

Comparing Public and Private Management:

Theoretical Expectations

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Comparing Public and Private Management: Theoretical Expectations

Whether public management is different from private management has been a central concern of public administration since its founding (for reviews see Rainey and Bozeman 2000; Rainey 2003). Although there has been substantial debate on the question, the literature has come to no definitive conclusion. This article suggests that with regard to the management of public and private organizations, perhaps we need to ask a different question. Our objective is to move the theoretical discussion from the query: are public organizations different from private organizations (and, by implication, do public and private management differ)? to what is the relative effectiveness – in terms of outputs and outcomes – of a given managerial effort in otherwise similar public and private organizations?¹ We start by discussing the definitions of public and private organizations. We then specify a general theory of organizations and the role that management plays in influencing an organization's performance. Finally, we integrate the key characteristics of public and private organizations into this model to determine if logically supported hypotheses can be derived.

The manuscript makes three contributions to the literature. First, we argue that the various definitions of publicness are indicators of an underlying concept – whether the program or activity has a public purpose. In this way we hope to show that, while definitions are important, underlying all of these is a generalizable concept that can be used generically in an empirical theory. Second, we focus on the question of whether management actions have the same impact in public and private organizations; what we seek is a focus on the key management

¹The literature on organization theory is littered with various hypothesized contingencies that can influence effectiveness, including organizational size, technology, and many others. The theoretical logic sketched in this paper assumes a *ceteris paribus* condition.

question as opposed to the key organizational theory question. Third, we derive explicitly several falsifiable hypotheses concerning the differential impact of management actions in public versus private organizations.

Defining Public and Private

In the abstract, the concepts public organization and private organization would appear to be mutually exclusive, and perhaps jointly exhaustive. In the real world, however, a wide variety of structural forms combine aspects of public and private sector characteristics in the same organizations. The three predominant criteria proposed for distinguishing between public and private organizations are ownership, source of financial resources, and model of social control (polyarchy versus market) (see Perry and Rainey 1988).² Unfortunately for empirical research on public-private comparisons, these three criteria are not perfectly correlated and thus often create situations in which the public or private nature of the organization is ambiguous. The U.S. Postal Service, for example, is owned by the U.S. government but derives the overwhelming portion of its revenues from sale of services to the public. Many defense contractors are ostensibly private organizations but receive the vast majority of their revenues from government.

In determining how to define public versus private organizations, it is worthwhile to take a step back to focus on what we think is the underlying concept – the perception and interpretation that the organization’s function serves a public purpose. This judgment of what is or is not a public purpose varies across countries and across time as well; there is no absolute

²Bozeman (1987) correctly notes that all organizations are invested with some publicness; even a “purely” private organization operates under a set of market rules established by government.

and consensus answer.³ For Plato the raising of children was a public enterprise (2006); but despite the pleas of Hillary Clinton (1996), this crucial function is considered primarily private in the contemporary U.S. The variance over time can easily be illustrated by the United States' approach to banking. At one time, the operation of banks was clearly a public purpose – witness the First and Second National Bank of the United States in the 19th century. Even when banking is considered a private purpose, the degree of social control varies, as illustrated by the restrictions that have accompanied the influx of public funds into banking during the crisis of 2008-9.

Using the public purpose criterion does not mean that even for a given time and place there is consensus on the distinction between public and private purposes. The New Public Management (NPM) sought to move many functions from public to private and actually triggered debates on such issues in some of the countries that considered such shifts. Similarly, the scope of the public sector has been a major political issue in many countries over the last century. At the same time, focusing on the underlying concept of public purpose means that the current *operational* definitions essentially tap into the policy instruments used to protect a public purpose rather than seeking to resolve the definitional question itself.⁴ A polity determining that banking or education is invested with a public purpose can decide to a) own the organization and thus create a public bureaucracy to operate the program, b) contract with the private sector to run

³For a discussion of the varying and somewhat ambiguous nature of an allied notion, that of “inherently governmental” functions, see Light 1999, especially pp. 149-51.

⁴Recently Moulton has sought to build upon dimensional publicness by supplementing the empirical approach with a normative process in a “broader publicness framework” that focuses on “realized publicness” (2009: 890-91).

the organization and thus use the incentives of funds to specify the type of performance, or c) establish a regulatory governance system to restrict actions of other organizations (whether owned by the public or the private sector).

