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Under What Conditions Do Public Managers Favor and Pursue Organizational Change?

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Abstract

Organizational change and innovation has been a central theme in public management research for some time. In an age of government reinvention, downsizing, and contracting out, it is all the more relevant for the field to understand how organizations can successfully approach large-scale, planned change. This paper seeks to add to the growing literature on change by considering the forces in both the internal and external environments that lead managers to support and initiate change. Using the public education policy setting as a source of data, we build and test a model that predicts whether public managers support and initiate change. Using the extant literature as a base, we formulate a series of hypotheses, ultimately finding that a complex series of push and pull forces result in managers choosing to support and initiate change.

Introduction

Organizational change is one of the enduring issues in the study of public administration and organization theory. Researchers have offered a variety of reasons for why organizations change, including rational adaptation to the task environment (Lawrence and Lorsch, 1967; Thompson, 1967; Pfeffer and Salancik, 1978); incorporation of elements from the institutional environment to gain legitimacy (Meyer and Rowan, 1977; Meyer and Scott, 1983; DiMaggio and Powell, 1983; Powell and DiMaggio, 1991); natural and spontaneous organizational life cycles (Kimberly and Miles, 1980; Downs, 1967; Quinn and Cameron, 1983); environmental selection (Hannan and Freeman, 1977, 1984; Aldrich, 1979, 1999; Weick, 1979; Carroll, 1984); diffusion of innovations (see Berry and Berry, 1999); micro-level or bottom-up innovation (Weick and Quinn, 1999; Kanter, 1983); and dialectical clashes of values and ideas (Van de Ven and Poole, 1995; Kaufman, 1969; Wise, 2002). Some organizational change efforts in the public sector emerge periodically as part of a broad administrative reform agenda, garnering the attention of elected officials and the public (Stillman, 1999; Arnold, 1995). However, public organizations undergo myriad changes almost every day without much fanfare or interest from external stakeholders.

Research has shown that initiating and implementing organizational change in the public sector is often problematic. James Q. Wilson (1989) warned that efforts to enact reforms in a complex political environment are hampered by a number of factors, including conflicting values; the separation of powers; the presence of multiple principals; political and legal constraints; news media scrutiny; and the influence of general public opinion. According to Golembiewski (1969), attaining lasting support for planned change from governmental authorities and political actors involves serious challenges, given the constraints imposed by the

political context in which public organizations operate. Downs and Larkey (1986) argued that new reform initiatives generally are poorly informed by previous reform efforts and are difficult to evaluate, particularly in terms of efficiency.

Much, if not all, of the research on change in public organizations has focused on the organization as the unit of analysis. There is remarkably little evidence as to why public managers come to favor change and initiate it. Managers play a prominent role in organizational change, as champions for change and as key players in its implementation. As a result, it is important that we understand what factors influence their decision to assume the role of the change agent and initiate change in their organizations. This paper seeks to contribute to the literature on change by shifting the unit of analysis from the organization to the individual. In the next section, we review the literature on the role of managers in the process of change in the public sector. We then create and test a model of attitude and behavior relating to change, using data from the public education policy setting. The paper concludes with a discussion of the findings and implications for research and theory.

Organizational Change in the Public Sector and the Role of Managerial Leadership

A common assertion that is made about public agencies is that they are more resistant to change than private sector organizations. According to Downs (1967), public organizations undergo a three-stage life cycle; toward the end of the cycle, “conservers” take over control of the organization, the pace of change decelerates, and the organization begins to ossify. Warwick (1975) asserted that cautious career civil servants, intent on preserving their positions, use frequent turnover among top political appointees to their advantage and simply resist initiatives until a new administration comes to power. Kaufman (1976) studied the incidence of organizational death among federal agencies and concluded that these agencies had a propensity

to survive. However, Starbuck and Nystrom (1981) replicated Kaufman's study, using different criteria and assumptions, and found that public and private organizations die at about the same rate.

Other experts also have reasoned and offered empirical evidence that public agencies are no more resistant to change than private sector organizations and that they change just as frequently. According to Meyer (1979), public organizations change constantly due to frequent shifts in the political environment, although constant change makes it difficult to implement and sustain long-term change in the public sector. Peters and Hogwood (1988) concluded that while public organizations can be quite resistant to change, they do often change (see also Rubin, 1985; Rainey, 2003). Robertson and Seneviratne (1995) compared the outcomes of planned change in the public sector to those in the private sector and found few differences between them, even though the analysis indicated that changes in the work setting (i.e., organizing arrangements, technology and physical setting) were more difficult to achieve in the public sector, perhaps because change agents in the public sector are allowed less discretion than their private sector counterparts. Overall, then, the evidence appears to suggest that in spite of employee resistance to change, bureaucratic structures that inhibit change, and difficulties with securing lasting political support for change, public organizations indeed change frequently.

