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Essays on Work Motivation and the Workplace

The Role of Organizations in Fostering Public Service Motivation

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In seeking to explain the antecedents of public service motivation, James Perry focuses on the formative role of sociohistorical context. This study tests Perry's theory and examines the role that organizational factors play in shaping public service motivation, based on responses from a national survey of state government health and human service managers. The findings support the role of sociohistorical context, showing that public service motivation is strongly and positively related to level of education and membership in professional organizations. The results also underscore the significant influence of organizational institutions, indicating that red tape and length of organizational membership are negatively related to public service motivation, whereas hierarchical authority and reform efforts have a positive relationship. Therefore, public organizations have both an opportunity and a responsibility to create an environment that allows employees to feel they are contributing to the public good.

Although it is of recent vintage, the concept of public service motivation (PSM) represents a positive example of theory development in public administration. This theory has significant practical relevance, as it deals with the relationship between motivation and the public interest. The construct of the public interest is central to traditional public administration scholarship (Appleby 1945; Herring 1936). In recent years, this theoretical development has been gradually joined by empirical work as scholars have sought to operationalize what public interest means for employees, why they develop a strong sense of public service, and how that sense influences their behavior (e.g., Alonso and Lewis 2001; Brewer and Selden 1998; Brewer, Selden, and Facer 2000; Crewson 1997, Houston 2000; Perry 1996, 1997).

Despite such research, there remains a need for more empirical work to validate and test this theory, which has continued to expand. Thus far, much of the research has focused on establishing the existence of PSM, usually by comparing employee motivations across sectors. The relevance of much of these findings remains in dispute because of the use of different or indirect measures of PSM and incomplete theories of how PSM occurs and the effects it generates. A series of publications by James Perry removed a great deal of ambiguity about the theoretical and empirical approaches that are appropriate for studying PSM. Perry carefully devised a series of scales to measure PSM in 1996 and provided empirical evidence on the causes of PSM in 1997. In 2000, he articulated the most comprehensive theory of the causes of PSM thus far, identifying sociohistorical context as a primary influence.

Our model adds to the limited empirical research on PSM by partially testing the theory proposed by Perry (2000) and deepening that theory by focusing greater attention on the role of organizational institutions. In extending Perry's model to account for the effect of organizational institutions on PSM, we employ a number of organizational variables: organizational culture, red tape, hierarchy, reform orientation, and length of organizational membership. We also include in the model some salient sociohistorical factors identified by Perry (level of education and membership in professional organizations), along with a number of demographic controls (age, gender, and income). We test this model on two of Perry's four dimensions of PSM (attraction to policy making and commitment to public interest/civic duty) exhibited by a sample of health and human service managers in the 50 state governments.

The Importance of Public Service Motivation

The literature on PSM has been thoroughly reviewed elsewhere (see, in particular, Brewer and Selden 1998; Perry 2000; Perry, Mesch, and Paarlberg 2006). Therefore, we simply highlight the major contributions to underline the importance of the topic.

Perry and Wise provide the widely accepted definition of PSM: "an individual's predisposition to respond to motives grounded primarily or uniquely in public institutions and organizations" (Perry and Wise 1990,

368).[1] As Brewer, Selden, and Facer (2000) note, PSM is important not just to motivation but also to productivity, improved management practices, accountability, and trust in government, making it one of the major topics of investigation in public administration today. The relevance of PSM, though particularly high for government, is not limited to this sector, as employees in the private and nonprofit sectors also exhibit PSM to varying degrees (Wittmer 1991). Therefore, PSM not only helps us understand the traditional differences between the public, nonprofit, and private sectors, but, given the increasingly blurry boundaries between sectors, it is useful in understanding public-regarding behaviors in organizations that are characterized by varying levels of publicness (Bozeman 1987).

Although some of the empirical work offers evidence of no difference between public and private organizations on extrinsic and intrinsic motivators (Buchanan 1975; Gabris and Simo 1995), the bulk of the empirical evidence supports the existence of a public service ethic among public employees. Careful investigation of the PSM construct supports its validity (Brewer, Selden, and Facer 2000; Coursey and Pandey, forthcoming; Perry 1996, 1997). Support for PSM can also be found in cross-sector comparisons. Rainey (1982), for example, found that public and private managers showed significant differences in their perceptions of the importance of different types of rewards. In contrast to private managers, public managers regarded public service and work that is helpful to others as important, whereas higher pay, status, and prestige were less important. Wittmer (1991) came to a similar conclusion in his examination of reward preferences among government, hybrid, and business sector managers.[2]

Thus, PSM provides a theory of motivation that links the pursuit of the public interest with administrative behavior. Perry and Wise (1990) argue that individuals with a high sense of public interest are more likely to select public service careers, an assertion that is supported by evidence of different levels of PSM between the public and private sectors (Houston 2000; Rainey 1982; Wittmer 1991). Having joined an organization, members with high levels of PSM appear to contribute in positive ways: They are more willing to engage in whistle-blowing to protect the public interest (Brewer and Selden 1998); they exhibit higher levels of organizational commitment (Crewson 1997); they believe that their jobs are important, which, in turn, leads them to work harder (Wright 2003); they are more likely to be high performers and enjoy higher job satisfaction; and they are less likely to leave their jobs (Naff and Crum 1999).[3]

In relation to the motivation literature, Perry (2000) asserts the importance of PSM as an alternative to rational and self-interested theories of motivation, which tend to focus on pecuniary rewards. It is also possible to illustrate how PSM can shape beliefs and behavioral outcomes. Thus far, research on the sources of PSM has pointed to institutions, with Perry focusing particularly on the role of sociohistorical institutions. Earlier work (Perry 1997) confirms the influence of education, family, and religion in shaping PSM. The next section further investigates Perry's process theory of PSM and our contribution to it.

