we aggregate responses by organization. In all we received responses from eighty-three organizations across the fifty states with responsibility for human services—for instance, many states have a department responsible for children, youth, and families in addition to a department of health and human services. All individuals surveyed were deemed responsible for human service functions by the APHSA directory. Our dependent variable therefore reflects the mean score for effectiveness from all of the respondents from that organization.

As noted earlier, we conducted a census of the APHSA database, but for some organizations no more than one or two respondents were available. The number of respondents per agency ranged from 1 to 8, with a mean of 3.30 respondents per agency. It would be ideal to have a high number of respondents per agency, and a limitation of our research approach is that we are assuming that the views of a small number of respondents are representative of the agency. It is worth noting, however, that our choice of respondents was not random; we identified as key informants managers who performed roles (e.g. top administrator, research and evaluation, public communication, information systems) that are likely to familiarize them with the wide range of issues facing the agency. Having multiple respondents per agency also raises the question of individual variation within the aggregated agency data, but there is little variation in responses between members of the same organization, suggesting that agency-level variables have high internal reliability.²

Efforts to track performance tend to split between effectiveness measures that focus on operations or outputs and measures that focus on outcomes or results. As Richard Fenno (1966, 391) notes, "If, therefore, one attempts to measure bureau success by one of these measures [outputs or outcomes] to the exclusion of the other, he will be neglecting a discrete dimension of bureau performance." Our measure of organizational effectiveness permits employees to rely on their organizational experience and understanding. Managers will be aware of the various goals of their agency, and they are in a good position to evaluate success in reaching these goals. Employee self-reports have the virtue of being global measures of performance, and it is therefore reasonable to expect that such

2 To gain a rigorous estimate of the extent to which the aggregated responses represented organizational properties, rather than individual respondents' predispositions, we assessed intraclass correlation coefficients (ICC) across individual responses for each organization on the variables employed in the regression model (McGraw and Wong 1996; Shrout and Fleiss 1979). The measure indicates the proportion of variance between different respondents of the same organization, and the ICC estimates are based on mean squares obtained by applying analysis of variance models to these data (McGraw and Wong 1996). The ICC scores have an upper bound of 1, so higher positive scores close to 1 indicate a high degree of agreement between the different respondents. ICC statistics demonstrate high consistency in responses between members of the same organization in our sample: the lowest ICC is .785; the highest ICC is .988. The average ICC for organizations with multiple respondents is .935, and the standard deviation is .049.

evaluations will include an appropriate mix of output- and outcome-based criteria.³ A similar employee-based measure of performance has been employed by others (Molnar and Rogers 1976; Mott 1972), most recently by Brewer and Selden (2000), who point out that while the organizational psychology literature argues that organizations and individuals are interdependent, the employee perspective on performance is underemployed.

Another advantage of the global aspect of employee evaluations of performance is that it is not program-specific. This is appropriate for our sample of health and human services agencies that provide a wide range of programs, where it would be difficult to come up with a unitary performance measure and where a single program measure may not be a reliable indicator of the varied priorities and goals of entire agencies.⁴ For example, Heinrich and Fournier (2004) find that different independent predictors of performance vary significantly depending on which substance-abuse treatment performance measures are employed. This suggests the virtue of an employee-defined performance measure—that it is a broader assessment of effectiveness than a single programmatic performance measure. Any employee-based measure of performance risks a subjective response, but such a bias is likely to be systemic and therefore should not undermine the analysis. Further, an emerging literature argues that single-item measures can provide both validity and reliability that is comparable to multi-item scales (Wanous and Hudy 2001; Wanous, Reichers, and Hudy 1982).

FINDINGS AND DISCUSSION

Descriptive statistics on all the study variables are presented in table 1, and the results of multivariate tests of specific hypotheses are presented in table 2. Appendix 1 provides information on variable measurement.

