

Toward Understanding Work Motivation

Worker Attitudes and the Perception of Effective Public Service

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Government reformers in the United States have recently focused on running public agencies more like private firms by emphasizing economic rewards, such as merit pay. Meanwhile, a body of literature has grown that indicates that public servants respond to factors that financially based reward initiatives tend to ignore. We introduce a new explanatory variable, perceived public service efficacy (*PPSE*), which quantifies public servants' perception about the benefit their employing agencies provide the public. We present empirical evidence demonstrating that as *PPSE* rises—that is, as public servants more strongly perceive their agencies to be benefiting the public—reported levels of role ambiguity decrease, whereas job satisfaction and organizational commitment responses increase.

Keywords: *public service motivation; human resources management; organizational effectiveness; worker perceptions; worker expectations*

In recent decades, as government reform politics has caught on in the United States and in other, mainly English-speaking countries, there have been efforts to remake and improve state and federal bureaucracies. One reform target has been government workers, who have been cast as inefficient and too difficult to fire (fairly or not, see Rainey, 2003). In the 1990s, for example, governors in Georgia and Florida eliminated merit system protections to fire workers more easily and to tie their pay to performance. These efforts have prompted new research into public-sector work motivation (e.g., Brehm & Gates, 1999). Wright (2001)

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states, “A better understanding of work motivation is essential to any efforts to describe, defend, or improve the efficiency and effectiveness of public organizations” (p. 560).

Scholarly interest in work motivation predates these reform initiatives, of course. Major contributions to organization theory years ago developed concepts related to our topic. Efforts at understanding how organizations “induce contributions” from participants generally are dated to the widely read writings of Chester Barnard, who saw an organization as an “economy of incentives” in which employees trade their time and effort for various incentives. These incentives include not only money, but status, power, and—significantly for the purposes of this article—fulfillment of altruistic impulses (Barnard, 1938). Later, writers well-known in organization theory, including Amitai Etzioni (1961) and Peter B. Clark and James Q. Wilson (1961), distinguished between types of organizations and their incentive structures. According to Clark and Wilson (1961), for business firms and other “utilitarian organizations,” monetary rewards are the most important incentive. In contrast, altruistic incentives apply mainly in “purposive organizations,” which include reform and social-protest groups. Although both were political scientists, Clark and Wilson did not address government agencies in their article. But the link between their theory and recent reform efforts are clear: To make government more businesslike and efficient, it must attend to the incentive structure by paying the wages that induce needed contributions.

This reasoning follows the logic not only of its branch of organizational theory, but also, more broadly, of the prevailing basic assumptions of economics and microeconomics-based policy analysis. According to Edgeworth (1881), “the first principle of economics is that every agent is actuated only by self-interest” (p. 16). Our article is part of a large body of recent work suggesting otherwise—that self-regarding motivation is not the only driver of behavior in human transactions, including the transactions between employers and employees. Most generally, John Brehm and Scott Gates (1999) use a variety of data sources to demonstrate, somewhat counter to some of the fundamental propositions of principle-agency theory, that many public-sector workers indeed like their jobs and prefer to work, even when unsupervised and able to shirk without suffering any repercussions from management.

In this article, we introduce a new explanatory variable, perceived public service efficacy (*PPSE*), which quantifies public servants’ perception about the benefit their employing agencies provide the public. Although similar to extant concepts including “mission valence” and “public service motivation,” *PPSE* closes a conceptual gap between organizational performance and individual motivation by focusing not only on valence but also on the perceived capacity and success of an agency in achieving its mission. We argue below that this perception is critical to worker motivation and to other concepts related to an individual’s workaday performance. Specifically, we present empirical evidence demonstrating that as *PPSE* rises in individuals—that is, as public servants more strongly perceive their agencies to be benefiting the public—reported levels of role ambiguity decrease, whereas job satisfaction and organizational commitment responses increase. The data from which these findings derive come from the National Administrative Studies Project II, which surveyed managers in information management at state-level health and human service agencies.¹

Motivation for This Study

This study was originally motivated by studies in human and animal behavior that have indicated an evolutionarily ingrained inclination not just to self-interest, but also to cooperation

(Axelrod, 1984; Axelrod & Hamilton, 1984; de Waal, 1996, 2001; Singer, 1999). Studies in game theory have shown the rationality of economically irrational behavior among those who have ongoing relationships. In an extended version of the prisoner's dilemma, for example, participants do not defect to reap immediate benefits, as they do in the one-shot version, but tend to foster long-term benefits to both (Axelrod, 1984). Similarly, in the real world, Bolton (1992) points to a palpable "sense of place" that develops over time in communities, which has value more or less overlooked by neoclassical economists. This value is evident in the investment that residents pour into their communities, eschewing free-ridership and other short-term gains in favor of volunteering and not always exacting top dollar in their trades to build and maintain relationships.