Do managerial leaders serve as catalysts for change? Interestingly, some research suggests that the impact of managerial leadership on organizational change is quite small. Population ecologists for many years have contended that organizations have a limited capacity to change, due to structural inertia, and therefore are unable to adapt to their environment (Hannan and Freeman, 1984, 1985); organizations either "fit" their environment and survive or

are "selected against" and die.¹ Also, public sector leaders must be able to control subordinates in order to transform their agencies. Some evidence indicates, however, that efforts by government executives to exert greater control over subordinates—by imposing additional rules and regulations—generally fail (e.g., Warwick, 1975; Lynn, 1981). Kaufman (1981) concluded that federal executives have little impact on policies and programs because of the multitude of pressures and controls placed on them by the political system in which they operate.

Notwithstanding the work just mentioned, there is a significant body of research that indicates that managerial leaders can and frequently do make change happen in their organizations. Burke (2002) maintains that even though some scholars claim that leadership matters little for organizational outcomes, the bulk of the evidence indicates otherwise, particularly with respect to organizational change (p. 271); he goes on to describe how leadership behavior influences organizational transformation in four different phases of change, from the prelaunch phase to the institutionalization of change (see also Judson, 1991; Jaffe, Scott, and Toby, 1994; Kotter, 1995; Armenakis, Harris, and Field 2001; Armenakis and Bedeian 1999). Yukl (2002), a leading leadership scholar, has argued, "leading change is one of the most important and difficult leadership responsibilities. For some theorists, it is the essence of leadership and everything else is secondary. Effective leadership is needed to revitalize an organization and facilitate adaptation to a changing environment" (p. 273).

Recent contributions to institutional theory have shown that leaders, or powerful coalitions within organizations, can be a force for change. Greenwood and Higgins (1996), for instance, asserted that the presence of powerful internal groups or coalitions who are determined to bring about change is one of the key enabling dynamics allowing organizations to overcome

¹ As Aldrich (1999) notes, some organizational ecologists have begun to relax the assumption that organizational adaptation is a rare occurrence (pp. 45-46).

the institutional constraints suppressing change (see also Fligstein, 1991). Other studies have found that changes in top management can have a significant effect on the adoption of innovations (Boeker, 1997; Kraatz and Moore, 2002).

Several public management studies also indicate that managerial leadership has a significant effect on organizational change. For instance, Hennessey (1993) studied the impact of leadership on the outcomes of reinvention in the public sector. The author concluded that effective leaders facilitated the changes in culture and organizational climate envisioned by the reinventers, and that these changes in turn contributed to higher organizational performance. Kemp, Funk, and Eadie (1993) found that successful implementation of strategic management in the EEOC was partly attributable to the top executive's continual efforts to convey the message that change was high on his list of priorities. Similarly, Bingham and Wise (1996), in their study of the implementation of alternative dispute resolution (ADR) techniques in the federal government, found that many agencies failed to fully adopt ADR due to the inability of top management to disseminate information about the new policy and convince employees of the need to implement it.

Model

A number of theories and streams of research have shed light on the issue of why organizations change, including the organizational change and innovation literature; institutional and neo-institutional theory; resource dependence theory; population ecology theory; research on administrative reform; the policy diffusion and implementation literatures; and the broader organization theory and public management literatures. Although the unit of analysis has been and remains the organization in nearly all of this work, we feel these theories and streams of research can be brought to bear on the equally important but largely un-explored question of why

public managers favor and initiate change in their organizations. It is important to note that our goal is not to develop a comprehensive explanatory model of public managers' attitudes and behavior relating to change, but rather to test various theoretical propositions derived from the literatures mentioned above. More specifically, we are interested in exploring the relationship between a public manager's attitude and behavior relating to change and the following eight leadership, organizational, and environmental factors: leadership tenure and migration; financial resources; networking; buffering and dealing with external pressures; political support; discretion given to subordinates; and organizational size. Below is our theoretical model, which we will test using OLS regression and data from the public education arena in the state of Texas. Data are drawn from a sample of school districts in that state from 1995 to 1999. Our unit of analysis is the superintendent of a public school district.