Table 2 demonstrates strong overall support for the model, which explains 73.5 percent of the variation in managers' perceptions of organizational effectiveness. The results also support the proposition that organizational performance is shaped both by external environmental factors and internal management factors, with many of the individual hypotheses finding support.

The evidence for the importance of political support for agency performance is particularly strong and reliable. The result is not surprising given the variety of ways in which political support benefits agencies, including increased resources, a widened scope of autonomy, reduced regulation, and adoption of agency goals (Wilson 1989).

We can also interpret the results in terms of the different conceptions of the public's influence on performance. The importance of elected officials' support reflects Redford's traditional conception of overhead democracy in a representative system of government: agencies struggle without strong political support (Redford 1969). The model examines

³ We thank one of the anonymous reviewers of this article for bringing this point to our attention.

⁴ The problems involved in taking a wide range of programmatic measures to come up with single agency-wide performance measures that are valid and relevant for all fifty states is demonstrated by the panoply of programs operated even in a single state from a single funding stream (namely Medicaid) (Grogan and Patashnik 2003; Pandey 2002; Pandey et al. 2000). More important, the desirability of "objective" performance measures should not necessarily be taken for granted. Some "objective" measures can grossly oversimplify and obscure reality; indeed, this realization led to Quinn and Rohrbaugh's (1981) classic statement underscoring the value of subjective measures. This is especially true for the agencies considered in our study that are tasked to do an "impossible job," given limited political support, and operating programs in an ever-evolving federalist framework (Hargrove and Glidewell 1990; Pandey 2002).

Table 1
Descriptive Statistics

Variables	Potential Scale Range	Mean	Standard Deviation
Organizational effectiveness	0–10	7.075	1.384
Elected official support of agency	4–20	12.993	3.048
Degree of client influence	0–4	2.585	0.558
Degree of public/media influence	0–8	5.093	1.108
Rational organizational culture	1–5	2.794	0.722
Group organizational culture	1–5	3.512	0.779
Developmental organizational culture	1–5	2.791	0.903
Hierarchical organizational culture	1–5	3.552	0.778
Clarity of organizational goals	3–12	8.828	1.623
Centralization of decision authority	3–12	6.783	1.656
Barriers to internal reorganization (logarithm)	0.69–4.03	2.417	0.761

two additional conceptions of the public: from an interest-group perspective, where a section of the public seeks to use political influence on the bureau and extract particularized benefits; and from the perspective of the general public and the media, who are likely to be more concerned about balancing service provision with a reasonable tax burden. Client group influence has a negative relationship with organizational effectiveness, although this result falls short of conventional levels of statistical significance. Given the frequent portrayals of mutual interest and cooperation between these groups (e.g., Lowi 1969), the lack of a more conclusive finding on the role of interest-group influence on a bureaucrat-defined measure of performance may appear surprising.

By contrast, the ability of the general public and media to influence the agency has a strong positive effect on performance. The results are consistent with Cogburn and Schneider (2003), who find that state governments with higher management capacity tend

Table 2
Results of Ordinary Least Squares Regression Explaining Organizational Effectiveness

Explanatory variable	Standardized coefficients (Beta)	P-value
Environmental Factors		
Elected official support of agency	.315****	.000
Degree of client influence	-.084	.236
Degree of public/media influence	.365****	.000
Organizational Factors		
Rational organizational culture	.000	.995
Group organizational culture	.093	.198
Developmental organizational culture	.177*	.028
Hierarchical organizational culture	.025	.730
Clarity of organizational goals	.232**	.003
Centralization of decision authority	-.224*	.021
Barriers to internal reorganization	-.009	.881

Note: $N = 83$; Adjusted $R^2 = .735$; F -value = 22.651. Directional hypotheses were evaluated with a one-tailed test, nondirectional hypotheses with a two-tailed test.

*significant at .05; **significant at .01; ***significant at .001; ****significant at .0001.

to distribute goods in terms of collective benefits rather than particularized benefits associated with interest-group activity. The positive impact of public/media influence on performance supports this claim, suggesting that bureaucrats understand performance in terms of responsiveness to the broader public.