Extending Public Service Motivation Theory: The Role of Organizations

Perry's (2000) process theory of PSM offers the most significant theoretical development in the topic since Perry and Wise (1990). The theory argues that individual behavior is not just the product of rational, self-interested choices but is rooted in normative and affective motives as well. Simply studying motivation from a rational, incentive-driven perspective provides only a partial understanding of motivation. We also need to study the social processes that shape individuals' normative beliefs and emotional understandings of the world. Similar to Perry (1997, 2000), our analysis shares a focus on the institutional shapers of individual beliefs and behavior, but, rather than focus on sociohistorical institutions, we examine organizational institutions. Indeed, Perry explicitly calls for such a study: "Investigation of organizational influences should seek to assess the effects of organizational experiences and policies on the public service motivation of members over time" (1997, 193).

Perry (2000) points to March and Olsen's (1989) work on institutions as a theoretical basis for asserting that institutions foster a logic of appropriateness in the minds of individuals—rather than a more rational-choice logic of consequentiality—which causes them to develop PSM. March and Olsen define institutions as "collections of interrelated rules and routines that define appropriate action in terms of relations between roles and situations" (1989, 21).[4] This broad definition of institutions not only conforms to the idea of sociohistorical institutions—March and Olsen explicitly consider the role of education and socialization—but also is consistent with the concept of organizational institutions. The emphasis on rules and routines suggests that both formally mandated and informal aspects of organizations provide institutional influences.[5]

Our key theoretical contribution to Perry's work is to extend the understanding of institutions that shape PSM to include organizational institutions. We argue that work-related rules and norms are organizational institutions that shape not only the administrative behavior of public servants but also the basic attitudes that these actors hold about the value of public service.[6] Our theoretical model, therefore, does not

seek to directly contradict Perry's theory but rather to test whether one aspect of that theory—the work environment—deserves closer attention as a significant predictor of employee beliefs. Essentially, we argue that PSM may be formed by sociohistorical factors before employees enter the organization, but it will also be influenced by the organizational environment in which employees find themselves.[7]

Our approach is consistent with the theoretical premises that Perry (2000) places at the heart of PSM theory: that rational, normative, and affective processes motivate humans; that people are motivated by their own self-concept; that preferences or values should be endogenous to any theory of motivation; and that preferences are learned in social processes. Public organizations are not just a means to produce outputs; they are also social institutions in which individuals interact and influence each other in the context of a structured environment.[8] Conformity to organizational norms is likely a clear instance of the endogenous nature of individual preferences. March and Olsen (1989) observe that expectations, preferences, experiences, and interpretations of the actions of others are all constructed within institutions. Actors construct beliefs and behaviors based on what is appropriate in light of their environment and the norms of behavior of those around them. Therefore, we expect that public employees' beliefs about public service are at least partly influenced by the nature of the organizations they are a part of.

Sociohistorical Context

Perry (2000) argues that PSM depends on how individuals are socialized through sociohistorical institutions—primarily parental relations, religion, observational learning and modeling during the course of their lives, education, and professional training. Perry (1997) tested the effect of some of these factors on five dependent variables: a composite measure of PSM and four subscales (attraction to policy making, commitment to public interest/civic duty, compassion, and self-sacrifice). In his 1997 analysis, Perry found that religion had a mixed impact on PSM, with church involvement being negatively related to PSM and closeness to God being positively related to PSM. A third religion variable, religious worldview, had no significant impact in either direction. He found similarly mixed results for parental relations: The extent to which respondents had learned altruistic or helping behavior from their parents had a strong positive effect on overall PSM and civic duty in particular. The degree to which respondents had good relations with at least one parent did not have a strong impact on PSM.

Perry (1997) found that education had a significant positive relationship with his overall measure of PSM and two subscales, commitment to public interest/civic duty and compassion. In the 1997 model, education was included as a demographic control, but in formulating his process theory of PSM, Perry recognized the primary role of education in shaping beliefs, finding that the level of education was significantly and positively related to the overall PSM scale and all of the subscales, with the exception of compassion. This leads to our first hypothesis:

> **H_1**: Level of education is positively related to PSM.

The second aspect of education outlined by Perry is professional identification through membership and active involvement in a professional organization. To a greater degree than level of education, which is typically completed prior to joining an organization, professional membership is a type of socialization that parallels the employee's experience in the organization. Professional organizations seek to help their members make sense of and succeed in their organizational environments. Therefore, we expect membership in professional organizations to have a strong influence on PSM.

Perry (1997) confirms the strength of this influence, but the direction of the relationship remains unclear. Although he had hypothesized that professional identification socializes an individual to ethical behavior—and therefore should be positively related to PSM—Perry found that it had a mixed effect on PSM. Overall, it had no significant relationship to the composite PSM scale; was negatively and significantly related to attraction to policy making; was positively and significantly associated with commitment to public interest/civic duty and self-sacrifice; and had no significant relationship with compassion. Perry argues that these are among the most interesting of his findings, raising questions about a conflict between professional values and a tolerance for politics. Given the relevance of these mixed findings, we retest them here without specifying the direction of the relationship between professional membership and PSM:

> **H_2**: Membership in a professional society affects an employee's PSM.

Organizational Institutions

To examine organizational institutions, we survey employees' perceptions of their work environments in the areas of culture, hierarchical authority, red tape, and reform orientation. We also test the effects of length of organizational membership.

As Barnard (1938) observes, there are a variety of formal and informal mechanisms through which organizations may shape the beliefs and behavior of their members. Any description of informal institutions inevitably brings us to the concept of culture.