The three types of policy instruments, however, are not mutually exclusive. A government can establish a public organization but provide it no funds and burden it with minimal regulation. Alternatively, governments have a long history of contracting with the private sector for such central functions as tax collection, defense (the hiring of mercenaries), and similar activities. And of course, the debate between the use of incentives (as with the provision of funds) and command-and-control regulations is a longstanding one for various governmental policies.

Because the policy instruments are not mutually exclusive, how the concept of “public organization” is measured – the operational definition – will affect the determination of its publicness. This is not a measurement issue that can be resolved in normal ways, simply because each of the instruments reflects how one set of political sovereigns might attempt to craft an institutional arrangement seeking some public purpose. The practical implication for theories of public and private management is that scholars need to be consistent in their analysis. It makes little sense for purposes of comparative analysis to use one definition of public for one organization and a different definition of public for another organization. The same operational definition needs to be used when comparing across all organizations in a given study. The theory that follows is premised on the constraint that a consistent operational definition is used for all organizations in an empirical investigation; whether findings from different studies can be compared, as a result, also depends on whether the operational definition of public is the same.

The implication of this approach can be made explicit: we develop in this article a set of theoretically derived expectations about how public and private management differentially influence organizational effectiveness. The foregoing logic suggests that we argue for the plausibility of the relationships developed, regardless of which of the three operational definitions are used – so long as the same measurement criterion is used cross-sectionally and longitudinally. When comparing organizations across any of the commonly used publicness metrics, in other words, we expect those located more toward the publicness pole of the measure to differ from those located less close to that end of the measure in the ways sketched in the following pages. But comparing organizations by tapping different publicness metrics for different organizations would be an apples-and-oranges analysis and thus invalid. Rather than making this common-measure/relative-comparison point repeatedly throughout the article, we outline it here at the outset and henceforth simplify the language by moving to the shorthand public-versus-private characterization.

By specifying the measurement issue but not resolving the debate, we can proceed with the effort to develop a generate theory of public versus private management. This does not mean that it is impossible to take the various definitions of public, determine how they fit together, and generate a single measure of public. Although we believe that exercise would be extremely complex, given our view that the definitions reflect different policy instruments, the payoff for such a measurement exercise would be extremely valuable for the study of public management.

The Model

We propose to use a parsimonious model of managing organizations developed by O'Toole and Meier (1999). Although they derived this model for public programs, the model is

very general so we can assume that it is applicable to both public and private agencies. Their model can be expressed mathematically as

$$O_t = \beta_1(S_i + M_1)O_{t-1} + \beta_2(X_t/S_x)(M_3/M_4) + \varepsilon_t$$

where

O is some measure of outcome,

S is a measure of stability that can be divided into S_i , representing the internal stability of the organization, and S_x representing structures designed to buffer the environment,

M denotes management, which can be divided into three parts

M_1 management's contribution to organizational stability through additions to hierarchy/structure as well as regular operations,

M_3 management's efforts to exploit the environment of the organization,

M_4 management's effort to buffer the unit from environmental shocks,

X is a vector of environmental forces,

ε is an error term,

the other subscripts denote time periods, and

β_1 and β_2 are estimable parameters.

The model incorporates three basic principles with regard to all organizations, whether public or private. First, organizations are autoregressive systems – that is, they create processes and operating procedures that tend to reproduce the same outputs over time. The autoregressive aspect is indicated by the lagged dependent variable. Second, the model is nonlinear rather than strictly additive. At times variables interact in a multiplicative manner, at times the interaction is

with a reciprocal function, and at other times terms add together and then interact with another variable to generate their overall impact on public program performance. For example, the first term of the model indicates that internal management (M_1) and internal structures (S_i) can be substitutes for each other and that together they interact with past performance to affect current performance. This does not mean internal management always seeks stability; it can aim to disrupt existing structures and operations to generate new and innovative ways to do things (see the extensive literature on organization development, e.g., Carnevale 2002). Third, the model is contingent to reflect the view that what works in terms of management is contingent on a variety of other factors. Among the most interesting contingencies are those involving networks, managerial networking, and the environment.

In the model, S can be considered a composite of the various kinds of stability in an organizational setting. Stability means constancy in the design, functioning, and direction of an administrative system over time. Some stability is induced by structure; other forms of stability have their origins in management processes and procedures. Internal stabilizers (S_i) are distinguished from environmental stabilizers (S_x) to reflect the distinction between internal processes and boundary-spanning efforts. Not all aspects of organizations are stabilizing; strategic planning and environmental crisis responses are generally organizational elements that deal with nonroutine matters and may seek to create change rather than stabilize.

