

THE NATIONAL ORGANIZATIONS STUDY:  
A REVIEW AND AN EXTENSION EMPHASIZING PUBLIC-SECTOR SITES

by

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(Under the Direction of ROBERT T. GOLEMBIEWSKI)

ABSTRACT

This dissertation reviews the literature on public-business comparisons. The review highlights that while there has been a general movement toward larger samples, the vast majority of these samples are from restricted populations, a limitation on the ability to generalize beyond the sample. The literature review also demonstrates that most public-business comparison research clusters around five themes: defining publicness, organizational performance, organizational structure, work-related attitudes and behaviors, and human resource management practices. The dissertation presents several hypotheses that emerge from the public-business comparison literature and then tests those hypotheses using data from the National Organizations Study (NOS). The NOS data set provides 1) a representative sample of U.S. workplaces, 2) a robust set of variables that allow for cross-sector comparisons, and 3) opportunities for replication, extension, and generalization. The hypotheses are analyzed first through a preliminary analysis using difference of means t-test and then through a multivariate logistic regression. The preliminary analysis generally supported the hypotheses in the expected direction. However, when the variables were examined concurrently, through logistic regression, the patterns of support for the hypotheses changed in interesting ways, occasionally directly contradicting the findings in the preliminary t-test analysis. Specifically, the logistic regression analysis correctly predicted the sectoral status of 88.9 percent of the cases in the NOS data set. Finally, the dissertation reviews the implications of these findings for future research.

INDEX WORDS: Public Administration, Public and Private Organizations,  
Organization Theory

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## **DEDICATION**

This dissertation is dedicated to my family — to my wife, for her love, support, patience, and unfailing belief that I would accomplish this task. To my children, Moira, Makenzie, and Elizabeth, whom I love dearly. I also dedicate this to my parents, Rex and Cathy Facer, who have always believed in me and encouraged me to follow my dreams and my passions.

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## TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS .....	v
CHAPTER	
1    THE SEARCH FOR PUBLIC AND PRIVATE SECTOR DIFFERENCES .....	1
2    HYPOTHESIZING PUBLIC-BUSINESS DIFFERENCES .....	49
3    THE NATIONAL ORGANIZATIONS STUDY .....	55
4    PUBLIC AND PRIVATE SECTORAL DIFFERENCES: EXTENDING THE NATIONAL ORGANIZATIONS STUDY .....	73
5    SUMMARY AND CONCLUSION .....	115
REFERENCES .....	134



## CHAPTER 1

### THE SEARCH FOR PUBLIC AND PRIVATE SECTOR DIFFERENCES

Do the management strategies and practices of business firms work in public sector settings? This question is central in an era of increased privatization of public services and increased efforts to use private-sector management practices in governmental organizations. This question is not new; it was inherent in the early writings of public administration scholars (e.g., Wilson 1887). Accordingly, many scholars, especially during the last twenty-five years, have shown an increased interest in distinguishing and comparing public and private organizations, including their management practices and employees.

Recent results have remained mixed, and they thus fall short of the promise of the earliest research that was interpreted as reflecting sharp differences between the government and business sectors. Hence the stand-off. Some scholars argue that the unique characteristics of public organizations should be taken into account when contemplating modifying any organization's structure (e.g., Rainey 1997). Other researchers (e.g., Golembiewski 1969, 1985) have argued that all organizations have unique political environments, and those differences can contribute to an organization's ability to perform successfully. Perhaps most organizational researchers, but not all, recognize public-business differences, while arguing the superiority of business over government organizations.

Plainly, however, the public-private literature is too mixed to claim strong support for any position; and additionally, this literature is troubled by many questions about generalizability and validity.

This dissertation helps fill the gaps. It reviews the research that compares public and business organizations, and examines specifically the basic research designs and findings. Later, the dissertation tests many of the basic propositions and findings about public and business organizations, using a generalizable data set of US work organizations.

The public-private debate emerged as a challenge to the earliest public administration literature, which assumed a science of administration with universal principles which, once understood, could be applied equally well to both public and private sector organizations (e.g., Wilson 1887; Gulick and Urwick 1937). Many scholars challenged this notion of a generic management (e.g., Appleby 1945; Allison 1983). One typical criticism comes from the New Public Administration literature, which questions the way Public Administration treated the notion of “publicness” (Biller 1971). Biller argued that understanding the differences between public and private organizations would produce critical insights for advancing the theory and understanding of public administration research, as differentiated from less-public or private varieties.

Concurrent with these developments in public administration, the structures of organizations were being explored more broadly, and such exploration now has the status of a major research focus. Early research noted that organizational structures varied across organizations (e.g., Burns and Stalker 1961; Woodward 1965). The early research suggested that different patterns may

be more appropriate, depending on specific circumstances and environmental situations. Perhaps the most important wing of this research began to crystalize through the Aston studies (Pugh, et al. 1968), whose major focus was to identify five principal aspects of organizational structure – specialization, standardization, formalization, centralization, and configuration.

The Aston studies provide a rich, but mixed, foundation for exploring organizational structure. Pugh et al. (1968) describe 64 component variables used to measure five principal constructs of organizational structure. Since these foundational studies, scholars have used these concepts and their derivatives to probe the structures of organizations (e.g., Hall 1991; Daft 1995), often in public vs. business designs.

Despite such potentially useful research, one question remains for many scholars of public organizations: was “publicness” an archetypal characteristic of public organizations, or an important feature of all subtypes of organizations? This search for fundamental structural distinctions has resulted in a major stream of public administration research that compares public and private organizations. A number of scholars have explored differences and similarities in public and private organizations, generally using the economic paradigm of market sectors and ownership as the discriminating factors among organizations. Others (e.g., Golembiewski 1985) have proposed that any differences between specific organization loci could be accommodated by similar technologies for change, such as organizational development. But by far the greatest attention went to the polarizing distinctions between public and business organizations.

This dissertation seeks to test for either-or differences. It is notable that the public-versus-private distinction can be viewed as a matter of design, as well as an absolute. Michael Murray (1975) argues that there is more blurring in the two sectors than clear differences. Murray concedes distinctions between the two sectors, but the distinctions are not significant enough to discount the broad applicability of general management approaches. He concludes by arguing that

traditional barriers and distinctive patterns in decision making and goal definition are breaking down. While prevailing ideal-type models stress the uniqueness of public organizations as opposed to private organizations, . . . the old distinctions are no longer operational. Both in the handling of substantive issues and procedural matters, actual management practices point to a blurring of public and private sectors. (Murray 1975, 370)

This blurring perspective has received critical attention. In response to Murray's essay, Rainey et al. (1976) reviewed the literature on the differences between public and private organizations. Rainey and associates conclude that public-private differences did exist and that their implications for training and practice needed study (p. 233). They also suggest three broad areas with especially clear differences: the organization's environment, the interaction between the organization and its environment, and the internal structures and processes of the organization. Rainey and associates suggest that while this consensus (that public versus private differences are important) is not proof, it is a starting point for empirical analysis.

Others have also assessed the differences between public and private management. Golembiewski's work (e.g., 1990a), for example, has demonstrated that there can be successful organizational development interventions in both public and business sectors. Golembiewski, much like Meyer, concludes that any

differences that might exist between public and business organizations are not critical for successful interventions into organizational systems, such as occurs with organizational development.

Allison (1983), on the other hand, at a national conference on public management sponsored by the federal government, reviewed some of the earlier literature dealing with the experiences of managers who had spent their careers in both public and private settings. Allison suggests that some aspects of management are similar – such as a need for strategy, staffing, and dealing with the press and public – but that even these similarities soon lose their meaning in comparisons of the real-world application of these management functions. Additionally, he suggests that public and business management “are at least as different as they are similar, and that the differences are more important than the similarities” (Allison 1983, 87).

Allison’s work receives major support, with a significant twist concerning the inadequacies of existing research. Perry and Rainey (1988), critiquing the literature on public and private differences, argue that the distinction is useful and should be pursued through more empirical research. Reviewing a number of analyses, they identify several limitations of the current state of research: lack of generalizability of case research, questions of representativeness of samples, and the fact that existing empirical research is not sufficiently grounded in a theoretical framework. Additionally, the P-B literature is limited by the use of multiple operational definitions for the “same” concept. In conclusion, such features encourage caution in interpreting P-B research findings.

In order to overcome these weaknesses, Perry and Rainey (1988, 192-97) suggest that researchers pay more attention to issues of taxonomy and definitions of public organizations. They also suggest that researchers analyze and focus on variables associated with notions of public and private differences – e.g., political and economic environments. Rainey and Perry suggest that another major task involves refining typologies by using subtypes to clarify the distinctions. Consequently, the issues of how to build typologies remain. Two basic approaches exist – from the top down, or alternatively, from individual dimensions upward. This research by Rainey and others also makes other recommendations on which this dissertation will attempt to build.

### **Major Research Challenges**

In addition to the research that compares public and private organizations, the literature has been replete with other studies that compare those employed in public and private organizations. This research has examined many different themes concerning work-related behaviors and attitudes, such as motivation and risk tolerance. This stream of research within the public-private comparison has been plagued by many of the same problems that general organizational research has faced. The major problems include sample design, research strategies, and the lack of cumulative findings. In order to examine these issues I have reviewed over 58 different published research studies that compare public and private organizations or public and private employees. Articles for this review were identified through a review of major public administration journals, electronic databases, and through references listed in other articles.

This chapter presents a comprehensive overview of public-business comparison research, though some public-business comparison research may have been missed during the literature review. I examine each article to determine the research theme, the sample, the analytical approach, and the findings. The next two sections discuss these issues more thoroughly.