The influence of organizational norms on beliefs and behavior is widely asserted in the organizational culture literature. Organizational culture shapes beliefs and practices (Kaufman 1960; Schein 1992) and other aspects of administrative behavior, including patterns of interorganizational interaction and reform (Ban 1995), implementation (Ginger 1998), the potential for learning (Mahler 1997), and entrepreneurship (Moon 1999).

To examine the role of culture, we employ Quinn and Kimberly's (1984) categorization of distinct value types: group, developmental, hierarchical, and rational cultures. 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, management of information and communication, and organizational stability. Finally, rational cultures are associated with organizational goals, control, planning, goal setting, production, and efficiency. All organizations are likely to exhibit these types to varying degrees rather than simply fall into one type or another (Zammuto and Krakower 1991).

Therefore, we test the influence of the presence of each type of organizational culture on PSM. Given the difficulty of measuring culture—and the absence of discussion of organizational culture in previous work on PSM—our proposals here are clearly exploratory, and we do not specify the direction of the relationship between culture and PSM, with one exception. Given that hierarchical cultures tend to emphasize rule-based control of employees (like traditional bureaucracies) and bureaucratic personality (Merton 1940), we expect hierarchical culture to be negatively associated with PSM:

> **H_3**: Organizational culture affects an employee's PSM.

> **H_4**: Employees who experience a hierarchical culture have lower levels of PSM.

The definition of red tape offered by Bozeman—"rules, regulations, and procedures that remain in force and entail a compliance burden, but do not advance the legitimate purposes the rules were intended to serve" (2000, 12)—underscores the conflict between red tape and the emphasis on actively serving the public interest that characterizes PSM beliefs. Early work (e.g., Goodsell 1994; Kaufman 1977) tended to offer a spirited defense of red tape as a "procedural safeguard" in the public sector without specifying what was meant by red tape, thus limiting further research on the topic. Recent work by Bozeman and colleagues (e.g., Bozeman 1993, 2000; Bozeman and Scott 1996; Pandey and Kingsley 2000; Pandey and Scott 2002; Pandey and Welch 2005; Rainey, Pandey, and Bozeman 1995) has provided clearer conceptual and measurement specifications for the red tape concept. This definition more closely matches the perceptions of individual practitioners: Not all formal rules are red tape, just those that frustrate employees in achieving their goals.

Examinations of the relationship between red tape and individual beliefs detect a greater tolerance for red tape among employees with lower job satisfaction, greater personal alienation, and higher insecurity, pessimism, and mistrust (Bozeman and Rainey 1998; DeHart-Davis and Pandey 2005; Pandey and Kingsley 2000; Rainey, Pandey, and Bozeman 1995). These characteristics are at odds with the profile of employees with high levels of PSM, who are characterized by higher levels of performance, achievement, organizational commitment, and job satisfaction (Brewer and Selden 1998; Crewson 1997; Perry and Wise 1990).[9] Indeed, in explaining lower job involvement on the part of public employees compared to their private sector counterparts, Buchanan (1975) points to employee frustration with red tape as the primary cause. Therefore, we expect that employees who perceive themselves as working in an organization dominated by red tape will have lower levels of PSM:

> **H_5**: Employees who experience red tape have lower levels of PSM.

If public sector stereotypes such as bureaucratic personality and entrenched red tape are indeed responsible for reducing PSM, we expect that reform efforts directly targeted at battling these maladies will improve PSM. Recent reform efforts falling under the banner of the reinvention movement have adopted this approach. Reinvention explicitly assumes that employees wish to provide valuable public services and, with the removal of red tape and constraints, can be more effective in doing so (Gore 1993; Moynihan 2006). To public managers, the adoption of reforms communicates that leaders are intent on pursuing change that allows workers to do their jobs effectively (e.g., Dilulio 1990). A reformist orientation, therefore, is likely to reduce employee cynicism about existing barriers to public service and give employees hope for greater freedom to operate in a way that is consistent with their conception of public service. Naff and Crum (1999) have already found a relationship between PSM and reinvention efforts at the federal level, and we extend this research to the state level:

> **H_6**: Employees who experience employee-friendly organizational reforms that seek to cut red tape and empower employees display higher levels of PSM.

Increased levels of hierarchy are associated with many of the effects of red tape, frustrating the ability to achieve goals, and therefore might be expected to have a similarly negative effect on employee outcomes. However, we control for the primary negative effects of hierarchy through the inclusion of a red tape variable and a measure of hierarchical culture based on an emphasis of formal rules and procedures. Controlling for the dysfunctional aspects of hierarchy prompts us to consider its functional purposes and the reason why it has persisted. Wildavsky (1990) points to a tendency in public administration scholarship toward a distaste for hierarchy—in part because of the inequality it invokes—while taking for granted its virtues of stability, continuity, and predictability. Hierarchical levels provide a means to manage the complexity of large organizations, enabling managers to undertake actions that are consistent with task complexity and the time span required (Jaques 1990). Levels of hierarchy also provide a way to manage accountability in a structured fashion. These issues are likely to be of major concern for our respondents—mid-level to senior-level managers—as they attempt to successfully contribute to the delivery of public services. By contrast, reformers who criticize hierarchical levels tend to focus on the perspective of frontline workers and urge the removal of mid-level managers as a means of reducing hierarchy and its associated problems (Gore 1993). Given the competing claims about the benefit of hierarchy, we propose the following:

> $\mathbf{H}_7$: The number of hierarchical levels in an organization affects employee levels of PSM.