The model contains three different functions of management. They are efforts to manage the internal operations of the organization (M_1), efforts to exploit opportunities in the interdependent environment (M_3), and efforts to limit the negative impact of environmental perturbations on the administrative system (M_4). The latter two functions in the second, or

environmental, portion of the model, are often combined as M_2 – defined as the ratio of M_3 to M_4 . M_2 represents the organization’s effort to manage in the network and as a ratio of exploiting to buffering reflects the organization’s orientation toward risk.

This is a very general model of organizations and their management and thus will serve as an abstract heuristic that can applied to both public and private organizations.⁵ To facilitate this discussion, we create one model with subscripts “g” (“government”) to indicate public organizations, and another with subscripts “b” (“business”) to designate a private organization⁶:

The public sector model:

$$O_{gt} = \beta_{g1}(S_{gi}+M_{g1})O_{gt-1} + \beta_{g2}(X_{gt}/S_{gx})(M_{g3}/M_{g4}) + \varepsilon_{gt}$$

The private sector model:

$$O_{bt} = \beta_{b1}(S_{bi}+M_{b1})O_{bt-1} + \beta_{b2}(X_{bt}/S_{bx})(M_{b3}/M_{b4}) + \varepsilon_{bt}$$

Our strategy with the two models is to start with some assumptions, assumptions that are commonly accepted, and use those to determine what the relative impact of management should be in the public and private sectors. These assumptions will drive the hypotheses that are generated. To the extent that others start with different assumptions, they will derive different hypotheses. We make no claim that our hypotheses are unique or the only possible hypotheses.

Assumptions

Assumption 1. The range or the variance in actions that management can take inside the

⁵The model is essentially an open systems model similar to that developed by Thompson (1967) and others.

⁶The reader should not interpret these subscripts as government and business but rather as a shorthand for more public and more private. Nonprofit organizations are private, at least in terms of ownership, but we exclude them from consideration in the remainder of the discussion.

organization (M_p) in the public sector is more limited than the range of actions that managers can take in the private sector:

$$\sigma(M_{b1}) > \sigma(M_{g1})$$

Although framed as an assumption here, this statement constitutes a frequent claim among researchers (Rainey 2003: 76; Wilson 1989). Every generalization has exceptions, but for the most part public sector managers are more limited in the incentives that they can offer employees, their abilities to discipline or remove employees is governed by elaborate personnel procedures, and agency missions restrict the flexibility of managers to change products or services. Private organizations, in theory, have more discretion in inducements, especially monetary ones, can replace non-union employees at will, and can change markets if desired.⁷

Assumption 2. The variance in public sector structures and stabilizing factors (the S_p in the first term of the model) is more limited than the structures and stabilizing factors available to the private sector, or:

$$\sigma(S_{b1}) > \sigma(S_{g1})$$

Aldrich (1999) documents great variation in organizational characteristics, generally speaking, but does not speak to the issue of the relative variance within and between sectors. Some researchers, including those examining a large representative sample of work organizations, do find tendencies toward more centralization and formalization in the public sector (for instance

⁷Changing markets is the equivalent of changing goals; private sector organizations can change goals incrementally by changing their mix of products or radically by moving into new industries. Public organizations retain some flexibility in the mix of programs that they offer. Schools, for example, can offer after school programs and increase their emphasis on college preparation, but generally public organizational goals are changed by political sovereigns.

Marsden, Cook, and Kalleberg 1994; Kalleberg, Knoke, and Marsden 2001). Government organizations are limited by more restrictive procurement regulations, more elaborate personnel actions, more extensive conflict of interest laws, and greater limits on how the organization can be structured. In many cases, government organizations lack the freedom to create or eliminate field offices or to decide that they will contract out a central function. Private organizations have fewer a priori restrictions imposed on them and thus are freer to adopt a variety of organizational forms.⁸

This assumption only deals with the variance in available structures. It does not deal with whether public sector organizations are more stable than private sector organizations in terms of structure. Although the common perception is that public organizations are more stable structurally, there are no studies that compare public organizations with private organizations over time and assess the relative change in structures.