$C = T + R + N + B + P_1 + P_2 + D + S + I$, where

C = Change-related attitude and behavior

T = Leadership tenure

R = Financial resources

N = Networking

B = Buffering

P_1 = Support from community

P_2 = Support from political overseers

D = Discretion

S = Organizational size

I = Vector of control variables for demographic characteristics of public managers

Change-related attitude and behavior

Whereas most previous studies have focused on organizational change and innovation at the organizational level (e.g., Robertson and Seneviratne, 1995; Amburgey, Kelly and Barnett, 1993; Light, 1998; Mohr, 1969; Amburgey and Dacin, 1994; Sanger and Levin, 1992; Golden, 1990), this analysis examines the attitude and behavior relating to change of public managers who head agencies. The following analysis is in the vein of Borins (2000), Teske and Schneider (1994), and others who have studied innovation or entrepreneurship at the individual level of analysis; unlike those studies, however, our analysis conceives of organizational change in a broad sense that makes no distinction between various types of change (innovation, adaptation, imitation, etc.).

To measure our dependent variable, managers were asked to indicate their level of agreement with the following two statements: “A superintendent should advocate major changes in school policies” and “I see my role as a change agent.” The first of these indicators speaks more to the issue of whether a manager has an attitude that is favorable toward change. Organizational roles specify some of the premises that influence a manager’s decisions and behavior (Simon, 1997). Thus, the responses to the second indicator capture the extent to which a manager has adopted a pattern of behavior that involves carrying out change. For the first indicator, 38.2% strongly agreed, 42.9% tended to agree, 16.8% tended to disagree, and 2.1% strongly disagreed. For the second indicator, 38.0% strongly agreed, 49.5% tended to agree, 11.7% tended to disagree, and 0.8% strongly disagreed. The values for these two indicators were factor analyzed to create a factor score that serves as the dependent variable (eigenvalue of 1.200, 59.98% of variance explained).

Values for these two indicators are skewed favorably toward change. This could reflect one of two things. First, it could be that responses to these two questions indicate some degree of social desirability bias. That would imply that superintendents probably are not as heavily predisposed toward change as they report here. Conversely, it could be that most superintendents are indeed agents for change. Either way, we do not consider the limited variation on the dependent variable to be problematic, since it only provides a tougher test of the various theoretical propositions that follow. We also should note that the factor score dependent variable used in the analysis is roughly normally distributed.

Leadership tenure and migration

Organization theorists dating back to Selznick (1957) have observed how organizational leaders promote institutionalization and stability within organizations (see also Ammons and Bosse, 2005; DiMaggio and Powell, 1983; Stinchcombe, 1968). Recently, some studies have begun to show that a change in top management can be a catalyst for other types of organizational change. Boeker (1997) described the movement of top managers across organizations and how it influenced an organization's decision to enter new product markets. Similarly, Kraatz and Moore (2002) found that the migration of presidents of liberal arts colleges in the United States had a strong relationship with the adoption of new professional programs by these colleges, controlling for the effects of various organizational, social, and economic factors. They stated, "immigration of executives with different background...is a significant—perhaps necessary—part of the process through which existing institutional norms are overturned" (p. 121). New executives seem to promote change in organizations through the transfer of knowledge, interorganizational learning, the introduction of new cognitive models and assumptions, and the attenuation or displacement of existing organizational values. We expect a

public manager's tenure as head of an agency to be negatively correlated with his or her attitude and behavior relating to change. That is, public managers who have been in their current position for a relatively short period of time will be more likely to act as a change agent and promote change than other public managers with longer tenures.

The variable *T*, leadership tenure, is measured using a dichotomous variable, with 1 assigned to managers who have been in the job for two years or less, and 0 assigned to all others. Since the literature suggests that there is something particular about a manager being *new* to a position that makes change more likely to occur, we chose to construct the variable such that the relevant difference is between "new" managers and all others, rather than opting for an interval level measure. Table 1 shows the descriptive statistics for this variable and for the other independent and control variables in the model.

[Insert Table 1 about here]

Financial resources

Planned organizational change involves a redeployment or redirection of scarce organizational resources toward a host of new activities, such as developing a plan or strategy for change; communicating the need for change; fostering and managing team-building and employee participation; providing employee training and development; developing and implementing new rules, policies and practices; procuring and adopting new technologies; restructuring and reorganizing the organization; testing and experimenting with innovations; and monitoring the implementation of change. The success of planned change depends partly on the availability of resources to support these activities, even though the cost of implementing change will vary from one case to the next (Chakerian and Mavima, 2000; Berry, Chakerian, and Wechsler, 1999; Matland, 1995). Thus, it is reasonable to expect a positive correlation between

financial resources, *R*, and a public manager's attitude and behavior relating to change.