In relation to internal management, there are a number of strong and interesting predictors of performance. Our measure of ability to reorganize is in the direction predicted, but it is short of standard significance levels. Perhaps the most valuable finding is the nature of organizational culture. Previous work has emphasized the importance of designing mission-oriented culture, but it has told us little about what types of organizational culture are likely to be mission-oriented.

We find evidence that culture does matter to performance. Organizations with developmental culture are likely to achieve significantly higher levels of effectiveness in the eyes of their employees. Table 2 reports on the impact of the different types of organizational cultures. The hierarchical, rational, and group cultures did not prove to have a strong relationship with the dependent variable. Given that we test an employee-defined measure of culture, we might have expected that employees would have favored the type of organizational culture that places greatest emphasis on developing human resources and employee participation: the group culture. The developmental culture, in contrast, focuses on the needs of the organization and the ability to change to meet new demands. Does this mean that the developmental culture offers a prescription for how to create a mission-based culture, at least for health and human services? The evidence presented here suggests so, as does Zammuto and Krakower's (1991, 87) description of the developmental culture: "individuals are motivated by the ideological appeal of the task being undertaken" rather than through rules, affiliation, or contracts. According to Zammuto and Krakower, organizations with developmental cultures tend to have more inventive leaders and take the form of adhocracies, rather than the more traditional organizational forms of hierarchy, markets, or clans.

Perhaps as important as the finding on developmental cultures is the null finding on hierarchical cultures, the measure of which essentially reflects employees' perceptions on the degree of formalization in their workplace. Although a failure to reach standard significance levels using one data set cannot be regarded as conclusive, this result reinforces a similar finding offered by Wolf (1997): levels of formalization did not appear to have a strong effect on performance for either premodern or modern agencies. Given the tide of criticism of the Weberian bureaucratic model, especially among government reformers, Wolf argued that this was an important null finding, explained by the fact that this result occurs because agencies adjust their level of formalization to suit their mission.

Another frequently critiqued aspect of the hierarchical bureaucratic models, but that is not reflected in our measure of hierarchical culture, is the centralization of decision-making authority. We test this as a separate variable and find that organizations with more centralized patterns of decision making are likely not to perform as well as organizations where managers believe they have adequate authority to enact changes. Given that discussions of governmental effectiveness frequently criticize an abstract notion of bureaucracy, when taken together the findings here on formalization and decision-making authority provide an insightful distinction about the varied effects of different aspects of bureaucracy.

The results offer support for the NPM and reinvention argument that decision authority should be devolved to the lowest practical level to empower managers with

firsthand knowledge of tasks and the process-expertise to make informed decisions. Another argument made by NPM and reinvention advocates is on the importance of a focus on results. Indeed, writers from a variety of perspectives have bemoaned the negative effect of multiple, conflicting, and ambiguous goals on public performance and expressed the desirability of clear and simple goals. This study offers empirical support for this view—the findings are particularly noteworthy because by focusing on health and human service agencies we control for potentially confounding factors that may have arisen due to differences in functional areas. As Wilson (1989) notes, the ability to define outcomes and outputs relates to function: it is easier in some public jobs than others to define and operationalize goals. However, our evidence suggests that even in the same functional area, the success of organizations in communicating the goal of the agency and the employee's role in fulfilling this goal has a significant effect on performance.⁵

CONCLUSION

What does the model presented here tell us in the context of an era of government by performance management? The data offer support for the basic assumptions of performance management: that management matters to performance, and that it is reasonable to expect managers to undertake actions to improve performance. But the evidence also suggests that a number of important environmental factors largely beyond the control of managers also influence performance, including support among elected officials and the influence of the public and the media. Quite simply, managers do not control all the levers that shape performance, a fact that must be borne in mind when demanding accountability from the governance system. The model also provides empirical evidence about how management matters to performance, at least with respect to health and human services. Organizations with clear goals and decentralized decision authority will perform better, reinforcing existing—though sometimes debated—hypotheses about reforming public organizations. The finding on culture not only reinforces general prescriptions on the need for mission-based cultures in the public sector, but it also goes some way toward providing evidence on the particular developmental characteristics of such cultures, including entrepreneurship, risk taking, and adaptability.