Assumption 3. The autoregressive parameter (β_1) is closer to 1.0 in the public sector than in the private sector, or

$$\beta_{b1} < \beta_{g1} \text{ and } \beta_{g1} \rightarrow 1.0$$

The autoregressive parameter basically determines how stable the production of the organization will be from one year to the next. For some time organization theorists have argued that regardless of sector, organizations seek to protect their technical core from disturbances

⁸In theory, if optimal organizational structures are determined by environmental forces, then in practice the range of structures for private sector organizations might be less than for the public sector. Rainey and Bozeman (2000), for example, find few differences between public and private organizations in this regard except for procurement and personnel decisions. See also Chubb and Moe (1990), who find that public education employees report more externally imposed constraints on personnel procedures and education policies than do private sector counterparts.

(Thompson 1967), but there are reasons to expect sectoral differences. Government organizations are generally characterized as highly stable or, less charitably, as more rigid. Some government agencies are expected to produce the same outputs in perpetuity (e.g., storage of nuclear waste (LaPorte and Metlay 1996), the collection and disbursement of social security funds). Even private organizations with long-term horizons (insurance companies) show great creativity in offering new policies or investment instruments and can alter how they invest and protect assets significantly over time. Of course there are exceptions on the public-sector side, and some evidence would seem to raise questions about this generalization; Hickson and associates (1986) find decision-making processes more turbulent and subject to interruptions in the public sector (see also Porter and Van Maanen 1983). It may also be that adoption of some of the features of the NPM is associated with declines in the autoregressive parameter for those public organizations that aggressively implement the more thoroughgoing features of the NPM.⁹

Assumption 4. In the private sector the range of managerial options in terms of exploiting the environment (M_3) is greater than the range of options in the public sector, or

$$\sigma(M_{b3}) > \sigma(M_{g3})$$

Far more than private sector organizations, public sector organizations are constrained by their missions which in substantial part are defined by external stakeholders. Unlike the private sector where a telecommunications company might decide to move into homeland security markets, for many public sector organizations, such movements are restricted due to missions or lack of

⁹Although we do not specify this as a formal hypothesis, this claim is empirically testable. One only needs a measure of NPM adoption and panel data on performance to then generate an autoregressive estimate (see as an example Andersen 2008).

appropriate capacity. Typically, as well, public organizations are tethered to political principals who exert authoritative control over territorial jurisdiction. Similarly, if the exploitation of the environment requires the investment of new funds, public organizations are often limited by budget restrictions or prohibitions from spending more funds than are currently allocated.¹⁰ Organizations that are more private are in theory freer to move to different markets (and raise more funds to do so), acquire other companies, and reinvent themselves in numerous other ways.¹¹

The differences between the range of options available in terms of exploiting opportunities in the environment in the public and private sectors and the general stress on innovation and change in the private sector (the New Public Management notwithstanding), implies the following extension (assumption 4a):

$$M_{b3} > M_{g3}$$

Private sector organizations will engage in a higher level of efforts to exploit opportunities in the environment.¹² This relative effort will reflect both the need to be more responsive to changes to maintain market position and the greater stress on innovation in the private sector. Both of these factors are related to the greater expenditures for research and development in the private sector.

¹⁰Of course, public organizations (by ownership) that earn revenue in the market and have flexibility in its use, like some government corporations, can experience a somewhat broader set of opportunities for exploiting the environment. We expect that even these, nonetheless, face limitations that are not typical for fully private organizations.

¹¹We recognize that public organizations can shape their environments and generate sufficient bureaucratic autonomy to alter the scope of their missions (Carpenter 2001; Rourke 1976).

¹²Note that in this treatment the M_3 function is aggregated to the organizational level. We do not assume that each individual manager in a private organization is more involved in exploiting environmental opportunities than is each public manager.

There is some research literature on innovations in public organizations (for example Borins 1998; Linden 1990) but little hard evidence of the relative innovativeness of management or organizations across sectors. Interestingly, one study offers evidence of higher levels of institutional isomorphism in the public sector than the private; isomorphic change is innovation of a sort, but only to reproduce an extant pattern from elsewhere (Frumkin and Galaskiewicz 2004).¹³

Assumption 5. The range of options in buffering the environment is greater in the public sector than it is in the private sector, or

$$\sigma(M_{g4}) > \sigma(M_{b4})$$

Private organizations are by definition open to market forces and therefore need to respond to the environment effectively or lose market share. Although this basic fact is modified by how competitive the markets are, in the long run it creates a need to adapt rather than buffer.