*Sample Design.* While public-private research has been very active, significant problems persist with the basic research designs. Although this problem is not unique to public-private comparison literature, it is problematic throughout public administration and all other management research (e.g., see Brewer et al. 1998; 1999). Generalizability of research findings is one important characteristic of theory building and development. Generalizability of research finding is generally approached through sample design. Unfortunately, most of the P-B research is hampered by sample designs, which do not allow for generalization. Although not all observers agree that this is a significant concern for theory development (e.g., Rainey and Bozeman 2000; Kurland and Egan 1999). Rainey and Bozeman (2000) argue that by building on convergent research findings, theoretical and practical advances can be made. Kurland and Egan recently argued that because many of the findings are built on small-sample research, incremental additions with similar samples “should contribute to the already existing set of findings and provide as much value as traditional case studies and qualitative research” (1999, 444).

Public-private comparison research has used five basic sample types: single-organization case study, multiple-case studies, single-type organizational surveys, restricted diverse-respondent surveys, and unrestricted diverse-

respondent surveys. While each of these can be used to test and develop theory, depending on the type of sample, the ability to generalize the findings beyond the study is severely restricted. This limitation is not exclusively a problem for public-private comparison research. The most commonly accepted strategy in overcoming the challenges to generalization and theory development is the use of large representative samples (Keppel 1991).

However, such samples are expensive and difficult to gather. Because of these challenges, much of organizational research has often suffered from sample designs (Kalleberg et al. 1996b; Freeman 1986; Drabek et al. 1982). The concerns about generalizability do not derive from mere methodological fussiness. Some argue that matters have grown worse: that is, our need for theories and method continues to grow, but the challenges outpace it. As Freeman (1986) notes,

The quality of data on which organizational knowledge is built has not improved at nearly the same pace. Most of the literature is still based on small samples of opportunity. Measurement continues to be plagued by lack of comparability across studies. And we are unable to make legitimate generalizations about how organizations work, when they change, or the consequences of organizing in one way as opposed to another. (298)

This claim is supported by earlier work by Drabek et al. (1982), who reviewed fifteen years of organizational research to assess the samples used. After reviewing more than 700 organizational studies from 1965 to 1979, they found that the majority of the studies used relatively small samples. Less than half (47%) of the studies examined could be classified as using a comparative



methodology. Of these 334 studies, 105 (31%) used samples of 24 or fewer organizations. Midsize samples, those between 25 and 74 organizations, accounted for 82 (25%) of the studies. Larger samples, those of 75 or more organizations, made up 134 (40%) of the studies. The authors classified the sample technique in five different categories. Of the 334 studies examined, 20 (6%) were simple random, 23 (7%) were stratified random, 89 (27%) were purposive, 86 (26%) were dense, and 116 (35%) were convenience samples. Kalleberg et al. (1996b) claim that this pattern has not changed dramatically since the early research; and Perry and Rainey (1988) describe a similar pattern for research comparing public and private organizations.

In an effort to ascertain the current state of research design for public-private comparison studies, I have compiled information on the samples used in that research. Table 1.1 presents information on the samples used in public-private comparison research. Some clear patterns emerge. Over the last twenty-five years there has been a clear effort to use larger samples. However, the large majority of these are from restricted populations, a fact that limits the ability to generalize beyond the sample. Many of the studies that use large diverse-respondent surveys focus on employee attitudes and behaviors. These studies often have little if any linkage to organizational characteristics, which would be critical to assess if the organizational setting of the employees shapes their attitudes and behaviors. Accordingly, those participating in public-private comparison research must exercise great caution when extrapolating beyond their research design to other organizations. This limitation can have a significant impact on our ability to build and develop theories.

Some scholars have tried to address this by focusing on a specific type of organizations. Bozeman and Loveless (1987) and Bozeman and Bretschneider (1994) focused on research and development organizations in the United States. By focusing on a single type of organizations that is present in both business and government settings, researchers can attempt to control for factors that might otherwise confound their research.

Of the 57 research articles reviewed and presented in Table 1.1, only seven (12.3 percent) used an unrestricted diverse-respondent sample. However, all seven of these studies looked at individual attitudes and behaviors rather than organizational characteristics. This in part highlights the challenge of conducting a large sample of unrestricted organizational studies. The vast majority of the samples used in this review, 43 of the 57 (75.4 percent), used restricted diverse-respondent samples. These samples were often limited to a few organizations (e.g., Wheeler and Brady 1998; Rhinehart et al. 1969) or to a specific geographic region (e.g., Rainey 1979, 1982, 1983; Solomon 1986). Additionally, four studies used a single-type organization study. These studies chose a type of organization, such as research and development laboratories, and compared those with private ownership to governmental labs (e.g., Bozeman and Bretschneider 1994). Some of these have been very sophisticated samples. Bozeman and Bretschneider, for example, conducted a probability sample of research and development labs in the United States, a sample that allowed them to speak meaningfully to all research and development labs in the U.S. The remaining research, three articles, used some type of case-study research, either single or multiple organization case studies; these were all focused on organizations that had changed ownership

either from private to public, or from public to private. As with the case studies, the major problem of most samples is that they are not generalizable, and accordingly they make theory testing very difficult.

**Table 1.1**  
**Review of Samples Used in Public-private Research**

Sample Type	Authors	Article Year	Description of Sample
Single Organization Case Study	Anderson	1995	Case Study of National Corporation of Swedish Pharmacies that had changed from private to public ownership.
Multiple case studies	Dunsire, Hartley, Parker, and Dimitriou	1988	Five British organizations that have changed their sectoral status (e.g., public to private sector).
	Dunsire, Hartley, and Parker	1991	Ten British organization that have changed either their sectoral status or their market orientation.
Single-type organizational surveys	Atkison and Halvorsen	1986	30 publicly owned and 123 privately owned electric utilities across the United States.
	Barrows and Wesson	2000	60 private sector and 38 public sector attorneys in Ontario, Canada.
	Bozeman and Bretschneider	1994	733 respondents from a probability sample of U.S. research and development labs.
	Bozeman and Loveless	1987	50 government and industrial engineering research units in three Western European countries (Austria, Belgium, and Finland).

**Table 1.1 continued**

<b>Sample Type</b>	<b>Authors</b>	<b>Article Year</b>	<b>Description of Sample</b>
Restricted diverse-respondent surveys	Baldwin	1987 1990	234 managers (130 public managers and 104 private managers) from 50 public and 12 private sector organizations in the Atlanta metropolitan area.
	Balfour and Wechsler	1990	342 (90 public sector and 252 private sector) employees from three organizations, two public (human service and public retirement agency) and one private (privately owned bank).
	Boyne, Jenkins, and Poole	1999	909 respondents from a wide range of organizations, but who were associated with the Institute of Management in Britain. Thirty percent of respondents were from public organizations.
	Bozeman and Kingsley	1998	National Administrative Studies Project (NASP), New York study. 368 respondents, 197 from public (109 top-managers and 88 mid-managers) and 171 from private (83 top-managers and 88 mid-managers) organizations.

**Table 1.1 continued**

<b>Sample Type</b>	<b>Authors</b>	<b>Article Year</b>	<b>Description of Sample</b>
Restricted diverse-respondent surveys (continued)	Bozeman and Rainey	1998	National Administrative Studies Project (NASP), New York study. 192 top managers, 109 from public organizations and 83 from private organizations.
	Bozeman and Reed	1992	966 research and development labs in the United States.
	Bretschneider	1990	1,005 surveys from computer professionals in state government agencies and private firms. 622 state agency respondents and 383 respondents from the private sector.
	Buchanan	1974	279 managers from three industrial firms in the Northeastern United States and five government agencies in Washington DC.
	Buchanan	1975	145 middle managers from four manufacturing and service firms from the Northeastern United States and four federal agencies in Washington DC. There were 69 business managers and 76 government managers.

**Table 1.1 continued**

<b>Sample Type</b>	<b>Authors</b>	<b>Article Year</b>	<b>Description of Sample</b>
Restricted diverse-respondent surveys (continued)	Chubb and Moe	1988	6000 high school students from more than 1000 public and private schools. Additional survey of administrators and teachers from 500 schools.
	Coursey and Bozeman	1990	210 upper managers in public, nonprofit, and private organizations from Syracuse, New York.
	Coursey and Rainey	1990	210 managers from public, private, and hybrid organizations in Syracuse, New York.
	Crewson	1997	1989 General Social Survey; 1994 Institute for Electrical and Electronics Engineers (over 600 engineers in U.S.); 1979 Federal Employee Attitude Survey.
	DeSantis and Durst	1996	1984 National Longitudinal Survey of Youth (1,064 public sector respondents and a random sample of 1,131 respondents employed in private sector from survey).
	Elliott and Tevavichulada	1999	Human resource managers from public organizations (n=77) and private organizations (n=77).

**Table 1.1 continued**

<b>Sample Type</b>	<b>Authors</b>	<b>Article Year</b>	<b>Description of Sample</b>
Restricted diverse-respondent surveys (continued)	Emmert and Crow	1988	250 Public, private, and mixed or hybrid Research and Development laboratories involved in energy related research.
	Flynn and Tannenbaum	1993	118 private sector bank vice presidents from two financial institutions and 139 middle managers in government agencies who completed a management training program.
	Gabris and Simo	1995	96 individuals from six organizations (2 public, 2 nonprofit, and 2 private companies).
	Golembiewski	1990b	15 businesses (6,443 individuals) and 11 public agencies (3,486 individuals).
	Guyot	1960	247 middle managers from government (147) and business organizations (100).
	Jurkiewicz, Massey, and Brown	1998	296 public employees and 333 business employees in the Midwest United States.
	Khojasteh	1993	362 managers from seven public organizations and 18 private businesses.