Finally, we test the impact of length of organizational membership on PSM. It has been argued that over time, organizational loyalty and commitment are strengthened as a result of organizational membership (Romzek 1990). Crewson (1997) found that seniority and pay grade, both correlates of length of organizational membership, had a positive relationship to organizational commitment. However, there are conflicting arguments about the effect of length of employment on PSM. A basic assumption of most reforms is that bureaucratic forms of government sap the enthusiasm of well-meaning workers (Gore 1993). Merton (1940) argues that bureaucratic organizations lead employees to adopt a bureaucratic personality that is characterized by goal displacement as rule observance replaces the original purposes of the organization. For most public positions—and certainly health and human services—the basic goal of helping citizens is consistent with PSM. However, from employees' perspective, these goals may become less clear the longer they remain with the organization because they must adapt their everyday work patterns to the demands of the bureaucracy, becoming part of and directing management systems that are enmeshed in a web of rules and reporting requirements. In addition, employees may gradually recognize the ineffectiveness of the organization in achieving its goals, further undermining PSM. Members who joined an organization with a strong commitment to public service may find themselves increasingly frustrated as time passes, as their hopes to contribute are dashed (Romzek and Hendricks 1982). In short, length of organizational membership reflects the cumulative effects of being in a particular work environment over time, both good and bad. Given these conflicting arguments, we propose the following:

> $\mathbf{H}_8$: Length of organizational membership affects employee levels of PSM.

Demographic Controls

In addition to the foregoing variables, we employ a number of demographic controls: gender, age, and income. These controls led to some unexpected results in Perry's 1997 study, and consequently, there is value in seeking to replicate his findings. Perry found, at least in relation to commitment to public interest/civic duty, that men were more likely to have higher levels of PSM than women. Contrary to one hypothesis, Perry found that higher levels of individual income were negatively associated with PSM among employees, particularly in terms of commitment to public interest/civic duty. He argues that this may be the result of a growing class separation between the wealthy and other classes, leading to a reduced sense of civic involvement on the part of wealthy individuals. Finally, he found that age had, as hypothesized, a positive impact on PSM, although it is not clear whether this is the result of a generational difference between respondents or the different environments faced by respondents of different ages, given the inclusion of students in the survey. Our sample is made up exclusively of public employees, and therefore we can employ length of organizational membership as a variable, in addition to the age variable, to better understand the nature of this relationship.

Data, Methodology, and Measurement

The data for this study were collected as part of Phase II of the National Administrative Studies Project (NASP-II) during 2002–03. The response rate for the survey was approximately 53 percent (274 responses). Additional detail on the data-collection process is included in appendix 1 and in Pandey (2003).

The theoretical population of interest for this study consisted of managers engaged in information management activities at state-level primary health and human service agencies. Consistent with Caudle (1990), we employed a broad definition of information management, including not only those who manage information systems applications but also managers involved in research and evaluation, managers dealing with public information and communication,

and top-level program administrators. The average age of the managers we surveyed was almost 50 years, almost half were women, the average length of stay in the organization was more than 15 years, and the average salary was $50,000–$75,000 (see Table 1). This demographic description sounds more consistent with our expectations of a typical career manager in a health and human service agency, 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 should be exercised in generalizing study findings.

Measurement

This section discusses how we measured the more complex variables employed in this analysis. A full listing of the questions employed, the original source of these questions, and the Cronbach's alphas of the scales employed can be found in appendix 2.

The survey included three of Perry's four measures of PSM: attraction to policy making, commitment to public interest/civic duty, and compassion. As survey questions were being selected, a deliberate choice was made to exclude questions pertaining to the self-sacrifice dimension, largely because it was not included in the original conception of PSM and because of its conceptual similarity to and overlap with the compassion dimension. In constructing scales for each item, we used a selection of the Likert-scale items suggested by Perry (1996). In this analysis, we chose not to employ the compassion variable because of concerns over the internal consistency of the scale. The scale employed for this variable had a Cronbach's alpha of .40, below minimally acceptable standards. Perry (1996) reports alpha measures ranging from .69 to .74 for the PSM scales that he developed. The differences in the scale reliability report may be the result of a different group of respondents: We surveyed managers working in the public service in the areas of health and human services, whereas Perry administered his survey to a wider variety of respondents, including graduate and undergraduate students, university employees, public employees, and managers in different public organizations. Another explanation is that we employed only a subset of the compassion survey questions (four of the eight items in Perry's compassion scale), and the alpha is dependent on the number of items in the scale. For the attraction to public policy making scale, we employed all three items used by Perry, obtaining a Cronbach's alpha of .72. For the civic duty scale, we used four of the five items employed by Perry, resulting in a Cronbach's alpha of .67. Our overall PSM scale, made up of the attraction to public policy making and civic duty scales, had a Cronbach's alpha of .67.

Table 1 Descriptive Statistics

Variables	Mean	Standard Deviation
Public service motivation	25.0554	4.1007
Attraction to policy making	9.6630	2.7420
Commitment to public interest/civic duty	15.4022	2.5467
Education	2.4142	0.6506
Professional identification	0.4964	0.5009
Group culture	3.5693	1.0076
Developmental culture	2.8723	1.1460
Hierarchical culture	3.5036	1.0902
Rational culture	2.7701	1.0245
Red tape	6.4210	1.9824
Reform orientation	18.3059	6.8975
Hierarchical authority	6.0239	2.1785
Length of organizational membership	15.4388	10.6607
Age	49.8910	7.6192
Income	2.4335	0.8394
Gender (Female)	0.4664	0.4998

Our measure of culture examines the perceived values and norms of the organization directly in terms of shared social meanings. Measuring culture has proved difficult (Schein 1996), partly because defining organizational culture along a unidimensional scale fails to capture the complexity of competing cultures in almost all organizations. This complexity gave rise to Quinn and Rohrbaugh's (1981) categorization of distinct value types, which 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). Quinn and Kimberly (1984) categorize the four cultural types emerging from this model as group, developmental, hierarchical, and rational cultures. These types were converted into survey questions by Zammuto and Krakower (1991) and adapted for use in the NASP-II survey.