Government organizations, on the other hand, have massive processes to buffer the environment (O'Toole and Meier 2003: 113-14). Abstractly speaking, these include buffers structured as a barricade or “wall” of some height that stops all external forces (all Xs) smaller than a given size from penetrating the organization and its operations. Alternatively, some public organizational buffers are designed more like filters: certain issues or stakeholders – ones more central to the organization’s goals or survival – are screened in, while others are screened out. Another form that buffers might take is as a dampener – external perturbations have impact, but the magnitude

¹³Note that these findings from Frumkin and Galaskiewicz also provide some support for Assumption 2, above, on the relative structural/stabilizing variance between public and private sectors.

is reduced by some amount (for empirical evidence on this last variant see Meier and O'Toole 2008). Some government organizations also have the advantage of legitimate coercive powers and, therefore, more tools if they desire to change the environment rather than respond to it. The Federal Deposit Insurance Corporation, for example, can force a bank to revalue its assets and even close the bank down.¹⁴ The Defense Department can influence its environment by providing research and development funds, for example, to encourage the development of a specified set of technologies. Other government organizations are specifically charged with changing and stabilizing the environment; examples include the social security system and income for the elderly for example, or the Federal Reserve System and the banking industry. It might even be the case that public sector organizations' reputations for being cumbersome and slow to change are a function of their efforts to stabilize the environment rather than respond to it.

The discussion above suggests that not only is the range of buffering actions greater among public sector organizations, but that on average¹⁵ public sector organizations will

¹⁴Whether all government organizations or even most of them can effectively use coercion is an open question. Oftentimes governments only have draconian powers rather than a range of penalties and thus may not be able to effectively use their powers. The 2009 banking crisis and the toxic loans illustrates that at times the government stops short of using the coercive powers for political reasons. Brown, Potoski, and Van Slyke (2009) present a game theory argument that governments are sometimes trapped in prisoner's dilemmas and thus do not use their full powers. It is also the case the private organizations can use their market powers for coercive purposes – witness Walmart's ability to dictate prices to its suppliers.

¹⁵We expect the assumption to hold broadly across sectors. We also expect that public-private comparisons within functional groupings, e.g., hospitals, airlines, nursing homes, educational organizations, etc., should show the public side with greater buffering. This does not mean we expect sector differences to be larger than function differences, only that sector differences will remain within functional groupings.

generate a higher level of buffering than will private sector organizations or:

$$M_{g4} > M_{b4}$$

We will designate this assumption 5a since it directly follows from the initial assumption 5 and what we observe about public and private organizations.

Assumption 6. The relative range of management outwards in the public versus the private sector is ambiguous owing to assumptions 4 and 5. M_2 , as noted above, is defined as the ratio of M_3/M_4 and might be interpreted as the willingness of managers to take risks. Clearly, if the exploitation options are larger in the private sector, then the risk orientation of the private sector will be larger, hence:

$$M_{g2} < M_{b2}$$

But if one is concerned with the range of options available to an organization in terms of exploiting or buffering, then the private sector's advantage in exploiting the environment is balanced by the superiority of the public sector in buffering the environment. Either sector, therefore, might have the greater range of options in terms of management in the organization's environment. As a result, we posit no assumption about the distribution or range of efforts to manage in the environment (M_2).

Assumption 7. The relative range of the external stabilizing variable (S_x) in the public and private sectors is ambiguous. Public sector organizations create a variety of structures and other mechanisms to buffer themselves from environmental pressures – legislative affairs offices, separate fund-raising units where permitted, specialized training contracts with universities and others, formalized mutual aid agreements among fire departments, etc. Private sector organizations can create similar arrangements; and private organizations have the option to

vertically integrate their production. The creation of buffering organizations, the decision to make or buy, is a central part of the new economics of organization (see Williamson 1985). Public organizations are rarely allowed to consider such an option. If one views public organizations from an historical or a cross-national perspective, however, public organizations also face make or buy decisions. Postal services can deliver mail or contact with others to do so; some governments build roads and other infrastructure while others contract for them.