Empirical research on bureaucratic entrepreneurship and innovation also indicates a positive correlation between these two variables (Mohr, 1969; Teske and Schneider, 1994; Borins, 1998, 2000). Cyert and March (1963) maintained that slack resources create opportunities for managers to explore innovative methods for accomplishing organizational tasks.

Other literature suggests the possibility of a negative correlation between financial resources and our dependent variable, however. Resource munificence serves as a source of power for organizations. Resources are needed for organizational growth and development (Greiner, 1972), and the acquisition of resources helps organizations to reduce uncertainty and avoid decline by minimizing their dependence on external actors (Thompson, 1967; Pfeffer and Salancik, 1978; Emerson, 1962). Leaders of organizations with meager resources, therefore, may be more inclined to make changes that increase the flow of resources to their organization and that enhance organizational power and prestige. In the public sector, this may entail making changes that satisfy the demands and expectations of political overseers. In short, we expect our variable for financial resources to be correlated with the dependent variable, although theory offers evidence of a correlation in either direction.

To measure *R*, financial resources, we created a factor score from six interval-level indicators of financial resources available to these public managers and their organizations: the average salaries of central administrators, campus administrators (principals and assistant principals), professional staff, and teachers; superintendent pay; and revenue per pupil. The eigenvalue for the factor is 2.803 (46.71% of variance explained).

Networking

Research suggests that change in organizations is positively correlated with the extent of interaction, or networking, among individuals operating in the same policy area or belonging to the same profession. According to some policy diffusions models, innovations spread across state governments as officials from different states interact and exchange ideas with each other (Gray, 1973; Menzel and Feller, 1977; Glick and Hays, 1991). Institutional theory emphasizes convergent change (i.e., change that reinforces the legitimate template or archetype) in highly institutionalized settings such as education (Davis and Powell, 1992). Convergent change is promoted through mechanisms such as professional associations, networks and regulatory agencies, which transmit the dominant template and encourage mimetic and normative isomorphism. Also, research on bureaucratic entrepreneurship suggests that networking is a key source of new ideas (Oakerson and Parks, 1988; Teske and Schneider, 1994). Thus, we expect variable N , networking, to be positively correlated with our dependent variable.

To measure networking, N , we considered the ways in which managers interact with six different groups of actors: school board members, principals, local business leaders, other superintendents, state legislators, and members of the Texas Education Agency. Managers were asked to indicate how often they met with these individuals. Responses for all six categories of actors were summed and combined into one variable. This operationalization of networking is the same as that used in previous studies of networking and public management (see O'Toole & Meier, 1999; Meier & O'Toole, 2003).

Buffering and dealing with external pressures

The notion of buffering the organization from external forces is well developed in the organization theory literature. Thompson (1967) suggested that organizations seal off their

technical core from environmental influences in order to reduce uncertainty. As Miner, Amburgey, and Stearns (1990) noted, a number of different theories indicate that organizations that buffer, or insulate themselves from external pressures, become unreceptive to external signals of the need for change and therefore are less disposed to change (see also Scott, 2003; March, 1981; Hannan and Freeman, 1984; Starbuck, 1983). Thus, we have strong reason to expect a negative correlation between *B*, buffering, and a public manager's attitude and behavior relating to change.

Buffering is measured using the following ordinal-level indicator: "My role is to deal with pressures for change so that my administrators and teachers can educate students."

Political support

We use two variables to capture different forms of political support: diffuse political support from the community, P_1 , and a more direct form of support from political overseers (i.e., the school board), P_2 . Both variables are measured using ordinal-level indicators.

Support from political overseers and other key external actors is a vital source of power for public organizations and public managers (Meier, 2000; Rainey, 2003). Lack of political support from such actors can signal dissatisfaction with the status quo in an agency, impelling public managers to pursue change. P_1 and P_2 , therefore, might be negatively correlated with change-related attitude and behavior. Other literature, however, indicates a positive relationship between our two measures of political support and the dependent variable. Borins (2000), in his study of innovative public managers, found a positive correlation between the incidence of innovation and the level of support from political superiors (see also Teske and Schneider, 1994). Similarly, various studies have found that real change in public programs and organizations requires a significant amount of support from political overseers and other key external

stakeholders (Mazmanian and Sabatier, 1989; Berry, Chakerian, and Wechsler, 1999; Chakerian and Mavima, 2000; Thompson and Fulla, 2001).² Political overseers have the authority to pass legislation or put policies in place that mandate change, and they also control the flow of vital resources that are needed to sustain a transformation. Political overseers can influence the outcomes of a change process, in addition, by crafting and then conveying a vision of the need for change, as well as by selecting political appointees who are sympathetic to change and who have the knowledge and skills required for managing the transformation.