Closer to the subject at hand, though the recent government reform effort seems single-minded on work motivation, scholars have not been. Recall Barnard's (1938) suggestion that altruistic motives may be at work. Likewise, though they do not mention altruism by name, Clark and Wilson (1961) suggest that incentives, even for utilitarian organizations, extend beyond pay:

No business firm . . . relies exclusively on material benefits. Pleasant working conditions, camaraderie with fellow workers, a sense that the firm is producing good and valued products, and many other incentives are offered to satisfy the variety of motives that help to maintain participation in the enterprise. (p. 136)

Brehm and Gates (1999) demonstrate the importance of nonpecuniary rewards to workers at the Federal, state, and "street" levels of the public sector. Some writers go further, rejecting the notion that organizations rely solely on an equilibrium between inducements and worker efforts, arguing that cultural norms dictate that workers exceed their self-interest on the job, for example, by not embezzling from their employers when they could get away with it (North, 1990; Sen, 1977).

Research into motivational differences between public- and private-sector workers clearly show that the former have higher levels of "public service motivation" or PSM (Crewson, 1997; Perry, 1996; Perry & Wise, 1990). That is, they "place a high value on work that helps others and benefits society as a whole, involves self-sacrifice, and provides a sense of responsibility and integrity" (Rainey, 2003, p. 243). Note that the studies do not show that private-sector workers lack altruistic motivation altogether, only that in the aggregate, PSM is higher in public-sector workers. Less direct, Brehm and Gates (1999) demonstrate public-sector workers to have high "functional" preferences for their jobs whereby workers report feeling rewarded "by performing the very things" that they are supposed to do (p. 75). PSM and related concepts are reviewed further below regarding their relation to our variable *PPSE*.

Related to these studies of motivation, the idea of "organizational citizenship behavior" is supportive of individuals (in the public sector, at least) actually behaving in ways generally not accounted for by the neoclassical conceptualization of incentive and self-interest. Defined as individual behavior that promotes the efficiency and efficacy of an organization that is not a formal part of that organization's reward system (Kim, 2005; Organ, 1988), organizational citizenship behavior has been shown to positively affect organizational performance (Kim, 2005; Koys, 2001) as well as organizational commitment (Ostroff, 1992). This type of behavior may include volunteering for tasks that are not required, helping others with heavy workloads, promoting the organization's image, and helping to orient

new coworkers to the organizational environment. Brehm and Gates (1999) explain this type of behavior as workers having “solidary” work preferences whereby utility is acquired from the establishment of cooperative and friendly relations with coworkers.

Perceived Public Service Efficacy (*PPSE*) and Its Conceptual Precursors

The Perception of Effective Public Service

PPSE is a measure of workers’ perceptions of the benefits that their employing agencies provide the public. The notion that *PPSE* could motivate public servants is based on the assumption that these workers care whether their employers provide useful public services, and that this care would affect the levels of such motivation-related variables. A similar assumption has been suggested, though not empirically tested, by Jensen (1998, p. 170), who states that among public employees, “strong tastes” for an organization’s outputs may contribute to outcomes such as increased worker loyalty. Rainey and Steinbauer (1999) also hit close to our concept with the idea of “mission valence,” the idea that an organization’s mission can be attractive to individuals and thereby motivate them to perform well on the job, though an attractive mission can be tarnished if it does not produce results for public clientele (Buchanan, 1974), or at least the perception thereof. Similarly, Wright (2001) links public-sector workers’ goal commitment to their organizations’ goals.

A variable such as *PPSE* could be relevant to both public and private sectors—in their works, Barnard (1938) and Clark and Wilson (1961) dealt with the private sector—but this article focuses on government because (a) the bureaucracy-reform movement is an important public issue with steady salience, (b) the literature on PSM suggests that *PPSE* would be more prevalent in the public sector (Kilpatrick, Cummings, & Jennings, 1964; Rainey, 1982, 1983; Sikula, 1973), and (c) there are good public-sector data available to test the concept.