Attitudes toward structural attributes—such as the degree of formalization and the distribution of power and discretion in the organization—are shaped by the way employees perceive formal rules or entrenched norms that communicate organizational values and practices. Therefore, our measures of red tape, hierarchical authority, and reform orientation reflect employee attitudes about these more structural aspects of the organization.

For the measure of reform orientation, reforms such as contracting out or privatization may produce a negative effect on employee morale. Therefore, we employed a measure of reform that excludes downsizing or privatization but includes reinvention reform strategies that we expect will capture a sense of purpose and action that is consistent with our hypothesis by enhancing a focus on results and managerial authority (Moynihan 2006). In testing the existence

of a reform orientation, we employed a preexisting measure of reinvention (Brudney, Hebert, and Wright 1999). Our measure gauges the extent to which workers observed the implementation of reinvention efforts during the previous four years, assuming that high levels of implementation raise PSM.

The models tested in the study satisfied ordinary least squares regression assumptions; therefore, we estimated the effects of each independent variable on PSM while holding the other independent variables constant.[10] The descriptive statistics for the data are reported in table 1.

Findings and Discussion

The explanatory power of our models, expressed as R^2, ranged between .15 and .22, levels that are consistent with the results of Perry (1997) (see table 2). The results of our analysis offer strong support for the importance of the sociohistorical context but also recognize the influence of organizational institutions on the aspects of PSM tested here—attraction to policy making and commitment to public interest/civic duty. Although our culture measures did not prove significant, we found strong support for other organizational variables and, therefore, for our general premise that the organization is an important venue for shaping PSM. The existence of red tape appears to reduce PSM. On the other hand, the perception that the organization is actively implementing reforms is a positive and significant predictor of PSM for the overall commitment to public interest/civic duty scale, and the measure of levels of hierarchical authority is a positive predictor of PSM across all scales. For our sample, length of organizational membership was negatively associated with PSM, significantly for the overall measure of PSM and attraction to policy making and slightly above generally accepted significance levels for commitment to public interest/civic duty. None of the demographic controls proved significant, with the exception that women were more attracted to policy making, counter to Perry's (1997) finding.

The most powerful predictors of PSM are the sociohistorical variables: higher levels of education and professional membership. The results reinforce earlier findings (Perry 1997) on the positive relationship between level of education and PSM. Given the clarity and strength of these results, future research on this topic might benefit from examining *how* the educational process imparts values of PSM rather than simply measuring the level of education.

The results for professional identification were also strong and uniformly positive. This is partly inconsistent with Perry's (1997) findings that professional identification had no overall positive effect and was a negative influence for attraction to policy making. The findings are, however, consistent with Perry's original hypothesis on the positive role that professional organizations play in shaping the ethical norms of their members. The difference in results may be attributable to measurement—we used a simple dummy measure of membership in a professional organization, whereas Perry used a scale that tracks activity in and attitudes toward professional organizations. Alternatively, the difference may be explained by the wide variety of

Table 2 Regressions to Explain Public Service Motivation

	Public Service Motivation		Attraction to Policy Making		Commitment to Public Interest/Civic Duty	
Independent variables	B (std. error)	Beta	B (std. error)	Beta	B (std. Error)	Beta
Education	1.093 (.398)	.172***	.536 (.274)	.127*	.565 (.257)	.144*
Professional identification	1.913 (.527)	.230****	.834 (.363)	.151*	1.095 (.341)	.213****
Group culture	.332 (.288)	.079	.089 (.198)	.032	.264 (.186)	.102
Developmental culture	.117 (.260)	.023	–.074 (.179)	–.030	.178 (.168)	.079
Hierarchical culture	–.009 (.273)	–.002	–.050 (.188)	–.019	.033 (.176)	.014
Rational culture	–.237 (.264)	–.057	–.097 (.181)	–.035	–.118 (.171)	–.046
Red tape	–.431 (.147)	–.207***	–.337 (.101)	–.244****	.087 (.095)	–.068
Reform orientation	.088 (.039)	.145**	–.034 (.027)	–.083	.054 (.025)	.145**
Hierarchical authority	.378 (.137)	.193***	.179 (.094)	.138*	.203 (.088)	.168**
Length of organizational membership	–058 (.025)	–.148*	–.030 (.017)	–.116*	–.026 (.016)	.109
Age	.029 (.040)	.049	–.030 (.028)	.076	–.004 (.026)	–.012
Income	.347 (.330)	.069	.356 (.226)	.107	.020 (.213)	.007
Gender (Female)	.543 (.519)	.065	.857 (.357)	.155**	–.343 (.335)	–.066
N	237		238		237	
R^2	.220		.160		.151	
F	7.768		3.303		3.067	
Significance	.0000002		.0001		.0003	

****Statistically significant at .001; ***statistically significant at .005; **statistically significant at .01; *statistically significant at .05.
Note: Significance levels are one-tailed tests if matching a predicted direction, two-tailed tests otherwise.

respondents that Perry surveyed, which ranged from undergraduate students to managers and employees in different types of organizations. Our more homogenous set of respondents in the health and human services field might be expected to have a less varied and more uniform relationship, with a smaller range of relevant professional organizations. Overall, our results suggest that, at least in the area of health and human services, professional identification appears to have a positive effect for the aspects of PSM that we measure here.

The organizational culture variables were not found to be significant predictors of PSM. The null results for all of the measures of organizational culture were somewhat unexpected. Given the results of in-depth case analysis on the role of culture in shaping beliefs, it is hard to dismiss this variable; Kaufman (1960) and Wilson (1989) offer classic examples of how culture shapes beliefs and behavior. Although the validity of the categories and measures that we employed is confirmed by other studies (Zammuto and Krakower 1991), we acknowledge the difficulty of measuring cultural attributes across organizations. In addition, as noted before, our scales do not cover all aspects of PSM but instead focus on a limited set of public employees. Thus, our results on culture should be viewed as preliminary, and there is value in testing this relationship with alternative measures of culture, additional survey populations, and the full PSM scale.