Support from other key external stakeholders seems equally important. Thompson and Fulla (2001) concluded that the interest group environment was an important determinant of agency adoption of National Performance Review reforms. They found that the presence of strong interest groups who were opposed to an agency's reforms served as a constraint on the extent of change within several federal agencies. In some instances, outright opposition by influential interest groups resulted in modification of the proposed changes to satisfy these groups. In short, we expect our two variables for political support to be correlated with a public manager's attitude and behavior relating to change, although theory suggests the possibility of a correlation in either direction.

Affording discretion to subordinates

Some research on organizational change and innovation indicates that employees at the bottom of the organization can be catalysts for change (Weick and Quinn, 1999; Kanter, 1983; Teske and Schneider, 1994; Borins, 2000; Thompson and Sanders, 1997). Weick and Quinn (1999) maintained that organizations contain pockets of continuous change, each with its own

² As Golembiewski (1969) suggested in his assessment of OD in the public sector, however, attaining support from governmental authorities and political actors is problematic. The fact that public agencies often have multiple political masters pursuing different objectives, and that politically appointed executives and career civil servants often have very weak relationships only serve to complicate planned change in public organizations.

pace of change and responding to the environment in different ways. These pockets of continuous change spawn innovations that are implemented throughout the entire organization. Their argument echoes Kanter's (1983) earlier observation that macro-level change in organizations frequently evolves from successful micro-level innovations or "departures from tradition," that is, from successful experimentations at the bottom of the organization that offer the promise of success if implemented organization-wide. Public managers who afford their subordinates considerable discretion to generate and experiment with new ideas should encounter successful micro-level innovations with greater frequency and be more disposed to change on a grander scale. In short, success at the bottom likely sparks interest in change at the top.

The discretion variable is measured using the following ordinal-level indicator: "I give my principals a great deal of discretion in making decisions." This variable has been used in previous research on empowerment and discretion (Fernandez, 2005; Pitts, 2005).

Organizational size

Several prominent organization theorists have asserted that larger organizations are more resistant to change. According to Hannan and Freeman (1984) and population ecology theory, large, well-established organizations have a limited capacity to change due to structural inertia: larger organizations emphasize predictability, formalization and control, and as a consequence, become more rigid and inflexible and less disposed to change (see also Kelly and Amburgey, 1991). Some researchers who have adopted a resource dependence perspective theory also have argued that size is negatively associated with change. As Pfeffer and Salancik (1978) explained, "organizations that are large have more power and leverage over their environments. They are more able to resist immediate pressures for change and, moreover, have more time in which to

recognize external threats and adapt to meet them” (p. 139; see also Scott, 2003). Thus, we expect our organizational size variable, *S*, to be negatively correlated with a public manager’s attitude and behavior relating to change.

We use the total number of individuals employed by the organization as a measure of organizational size. This includes all teachers, staff members, and school-level administrators, as well as central administrators and staff.

Individual-level control variables

We include a series of control variables for demographic characteristics of public managers: gender, ethnicity, age, and education. Since most superintendents hold a master’s degree, we created a dichotomous variable for education, with a doctorate assigned a value of 1 and all else a value of 0. Ethnicity was coded dichotomously, with a value of 1 for ethnic and racial minorities and a value of 0 for whites. For gender, women received a value of 1 and men received a value of 0.

Source of data

The data used to test these propositions come from the Texas Education Agency and from a survey of all school district superintendents, conducted by Meier and O’Toole (2002), which asked them about their management styles, goals, and manner in which they allocate time. Although collected for the purpose of assessing educational performance and gathered from only one public management setting, the education data used for this analysis is a suitable choice for exploring the relationship between a public manager’s attitude and behavior relating to organizational change and various leadership, organizational, and environmental factors. First, public education is a salient and highly prevalent public management setting, with thousands of public school districts across the country delivering services to tens of millions of students.