***PPSE* and Public Service Motivation**

Though *PPSE* is distinct from PSM, the latter deserves more discussion before moving to our analysis. Much of the research involving PSM is devoted to comparisons between workers in public and private sectors. Rainey (2003) traces such work at least to 1964, when Kilpatrick et al. (1964) found among federal workers a higher degree of interest in helping others and doing useful work for society, and a lower emphasis on financial rewards, than found among private industry workers. More recently, Crewson (1997) analyzed data from 14 surveys spanning 20 years and concluded that the public–private PSM difference has remained stable over time. Brehm and Gates (1999) generate similar results using Federal data from 1979, 1983, and 1992.²

Some studies ascribe positive workplace effects to higher levels of PSM. Naff and Crum (1999) find that higher PSM among federal workers correlate positively with job satisfaction and performance, as well as with the intention to remain in the job, and even with support for workplace reforms. Crewson (1997) links higher PSM to higher organizational commitment, and then to better job performance.³

If there is a link between PSM and performance, *PPSE* is a concept that helps to explain the link: Workers motivated by public service would respond to their agencies' effectiveness in providing public service. In terms of expectancy theory, if a worker's desired outcome is service to the public, and she perceives that work in her agency does indeed contribute to public service, she should be strongly motivated to perform work assignments (Rainey, 2003). A similar story could be told regarding negative outcomes, such as discouragement because of high levels of formalization and bureaucracy (Buchanan, 1974) and also burnout (Cherniss, 1980).

We do not rely on PSM as it has developed in the literature as the theoretical basis of *PPSE*. In fact, because of PSM's development as a distinction between public- and private-sector workers' motivation, some aspects of PSM as generally operationalized are orthogonal to our concept—for example, loyalty to duty and to the government as a whole (Perry & Wise, 1990) and “attraction to public policy making” (Perry, 1996). Rather, we return to Clark and Wilson's (1961) notion that “a sense that the firm is producing good and valued products”—or in the case of government, good and valued services—motivates workers, and to Barnard's (1938) suggestion that the fulfillment of altruistic impulses can be an inducement to work. Employees who believe their firms are producing good services ought to be more motivated than those who do not. Implicit in our conceptualization of *PPSE*, we are also relying on our own hunch that public employees tend to be motivated and act as “knights,” public spirited and altruistic, as much as they are motivated and act as “knaves,” as *Homo economicus* (Le Grand, 2003).

To be clear, *PPSE*, although a potential link between PSM and desirable worker attitudes like job satisfaction and organizational commitment (desirable insofar that these attitudes are associated with positive worker outcomes and performance, see below), is conceptually distinct from PSM in a number of ways. First, it addresses the expectancy as well as the valence aspect worker motivation, whereas PSM addresses only the latter. Accordingly, *PPSE* measures the extent to which workers perceive their public service organizations to be effective in serving the public, which is different than measuring the motivation for pursuing work in the public sector that PSM operationalizes. Related, *PPSE* is tied to the performance of a particular organization, unlike PSM which is defined as an internal psychological state existing in certain individuals no matter how poorly or well an organization performs. These differences are also apparent between *PPSE* and other extant concepts (e.g., mission motivation) addressing worker motivation in the public sector.

***PPSE* and Mission Motivation**

Rainey and Steinbauer (1999) observe that the more attractive, engaging, and worthwhile an agency's mission is to an individual, the more likely is that agency to elicit “support” from that person—for instance, by attracting him or her to take a job in the agency. However, the authors are cognizant of the distinction between joining and staying in an organization and, once employed, being committed to and working hard for that organization (March & Simon, 1958). As a result, Rainey and Steinbauer (1999) introduce the concept of “mission motivation,” a concept they present essentially as a more specific version of PSM—focused on the motivation to achieve a specific agency's mission rather than on the more general (but

not necessarily separate) motivation to “do good for society.” This acknowledges the motivational importance for public servants to recognize a linkage between their workaday lives and the ideals that attract them to public service: “The agency must sharpen and make salient the relations of individuals’ work to the mission” (p. 26). However, the idea of mission motivation, like PSM, is predominantly focused on mission valence and fails to close the conceptual gap between effective organizational performance and individual motivation. The concept of *PPSE* accounts for this gap by focusing not only on valence but also on the perceived capacity and success of an agency in achieving its mission (or not).