Future research should test these and other competing management variables in different functional contexts, defining performance in a variety of ways. The article employed a perceptual measure of effectiveness on the premise that such a measure was one broad and legitimate measure of performance, especially given the difficulty of coming up with an adequate single measure of organizational effectiveness. The burgeoning literature on organizational effectiveness provides us with a stable set of variables to be tested in different contexts, which cumulatively will provide evidence on how management matters in different situations. One approach is to vary the dependent variable measure to reflect not only different functions and contexts, but also to reflect different definitions of effectiveness. As Heinrich and Fournier (2004) point out, how we assess management systems depends a great deal on how we define performance. From a research perspective, this suggests that there is no single best way to measure and study performance, and that accumulation of knowledge would benefit from a variety of approaches. If we do

⁵ Elsewhere, Moynihan and Pandey (2004) find evidence that the quality of internal communication channels explains variation in the ability of these organizations to create a focus on results.

indeed live in an era of government by performance management, this is a key lesson for scholars and practitioners. For our part, this article has offered evidence that the support of elected officials, the ability to create a developmental organizational culture, a focus on results through goal clarity, and the decentralization of decision-making authority are all positively associated with employees' perceptions of organizational effectiveness.

APPENDIX 1

A Model of Organizational Effectiveness: Variables, Expected Relationships, and Measurement Details

Variable and expected relationship	How the variable was measured and source of question
Dependent variable	
Organizational effectiveness	On an overall basis, rank the effectiveness of your agency in accomplishing its core mission (on a scale of 0 to 10, 0 = not effective at all, 10 = extremely effective).
Environmental Factors	
Political support of agency	
Elected officials' support of the agency (+)	Based on Gianakis and Wang (2000), we use a summative index (Cronbach alpha = .91), based on responses to the following statements (5 = strongly agree, 1 = strongly disagree): Most elected officials in our state trust the agency. Most elected officials are very critical of the agency (reversed). Most elected officials believe that the agency is competent. Most elected officials believe that the agency is effective.
Degree of client influence (+/-)	Based on Waterman, Rouse, and Wright (1998) (0 = no influence, 4 = great deal of influence): How much influence do client groups exert over your agency?
Degree of public/media influence (+)	Based on Waterman, Rouse, and Wright (1998), we use a summative index (Cronbach alpha = .79), based on responses to the following statements (0 = no influence, 4 = great deal of influence): How much influence does public opinion exert over your agency? How much influence does the media opinion exert over your agency?
Organizational Factors	
Rational culture (+/-)	All measures of culture are based on Zammuto and Krakower (1991). My agency is very production oriented. A major concern is with getting the job done. People aren't very personally involved (1 = strongly disagree, 5 = strongly agree).
Group culture (+/-)	My agency is a very personal place. It is an extended family. People seem to share a lot of themselves (1 = strongly disagree, 5 = strongly agree).
Developmental culture (+/-)	My agency is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks (1 = strongly disagree, 5 = strongly agree).
Hierarchical culture (+/-)	My agency is a very formalized and structured place. Bureaucratic procedures generally govern what people do (1 = strongly disagree, 5 = strongly agree).

Clarity of organizational goals (+)	Based on Rainey (1983), we use a summative index (Cronbach alpha = .81), based on three statements rated on 4-point scale (1 = strongly disagree, 4 = strongly agree): The organization's mission is clear to almost everyone who works here. It is easy to explain the goal of this organization to outsiders. The organization has clearly defined goals.
Centralization of decision-making authority (-)	Based on Aiken and Hage (1968) and Hall (1963), we use a summative index (Cronbach alpha = .82), based on responses to the following statements (1 = strongly disagree, 4 = strongly agree): There can be little action taken here until a supervisor approves a decision. In general, a person who wants to make his own decisions would be quickly discouraged in this agency. Even small matters have to be referred to someone higher up for a final answer.
Barriers to internal reorganization (-)	How much time (in weeks) is typically required between when a request is made and the actual approval of the request to reorganize an organizational unit? (Logarithmic transformation of this variable employed.)