Assumption 8. Organizational environments in the public sector differ from those in the private sector on a variety of dimensions. First, the legal structure in the environments differs. Liability questions are defined primarily by tort law in the private sector but can be governed by much different statutes in the public sector. Behavior that is considered completely acceptable in the private sector (gratuities from suppliers) is considered unethical and sometimes illegal in the public sector. Second, the environment of public organizations is more structured. Stakeholders are organized¹⁶ and may have formal control over the organization (either indirectly such as legislatures and political executives or directly as governing boards). The governing law can even require that other organizations have a seat at the table when major issues are decided. How public organizations go about their business is also more structured, with elaborate notice and comment procedures to guarantee that all stakeholders have a say. These structures are generally lacking in the private sector unless the organizations themselves create them.

Third, the number of competitors in the public sector organization's environment is fewer than the number of competitors in the private sector organization's environment. Even when

¹⁶Of course some stakeholders of private organizations are organized as well – for instance, large pension funds as investors or government regulators as monitors and enforcers. But the difference in the extent of structuring should be obvious.

public sector organizations are not given monopolies (e.g. banking regulation) or when a governmental function is not the responsibility of more than one level of government in a federal system, the number of competitors remains relatively small. In some cases, private organizations are directly prohibited from competing with public sector organizations (e.g., first class mail in the U.S.). Fourth, public sector organizations are generally more transparent in decisions and processes than private sector organizations. To be sure this varies in government organizations when one considers the intelligence and defense agencies and across governments internationally given the variation in governmental openness, but in general public sector organizations operate under requirements that the public be informed – while in business, secrecy, particularly in terms of organizational strategy, is highly valued.

Theoretical Expectations

We now build from the assumptions just outlined to unpack a set of hypotheses that focus heavily on organizational effectiveness and that are, in principle, testable. Given the preliminary nature of this theoretical argument, and its foundation built upon a set of assumptions, we would not be surprised if evidence eventually fails to support some of the expectations developed here. But as we have said about our earlier theoretical work (O'Toole and Meier 1999), we would rather be precise in what we are saying and thus create the possibility of explicit testing, confirmation, and/or refinement than work with ambiguous but ultimately untestable ideas.

Hypothesis 1. The four factors mentioned in connection with Assumption 8 suggest that the environments of government organizations are more structured than the environments of private sector organizations. Structure, in turn, creates resistance to change; markets change faster than legislative mandates. This conclusion allows us to derive our first hypothesis, that the

environments of public organizations will be more sluggish and less likely to change, or:

$$\delta X_g / \delta t < \delta X_b / \delta t \quad [\text{Hypothesis 1}]$$

The hypothesis about the rate of change in X relative to time (t) should be qualified as a hypothesis about the short term. The work of Frank Baumgartner and Bryan Jones (1993) on punctuated equilibrium models suggests that systems that are slow to change will build up greater pressures to adjust – with the result that when change does occur in these sluggish systems, it will be larger and more traumatic.¹⁷

Hypothesis 2. The relative impact on results of a given level of internal managerial change will be greater in a public organization than in a private organization. From assumption 3, we know that the stability coefficient for a public organization is larger than that for private organizations ($\beta_{b1} < \beta_{g1}$ and $\beta_{g1} \rightarrow 1.0$). Let us assume all else is equal in public and private organizations, and present a basic model where internal management operates in a simple autoregressive model as follows:

$$O_t = \beta_1 O_{t-1} + \beta_2 M_t + \epsilon_t$$

This suggests that the impact of a one unit change in management will be β_2 , but that estimate is for the first year only. Because O_t has now increased by β_2 , this will be part of the base; and for the next year O_{t+1} will increase by an additional $\beta_1 \times \beta_2$. The autoregressive nature of the organization means these impacts will continue into the future at a geometrically declining rate ($\beta_1 \times \beta_1 \times \beta_2$ for the period t+2, etc.). The closer that β_1 is to 1.0 or a perfectly stable

¹⁷More precisely, the theoretical argument holds that when examined over a large number of cases, policy change will appear as a leptokurtic distribution. Robinson et al. (2007) have shown that the shape of such distributions in cases of organizational budgetary changes is itself influenced by organizational characteristics.

organization, the larger these long run impacts; hence, all things being equal, we expect that internal management changes will have a larger impact on performance in public than in private organizations. Expressed more formally, our hypothesis is:

$$\delta O_g / \delta M_1 > \delta O_b / \delta M_1 \quad [\text{Hypothesis 2}]$$

A cautionary note is in order. Hypothesis 2 concerns the impact for a specified change in internal management, but given that internal management has a greater range in private sector organizations than in public sector organizations, it is still possible that the total contributions of management to the performance of private sector organizations exceeds the total contributions of management to public sector organizations. The hypothesis also does not deal with the difficulty of reform or changing internal management, which may be more difficult in the public sector (an empirical question). The hypothesis simply states that for the same type of internal management (quality, investment in capacity, etc.), a one unit increase will have a larger impact in the public sector than in the private sector.