**Table 1.1 continued**

<b>Sample Type</b>	<b>Authors</b>	<b>Article Year</b>	<b>Description of Sample</b>
Restricted diverse-respondent surveys (continued)	Kurland and Egan	1999	A convenience sample of 174 public-sector and private-sector employees from seven organizations.
	Lachman	1985	141 Chief Executive Officers from in Israeli business (91) and government organizations (40) and ten from organizations that were not classified.
	Long and Marquis	1999	1997 Robert Wood Johnson Foundation Employer Health Insurance Survey, sample of businesses, local governments, and federal government.
	Lan and Rainey	1992	National Administrative Studies Project data from Syracuse, New York. 220 managers responded, 92 public managers, 66 managers from hybrid organizations, and 62 managers from private organizations.
	Maidani	1991	486 engineers and accountants from one public and one private organization.
	Newstrom, Reif, and Monczka	1976	6 organizations (1 city and 5 businesses), 354 total participants.

**Table 1.1 continued**

<b>Sample Type</b>	<b>Authors</b>	<b>Article Year</b>	<b>Description of Sample</b>
Restricted diverse-respondent surveys (continued)	Nutt	1999	317 strategic decisions in public (71), nonprofit (106), and private (140) organizations.
	Pavett and Lau	1985	448 managers, public sector – 210 civilians working for the U.S. Navy, private sector – 228 managers in southern California service and manufacturing firms.
	Perry	1996 1997	376 respondents, including MPA students, public affairs undergraduate students, business executives, department heads in municipal government, social work graduate students, sheriffs' deputies, university employees, social service and natural resources department employees from state government, county government employees, and management employees at a federal defense installation.
	Posner and Schmidt	1996	1,060 surveys from business managers belonging to the American Management Association and 1,006 alumni of the Federal Executive Institute.
	Rainey	1979 1982 1983	5 government and 4 business organizations in Midwest United States. 150 government managers and 125 business managers.

**Table 1.1 continued**

<b>Sample Type</b>	<b>Authors</b>	<b>Article Year</b>	<b>Description of Sample</b>
Restricted diverse-respondent surveys (continued)	Rainey, Pandey, and Bozeman	1995	Managers from public organizations (63), nonprofit (22), and private for profit firms (62).
	Rhinehart, Barrell, DeWolfe, Griffing, and Spaner	1969	2,026 respondents from the Veterans Administration's Department of Medicine and Surgery and 1,916 respondents from business and industry
	Robertson and Seneviratne	1995	47 organizational development studies, 16 in public organizations and 31 in private organizations.
	Solomon	1986	240 top managers in Israel (120 private sector managers and 120 public sector managers).
	Volkwein and Parmley	2000	1,191 respondents from 120 doctoral universities. 200 from private institutions and 976 from public institutions.
	Wheeler and Brady	1998	233 respondents from two organizations. 141 private sector employees and 92 municipal employees.
Unrestricted diverse-respondent surveys	Bellante and Link	1981	3643 working heads of households from the 1972 <i>Panel Study of Income Dynamics</i> .

**Table 1.1 continued**

<b>Sample Type</b>	<b>Authors</b>	<b>Article Year</b>	<b>Description of Sample</b>
Unrestricted diverse-respondent surveys (continued)	Crewson	1995	National Longitudinal Survey of Youth, panel members employed at least once between 1980 and 1990. Limited to specific occupations (accountant, computer specialist, engineer, manager/administrator, secretary, guard/night watchman). There were 166 federal, 115 state and 1,875 private sector employees.
	Crewson and Guyot	1997	National Longitudinal Survey of Youth, limited to specific occupations (accountant, computer specialist, engineer, manager/administrator, secretary, guard/night watchman). There were 444 federal sector employees and 8,367 private sector employees.
	Lewis	1990	General Social Survey from 1982-1988 (9,239 respondents, 789 public employees and 8,450 other respondents).
	Smith and Nock	1980	1976 General Social Survey (n=1,499) and 1972-73 Quality of Employment Survey (n=1,496).

**Table 1.1 continued**

<b>Sample Type</b>	<b>Authors</b>	<b>Article Year</b>	<b>Description of Sample</b>
Unrestricted diverse-respondent surveys (continued)	Steel and Warner	1990	National Longitudinal Survey of Youth from 1979-1987 (n=6,111). Respondents were classified as working in private organizations (n=4,029), public organizations (n=480), or as being self-employed (n=314).
	Steinhaus and Perry	1996	1,517 individuals from the General Social Survey in 1991.

**Source:** Developed exclusively for this dissertation. employees. Articles for this review were identified through a review of major public administration journals, electronic databases, and through references listed in other articles. While this review is comprehensive, some studies may have been inadvertently missed. Additionally, studies that attempted to review past research are not included in this table.

*Themes and Research Findings.* From research on public-private differences, five prominent themes emerge: defining publicness, organizational performance, organizational structure, work-related attitudes and behaviors, and human resource management practices. Table 1.2, a summary of published public-private research, highlights the analytical techniques and findings used in this research. One of the most significant design challenges for this stream of research is that it has not consistently focused on testing and retesting relationships under different sample circumstances, which would be important to build theory under the types of samples depicted in Table 1.1.

The research has not been distributed evenly among the research themes. Among the 58 research articles reviewed in Table 1.2, two dealt with defining publicness, five explored issues of organizational performance, 17 examined issues of organizational structure, 29 probed work-related attitudes and behaviors, and five studied human resource management practices. Accordingly, the largest portion of research has compared the work-related attitudes and behaviors of employees from different sectors. The remaining research focuses more on organizational issues.

In studying these issues, researchers have used a variety of analytical approaches, ranging from simple descriptive statistics to much more elaborate statistical models. The three most common analytical techniques used were descriptive statistics, regression, and tests of differences (see Table 1.2). Descriptive statistics were used in 35 studies (60.3 percent). Regression-related models, including ordinary least squares, logit, and probit, and hierarchical regression approaches were used in 29 studies (50.0 percent). Difference of

means and other tests of differences, such as t-tests, were used in 22 studies (37.9 percent).

The research in Table 1.2 highlights the mixed nature of the findings for many of the themes examined in the literature. For example, within the theme of work-related attitudes and behavior, the comparative organizational commitment research has had contradictory findings. These findings raise significant questions. Are these contradictions the result of operational definitions, the result of sample errors introduced by their sample designs, or some other phenomena? The findings for organizational structure research also highlight the mixed nature of research results. For example, some research on formalization finds no difference between public and business organizations (e.g., Pugh et al. 1969), while other research has found strong evidence of differences on measures of formalization, especially as measured by personnel rules (Rainey et al. 1995).

Despite their inelegance and shortfalls, the information in Tables 1.1 and 1.2 creates a foundation for the importance of testing the findings from the P-B literature. The summaries of the research designs and findings highlight the need for a theory-building effort that expands the existing research using a generalizable sample, and then retests the findings using corollary measures to those used in earlier research. Accordingly, this dissertation tests the designs and findings from several of the major themes in the literature using the National Organizations Study data.

The National Organizations Study data are described more carefully in Chapter 3. The NOS data are a representative sample of U.S. work organizations. The study collected data on a range of organizational issues, such as

organizational structure and human resource practices. The design of the study was structured to help researchers overcome many of the challenges that arise from the lack of generalizability.



**Table 1.2**  
**Comprehensive Review of Analytical Approaches and Findings**  
**In Empirical Public-Private Comparison Research**

Themes	Authors	Analytical Approach	Findings
Defining Publicness	Bozeman and Bretschneider 1994	OLS regression and three-stage least squares analysis	Alternative schemas for classifying organizations are used to examine several measures of bureaucracy and outputs. Both the core ownership approach, as well as the dimensional approach, result in some significant findings. However, the dimensional approach provides a more powerful explanation.
	Emmert and Crow 1988	One-way analysis of variance, discriminant and classification analysis	There was no significant difference for any structure variables. Funding sources varied dramatically across public, private, and hybrid R&D organizations. Public and cooperative organizations had higher levels of administrative intensity than other organizations ( $p < .0001$ ). The nature of the products was significantly different across organizations ( $p < .0001$ ). The best single discriminating variable is the perceived degree of influence of the government on organizational goals. Using the classification analysis, they were able to correctly classify 76.1 and 65.9 percent of private and public organizations.

**Source:** Prepared exclusively for this dissertation. Articles for this review were identified through a review of major public administration journals, electronic databases, and through references listed in other articles. This review seeks to be comprehensive in its presentation of public-business research findings. Public-business research that was wholly theoretical, that is, it did not present any new empirical findings, was not included in this table. Additionally, studies that are cumulative reviews of past research are also not included in this table.

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Organizational Performance (continued)	Anderson 1995	Descriptive statistics	The public ownership did not result in deteriorating performance or a lack of innovation for the pharmacy corporation. Productivity increased by 49% over a twenty-year period. Specialization was low, while standardization was high.
	Atkison and Halvorsen 1986	Comparison of efficiency data from publicly and privately owned electric utilities across the United States using an econometric model	Public and private electric utilities are equally cost-inefficient.
	Bozeman and Loveless 1987	Factor analysis, correlation, t-test of differences, partial correlation, path analysis, OLS regression	Public sector respondents perceived greater environmental influence in all types of decisions examined; however, only decisions in work structure were statistically significant ( $p < .01$ ). Government organizations reported a more positive work climate and slightly less red tape, but none of those findings were significantly different ( $p < .05$ ). Government units had more research publications, but fewer patents and internal reports. Both patents and reports were significant differences ( $p < .02$ ). There are differences in the productivity pattern of public and private research units, and the differences do not disappear when additional control variables are included.
	Dunsire, Hartley, Parker, and Dimitriou 1988	Descriptive statistics and OLS regression	Mixed results in organizations following sectoral changes (both for public organizations that were privatized as well as for private organizations that became public).