Second, Texas is a diverse and populous state, with school districts that vary considerably in terms of size, student composition, and the amount of resources available to them. Third, public school superintendents face many of the same constraints experienced by other public managers. Like most other public managers, superintendents are held accountable by political overseers, they operate in complex political environments where numerous external actors attempt to exert influence over their decisions and behavior, and they face greater goal multiplicity than managers in the private sector. Fourth, the dataset effectively combines objective with attitudinal measures. Fifth, comparisons between respondents and non-respondents on a number of variables in the dataset found few differences between the groups, thus offering little indication of non-response bias in the survey of superintendents. Finally, while whites and males are significantly overrepresented in this dataset, other important public management settings share this same characteristic.³ Overall, then, the results of the analysis should be at least somewhat representative of public managers in other settings.

The data are pooled time series data from 1995 to 1999 (N=2,374). We included dichotomous variables to control for the impact of time and executed the appropriate diagnostic tests in order to ensure that serial correlation and multicollinearity were not an issue.

Analysis and Results

Results from the multivariate regression analysis are presented in Table 2. The model explains approximately 21% of the variance in change-related attitude and behavior. The adjusted *R*-square is reasonably high, given that the dependent variable is composed of attitudinal items from a survey. The *F* score is 40.381, and the model's standard error is 0.896.

³ Texas school superintendents are about 92 percent male and 93 percent white. In 1998, members of the Senior Executive Service were approximately 78 percent male and 88 percent white (U.S. Office of Personnel Management 1999). Recent research on female and minority representation among city managers found that about 88 percent of city managers were male and 97 percent were white (Berman and West 1998; Crewson and Fisher 1997).

Of the twelve independent and control variables included in the analysis, nine are statistically significant at the 0.05 level or lower, one is marginally significant (0.10 level), and two are not significant. The individual findings will be discussed in turn.

[Insert Table 2 about here]

The coefficient for tenure, T , is -0.160 and statistically significant at the 0.001 level, a finding that contradicts the proposition that new executives are more likely to promote change within an organization. We considered some alternative explanations. First, it is possible that defining “new” as two years or less is too restrictive. As a result, we changed the variable to define “new” as three years, four years, and then five years, and we even tried an interval-level measure of tenure, but in none of those cases did the results change significantly. Second, these public managers represent a mobile workforce; the average tenure for the managers in our dataset was only 6.8 years. It could be, then, that the mobile nature of superintendents makes the tenure issue less relevant in this policy setting than in others. Finally, in a complex and uncertain environment like public education, with rapidly changing school enrollment and high teacher turnover, getting a grasp of the situation and establishing some stability within the organization might be the short-term imperative of these public managers before attempting to initiate any significant changes.

The financial resources variable, R , has a positive coefficient of 0.154 that is statistically significant at the 0.001 level. This finding indicates that public managers with more financial resources at their disposal are more likely to favor change in their organizations than other public managers. As Cyert and March (1963) noted, slack resources create opportunities for managers to invest in innovative technologies and practices that can yield significant benefits for the organization over the long term. Moreover, these public managers seem to recognize that

planned change is a resource-intensive process involving the redirection of scarce financial and human resources within an organization. One irony of organizational change is that while many transformations are designed ultimately to improve performance and efficiency, the cost of change is likely to outweigh the benefits in the short run. It should come as no surprise, therefore, that much of the literature on implementing change in organizations calls for strong leadership and commitment to change to ensure that the organization stays the course until the desired end state is reached (Kotter, 1995; Johnson and Leavitt, 2001; Rainey and Rainey, 1986; Greiner, 1967; Thompson and Fulla, 2001; Kemp, Funk, and Eadie, 1993; Bingham and Wise, 1996).

We noted that some theory suggests that managers in organizations with fewer resources might be more likely to favor and initiate change in order to secure additional resources and reduce their dependence on other actors. The results did not support this hypothesis. A likely explanation is that superintendents are limited in their ability to affect an increase in property taxes, the predominant source of revenue for these organizations.

As different streams of research suggest, the relationship between networking and a public manager's attitude and behavior relating to change is positive and statistically significant. The coefficient for N is 0.149 and statistically significant at the 0.001 level. The more a manager interacts with relevant actors in the external environment, the more likely he or she is to have a positive attitude toward change and initiate change. Networking appears to serve as a means for transmitting and receiving ideas about what works best for these organizations, as well as for conveying norms and expectations about how to design and manage them.