***PPSE* and Managing for Excellence**

Numerous accounts of successful management in both the public and private sectors acknowledge the importance of goal alignment between an organization and its workers, which our concept implies is crucial to worker motivation and commitment. For example, Ouchi (1981) and Ouchi and Jaeger (1978) describe the “Type Z” organization as being concerned with such alignment and also as responsive to broader social concerns. The “Z” managerial modus operandi is the perpetuation of an organizational culture that sees self-motivated workers who are affectively committed to the organization and its goals. One mechanism for integrating the individual into an organization in such a way is the “organizational philosophy,” which provides workers with a clear understanding of organizational goals and methods for achieving those goals. Notably absent from the idea of organizational philosophy, and from other practical accounts of successful management (e.g., Gold, 1982; Hale, 1996; Peters & Waterman, 1982), is the need to indicate with clarity to workers and managers when an organization has actually achieved its goals. Studies of effective management generally describe either organizations with clear missions and goals that are widely communicated and commonly understood throughout the organization (Gold, 1982) or organizations for which goal and mission clarification is a fundamental management activity. This assumes that individuals in organizations characterized by mission and goal clarity will know when their organization has succeeded. However, it is well-known amongst organization theory and management scholars that this is not always the case in organizations, especially public ones (Lindblom, 1977; Rainey, 1989). The concept of *PPSE* does not assume as much, focusing on the extent to which an agency is perceived by its individual workers to have provided effective public service.

Model Specification

It would be convenient to simply test *PPSE*’s effect on worker motivation. Unfortunately, however, no scholar has yet operationalized a fully comprehensive measure of motivation (Pinder, 1998). Furthermore, we do not (here) employ our concept as a dependent variable insofar that we are interested primarily in explaining the relationship between *PPSE* on the one hand and worker attitudes and outcomes prevalent in the work-motivation literature on the other. In this sense, the current study constitutes a preliminary examination of an expectancy rather than valence dimension of work motivation. Accordingly, we situate *PPSE* within a framework of extant concepts that speak to motivation, and to performance, a key concern of

government reformers. Specifically, we aim to determine the relationships between *PPSE* and organizational commitment, role ambiguity, and job satisfaction, using a basic conceptual model: $Satisfaction = \beta_0 + \beta_1 PPSE + \beta_2 commitment + \beta_3 ambiguity + E$.

Job Satisfaction

The dependent variable in our model is job satisfaction, which has been of great interest to scholars investigating motivation, performance and other work issues, such as life satisfaction and physical health (Rainey, 2003). Admittedly, the precise links between job satisfaction and motivation and performance are far from clear. Many authors have argued that satisfaction has no consistent impact on performance (Pinder, 1998; Porter & Lawler, 1968), others have found evidence of a positive relationship (Petty, McGee, & Cavender, 1984). The literature is stronger on job satisfaction's negative effects on absenteeism and turnover (Rainey, 2003). Rainey (2003) concludes, "In spite of these complexities, job satisfaction figures very importantly in organizations. Distinct from motivation and performance, it can nevertheless influence them, as well as other important behaviors, such as turnover and absenteeism" (p. 277).

In an attempt to compensate for the shortcomings of job satisfaction as a dependent variable, we will also consider the relationship between *PPSE* and two other variables that have been well-documented in the literature on motivation: role ambiguity and organizational commitment.

Role Ambiguity

Role ambiguity is a perceived lack of clear information about job responsibilities and expectations, including information about what should be done on the job, when it should be done, and how it should be done (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Sawyer, 1992). Public managers have much reason to be interested in reported levels of role ambiguity. Researchers have found that high levels of role ambiguity result in negative psychological and behavioral outcomes, most notably decreased job satisfaction (Abramis, 1994; Jex, Beehr, & Roberts, 1992). Others have linked role ambiguity in the public sector to job burnout (Niehouse, 1984) and employee turnover (Jensen, 1998).

Organizational Commitment

Organizational commitment is, as the label suggests, the commitment employees feel toward their employing organizations. Though there is some concern with the measure and socially desirable response bias (Arnold, Feldman, & Purbhoo, 1985), there is a long precedent of the measure in empirical public management studies. Jex et al. (1992) identify three types of organizational commitment: continuance, normative, and affective. Continuance commitment measures the degree to which an employee stays with a firm or organization because she feels she must stay, for income security or comparable reasons. This brand of organizational commitment is conceptually distant from *PPSE*. However, normative and affective commitments are highly relevant. Normative commitment is an employee's feeling of obligation to stay with a firm or organization, usually because it is "the right thing

to do.” Affective commitment is similar to normative commitment, though representing not a conscious sense of obligation, but instead an emotional attachment to and personal identification with a firm or organization.

Empirical assessments of organizational commitment and its relationship to other variables employed in this study (i.e., job satisfaction and role ambiguity) date to the early 1970s and 1980s (e.g., Lazarus & Folkman, 1984; Porter, Steers, Mowaday, & Boulian, 1974). The findings of these early works, in conjunction with more recent empirical studies, justify our hypotheses (below, in the next section). Organizational commitment has also been linked to employee behaviors, such as job turnover (Angle & Perry, 1981; Porter et al., 1974) and tardiness rate (Angle & Perry, 1981).