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Organizational Performance (continued)	Dunsire, Hartley, Parker, and Dimitriou 1991	Descriptive statistics and OLS regression	Changes in organizational sector generally resulted in changes in organizational performance in the predicted direction. The regression models had mixed results, strong support for the general hypothesis in five organizations, limited support in three, and no support in four organizations. In general the tested hypothesis was that there would be a positive relationship between status change and performance. Overall, the authors found “no clear relationship between enterprise performance and status change, change in competition, or change in control mode, singly or in combination” (38).
Organizational Structure	Baldwin 1987	Descriptive statistics, t-test difference of means, OLS regression, factor analysis	There were significant differences in the perceptions of public and private managers on measures of goal clarity, leadership turnover, and job security ( $p < .01$ ). While sector had a more significant impact on these variables than other variables tested, sector accounted for less than 10 percent of the variation in the dependent variables (goal clarity, leadership turnover, and job security). When used as explanatory variables (goal clarity, leadership turnover, and job security) they had very little explanatory power for measures of motivation ( $R^2 < .071$ ).

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Organizational Structure (continued)	Baldwin 1990	T-tests of differences and OLS regression	Public managers reported higher levels of red tape (external, internal, and informal red tape) than private managers. Using regression, the author examined the influence of several variables on each red-tape scale (sector was significant in all models, but other variables had less clear patterns). The R <sup>2</sup> for sector alone ranged from a low of .21 to a high of .26. Red tape was then used as independent variables in models examining motivation. Red tape was not significant in any of these models.
	Bozeman and Rainey 1998	Descriptive statistics, correlations, logistic regression, and factor analysis	Sector demonstrates a negative relationship with the perceived need for more rules, indicating that business managers saw a need for more rules. Alienation and record keeping were both significant factors in the model of bureaucratic personality.
	Bozeman and Reed 1992	Descriptive statistics, factor analysis, and OLS regression	Government organizations were more bound up in red tape, for each red-tape measure. Sector did not add any additional explanatory power beyond the dimensional measures of publicness for research related red tape. Both sector and the dimensional measures were useful in explaining the variation in personnel-related red tape. Dimensional measures alone were significant for equipment purchasing-related red tape. Neither the dimensional nor the sector variables were significant for red-tape-related to publication and circulation of research findings.

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Organizational Structure (continued)	Bretschneider 1990	Factor analysis, OLS Regression, and TOBIT analysis	The largest differences between public and private MIS departments were in personnel and procurement processes. State-of-the-art hardware and software technologies were more important for public MIS departments than for private departments. Public MIS managers reported that they were confronted by greater external review and control than their private sector counterparts. Public MIS operations were reported to take longer for all tasks measured than private sector respondents.
	Chubb and Moe 1988	Descriptive statistics, OLS Regression	School boards in the public sector have more influence over basic policy decisions (curriculum, instructional methods, discipline, hiring, and firing) than private sector boards ( $p < .05$ ). The same pattern holds for school administration; public school principals had less autonomy in basic policy decisions than did private school principals; decision making in public schools focuses on school boards and school administration (superintendents and central offices) ( $p < .05$ ). Public school administrators and teachers reported many more barriers to hiring and firing than do their private counterparts ( $p < .05$ ). Private school principals have very different characteristics from those of their public sector counterparts. Public and private schools also have different goal orientations, public schools are more likely to focus on basic literacy and citizenship characteristics, while private schools are more likely to focus on academic excellence and personal growth ( $p < .05$ ).

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Organizational Structure (continued)	Coursey and Bozeman 1990	Descriptive statistics, factor analysis, OLS regression	In determining participation in decision making, government ownership as well as dimensional measures of publicness were significant. In explaining participation in decision making, the most significant variables were related to government communication (mail and phone calls, $p < .01$ for both measures), as well as the level of professional intensity ( $p < .01$ ). Government ownership, while also important, was less significant ( $p < .10$ ).
	Coursey and Rainey 1990	Principal components analysis, analysis of variance, Tukey's studentized range test for multiple mean differences	Publicness is negatively associated with three measures of personnel procedure flexibility ( $p < .001$ ). Significant differences between public and private managers on all three measures of personnel flexibility ( $p < .05$ ). Publicness is negatively associated with three measures of personnel authority ( $p < .001$ ). Private managers perceive greater hiring and firing authority than public managers ( $p < .05$ ). Publicness is positively associated with increased time to hire and fire personnel ( $p < .03$ ).
	Kurland and Egan 1999	Descriptive statistics, independent sample t-tests, OLS regression	Respondents in public agencies did not perceive higher formalization in their jobs ( $t = -.056$ ), more formal communications ( $t = 1.187$ ), or more outcome based performance evaluations ( $t = -.699$ ) than respondents in private firms. Public respondents did report significantly different perceptions of distributive justice (public employees held weaker views $t = -1.717$ , $p < .10$ ), procedural justice (public employees held weaker views $t = -2.461$ , $p < .05$ ), and satisfaction with supervisor (public employees held weaker views $t = -2.035$ , $p < .05$ ).

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Organizational Structure (continued)	Lachman 1985	Descriptive statistics, scale analysis, t-tests, discriminant analysis	No significant difference among public and private CEOs for measures of the influence of owners, labor unions, government agencies, market elements, and government policies. The influence of government policies had the most influence on CEOs in both sectors. There were significant differences in the time span of discretion; government CEOs reported to controllers less frequently than private CEOs ( $p < .05$ ); and in levels of satisfaction, government CEOs reported lower levels of intrinsic and extrinsic satisfaction than their private sector counterparts ( $p < .05$ for both measures). These three measures were the most influential in discriminating between the two groups of CEOs.
	Lan and Rainey 1992	Scheffe's test, t-test, correlations, and OLS regression	Public managers rated the clarity of their organization's goals higher than did private managers ( $p < .10$ ), but they rated their ability to measure their goals lower ( $p < .10$ ). In assessing the variables relating to the managers' perceived organizational effectiveness of achieving goals, they found that sector had a significant positive relationship.
	Maidani 1991	Descriptive statistics and t-test of differences	Public employees valued "hygiene" motivators more than did private sector employees ( $p = .04$ ). Specifically, public employees valued company policies and status more highly than did private sector employees ( $p < .05$ ). All the other hygiene factors, except benefits and job security, were also higher for public employees, though not statistically significant.

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Organizational Structure (continued)	Nutt 1999	Descriptive statistics, chi-square, and analysis of variance	Differences in success of decision making suggest that private, for-profit organizations had fewer complete adoptions than nonprofit or public organizations. Private organizations, however, were more efficient in their decision making. Decisions were made in 18 percent less time than public and nonprofit organizations. Decision makers in different sectors relied on different tactics. Bargaining tactics were much less successful in public organizations than in private or nonprofit organizations. Decision makers in public organizations were more successful in using experts and subjective assessments of performance data than were organizations from other sectors.
	Pavett and Lau 1985	Factor analysis, descriptive statistics, correlation, t-test of differences	Public and private sector managers rated the relative importance of managerial roles in very similar ways (Spearman rank order correlation = 0.86, $p < .01$ ). For R&D managers the Spearman rank order correlation = 0.91 ( $p < .01$ ). Public R&D managers score the importance of the following roles higher than did private sector R&D managers ( $p < .05$ ): resource allocator, leader, monitor, spokesperson, and figurehead. For managerial job characteristics, only socializing as an important part of the job was significantly different; public R&D managers rated it lower than private R&D managers ( $p < .05$ ).



**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Organizational Structure (continued)	Rainey 1983	Descriptive statistics, discriminant analysis, and correlation	Public managers scored higher on several sub-scales for measures of formalization (rule observation, presence of a rule manual, and specificity of job descriptions [ $p < .001$ ]), but showed no significant difference on job codification. Public managers scored significantly lower than private managers on the flexibility of their personnel procedures ( $p < .001$ ). Public managers also scored lower in extrinsic motivation scale ( $p < .001$ ), but there were no statistical differences on the intrinsic incentives scale. No statistical differences for role perceptions or the perceptions of organizational goals. The flexibility of personnel procedures was the major variable in the discriminant analysis, which was able to classify 92 percent of the cases correctly.
	Rainey, Facer, and Bozeman 1995	Descriptive statistics and t-tests	Public managers scored higher on formal procedures as measured by personnel procedures in three different samples ( $p < .000$ ).
	Rainey, Pandey, and Bozeman 1995	OLS regression	No significant differences between public and private managers on measures of goal ambiguity or perceptions of rule enforcement. Public managers were more likely to report higher levels of red tape than private sector managers ( $p$ ranged from .0001 for personnel rule constraints to .1 for the number of decision makers involved in personnel decisions). Public managers reported higher levels of insecurities than private managers ( $p < .009$ ). Red tape in general, and personnel constraints in particular, are very significant factors in the reported level of insecurity.