The model includes two indicators of political support, P_1 , support from the community, and P_2 , support from political overseers (i.e., the school board). We expect our two variables for

political support to be correlated with a public manager's attitude and behavior relating to change, although theory suggests that the correlation may be in either direction. The coefficient for P_1 , is -0.014 and it fails to achieve statistical significance (p value of 0.574). The amount of political support from the community, therefore, has no impact on the extent to which a public manager assumes the role of a change agent and advocates change in his or her organization. It seems that public managers are not particularly responsive to this diffuse form of political support as an indicator of the need for change. Conversely, the coefficient for support from political overseers, P_2 , a more direct form of political support, is -0.089 and statistically significant at the 0.001 level. Political support may be needed to sustain a prolonged organizational change, as some literature suggests. Our finding indicates, however, that lack of political support from political overseers signals the desire for change in an agency and that public managers are reacting to this signal. Thus, our analysis provides some evidence of top-down change, with public managers favoring changes in their organization in order to placate or curry favor with their political superiors.

Interestingly, some of the other findings seem to point to bottom-up forces within the organization influencing public managers to pursue change. We expected public managers who engage in buffering to be less likely to assume the role of change agent and initiate change. This proposition is not supported by the results, however. The buffering variable, B , has a positive coefficient of 0.395 that is statistically significant at the 0.001 level; buffering also has the largest standardized coefficient in the model (beta of 0.279). Those public managers who buffer their organization from external pressures tend to hold a more favorable attitude about change and are more likely to initiate change. What might explain this? Perhaps public managers who buffer their subordinates from external pressures are creating a safe environment for subordinates

to innovate and experiment with new ways of doing things. As Weick and Quinn (1999) and Kanter (1983) observed, changes occurring at lower levels are frequently channeled upwards, where they are adopted and championed by the leadership of the organization. Indeed, the positive and statistically significant relationship between the amount of discretion given to subordinates, D , and the dependent variable appears to corroborate further the notion that forces at the bottom of the organization are generating momentum for change. The coefficient for discretion, D , is 0.240 and statistically significant at the 0.001 level. Not unlike buffering, affording subordinates ample discretion may result in micro-level innovations that in due course spawn larger-scale change.

Finally, we tested the theoretical proposition that larger organizations are more resistant to change and found no empirical evidence to support it. The coefficient for organizational size, O , is -0.001 and it fails to achieve statistical significance (p value of 0.532). The finding indicates that size has little if any influence on a public manager's attitude and behavior relating to change. These public managers do not seem persuaded by the argument that large organizations are more difficult to change, nor do they appear to believe that organizational size insulates them from forces calling for change.

Of the control variables, three (ethnicity, education, and age) are statistically significant at the 0.001 level, and the fourth (gender) is marginally significant, with a p value of 0.057. These results suggest that men and ethnic minorities are more likely to advocate change than women and whites, and that those who hold doctorates are more likely to advocate change than those with just a master's degree. In fact, the variable for education carries one of the larger standardized coefficients in the model (beta of 0.166). Also, older managers are less likely to

favor change than younger managers. These findings are provocative and warrant future research aimed at understanding the role of demographic factors in the change process.

Discussion and Conclusion

Previous research on the topic of organizational change has endeavored to identify the factors that drive organizations to change or innovate, to describe the course or process of change within organizations, and to explain successful implementation of change. Managerial leaders often play a key role in organizational change by initiating a transformation and by taking steps to facilitate its implementation. For the most part, however, researchers have overlooked the question of what factors lead public managers to favor and initiate change in the organization. Our analysis helps to fill this gap in the literature.

We found that public managers with a longer tenure as head of the organization, who network frequently with external actors, and who have abundant financial resources at their disposal tend to hold a more favorable attitude about change and seem more likely to initiate change than other public managers. The findings also indicate that public managers who routinely buffer their subordinates from external influences and who afford their subordinates an ample amount of discretion are more likely to favor change. Finally, lack of support from political overseers appears to convey to public managers the need to pursue change in their organizations.

Overall, our findings show that a public manager's attitude and behavior relating to change is influenced by a complex pattern of push and pull factors operating from various directions. Factors within the organization as well as those in the external environment affect individual attitude and behavior relating to change. Internal factors such the presence of slack resources and a leader's tenure and managerial style help to determine whether a public manager

will become a change agent. These same public managers, however, also appear to respond to forces originating from beyond the boundaries of the organization. Lack of support from political overseers—those with the authority to hire or fire the public manager and who regulate the flow of vital resources to the organization—seems to act as a strong signal of dissatisfaction with the status quo and thus of the need for change. It could be that these managers are attempting to better align the organization with the wishes of the political overseers, or else that they see no real benefit of instigating change in the face of little support for it. Networking appears to be an even stronger external influence, as it exposes the public manager to new ideas and practices and can make him or her more alert to normative pressures to conform to political, professional, and societal expectations.