Red tape was negatively and significantly related to the overall measure of PSM and attraction to policy making but not to commitment to public interest/civic duty. Consistent with the message of reform advocates in the public sector, well-meaning employees may become unmotivated in intensely bureaucratic organizations. Red tape discourages employees from believing they are serving the public good, but active reform efforts to increase managerial authority and focus on results can reinvigorate PSM among managers. The reinvention movement that provides the basis for our reform scale is broadly associated with generally positive reform rhetoric based on assumptions that organizational systems rather than public employees are to blame for public failures and that public employees play a central enabling role in achieving public goals (Gore 1993; Moynihan 2006). For public employees who value public service and may be frustrated by perceived goal displacement in their organizations, such reforms are likely to be viewed positively and reinforce the belief that the organization provides a venue in which employees can fulfill their public service motivation. The results from our sample suggest that this effect is especially pronounced among employees who are interested in policy making.

However, the findings from our sample question recent reforms' emphasis on the negative effect of excessive hierarchy. We found the perception that an organization has many hierarchical levels to be associated with higher levels of employee PSM. This finding runs contrary to the assumptions of reform efforts that denigrate hierarchy as an outmoded and stifling organizational characteristic. Such reforms have advocated flatter organizations that reduce the distance between the top and bottom of the hierarchy, thereby empowering frontline employees. The losers in these reform efforts are mid-level managers who supervise the work of public organizations but are deemed an unnecessary nuisance and targeted for downsizing. However, Wolf (1997) argues that such criticisms are overstated based on a mistaken belief that modern agencies maintain premodern levels of hierarchy. Using a meta-analysis of case studies of effective public organizations, Wolf demonstrates that hierarchy has virtually zero effect on agency performance. This is because "agencies of the modern era are decidedly less hierarchical than were their predecessors" and "most modern agencies are formalized to a degree appropriate with their mission" (Wolf 1997, 376). Rather than being the hapless victims of an industrial age organizational structure, public managers are likely to find themselves in organizations in which the level of hierarchy is based on an understanding of how best to achieve organizational goals.

As Jaques (1990) argues, hierarchy continues to persist because it remains the most logical and effective way to organize the multiple complex tasks undertaken by large groups of individuals while maintaining a system of clear accountability, adding value to work as it moves through the organization, and building consensus and acceptance for organizational actions. Few are in a better position to appreciate the benefits of hierarchy—and also to overlook its failings—than mid-level managers. Hierarchical levels provide a structure that allows these actors to perceive themselves as exercising a powerful and positive role in providing public services, but consistent with reasonable levels of complexity and accountability. Mid-level managers in organizations that have adopted a flatter approach face criticism, may struggle to fully understand their role relative to senior managers and frontline employees, and must reconceptualize how to meaningfully add value and oversee a greater number of employees. From a more self-interested perspective, the presence of many hierarchical levels also improves the potential for promotion to a higher level of the organization for these managers. Defending hierarchy may have gone out fashion, but our results offer rare advocacy for the benefits that hierarchy provides, not just in terms of making organizations work effectively but also in terms of the beliefs of employees. It also helps explain the dogged persistence of the hierarchical form in the face of continuing criticism. We recognize, however, that this result may not be generalizable to the PSM of other groups who are less tolerant of

hierarchy. If our survey had included frontline employees, nonprofit staff, or students, the results might have been different: This is clearly an empirical question and worthy of attention in future studies of PSM.

It is somewhat discouraging to find that the longer our respondents were in their current organizations, the lower their levels of PSM, at least with respect to the measure of attraction to policy making and the combined measure of PSM. Though it would be tempting to believe that public organizations are effective at celebrating and communicating the value of their services to their employees, our respondents reported declining levels of PSM. We are careful, however, to caution that our results come from one functional area in state government and must be considered preliminary. As others have noted, PSM is a dynamic construct, and it may vary considerably across function or level of government (Brewer and Selden 1998). Workers in the provision of health and social services may be particularly likely to grow discouraged over time if they see limited progress toward solving the problems of poverty, inadequate health services, and other social issues. Workers in other areas may not perceive such a lack of progress. Another explanation is that PSM may have declined among respondents because of such life-cycle considerations as work or retirement (rather than the individual's experience with the organization), although it bears noting that our analysis controlled for the effects of age as a separate variable. Again, these are clearly salient research questions that are worthy of empirical investigation.

Two additional caveats related to the generalizability of our analysis are worth considering. First, we have analyzed only two of the four elements of the standard PSM scale. Perry (1997) found some significant differences in the influence of independent variables on the four different aspects of PSM, so it is unclear whether our results would apply to the compassion and self-sacrifice elements of PSM. On the other hand, PSM has been consistently articulated as a single concept with related subcomponents, which would argue for the generalizability of our results. Indeed, Perry's first article on PSM scale development conceives of PSM as a superordinate multidimensional construct (Edwards 2001), a conceptualization that is in accord with the intellectual history of the concept in public administration. Furthermore, Coursey and Pandey (forthcoming) provide empirical support for this viewpoint using a latent variable technique. A second caveat relates to the independent variables employed. Clearly, the model presented here does not test all possible variables related to PSM. Because of data limitations, we did not include other sociohistorical factors previously tested, such as religion and parental relations.

Conclusion

This study has offered evidence that the PSM of public employees is a result of not only individual sociohistorical background but also the organizational environment in which employees find themselves. Clearly, ours is a preliminary model, and there remains a need for additional analysis of the antecedents of PSM. Nonetheless, the results support the basic argument on the importance of organizational institutions to PSM and thus represent an empirical and theoretical advance over prior knowledge.