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Work-Related Attitudes and Behaviors	Balfour and Wechsler 1990	OLS regression	<p>Examined three aspects of organizational commitment. Compliance Commitment (involvement for specific extrinsic rewards): Public variable was not significant (<math>p=.301</math>), and the overall model was very weak, <math>R^2=.12</math>.</p> <p>Identification Commitment (involvement based on a desire for affiliation): Public variable had a significant (<math>p=.019</math>) negative impact. Overall model was robust and explained a large portion of the variance, <math>R^2=.64</math>.</p> <p>Internalization Commitment (involvement based on a match between individual and organizational values): Public variable had a significant (<math>p=.061</math>) positive impact. Public variable was not in the hypothesized direction. Overall model was significant and explained a moderate amount of variation, <math>R^2=.35</math>.</p>
	Barrows and Wesson 2000	Descriptive statistics, t-test of differences, and correlations	<p>No statistical differences in satisfaction with the nature of work, the degree of burnout, or ability to balance work and personal life. Public sector attorneys reported significantly lower satisfaction with their pay, benefits, contingent rewards, and opportunity for promotion (<math>p&lt;.001</math>). Public attorneys were not satisfied with the organizational conditions they worked in; specifically, they reported lower levels of satisfaction compared to the private sector attorneys survey for operating conditions, organizational communication, co-workers, supervision, leadership, and training (<math>p=.000</math>). Private sector attorneys generally reported higher agreement that their organizations are achieving their goals and that their organization is performing better now than three years ago (<math>p=.000</math>).</p>

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Work-Related Attitudes and Behaviors (continued)	Bellante and Link 1981	Probit analysis	The authors predict the probability of a set of factors (including age, education, race, and a risk aversion scale) on the sector of employment. They found that age and education were positively associated with public sector employment. Other variables, including marital status, family size, and sex, were not statistically any different from zero. Risk aversion, however, was significantly associated with public sector employment. They found that “innately risk-averse individuals have a greater probability of choosing public sector than private sector employment” (411).
	Bozeman and Kingsley 1998	OLS regression	Private sector managers tend to view their organizations as more risk-oriented; the difference, however, is not statistically significant. In trying to model the total risk culture, sector was not significant. Other factors, such as influence by elected government officials, managers trust employees, red tape, promotion based on rules, and the clarity of organizational mission all had a significant impact on an organization’s risk culture.
	Buchanan 1974	OLS regression	Managers from industrial organizations reported higher levels of satisfaction and organizational commitment than public sector managers ( $p < .001$ ). Seven organizational experiences accounted for 68% of the variance in commitment. Business managers reported higher scores for each of the experiences measured ( $p < .001$ for all 7 variables) than did their public sector counterparts.

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Work-Related Attitudes and Behaviors (continued)	Buchanan 1975	T-test difference of means	Respondents from public and private organizations reported significantly different responses for variables related to structure salience (formalization and red tape) and job involvement (which he suggests may be a proxy for the service ethic). The differences are not in the expected directions. Managers in business firms reported higher levels of structural salience and higher levels of job involvement.
	Crewson 1997	One-tailed z-test of proportions, confirmatory factor analysis and OLS regression	Significant differences were reported for some service-related motivators (e.g., useful to society and help others), while only one of the economic motivators, job security, exhibited significant differences. “Public employees with a preference for service over economic benefits are likely to be more committed to agency operations than employees with a preference for economic rewards” (512). There do not appear to be any significant differences in attitudes between the economic and service-oriented employees with respect to policy and political attitudes.
	DeSantis and Durst 1996	Descriptive Statistics, OLS regression, and Chow test of different populations	Several differences between employees in the different sectors. For example pay, experience, job variety, ability to develop friendships, and job tenure were all significant in the private sector model, but not in the public sector model.

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Work-Related Attitudes and Behaviors (continued)	Flynn and Tannenbaum 1993	Hierarchical moderated regression and t-test for differences	Private sector managers felt that autonomy was more important for their jobs than did public sector managers ( $p < .01$ ). Private managers also reported higher levels of autonomy ( $p < .05$ ) and challenge ( $p < .01$ ) than did public managers. Public managers thought job clarity was more important than did their private sector counterparts ( $p < .05$ ), but there was no significant difference in the existence of job clarity. Sector was significantly related to organizational commitment and accounted for an additional 11.5 percent of the variance, even after the effect of job characteristics is accounted for.
	Gabris and Simo 1995	Descriptive statistics, analysis of variance,	No statistical difference between employees in different sectors for job satisfaction. There were no reported differences between the job factors that employees like the most. There were very few differences for the reported motivational needs of employees. Only three items had statistically significant differences: need to compete, need for authority, and need to serve the community good. For two of those items (compete and authority) nonprofit respondents were different from public and private respondents. For the need to serve the community good, however, nonprofits and public respondents were different from private sector respondents.

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Work-Related Attitudes and Behaviors (continued)	Golembiewski 1990b	Descriptive statistics	Both public and private sector respondents displayed a bipolar distribution of burnout. About 40 percent of employees were on either extreme of the burnout scale. Businesses had a larger proportion of their members in the three most advanced phases of burnout (47.6 percent vs. 42.4 percent for public organizations). Public organizations had a larger proportion of their members in the three lowest phases of burnout (43.8 percent vs. 38.2 percent for businesses). Government organizations, however, had a higher percentage in the most advanced stage of burnout (24.2 percent vs. 19.7 percent for businesses).
	Guyot 1960	Descriptive statistics, chi square	For achievement and affiliation motivation, there appear to be differences between public and business managers ( $p < .05$ for achievement and $p < .01$ for affiliation). However, for power-based motivation there does not appear to be a difference based on sector of employment, but there are differences based on organizational roles.

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Work-Related Attitudes and Behaviors (continued)	Jurkiewicz, Massey, and Brown 1998	Spearman's rank correlation	The results suggest that public employees are significantly different in the motivational attributes they desire than are private sector employees. Employees from both sectors reported similarity in the ranking patterns of motivators they are receiving from their jobs (Rank order correlation =.69, $p < .05$ ). Public sector supervisors reported a high level of congruence between their motivational wants and what they receive (Rank order correlation =.73, $p < .05$ compared to .43, $p < .20$ for private sector supervisors). Public employees ranked a stable and secure future as their most important motivational need, while a high salary was first for private sector employees.
	Khojasteh 1993	Descriptive statistics, t-test of differences	Pay and job security were significantly less important to public managers than to private managers ( $p < .03$ ). Public managers valued achievement and advancement more highly than did the private sector managers surveyed ( $p < .05$ ). Public managers had higher overall dissatisfaction with the intrinsic and extrinsic rewards examined. This was significant for job security, pay, achievement, company policy and administration, and recognition ( $p < .05$ ). Finally, Khojasteh estimates very different patterns of motivational potential for public and private managers.

**Table 1.2 (continued)**

<b>Themes</b>	<b>Authors</b>	<b>Analytical Approach</b>	<b>Findings</b>
Work-Related Attitudes and Behaviors (continued)	Lewis 1990	Descriptive statistics and test of differences	Government employees are no more likely than the general public to favor raising government spending. Government employees are somewhat less likely to favor laws regulating private behavior. Government employees are stronger proponents of First Amendment rights of unpopular minorities. Top bureaucrats hold somewhat different opinions than do the general public on how to deal with crime. Overall, government employees had views that were generally similar to those of the general public.
	Newstrom, Reif, and Monczka 1976	Descriptive statistics and t-test of differences	Only two reward categories held significant differences. Public managers placed less importance on job security ( $p=.05$ ) and direct economic benefits ( $p=.001$ ). Public employees had lower dissatisfaction scores for all nine reward categories examined. Additionally, four of those categories were significantly different from those of private sector respondents: direct economic benefits ( $p=.001$ ), self-actualization ( $p=.05$ ), compensation ( $p=.001$ ), and indirect economic benefits ( $p=.001$ ).



**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Work-Related Attitudes and Behaviors (continued)	Posner and Schmidt 1996	Descriptive statistics, multi variate analysis of variance, t-test of differences	<p>Business and government managers have significant differences in how they regard various organizational goals. Private managers place greater emphasis on morale, productivity, stability, efficiency, and growth than do public managers. Public managers, on the other hand, place greater emphasis on quality, effectiveness, public service, and value to community. Goals like customer service, leadership, and innovation are rated similarly by both groups of managers. Government managers place more importance on stakeholders than do private managers (<math>p &lt; .001</math>). Business managers place more importance on the traits of cooperativeness, flexibility, and ambition (<math>p &lt; .001</math>), while public managers place more importance on ability. There was no significant difference in the traits of skillfulness, achievement, loyalty, creativity, success, and competitiveness. Business executives perceived greater personal-values clarity than did public managers (<math>p &lt; .001</math>). Public managers, however, perceived that people understand and share a set of organizational values. Business managers were generally more optimistic about the future. There were no differences in the perceptions of what would be required to improve the quality of work life. Public and private managers respond differently to the conflict between personal and professional pressures.</p>
	Rainey 1979	Descriptive statistics, correlation, t-test of differences	<p>Public managers scored significantly lower than business managers on both the expectancy motivation scale as well as the flexibility of personnel procedures (<math>p &lt; .001</math>). Public managers also scored significantly lower than business managers on satisfaction with promotion and satisfaction with coworkers (<math>p &lt; .001</math>).</p>

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Work-Related Attitudes and Behaviors (continued)	Rainey 1982	Descriptive statistics, correlation, difference of mean tests, OLS regression	Public managers scored significantly higher than business managers on reward items related to engaging in meaningful public service ( $p < .001$ ) and doing work that is helpful to other people ( $p < .01$ ). Public managers were significantly lower than business managers on items concerning higher pay ( $p < .001$ ), making a good deal of money ( $p < .01$ ), and status and prestige ( $p < .01$ ). In regression analysis on four different rewards (higher pay, meaningful public service, making a good deal of money, and doing work helpful to others), the public-private distinction was significant in each model, and in the public service model it represented a large portion of the accounted variation.
	Rainey, Traut, and Blunt 1986	Descriptive statistics, OLS regression	Public managers scored lower than private managers on extrinsic motivation items. For example, 71 percent of private managers agreed or strongly agreed that “producing a high quality of work increases my chances for higher pay,” compared to only 45 percent of public sector respondents. The public-private distinction accounts for 6 percent of the variation in the extrinsic expectancy scale, after controlling for other variables.
	Rhinehart, Barrell, DeWolfe, Griffin, and Spaner 1969	Descriptive statistics, signed test and signed rank test	Public managers were consistently more dissatisfied than business managers ( $p = .01$ for top and upper-middle managers and $p = .001$ for lower-middle level managers). Public managers reported greater dissatisfaction than business managers for social and self-actualization needs ( $p < .01$ ).