Hypothesis 3. Changes in internal stabilizing features such as structures in public organizations will have a larger impact than will similar changes in private sector organizations. The logic supporting hypothesis 3 is identical to the logic for hypothesis 2; this relative impact is again driven by the greater degree of stability in public sector organizations.

$$\delta O_g / \delta S_i > \delta O_b / \delta S_i \quad [\text{Hypothesis 3}]$$

Similar to hypothesis 2, this hypothesis concerns only the relative impact of a change in structure, not the total contribution of structure to organizational performance. Hypothesis 3 is consistent with the relatively larger increases in government productivity in the 1990s and later as both government and private sector organizations took advantage of the rapid increase in

computer power.

Hypothesis 4. The impact of buffering actions on both general environmental turbulence and environmental shocks will be greater in the public sector than the private sector. Shocks essentially emanate from the environment, the X term in the model. Because any type of environmental shock is discounted in the model by the $1/M_4$ term (the buffering term), the relatively larger effort at buffering in the public sector (see assumption 5a) means the size of the shock that actually penetrates to the organization will be smaller. Since negative shocks are likely to adversely affect the performance of the agency, we hypothesize that the relative impact of buffering in the public sector is likely to generate higher returns to performance than it is in the private sector, or:

$$\delta O_g / \delta M_4 > \delta O_b / \delta M_4 \text{ [Hypothesis 4]}$$

The logic for this hypothesis is further reinforced if one expects organizations to learn over time. Because public sector organizations will have more experience in buffering than in exploiting the environment, we would expect that their level of expertise¹⁸ in this area would also be higher and thus further advantage public sector organizations on this more conservative approach to environmental turbulence.

The exception to hypothesis 4 is likely to be cases where organizations face relatively placid environments. Given that buffering's contribution to the organization is to screen harmful aspects of the environment from the organization, the payoff to buffering is likely to be greater

¹⁸In the empirical work we have conducted thus far to test parts of the formal model, we have measured several aspects of management primarily in terms of extent of activity rather than degree of skill exhibited. We have developed and validated a separate measure of managerial quality, however (Meier and O'Toole 2002). Internal management, exploiting, and buffering should be considered as containing both quantity and quality aspects.

as the environment becomes more turbulent. In a stable environment, buffering is likely to be an inefficient use of managerial capacity, and the marginal effect will be greater in private organizations because they buffer less.

Hypothesis 5. Similar to the logic for hypothesis 4 on the greater efficacy of buffering in the public sector, we should expect that managerial efforts to exploit the environment will be more effective in the private sector. Assumption 4a holds that the level of managerial effort to exploit the environment is higher in the private sector than in the public sector. Similarly, we would also expect that managerial skill at exploiting the environment would increase as managers gain more experience with this function which would further add to the advantage of the private sector. Hence hypothesis 5 can be expressed mathematically as:

$$\delta O_g / \delta M_3 < \delta O_b / \delta M_3 \text{ [Hypothesis 5]}$$

It might also be possible to link the relative benefits of exploiting environmental opportunities to the turbulence of the environment. As environments become more turbulent, they are likely to generate more opportunities for exploitation but at the same time make the decision process more complex and the results more uncertain. At some given level of turbulence, the organization might be overwhelmed by the environment so that nothing management does makes any difference in organizational performance. The population ecology approach to organizations (Hannan and Freeman 1977; Kaufman 1991) holds generally that organizations survive and flourish not because of actions they take but, similar to species of flora and fauna, because they are in a favorable environment. Although we reject the population ecology assumption of managerial impotence for organizations, we concede that in extreme conditions of environmental turbulence the decision process of management can be

overwhelmed and thus organizations will succeed or fail simply because they have favorable or unfavorable environments – that is, because they are lucky.