Source: All data are from the National Administrative Studies Project (NASP-II) survey.

APPENDIX 2

Data Collection for National Administrative Studies Project, Phase II (NASP-II)

The sampling frame was developed with the aid of the most widely used directory of human service agency managers, namely the APHSA directory (APHSA 2001). Application of study criteria resulted in a sampling frame made of 570 managers from the 50 states and Washington, DC. Given the small size of the sampling frame, a decision was made to administer the survey to the entire sampling frame (i.e., conduct a census).

The study protocol was reviewed and approved by the Institutional Review Board of Rutgers University. Every effort, within reason, was made to encourage managers in the sampling frame to complete the survey. However, with each contact respondents were advised about the voluntary nature of the study and informed that while the researchers greatly appreciated participation in the study, managers could choose not to participate in the study. No follow-up efforts were directed at managers indicating a wish not to participate in the study.

As with most survey research projects, minimizing nonresponse, both to the survey and to specific questionnaire items, was a primary goal in the survey administration. Dillman's (2000) comprehensive tailored design method (TDM) approach to maximizing the response rate made up of the following elements was employed in the study:

- A questionnaire with well-designed content;
- Survey questionnaire formatted in accordance with latest advances in cognitive research;
- Multiple personalized contacts, where each contact is accompanied with a carefully crafted message to encourage the respondent to complete the survey questionnaire;
- Use of real stamps on return envelopes;

Use of features such as a pre-notice letter, fax message, or telephone call at key points in the survey administration; and

Use of special delivery (combination of two-day delivery by Airborne Express and Priority Mail service of U.S. Postal Service).

The data collection phase of the study began in the fall of 2002 and concluded in the winter of 2003. First, respondents were sent a pre-notice letter that informed them about the study and requested their cooperation in completing a questionnaire to be mailed later. Approximately a week after the initial alert letter, the survey questionnaire was mailed to the respondents. The cover letter that accompanied the survey questionnaire outlined the study objectives, indicated the voluntary nature of the study, requested participation, and provided contact details of the project director for further informational needs and clarifications. About ten days later, a combination thank you/reminder postcard was sent to all respondents, thanking those who had responded and encouraging those who had not to respond as soon as they possibly could. Nearly a month after the mailing of this postcard, a new cover letter and replacement survey were sent to nonrespondents. The cover letter emphasized the fact that it was important for everyone to respond (unless for some reason or other the respondent chose not to respond). In order to make sure that the respondents were aware of the second mailing, concomitantly with the mailing we faxed the cover letter that went with the second mailing to the nonrespondents, clearly indicating that the letter and a replacement survey were in the mail. The final step in survey administration took place about two months later when nonrespondents were sent a new cover letter and a second replacement survey with a request to complete the survey. This final mailing pointed out that this was the last opportunity for the respondents to complete the survey questionnaire and used a combination of two-day delivery by an express carrier and U.S. Postal Service Priority Mail.

Based on information accumulated during this period, the size of the sampling frame was reduced from 570 to 518. It should be noted that the APHSA directory is the best available source of information on the sampling frame. Despite the best efforts by the APHSA directory to provide up-to-date information, the information in the directory at the time of publication is a year old. The survey was administered several months after the publication of the directory. This was reflected in the principal reason for deletion from the sampling frame—managers who had left the organization before survey administration efforts. Other reasons for deletion from the sampling frame were retirement and death. By the time survey administration concluded in the winter of 2003, a total of 274 responses were received, resulting in a response rate of 53 percent. Respondents came from all states and represented 83 different health and human service agencies at the state level.

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