**Table 1.2 (continued)**

<b>Themes</b>	<b>Authors</b>	<b>Analytical Approach</b>	<b>Findings</b>
Work-Related Attitudes and Behaviors (continued)	Schuster 1974	Descriptive statistics, correlation	Public managers reported that the following indicators of managerial performance were important: loyalty to organization, job experience, fairness, punctuality, loyalty to supervisor, and organizational survival. However, private managers did not agree with this set of indicators. Private managers valued the following rewards that were not highly value by public managers: more autonomy, more responsibility, and “doing my thing.” Public managers, on the other hand, valued more paid time off, sabbatical leave, job security, and travel first-class.

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Work-Related Attitudes and Behaviors (continued)	Smith and Nock 1980	Descriptive statistics, chi square, z scores of differences	<p>Public sector employees scored higher on several motivational factors than did private sector employees (good fringe benefits, good hours, and good job security (<math>p &lt; .05</math> for all three measures). The only extrinsic motivator where public employees did not score higher was for good pay: blue-collar public and private employees equally rated their pay poorly. Four of six intrinsic motivational factors were significant for white collar workers; public white-collar employees scored lower than private employees on all six measures (work is interesting, see results of work, freedom to do job, and opportunity to develop abilities). Blue-collar workers had a very different pattern for intrinsic motivators. Only one measure was significant: blue-collar workers in the public sector were more likely to agree that their work presented problems that were hard enough (<math>p &lt; .05</math>). Public employees agreed more strongly than private sector employees that their supervision was able to get people to work together, but it was significant only for blue-collar workers (<math>p &lt; .05</math>). One other variable related to competence was significant for blue-collar workers: public employees agreed more strongly that their supervisor was competent (<math>p &lt; .05</math>).</p>
	Solomon 1986	Factor analysis, descriptive statistics, analysis of variance	<p>There was a greater emphasis on performance-based rewards in the private sector (<math>p &lt; .000</math>). Private sector scores were higher than public sector scores for all measures of efficiency (<math>p</math> ranged from .051 to .000). Private sector managers reported higher levels of satisfaction than did public managers (<math>p &lt; .01</math> for five scales and <math>p &lt; .05</math> for one scale).</p>

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Work-Related Attitudes and Behaviors (continued)	Steel and Warner 1990	Descriptive statistics, chi square, logit regression	<p>Most employees are generally satisfied with their job. Public sector employees reported higher levels of job satisfaction than did private sector employees. Females made up a larger portion of the public workforce (57 percent) than the private workforce (49 percent). Public employees had slightly more years of formal education and had higher aspirations than private employees. Public employees were more likely to work in union settings. Wages of public and private employees were similar, but public employees had a slightly longer tenure in their position (148.5 weeks, versus 124.4 for private sector employees). In multi-variate analysis, public sector employees, as well as the self-employed, were significantly more satisfied than private sector employees (<math>p &lt; .01</math>). Additionally, women – those who work more hours, have higher earnings, and are in professional status position – are also more satisfied (<math>p &lt; .01</math>). Conversely, the length of employment decreases job satisfaction (<math>p &lt; .01</math>).</p>
	Steinhaus and Perry 1996	Factor analysis, hierarchical multiple regression	Organizational sector held little explanatory power for organizational commitment. Using type of industry provided some additional explanatory power (increased $R^2$ by .01).

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Work-Related Attitudes and Behaviors (continued)	Volkwein and Parmley 2000	Descriptive statistics, principal components analysis, OLS step-wise regression	The only significant difference among five satisfaction measures was for extrinsic rewards. Private university administrators were more satisfied with extrinsic rewards (salary, benefits, promotion, etc.) than were public university administrators ( $p=.001$ ). However, when examined in regression models with several other variables, the public-private distinction was no longer significant; personal characteristics and work climate were significant influences on the different measures of job satisfaction. However, when the regression was run on each group separately, different patterns of influence were identified.
	Wheeler and Brady 1998	Descriptive statistics, t-tests, analysis of variance	Most respondents preferred deontological (duty based) thinking for ethical situations. No statistical differences among public and private employees with respect to the different ethical dispositions. There were significant differences in ethical thinking among respondents in different age categories: older people were more deontological than younger people.

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Work-Related Attitudes and Behaviors (continued)	Wittmer 1991	Descriptive statistics, analysis of variance, general linear modeling, analysis of covariance	There were significant differences for managers in public, private, and hybrid organizations for higher pay ( $p < .001$ ), being helpful to others ( $p < .001$ ), community service ( $p < .001$ ), status and prestige ( $p < .01$ ), and job security ( $p < .05$ ). In examining these variables, while controlling for other variables, sector was the strongest variable, significant at the .01 level for each model, except job security ( $p < .10$ ). Private sector managers rated pay as most important, while public and hybrid managers ranked it third. Private managers rate job security more important than did other managers. Managers in public and hybrid organizations ranked doing work that is helpful to others as the most important, while private managers ranked it fourth. Opportunity for community service, while significantly different, ranked much lower: seventh for public managers and eighth for private and hybrid managers.
Human Resource Management	Boyne, Jenkins, and Poole 1999	T-test of difference of means	Policies that link rewards and performance were less prevalent in public organizations ( $p < .001$ for most variables). There was more involvement in staff training and development in the public sector ( $p < .01$ for most variables). There were fewer significant differences in employee participation practices. Controlling for organizational size and industrial sector made “very little difference to the general pattern” (416).

**Table 1.2 (continued)**

Themes	Authors	Analytical Approach	Findings
Human Resource Management (continued)	Crewson 1995	OLS regression	When holding other variables constant, federal employees hired during the 1980s had higher test scores (a measure of employee quality) than did private sector employees. There was no significant difference for state employees compared to private sector employees.
	Crewson and Guyot 1997	OLS regression	Reexamining the Crewson 1995 study, they explored the implications of race and gender and found that the federal sector has not suffered a deficit of quality entrants compared to private sector entrants.
	Elliott and Tevavichulada 1999	Chi Square	Statistical and utility software programs were used more frequently by human resource managers in the public sector than those from the private sector ( $p=.001$ and $p=.004$ respectively). Private sector HR management activities are more integrated with computer software compared to public organizations; the difference, however, is not statistically significant. There was no significant difference in computer training between the two sectors ( $p=.149$ ). However, public organizations were much more likely to provide Internet training for their employees ( $p=.003$ ).
	Long and Marquis 1999	Descriptive statistics	Employees in public organizations (79 percent) are more likely than private sector employees (60 percent) to receive health insurance as part of their compensation. Only 43 percent of private sector health-plan enrollees had a choice of plans, compared to 100 percent of federal government employees and 70 percent of state and local employees.



## CHAPTER 2

### HYPOTHESIZING PUBLIC-BUSINESS DIFFERENCES

The literature on public-business (P-B) differences has a rich history, as Chapter 1 illustrates. Chapter 2 presents several hypotheses that flow out of that stream of research. These hypotheses are not comprehensive of all hypotheses previously tested in the literature, but they represent a significant cache in the literature. These hypotheses focus on the five major P-B themes described in Chapter 1: defining publicness, organizational performance, organizational structure, work-related attitudes and behaviors, and human resource management practices. In presenting these hypotheses, I reference the research that either previously tested them, or the research on which they are based.

Vitality, many of these hypotheses are directly testable using the National Organizations Study (NOS) data set. The variables derived from that project which help to examine these hypotheses are presented in Chapter 3.

#### **Defining Publicness**

As noted in Chapter 1, the research that examines and defines publicness has focused on the explanatory value of alternative definitions of publicness. Generally, scholars have argued that expanded definitions of publicness, beyond simple governmental ownership, provide additional explanatory power to that of simple ownership definitions (e.g., Perry and Rainey 1988; Bozeman 1986). For

purposes of this inquiry, the general view of the P-B literature can be branded in these terms for testing:

H1: Definitions of publicness that move beyond mere ownership will yield more explanatory power to research inquiries (e.g., Bozeman and Bretschneider 1994; Bozeman 1986; Perry and Rainey 1988; Emmert and Crow 1988).

### **Organizational Performance**

In general discourse, the efficiency of business commonly touts its superiority over public organizations. This philosophy is preeminent in the literature that argues for the privatization of public services (e.g., Savas 1987) and almost everywhere else, with few exceptions (e.g., Wilson 1989).

However, this general assertion does not achieve consistent empirical validation (e.g., Osborne and Gaebler 1993; Goodsell 1994; Downs and Larkey 1986). Some P-B research explicitly examined the performance of public and private organizations (e.g., Bozeman and Loveless 1987; Dunsire, Hartley, Parker, and Dimitriou 1991). For example, research comparing public and private utility organizations found that both were equally inefficient (Atkison and Halvorsen 1986). Other research has found mixed findings on measures of performance. Bozeman and Loveless (1987), studying the performance of public and private research and development (R&D) organizations, found that for some measures (e.g., research publications) public R&D organizations were more productive, while for other measures (patents and research reports) private R&D organizations were more productive.