Recognizing the impact of organizational institutions on PSM means recognizing an accompanying set of organizational responsibilities. One of the perceived practical benefits of PSM is that it both helps recruit individuals into the public sector and strengthens employee ties with the public sector, providing a basis for loyalty, motivation, and commitment that is more effective than monetary incentives. But how can organizations seek to foster PSM in the first place?

Public organizations must become attuned to the effect that management systems and other organizational institutions have on PSM. This research has provided some qualified insights: Reducing red tape and undertaking reform that clarifies goals and empowers employees can have a positive effect on employee PSM. Other research suggests that helping employees feel as if they are meaningfully contributing to organizational goals reduces employee frustration and strengthens commitment (Romzek and Hendricks 1982). The element common in these suggestions is the importance of encouraging public employees to feel that they are personally contributing to an organization that performs a valuable service, without unnecessary restrictions or controls on their efforts. The research also suggests the importance of communicating to public employees the centrality of their role in the organization and the real benefits that their contribution makes to society—an organizational trait that is currently unfamiliar to many public employees.

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Notes

1. Perry and Wise propose three main types of PSM: rational motives, in which individual utility is based on creating good public policy; norm-based motives, which are based on a general sense of public interest and social equity; and affective motives, which are based on emotional responses to social contexts and particular affection for specific programs. Perry (1996) later tested a number of measurement tools to track PSM, devising scales for attraction to policy making, commitment to public interest/civic duty, and compassion and matching them to the rational, norm-based, and affective motives, respectively. Perry added self-sacrifice, an additional aspect of PSM that has been identified in discussions of public service.
2. Offering a ranking of different reward alternatives to respondents, Wittmer found that private sector managers were significantly more concerned with pay, status, and prestige than public or hybrid managers, who placed much greater emphasis on helping others and community service. Using a national sample, Houston (2000) provides further support for public employee reward preferences. However, he also reports that public sector employees place greater emphasis on job security.
3. Alonso and Lewis (2001) offer more mixed evidence on performance. Employing two separate federal government data sets, they found that PSM is significantly and positively related to performance in one but not the other, identifying the need for greater empirical testing of this claim.
4. Our approach to institutions joins with and extends Perry's application of the work of March and Olsen (1989, 1995). However, we are aware that any effort to incorporate the term *institution* into an analytic framework is fraught with risk and disagreement. The success of various strands of institutional theory—Hall and Taylor (1996) count three versions, Peters (1999) counts six—encourages a tendency toward overextension (Hall 1996). March and Olsen's definition does point to some common attributes among the different approaches—a distinction between institutions and organizations, with institutions as rules, formal or informal, that are stable over time and have an impact on individual belief and behavior (Peters 1999).
5. For example, in a later work, March and Olsen argue that public servants should be directed not only by formal mandates but also by the need to be socialized into "an ethic of administrative duty and conformity to the law" (1995, 58). Although March and Olsen conceive of the public servant in distinctly Weberian terms, the importance of formal rules and informal socialization assumes a key role for organizational institutions in shaping the beliefs and behavior of these actors.
6. Perry (2000) does not completely overlook the role of the organization: He specifies the role of the work environment as a source of influence on PSM, noting evidence on the special context of public organizations and the need to develop incentives that are appropriate to the logic of the work setting. He does not, however, specify in detail how different aspects of the public work environment shape PSM, suggesting that the work environment is of secondary importance to such sociohistorical institutions as religion, education, and parental relations.
7. To illustrate, we argue that the PSM differences between employees in different sectors are not solely the product of self-selection based on preexisting PSM levels. It may also be the case that the way employees perceive their organizational environments makes them more or less likely to maintain PSM beliefs over time. As Wright (2001) points out, sectoral differences may be explained not only by self-selection into suitable jobs but also by a process whereby employees adapt their values to suit the organizational environment (see also Hall, Schneider and Nygren 1970; Rosenberg 1957). This is consistent with March and Olsen's argument that individual preferences are not exogenous and fixed but rather endogenous to the institutions in which the individual interacts, shaped by a logic of appropriateness consistent with these institutions. There is some empirical evidence in the context of PSM to support this claim. Romzek and Hendricks (1982) suggest that the inability of public organizations to satisfy a desire to serve will lead to disinterest or hostility as PSM turns into frustration. Crewson (1997) found that organizational commitment is partly dependent on the sense of trust and affiliation that workers have with fellow employees.
8. An acceptance of the role of the work environment as a shaper of public employee behavior is central to traditional public administration scholarship, as illustrated by three giants of the field: Gulick (1937) represents an early acceptance of the central role of formal structures and procedures in shaping employee outcomes, whereas Barnard (1938) points to the role of informal norms. Selznick (1996) notes how deviations from formal structures become embedded normative organizational characteristics over time and the sense of value that institutionalization can infuse in the tasks. This acceptance of institutions—although the term *institutions* is rarely employed in the manner that March and Olsen propose—continues in present scholarship. For example, Wilson's (1989) widely cited account of bureaucracy identifies organizational

circumstances, culture, and constraints as shapers of administrative behavior. The public budgeting process and civil service systems are objects of study that reflect the way that highly formal and procedural aspects of the public sector interact with entrenched norms of appropriate and expected behavior (Ingraham, Moynihan and Andrews forthcoming).

9. Quite likely, the relationship between red tape and public service motivation is bidirectional. Consistent with our focus on the influence of organizational institutions, this study argues that red tape reduces public service motivation. However, some public administration literature focuses on the other causal direction, arguing that managers who are imbued with high levels of public service motivation perceive and work to reduce red tape (Scott and Pandey 2005).
10. To determine whether ordinary least squares was the appropriate estimation technique, we examined our data for heteroskedasticity, multicollinearity, and influential data. A histogram of the standardized residuals shows a normal distribution. A scatter plot illustrates that the errors were 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 were between red tape and hierarchical levels, which were positively correlated at .466, and between the different measures of culture: bureaucratic and developmental culture were correlated at –.423, and the developmental and group culture were correlated at .406. None of the other correlations between the independent variables exceeded 0.4, although length of organizational membership and age were positively correlated at .396. The highest VIF for each model was the red tape variable, although the square root of the VIF did not exceed 1.215 in any model.