The research relating affective and normative commitment to role ambiguity is mixed. On the one hand there are numerous studies treating role ambiguity as an antecedent to commitment (Mathieu & Zajac, 1990); however, other studies suggest the opposite, with commitment as antecedent (Irving & Coleman, 2003; Jackson & Schuler, 1985). Most interesting are Lazarus and Folkman (1984), who fall in the latter camp by suggesting that highly committed employees are more motivated to take action and engage in coping efforts to decrease role ambiguity because such individuals want to maintain their organizational role identity. Related, Kobasa, Maddi, and Kahn (1982) and Irving and Coleman (2003) suggest that affectively and normatively committed employees find more meaning in their work and can more easily attach direction to it. In both cases—with organizational commitment as a “cause” of role ambiguity and vice versa—increasing levels of commitment correlate with decreasing levels of role ambiguity.

In our study, we have combined normative and affective commitment to create a single variable, normative/affective commitment, or simply commitment. Though this is contrary to the extant literature (see Meyer, Stanley, Herscovitch, & Topolnytsky, 2002 for a meta-analysis that demonstrates that previous studies treat normative and affective commitment as distinct factors), we justify the move in three ways. First, the measures serve as controls and are not of primary interest to the current study. Second, both are, conceptually, expected to have comparable relationships (in direction) to *PPSE*. Finally, the data we employ demonstrate a high degree of correlation between normative and affective commitment (discussed below). Thus, for directness and parsimony regarding our model specification and subsequent path analysis, and more important, to hone our discussion of *PPSE*, we treat normative and affective commitment as a single variable.

Hypotheses

We propose that *PPSE* positively and directly affects organizational commitment, decreases role ambiguity both directly and via organizational commitment, and increases job satisfaction directly as well as via organizational commitment and role ambiguity. We formally test three hypotheses:

Hypothesis 1: As reported levels of *PPSE* increase, reported levels of job satisfaction increase.

Hypothesis 2: As reported levels of *PPSE* increase, reported levels of organizational commitment increase.

Hypothesis 3: As reported levels of *PPSE* increase, reported levels of role ambiguity decrease.

These hypothesized relationships are consistent with causal sequences presented in the organizational behavior literature. For instance, antecedent indicators of organizational commitment and job satisfaction in the organizational behavior literature, such as “enthusiasm and excitement” (Watson, Clark, & Tellegen, 1988), “intrinsic motivation” (Eby & Freeman, 1999) and “value congruence” between employee and employer (O’Reilly & Chatman, 1986), have been shown to decrease role ambiguity and increase job satisfaction, and *PPSE* would figure similarly to these concepts in causal sequence. Still, a fuller explanation is warranted.

In our first two hypotheses, we propose that *PPSE* will positively affect job satisfaction and organizational commitment, respectively. One objection may be that the causal direction is incorrect, that high levels of satisfaction and commitment will boost reported levels of *PPSE*, rather than the other way around. Workers with high levels of commitment and satisfaction may see what they want to see and, accordingly, interpret the public services that their agencies provide as being effective. However, our causal sequence conforms to the notions of Barnard (1938), Clark and Wilson (1961), and the PSM literature, which state or imply that the fulfillment of employees’ altruistic, public-service impulses is an inducement to work. Our third hypothesis, that *PPSE* will negatively affect role ambiguity, leans on previous studies summarized above, which relate organizational commitment with role ambiguity. Of particular relevance, researchers have found that highly committed employees engage in coping efforts to reduce role ambiguity in order to maintain their organizational role identity (e.g., Lazarus & Folkman, 1984). We envision workers taking pains when *PPSE* is high to resolve any uncertainty as to what is expected of them on the job. They do this (a) to ensure their continued employment in an organization to which they are committed and which provides them much satisfaction in their careers and (b) to confirm that they are contributing to their organization’s provisioning of public service, thereby maintaining high levels of commitment and satisfaction.

That said, we acknowledge that with cross-sectional data we cannot statistically test for the direction of causality. Although we may establish correlations with confidence, and elements of our model conform to established causal directions from the literature, our full causal model is suggestive rather than conclusive, awaiting further tests with longitudinal data sets.

Data and Method

We use data from “A National Survey of Managers in State Health and Human Services Agencies,” by the National Administrative Studies Project II (NASP II).⁴ The population of interest is managers in information management at state-level health and human service agencies. NASP II broadly defines information management to include managerial roles such as the top program administrator, managers of information system applications, managers in charge of evaluation and research, and managers dealing with public information and communication.⁵ To develop its sampling frame, NASP II identified 518 relevant managers in the directory of the American Public Human Services Association and attempted to survey them all by mail between fall 2002 and winter 2003. NASP II received 274 completed questionnaires—a response rate of 53%. The relevant questions employ 5- or 7-step Likert-type scales.