No doubt many intervening variables help account for this variation in results, if not chaos, but prominence certainly goes to markets or competition. Accordingly, many public organizational reformers suggest “market-like” conditions as an ideal response to poor public performance (e.g., Barzelay 1992). In response, the two following hypotheses related to public and private differences and organizational performance emerge from the empirical literature.

H2: Public organizations that face competition, either internal or external, will perform similar to organizations in the private sector (e.g., Anderson 1995; Atkinson and Halvorsen 1986; Barzelay 1992).

H3: Public organizations without external competition will perform less efficiently than businesses that face external competition (e.g., Osborne and Gaebler 1993).

### **Organizational Structure**

Some scholars argue that fundamental to how an organization can perform is the organizing structure that is chosen. Golembiewski (1962, 1985), for example, argues that organizations with less hierarchical and bureaucratic structures, such as span of control, irrespective of sector, will perform better because their employees will experience less burnout. Since scholars see the structures of an organization as central to understanding organizations, this is an area that has received significant attention. The research comparing public and private organization structures has examined issues ranging from decision making to red tape. The findings for some of these areas of inquiry are mixed, while other findings are quite robust. For example, research on aspects of formalization

has had mixed findings, while research findings focusing on the formalization of personnel and purchasing in public organizations have been relatively consistent (Rainey and Bozeman 2000).

However, contrary findings continue to emerge. For example, Kurland and England (1999) found no significant differences for measures of job formalization or formal communications. To further explore such divergent findings, this study examines three hypotheses with NOS data:

H4: Employees in public organizations will not report higher levels of formalization than will employees in private sector organizations (Kurland and Egan 1999).

H5: Public organizations will have greater levels of formalization for personnel (i.e., hiring and firing authority) procedures than will business firms (e.g., Bozeman and Reed 1992; Coursey and Rainey 1990; Rainey and Bozeman 2000; Rainey, Facer, and Bozeman 1995; Rainey 1983).

H6: Public organizations will have greater levels of environmental influences in decision making processes than will business firms (e.g., Bozeman and Loveless 1987; Nutt 1999).

### **Work-related Attitudes and Behaviors**

Researchers comparing the work-related attitudes and behaviors of those in public and private organizations report mixed results. These researchers have studied topics ranging from motivation to satisfaction and commitment.

Understanding work-related attitudes and behaviors is important in developing management strategies as well as theories that explain the behaviors of public

employees. If these behaviors are fundamentally different for government and business employees, it is important to structure management responses such that these differences are accounted for in practice.

H7: Employees in public organizations will exhibit higher levels of organizational commitment than employees of business firms (e.g., Balfour and Wechsler 1990; Steinhaus and Perry 1996; Buchanan 1974; Crewson 1997).

### **Human Resource Management Practices**

Human resource practices have been an area of significant study for public-private comparison researchers. Part of this emanates from studies that suggest significant differences in human resource rules and procedures (e.g., Rainey and Bozeman 2000; Coursey and Rainey 1990). While not an explicit part of the P-B comparison research, the research on public sector affirmative action and equal opportunity suggests that public agencies should use broader recruitment strategies than do private firms (Berman et al. 2001). Additionally this area of inquiry is quite timely because of the recurring argument that human resource practices of businesses are superior to public sector practices. This argument continues to be quite prevalent. For example, President George W. Bush sought to exempt his new cabinet level department of homeland defense from civil service protections arguing that traditional public sector practices would limit the organization's flexibility. As earlier research suggests, if the human resource rules and procedures are more formalized in public agencies, what does this mean about other human resource practices?

H8: Recruitment strategies in public organizations will be more broad than those of businesses (Berman et al. 2001).

H9: Compensation strategies that link pay to performance will be more prevalent in business firms (e.g., Boyne, Jenkins, and Poole 1999).

H10: Public organizations will be more likely than businesses to offer a broad assortment of benefits, such as health insurance, flexible working hours, and sick leave (e.g., Long and Marquis 1999).

Ten hypotheses, representing significant streams of research, will be used as the foundation to explore public-business differences. These hypotheses are not always consistent in their directional expectation. This is explicitly used to highlight the mixed nature of the current public-business comparison literature. Accordingly, the next chapter reviews the National Organizations Study (NOS), a probability sample that will be used to test many of these hypotheses. In addition to describing the sampling methodology and the sample in broad descriptive terms, Chapter 3 links variables in the NOS data set to variables used in previous public-business research to facilitate testing hypotheses.

## CHAPTER 3

### THE NATIONAL ORGANIZATIONS STUDY

The National Organizations Study (NOS) is a valuable resource that meets the growing needs of scholars, but it has been neglected in both literatures, but especially by public sector researchers. Specifically, the NOS reports on a representative sample of U.S. workplaces, both business and public, and it includes data on a broad range of organizational matters. Broadly, these variables are often similar or identical to those used in P-B research, and the character of the data helps address many of the inherent problems of P-B research.

#### **NOS Development**

The National Organizations Study was undertaken to create a generalizable data set for organizational researchers. The representative sample allows the researcher to examine characteristics of modern organizations and to make generalizations about the population of work organizations in the United States.

The National Organizations Study (NOS) was funded through grants of \$633,408 from the National Science Foundation to support organizational research (NSF Grants 89-11371, 89-608, 89-11696, and 89-08871). The NOS surveyed a representative sample of U.S. work establishments about their

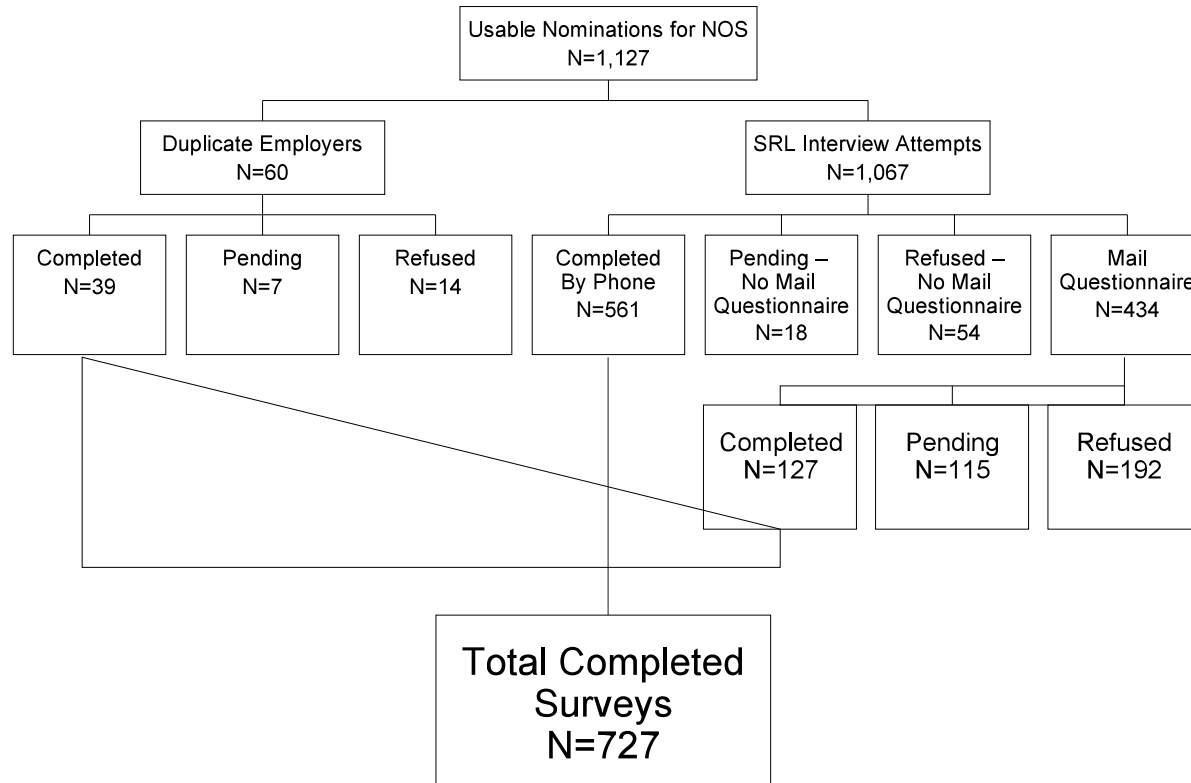
organizational structures, personnel practices, and environmental and organizational contexts (Kalleberg, Knoke, Marsden, and Spaeth 1994; 1996a).

The 1991 survey used a population proportional to size (PPS) sample to create a probability-based sample that is representative of U.S. work establishments; the probability of being included in the sample is proportional to the size of the organization, based on the number of employees (Spaeth and O'Rourke 1994; 1996). The sample was developed by asking respondents of the General Social Survey (GSS), to identify the name, address, and phone number of their employer and their spouse's employer. Of the 1,517 GSS respondents, 912 were employed, as were 519 of their spouses. From this total, 1,427 establishments were nominated for inclusion in the NOS. Of these nominations, only 1,127 had sufficient data to permit contacting the organization.

To collect data, the Survey Research Laboratory (SRL) at the University of Illinois conducted telephone interviews with organizational informants – generally the human resource manager for large organizations; and where that was not possible, the SRL sent mail questionnaires to the person responsible for hiring. The final sample included 727 survey responses collected through telephone and mail questionnaires. Of the 727 survey responses, 39 responses are from duplicate organizations and will be excluded from the analysis in this dissertation. Figure 3.1 details the development of the final NOS sample from the original 1,127 nominations to the final sample of 727 organizations.