The results also suggest that top-down and bottom-up drivers of change work simultaneously to influence a public manager's attitude and behavior relating to change. As we just noted, public managers in our sample seem to be responsive to the desires of their political superiors and favor change in order to satisfy them. Conversely, efforts to buffer subordinates and to afford them considerable discretion appear to be creating an environment conducive to micro-level innovations that are then adopted and implemented throughout the organization. In a sense, public managers sit at the intersection between pressures for change from political overseers pushing downward and micro-level innovations and adaptations that are generating momentum for change in an upward direction. The way in which public managers reconcile these competing claims may largely explain which changes are adopted and the timing and manner in which they are ultimately implemented. This is a subject that warrants further investigation.

We believe this study is a telling example of how a number of related theories and streams of research can be brought to bear on a relatively unexplored research question, with fruitful results. We borrowed generously from previous work on organizational change and innovation, neo-institutionalism, population ecology, resource dependence theory, and administrative reform, among other literatures, in order to derive testable propositions, many of which were supported empirically. The generic management and organizational change literatures, in particular, contributed valuable insights to our analysis. Unfortunately, students of administrative reform and organizational change in the public sector all too often overlook the valuable work done by generic management scholars and organization theorists and fail to recognize how this research can shed valuable light on their own work, notwithstanding some key distinctions between the sectors (Rainey, 2003; Rainey and Bozeman, 2000).

As is the case with a great deal of public management research, a difficult trade-off had to be made between ideal data and those that were available for this study. We used data collected for purposes other than the study of organizational change, and as a result, we limited our analysis to the testing of certain propositions derived from previous research and theory. There are other variables discussed in the literature which could possibly influence a public manager to assume the role of change agent. These variables include environmental uncertainty and turbulence; willingness to take risk; environmental scanning, strategic planning, and related managerial activities; bridging or other actions that suggest acquiescence to external normative pressures; and organizational stage of development. Future studies that set out to model individual attitude and behavior relating to change should incorporate at least some of these factors.

Finally, we would like to raise the issue of generalizability. Organizational or program performance may not be as readily measurable in other areas as it is in the public education arena, but the practice of measuring performance has been adopted widely in the United States and abroad. Local public school districts are different from many other public agencies in the sense that they are relatively simple and flat structures in which only a small portion of implementation is carried out by private third parties. However, even though a majority of federal policies appear to be implemented through multi-actor implementation structures (Hall and O'Toole 2000), many public policies continue to be implemented through single-actor arrangements, particularly at the state and local levels. It is also worth noting again the fact that public school superintendents face many of the same political pressures and constraints encountered by other public managers. In short, then, even though our data were gathered from only one public management setting, it would appear that our findings are fairly generalizable.

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Table 1: Descriptive Statistics

Independent variable	Minimum	Maximum	Mean	Standard. Deviation
Tenure	0	1	0.202	0.401
Networking	0.010	5.220	2.299	1.008
Buffering	1	4	3.320	0.710
Community support	1	5	3.887	0.827
Board support	1	5	4.376	0.876
Discretion	1	4	3.647	0.535
Organizational size	11	13387	681.308	1540.758
Gender	0	1	0.169	0.375
Ethnicity	0	1	0.064	0.246
Education	0	1	0.246	0.431
Age	24.070	72.360	50.937	6.423

Table 2: Regression Results

Independent variable	Slope	Standard error	Standard. coefficient	t-score	Sig.
Constant	-1.413	0.225		-6.286	0.000
Tenure	-0.160	0.047	-0.063	-3.409	0.001
Financial resources	0.154	0.028	0.144	5.449	0.000
Networking	0.149	0.019	0.150	8.034	0.000
Buffering	0.395	0.026	0.279	15.133	0.000
Community support	-0.014	0.025	-0.011	-0.562	0.574
Board support	-0.089	0.023	-0.079	-3.912	0.000
Discretion	0.240	0.035	0.128	6.872	0.000
Organizational size	-0.001	0.000	-0.015	-0.626	0.532
Gender	-0.106	0.056	-0.040	-1.905	0.057
Ethnicity	0.345	0.077	0.086	4.500	0.000
Education	0.379	0.045	0.166	8.392	0.000
Age	-0.016	0.003	-0.100	-5.289	0.000

Adjusted R^2 : 0.209

N : 2374

Standard Error: 0.896

F : 40.381

Notes: Coefficients for years not included in table. Durbin-Watson statistic is 2.001, indicating no serial correlation. Other diagnostic tests indicate no multicollinearity.