Before discussing the variables we use in our analysis, required is further discussion of the sample. First, the sample is drawn from a fairly narrow range of public-sector agencies. Accordingly, as with any survey of a specific group, care must be taken in discussing the generalizability of the findings. Another concern is that, when compared with “frontline” public agency staff, information management workers may not be particularly attuned to the efficacy (or inefficacy) with which their employing organizations are serving the public. However, the sample includes more than information technology workers, but in addition an array of public servants engaged in “information management” (see the NASP II definition of the sample above). Moreover, as other studies using the NASP II data have noted (e.g., Moynihan & Pandey, 2005), the descriptive statistics for the sample are suggestive (though not necessarily indicative) of the “typical career manager,” with the average age of respondents being about 50 years, the average tenure in the current organization being 15 years, and the average salary ranging between \$50,000 and \$75,000. Last, public servants listed in the directory of the American Public Human Services Association, irrespective of their job descriptions, may be more attuned to *PPSE* than are workers in other types of public-sector organizations (with missions that are less directly related to the provision of social services). These points notwithstanding, we reiterate our call for caution when discussing the generalizability of the findings below.

To operationalize each of our key variables, we summed the responses to three questions.⁶ In three of the four cases, the questions were designed to elicit responses on the variables of interest: job satisfaction, role ambiguity, and normative and affective commitment. For *PPSE*, we employed questions designed to elicit responses on “customer orientation.”⁷ We performed confirmatory factor analysis on all the relevant questions to determine if each group of three could be legitimately collapsed into one variable. Performing varimax rotation on the four factors with the highest eigenvalues—the lowest was 0.54—yielded the predicted pattern of factor loadings, all but one above 0.60. (The exception was one question at 0.56. Given the choice of losing a third of the observations for one factor or using this question with a marginal loading score, we chose to include the question.) Cronbach’s alphas for the factors ranged from 0.76 to 0.87.

Our measure of *PPSE* is based on three questions:

- “Our agency can provide services the public needs,”
- “Our agency can satisfy public needs,”
- “Our agency can provide high quality of public service.”⁸

NASP II reports income in four groupings.⁹ In relevant models, we represent this variable as a series of dummies.

Findings

To determine the impact of *PPSE* on organizational commitment, role ambiguity, and job satisfaction, we ran a series of ordinary least squares regressions. First, a binary regression showed a statistically significant relationship between job satisfaction and *PPSE* in the direction hypothesized. A second regression added the key explanatory variables discussed at length above: organizational commitment and role ambiguity. To the third regression, we

Table 1
Ordinary Least Squares Regression Results for Job Satisfaction
on Perceived Public Service Efficacy (PPSE), Commitment,
Role Ambiguity, Income, and Demographic Variables

Variable	(1)	(2)	(3)	(4)
<i>PPSE</i>	.347*** (.061)	.139*** (.051)	.152*** (.052)	.154*** (.053)
Commitment		.318*** (.027)	.304*** (.028)	.291*** (.029)
Role ambiguity		-.419*** (.037)	-.409*** (.039)	-.408*** (.039)
Income <\$50k ^a			-.014 (.409)	-.002 (.431)
Income \$50k-\$75k ^a			.041 (.334)	.047 (.346)
Income \$75k-\$100k ^a			.075 (.340)	.074 (.351)
Race ^b				-.015 (.280)
Age				-.043 (.014)
Female				.015 (.209)
<i>R</i> ²	.121	.463	.447	.442
<i>n</i>	270	269	259	255

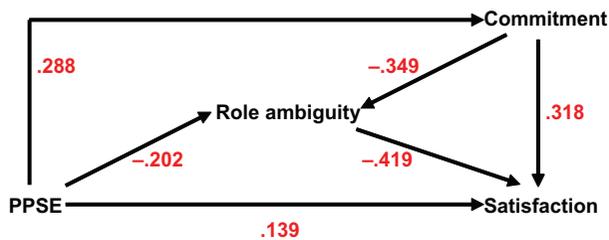
Note: Coefficients are standardized. Standard errors are in parentheses.

a. Reference group is income >\$100k.

b. Reference group is non-White.

*** $p < .01$.

Figure 1
Path Analysis (standardized estimators)



add annual income because of its prominence in explaining worker motivation in the organizational behavior literature and in the assumptions of government reformers. Finally, our fourth regression controls for age, race, and gender.