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Appendix 1: Data Collection for Phase II of the National Administrative Studies Project

The theoretical population of interest for this study consisted of managers engaged in information management activities in state-level primary health and human service agencies. Primary health and human service agencies were identified on the basis of the definition used by the American Public Human Services Association (APHSA), which includes agencies and housing programs related to Medicaid, Temporary Assistance for Needy Families, and child welfare. The sampling frame was developed with the aid of the most widely used directory of human service agency managers, namely, the APHSA directory. The application of the study criteria resulted in a sampling frame of 570 managers from the 50 states and Washington, D.C. 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).

As with most survey research projects, minimizing nonresponse, both to the survey and to specific questionnaire items, was a primary survey administration goal. Dillman's (2000) comprehensive tailored design method was employed to maximize the response rate. This method uses the following elements:

- Questionnaire with well-designed content
- Survey questionnaire formatted in accordance with the latest advances in cognitive research
- Multiple personalized contacts, each accompanied by 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, a fax message, and a phone call at key points in the survey administration
- 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. Approximately one week following the initial alert letter, the survey questionnaire was mailed to the respondents. About 10 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 this postcard was mailed, a new cover letter and replacement survey were sent to nonrespondents. 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.

Based on the information collected during this period, the size of the sampling frame was reduced from 570 to 518. The principal reason for deletion from the sampling frame was that managers had left the organization before survey administration efforts. Other reasons for deletion from the sampling frame were retirement and death. By the time the survey administration concluded in the winter of 2003, a total of 274 responses had been received. Thus, the response rate for the study was 53 percent.

Appendix 2: Measurement of Study Variables

Attraction to Policy Making (adapted from Perry 1996)
Summative index (Cronbach's alpha = .72) of responses to the following questions, taken from Perry (1996), where 1 = strongly disagree and 5 = strongly agree.

- Politics is a dirty word. (reversed)
- The give-and-take of public policy making doesn't appeal to me. (reversed)
- I don't care much for politicians. (reversed)

Commitment to Public Interest/Civic Duty (adapted from Perry 1996)
Summative index (Cronbach's alpha = .67) of responses to the following questions, taken from Perry (1996), where 1 = strongly disagree and 5 = strongly agree.

- I consider public service my civic duty.
- Meaningful public service is very important to me.
- I would prefer seeing public officials do what is best for the whole community even if it harmed my interests.
- I unselfishly contribute to my community.

Rational Culture (adapted from Zammuto and Krakower 1991)
1 = strongly disagree, 5 = strongly agree
- My agency is very production oriented.
- A major concern is with getting the job done.
- People aren't very personally involved.

Group Culture (adapted from Zammuto and Krakower 1991)
1 = strongly disagree, 5 = strongly agree
- My agency is a very personal place.
- It is an extended family.
- People seem to share a lot of themselves.

Developmental Culture (adapted from Zammuto and Krakower 1991)
1 = strongly disagree, 5 = strongly agree
- My agency is a very dynamic and entrepreneurial place.
- People are willing to stick their necks out and take risks.

Hierarchical Culture (adapted from Zammuto and Krakower 1991)
1 = strongly disagree, 5 = strongly agree
- My agency is a very formalized and structured place.
- Bureaucratic procedures generally govern what people do.

Reform Orientation
Summative index (Cronbach's alpha = .77) of responses to the following question, taken from Deil Wright's American State Administrators Project (Brudney, Hebert, and Wright 1999):
From time to time, state agencies undertake to change the way in which they do things. Please indicate the extent to which your agency as implemented each of the following over the *last four years* (1 = no changes considered, 5 = changes fully implemented):

- Training programs to improve client or customer service
- Systems for measuring customer satisfaction
- Benchmarks for measuring program outcomes
- Strategic planning to produce clear mission statements
- Quality improvement programs to empower employees
- Simplification of human resource rules
- Greater discretion to carry over funds
- Reduction in hierarchical levels
- Decentralization of decision making
- Greater discretion in procurement

Red Tape (from NASP-I; see Bozeman 2000; Pandey and Scott 2002)
If red tape is defined as burdensome administrative rules and procedures that have negative effects on the organization's performance, please assess the level of red tape in your organization. Please enter a number between 0 and 10, with 0 signifying no red tape and 10 signifying the highest level of red tape.

Hierarchical Authority (from NASP-I; see Bozeman 2000; Pandey and Scott 2002)
Please assess the extent of hierarchical authority in your organization. Please enter a number between 0 and 10, with 0 signifying few layers of authority and 10 signifying the many layers of authority.

Gender
Are you male (0) or female (1)?

Education Level
- Some college (1)
- Bachelor's degree (2)
- Graduate degree (3)

Age
In what year were you born? (Converted to age in years)

Length of Organizational Membership
How many years have you worked for this organization?

Income
Which of the following categories best describes your income from the agency in the previous year?
- Less than $50,000 (1)
- Between $50,000 and $75,000 (2)
- Between $75,000 and $100,000 (3)
- Between $100,000 and $150,000 (4)
- Over $150,000 (5)

Professional Identification (based on Aiken and Hage 1968)
Are you a member of a professional society? (e.g., ASPA, APHSA, APHA, AMA, ANA)
- Yes (1)
- No (0)

Note: NASP-I refers to Phase I of the National Administrative Studies Project.