Hypothesis 6. If we are correct in our model with three components of management (internal, buffering, exploitation), and our assumptions 1, 4, and 5 are correct, we can say something about the relative emphasis on different components of management across the sectors. The less structured environments of private sector organizations lead us to the conclusion that efforts to manage the environment of private sector organizations will be greater than the corresponding efforts in the public sector (reinforced by the emphasis on exploitation rather than buffering). Logically, then if it is the case that

$$M_{g2} < M_{b2}$$

then public sector management will have more time to focus on internal aspects of the organization. Even if the focus is not increased and the additional time is devoted to some accumulation of slack, however, the following hypothesis should hold:

$$M_{g1}/M_{g2} > M_{b1}/M_{b2} \quad [\text{Hypothesis 6}]$$

or the relative focus on internal versus external management will be higher in the public sector than it will be in the private sector.¹⁹

Although this hypothesis is more focused on whether public management differs from private management rather than the relative impacts of management on performance, it might also relate to overall organizational performance. In theory, there should be some optimal ratio,

¹⁹Hypothesis 6 is counterintuitive since most would assume that public sector organizations are more open to the environment and have greater interdependencies with environmental actors. To the extent that formalizing theoretical arguments generates counterintuitive hypotheses, it demonstrates the benefit of such reasoning.

that is, the optimal allocation of effort across internal and external management. As the ratio gets too large for an organization in a given sector, then one would expect diminishing marginal returns. As it becomes too small, one would also expect performance declines. Hypothesis 6 essentially implies:

Hypothesis 7. We expect, given the foregoing, that the optimal ratios for performance in the public sector is likely to be different from the optimal ratio in the private sector:

$$\delta O_g / \delta (M_{g1} / M_{g2}) \neq \delta O_b / \delta (M_{b1} / M_{b2}) \quad [\text{Hypothesis 7}]$$

Although we can only speculate, one might think that the advantages of internal management for the public sector might result in an equilibrium whereby public organizations go beyond their optimal relative levels of internal management. Private organizations might face the same problem with external management. A public organization would then need to shift more resources to external management to meet the optimal ratio, while private organization would need to do the opposite.

Conclusion

The broad literature on organizations and management is dominated by a generic perspective, one that treats numerous variables related to organizations and managerial behaviors as relevant, even crucial. As Rainey (2003) correctly notes, however, the mainstream research literature assumes or simply asserts that public-private differences are absent or trivial when compared to numerous other organizational features. In contrast to much of that work, some scholars and other writers have explored the subject of sectoral differences. A portion of this literature simply casts aspersions at the public sector by repeating caricatures and largely negative ideological claims – for instance, regarding inefficiency, rent seeking, and other “non-

market failures.” Some of this sort of work is buttressed by public choice theoretical argumentation, despite relatively little evidence in support of the claims. The serious work that has been done to date has resulted in much more nuanced findings, some of which have found their way into the assumptions undergirding our theoretical logic in this paper.

There is, of course, great variation within sectors, not just across them – no matter which criterion or criteria are used to operationalize public and private. Still, patterns can be identified, even if evidence in support of some of them seems more solid than that available for others. Exploring the various ways in which organizations and management may differ between sectors continues to be useful, and not just for scientific reasons. In particular, it is a good idea to document real sectoral differences, where they can be found, since much of the generic management literature offers injunctions that may be based upon faulty generalization from business to all forms of organization. Given the funding sources for research and the dominance of business school researchers in important associations like the Academy of Management, the problems stemming from such overgeneralization on the basis of business-focused research are real.

Still, one can go only so far by documenting sectoral differences. Even if structures, goals, and managerial behavior exhibit sectoral patterns, the most salient issue has to do with the so-what question: do those differences matter for the delivery of goods and services, for the accomplishment of purpose? The ultimate bottom line in this regard has to do with how differences may in turn shape performance. Performance is perhaps an overused criterion these days, as governments seem to compete with each other to concentrate on sometimes dubious performance measures. But a good part of organizational effectiveness has to do with

performance, interpreted in terms of organizational outputs and outcomes. And indeed, some of the cliches about the public sector regurgitate claims about under-performance on the part of government bureaucrats and their agencies. So we argue that the public-private research agenda needs to move to both theoretical development and also testing of organizational performance by sector.

In this paper, we have built from an inductively inspired formal model of management and performance, and we have used a set of explicit assumptions to derive a series of testable hypotheses about sectoral differences that bear on performance. This work constitutes only a first step. Additional empirical work currently underway on public-private differences may reveal further assumptions that can be made, and these in turn could drive additional theoretical development. And most important, a systematic effort to test performance-related hypotheses can move research in this field toward a set of highly critical and practically important issues. For those who care about how management can best deliver results, this agenda should be a priority.

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