The final model provides clear evidence that our key explanatory variables are significant while holding the others constant; and the model fit is substantial, with an R^2 of 0.442. The directions of the relationships between *PPSE*, organizational commitment, role ambiguity, and job satisfaction are as we hypothesized. This result is enough, by itself, to warrant consideration of *PPSE* as an important predictor. However, this model alone does not make clear the intervening relationships between *PPSE* and job satisfaction. To estimate these relationships, which relate to our second and third hypotheses, we performed a series of regressions, which we use to perform a full path analysis (Figure 1) of the second model in Table 1.

Table 2
**Ordinary Least Squares Regression Results for Organizational Commitment
 on Perceived Public Service Efficacy (PPSE)**

<i>PPSE</i>	.288*** (.112)
R^2	.083
<i>n</i>	273

Note: Coefficients are standardized. Robust standard errors are in parentheses.
 *** $p < .01$.

Table 3
**Ordinary Least Squares Regression Results for Role Ambiguity on
 Perceived Public Service Efficacy (PPSE) and Organizational Commitment**

<i>PPSE</i>	-.202*** (.081)
Commitment	-.349*** (.042)
R^2	.204
<i>n</i>	271

Note: Coefficients are standardized. Robust standard errors are in parentheses.
 *** $p < .01$.

We first measured the direct effect of *PPSE* on organizational commitment. The results demonstrate that *PPSE* is a significant, positive indicator of organizational commitment (Table 2).

Next, we measured the direct and indirect effects of *PPSE* and organizational commitment on role ambiguity. Table 3 shows the results of one of these regressions.

We used these results to conduct a path analysis of the second model, taking into account the direct, indirect, and total effects of the explanatory variables on each other and of the explanatory variables on the dependent variable, job satisfaction.

Results from Models 3 and 4 confirm the findings in our basic model (Model 2). Model 3 shows that the addition of income to the basic model does not greatly affect the coefficients or significance for *PPSE*, organizational commitment, or role ambiguity. In addition, the income dummies are not significant. The addition of controls for race, age, and gender in Model 4 has little effect on the coefficients, significance for variables from the basic model, or on income variables.

Discussion

As we hypothesize, *PPSE* is significantly and positively related to organizational commitment and job satisfaction, and significantly and negatively related to role ambiguity. The magnitude of its effects is substantial, rivaling those of the well-established variables—organizational commitment and role ambiguity—in our basic model. *PPSE* remains significant in models including income, which itself is not significant, and is not affected by age, gender, or race. These findings suggest two main implications.

First, *PPSE* is a useful addition to public organizational theory. The results suggest that public employees tend to derive positive benefits from the success of their employers' efforts to serve the public. The existence of *PPSE* seems to confirm the notion that something like PSM exists, and that it not only attracts certain employees to government work, but also could, when matched by perceptions of public service success in the workplace, drive outcomes that are positive for both the worker and the employing agency. However, as with all survey research, we run the risk of "common source bias" (bias resulting from using a singular source of data, see Campbell & Fiske, 1959); an indication is that all of our survey items are statistically significant while the demographic variables are not. Ideally, future research into *PPSE* and its relationships to organizational commitment, role ambiguity, and satisfaction will triangulate from multiple data sources rather than from a single survey.

Second, in public agencies that demonstrate public service efficacy, managers can put to use our finding by showing employees how their agency is effectively providing a public service, increasing organizational commitment and satisfaction, while reducing role ambiguity. In contrast, many other factors that have been shown to affect job satisfaction, organizational commitment, or role ambiguity require extensive information about employee preferences or psychological motivators. Previous studies that isolate predictors of affective and normative commitment, for example, look at factors such as employee inclinations toward collectivism (Wang et al., 2002), employee ownership of the firm (Kuvaas, 2003), employee enthusiasm and excitement (Watson et al., 1988), employee length of tenure (Beck & Wilson, 2000), and employee level of intrinsic motivation (Eby & Freeman, 1999). Such predictors are problematic for managers. Even if managers could easily collect this information, there is a good chance that it would not be useful in terms of broad management policy because variables such as enthusiasm and intrinsic motivation may vary widely and be difficult to affect. Two of the predictors, on the other hand, are easy enough to measure, but still not helpful in the public sector: Employee ownership is irrelevant in the public sector, and employee length of tenure is difficult to change, short of a long-term effort to improve retention or periodic layoffs.

Last, our findings provide grist for future research. We discuss this in the next section.

Conclusion

Although we find *PPSE* to be a useful indicator of public managers' levels of satisfaction and commitment, there is much conceptual honing and empirical validation required of future research. As we acknowledge above, our data set is cross-sectional, preventing us from performing statistical tests for causality. It would be useful, then, in the future to test the effects of *PPSE* with a relevant longitudinal data set.

In addition, we operationalized *PPSE* using questions that were designed to measure a separate variable, customer orientation. In further work on *PPSE*, it would be useful to go through a process, much as that by which PSM questions were developed, to derive a longer and more focused list of survey questions specifically for *PPSE*, rendering *PPSE* measures with more construct validity. Our three-item scale, although a start at measuring *PPSE*, could, in fact, measure more (or less) than the extent to which public employees perceive the effective delivery of services by their employing organizations. But we maintain that the scale employed in this study constitutes a start. The survey items are certainly intended to elicit

respondents' notion of whether their organizations serve public needs. We suspect that future scales using more items that, although related, are qualitatively distinct or are "reverse" items mirroring existing items will render results similar to those found here.

Finally, our data set is limited to information management managers in a particular field of the public sector. To further generalize our findings, it would be useful to survey other groups, including those in the private sector. One important question, which has been given somewhat short shrift by the effort to link PSM to the public sector, is the degree to which something like PSM works in the private sector. In all the literature distinguishing PSM levels between the sectors, there is no sense that workers in the private sector are devoid of PSM. So it would be fruitful to test for the effect of *PPSE* in a private setting as well as in a variety of public-sector fields.

Recommendations for future research aside, what we have done in this study is introduce a new measure into a research niche long established in public management studies. We realize that this is not done lightly, as there still is not total consensus on how the traditional variables employed in our models above relate to one another—see, for instance, Angle and Perry (1981), on organizational commitment—let alone to new variables like *PPSE*. But we maintain that the current study constitutes a significant insight. Employees' commitment to their organizations, ability to see their roles clearly, and satisfaction with their jobs are all affected by their beliefs about how well their agencies are serving the public.

Appendix

Our measure of job satisfaction is based on three questions:

- "In general I like working here,"
- "In general I don't like my job" (reversed), and
- "All in all, I am satisfied with my job."

Our measure of role ambiguity is based on three questions:

- "My job has clear, planned goals and objectives,"
- "I feel certain about how much authority I have" (the question with the .56 factor loading), and
- "I know exactly what is expected of me."

Our measure of normative/affective commitment is based on three questions:

- "This organization deserves my loyalty,"
 - "I would not leave my organization right now because I have a sense of obligation to the people in it," and
 - "I owe a great deal to my organization."
-

Notes

1. The National Administrative Studies Project II (NASP II) broadly defines information management to include managerial roles such as the top program administrator, managers of information system applications, managers in charge of evaluation and research, and managers dealing with public information and communication. The NASP II constitutes the second in a series of, so far, three separate and therefore unique surveys and samples of public administrators. NASP I (dating to 1992) compared state managers in New York, Colorado, and Florida. NASP II (discussed in sections below because it is the data used for this article) took place in 2003 and included managers in all 50 states but focused on state health policy and was limited to managers in state

departments of health and human services. NASP III took place in 2006, administering a survey to a random sample of public managers in Georgia and Illinois from multiple agency and department functions.

2. For an extensive review of the PSM literature, see Wright (2001).

3. At least one study disputes the connection between PSM and outcomes such as performance. Using performance ratings and grade in the federal service as indicators of performance, Alonso and Lewis (2001) find weak and contradictory evidence for PSM as a causal factor.

4. We acknowledge that by using a single survey, our study runs the risk of common source bias, otherwise known as methodological artifact (Campbell & Fiske, 1959). Common to practically all surveys of public managers, the types of items included in the NASP II survey run the risk of social desirability bias. We do not have an alternate data source with which to control for this type of methodological artifact (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, that the measures in our model fall into the expected, distinct factors (see below) suggests that methodological artifact is no more present than is usual for survey-based research.

5. The sample is drawn from a fairly narrow range of public-sector agencies. However, the sample also comprises employees in positions that are common across a wide variety of both public- and private-sector firms.

6. See appendix.

7. We acknowledge the newness of the concept of *PPSE* and that much work remains to be done in subsequent research with new data regarding construct validity (per Heneman & Schwab, 1985).

8. All the questions that make up the *PPSE* variable ask whether the organization “can” serve the public. This allows for the possibility that respondents are thinking of only the potential for public service efficacy. The pattern of responses, however, suggests that this is not the case; it seems unlikely that a committed, satisfied, role-clarified respondent would give the organization positive marks even if it were falling down on the job. Still, future survey research in this area should include questions about organizations’ actual, not potential, efficacy, for example, “Our agency provides services the public needs.”

9. The survey actually had five groupings, but no respondent reported his or her income in the highest category.

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