## National Organizations Study Final Sample Size



Adapted from: Spaeth and O'Rourke, 1994

Figure 3.1

### **Strength of NOS**

This data set fills several shortcomings that limit organizational researchers, again especially in the public sector. The data set provides 1) a representative sample of U.S. workplaces, 2) a robust set of variables that allows for cross-sector comparisons, and 3) opportunities for replication, extensions, and generalization of some of the early P-B research within the context of recent cultural and economic changes, for example, the increased participation by women in the workforce.

Details about NOS highlight value-added opportunities for public-business research. Such research, as it occurs, should hold constant a large panel of conceptual and operational definitions. The public-private literature needs such a treatment to save it from the possible fate of much behavioral research: findings that are positive, negative, and random, which cannot be easily assigned to variance in operational and conceptual definitions. Specifically, the NOS data set permits a replication of a broad range of findings relevant to public-business distinctions with great value added. Thus, the data set precludes many pressing concerns about generalizations and permits many replications or near-replication of P-B designs and findings, while reducing concerns about variations in methods of operational definitions. NOS is a powerful inventory of organizations and can easily extend much current research.

### **NOS Limitations**

The National Organizations Study is not without limitations. Like much social science research, it is time-specific. The survey captures information on selected organizations at only one point in time. A second limitation is the use of only one respondent for each organization. A third limitation is the lack of variables that are able to be verified through a second measure. For example, several variables ask about the perceived performance of the organization, but there are no variables for all organizations that allow those perception measures to be cross-checked for validity. Finally, another limitation, especially for public sector researchers, is inherent in the design of the survey. The researchers had no scholars on their team who focused on public sector organizational research. This results in a lack of variables that would help address current issues in public sector research. However, even given these limitations, NOS is a valuable resource for organizational researchers regardless of their sectoral orientation.

Organizations are dynamic institutions; they change over time. The NOS, like much social science research, is limited to a snapshot of the phenomenon at one specific time. This significantly limits our ability to examine phenomena over time and especially to understand the direction of any changes that might be ongoing. For example, we might wonder if the types of organizational structures used in the early 1990s are different from those used in the 1980s. Unfortunately, from a survey such as the NOS we are unable to explore those issues. Additionally, since large diverse-sample research has not been used frequently in organizational research, we do not have good generalizable data from earlier time

periods to compare to the current data. However, even though many aspects may not be completely captured in a static data set, there are still many important phenomena which can be explored.

A second limitation to the NOS data is the use of only one respondent for each organization. The NOS generally used the human resource manager as the organizational informant. A single organizational informant is commonly used in organizational research. Research has found that managers are able to perceive their organization broadly (Beyer et al. 1997). Importantly, managers then are able to reasonably reflect their organizations when they are used as organizational informants (Hambrick and Mason 1984). This research strategy is a common and accepted practice among organizational researchers. The major risk of this strategy is that the organizational informant may not accurately reflect the current reality of the organization.

A third limitation is the lack of variables that can be verified through a second measure. For example, several variables ask about the perceived performance of the organization, but there are no variables for all organizations that allow those perception measures to be cross-checked for validity. This forces the researcher to rely more heavily on the perceptions of managers.

Finally, another limitation, especially for public sector researchers, is inherent in the design of the survey. The researchers had no scholars on their team who focused on public sector organizational research. This results in a lack of variables that would help address current issues in public sector research. This is a minor limitation, given that many of the variables captured in the NOS are

directly applicable to a broad range of organization, regardless of their ownership. Even given these limitations, NOS is a valuable resource for organizational researchers, regardless of their sectoral orientation.

### **NOS Details**

The NOS includes responses from a broad set of organizations. Table 3.1 lists the different classifications for the organizations in the NOS data set. These organizations range in size from establishments with one employee to an organization employing 45,442. The organizations in the sample had an average of 725 full- and part-time employees. The survey included questions on a variety of organizational issues, including type of organization, number of employees and employee characteristics, recruitment strategies, training practices, benefit practices, organizational structure/departmentalization, formalization, decision making, and an organization's environment (Kalleberg, Knoke, Marsden, and Spaeth 1996b). Additionally, as Spaeth and O'Rourke highlight, the sample compares well to the known data on American workplaces (1994; 1996).

Of special note, NOS contains a substantial set of public sector organizations. The survey identified the type of every organization. First, the survey identifies whether the organization is for-profit or not-for-profit. Next, for not-for-profit organizations, the survey identifies the kind of organization (i.e., elementary, junior, or high school, college, university, or jr. college, hospital, social service agency, governmental agency, or other). Then for government agencies the survey identifies whether they are federal, state, or local government.

Finally for each of the non-government agencies, they identify whether they are public or private. So for each organization we are able to determine whether it is a private-for-profit, private not-for-profit, or public organization.

For this dissertation I use only the responses from private-for-profit organizations (businesses) and public organizations (n=643). This includes 456 businesses and 187 public organizations. While there is a rich literature on nonprofit organizations in America, it is beyond the scope of this dissertation to include them in the comparison. The inclusion of nonprofit organizations in public-business comparisons is limited in the current research. Given that nonprofit organizations span organizational industry groups, it is likely that the results of a comparison with public and businesses may be even more inconclusive than the current public-business comparison research literature. Accordingly, the usable sample for present purposes, excluding private-nonprofit organizations, yields 643 unique organizations.

<b>Table 3.1</b> <b>National Organizations Survey</b> <b>Organization Type By Organizational Sector</b>		
<b>Organization Type</b>	<b>Private For-Profit</b>	<b>Public</b>
Sole proprietorship	99	
Partnership	40	
Franchise	17	
Corporation, public held stock	117	
Corporation, private held stock	181	
“No Response/Refused”	1	
Elementary, Junior, or High School		56
College, University, or Junior College		10
Hospital		16
Social service agency		4
Local Governmental agency		48
State Governmental agency		26
Federal Governmental agency		17
Something else	1	10
Total	456	187

Spaeth and O’Rourke (1994; 1996) specifically review the representativeness of the entire NOS data set. They do this by studying the distribution of variables for which there is a known distribution for the entire population of organizations, such as industry and organizational size. Spaeth and

O'Rourke find that the NOS and other measures of industries, such as the General Social Survey (GSS) and the Current Population Survey, were very similar. Additionally, when comparing organizational size, they found that while there were very small differences in the distribution of the NOS and the GSS, these differences were not statistically significant. Overall, Spaeth and O'Rourke found the NOS to be representative of the general population of U.S. organizations.

### **Public-Business Comparison Research**

As the review in Chapter 1 highlighted, there are major limitations in the P-B literature, especially in the ability to generalize findings beyond the sample used for the specific research. Specifically these limitations include lack of generalizability of case research, questions of representativeness of samples, and the fact that existing empirical research is not sufficiently grounded in a theoretical framework. Additionally, the P-B literature is limited by the use of multiple operational definitions for the “same” concept. In conclusion, such features encourage caution in interpreting P-B research findings. This dissertation seeks to mitigate these challenges by employing the NOS data set to provide a comprehensive test of relationships, using a large representative datasource, and a panel of operational definitions that will, in effect, provide replications of major themes in P-B research. Therefore, as the key task of this dissertation, I systematically examine variables from the P-B literature and test them for statistical differences using the NOS data.



Table 3.2 presents, for the hypotheses discussed in Chapter 2, examples of operational definitions used in the P-B literature and matches those to variables in the NOS data set. Many of the NOS variable matches are direct replications of the variables used in the P-B literature. For other variables, the NOS provides good corollaries, though not identical replications.

Table 3.2 highlights the value of the NOS data for retesting many of the findings and assertions from the P-B literature. Research using the NOS data set can overcome many of the historical limitations raised by Perry and Rainey (1988).

Earlier NOS research noted that for some variables, public organizations exhibit different patterns than their private sector counterparts, but efforts to explore these distinctions have often yielded mixed results, many of which may be the result of sample design or differing operational definitions. The NOS provides a resource to further explore differences between organizations with a known probability sample and a set of variables that allow for systematic theory testing and development. Chapter 4 examines the major P-B research themes by testing the hypotheses presented in Chapter 2 using variables presented in Table 3.2.

**Table 3.2**  
**Variables Used in Public/Private Comparison Research**  
**and Corresponding NOS Variables**

<b>Hypotheses</b>	<b>Variables Used in P/B Literature</b>	<b>Corresponding NOS Variables (where available)</b>
<p><b>H1: Definitions of publicness that move beyond mere ownership will yield more explanatory power to research inquiries.</b></p>	<p><b>Publicness</b> – 3 binary variables, government (1=yes, 0=no), university (1=yes, 0=no), and other–not industry (1=yes, 0=no) [organizations that received a 0 for all three variables were industry R&amp;D labs]</p> <p><b>Resource Publicness</b> – % budget from government grants  – % budget from government appropriations  – % of value of equipment and facilities financed by government</p> <p><b>Agenda Publicness</b> – Without government financing we would probably cease to exist within two years.  – Without government financing there would be a major shift in organizational focus.</p> <p><b>Communications Publicness</b> – During the last 2 weeks, what percent of business phone calls were with government officials?  – During the last 2 weeks, what percent of 1st class mail was from government agencies or personnel?</p>	<p><b>Publicness</b> – Ownership and for all not for profit organizations the type of organization [e.g.; school, hospital, social service, etc.] (v8, v12, v14, v15)</p> <p>No corresponding NOS variables for the other dimensions of publicness.</p>

Table 3.2 continued

Hypotheses	Selected Variables Used in P/B Literature	Corresponding NOS Variables
<p><b>H2: Public organizations that face external competition will perform similar to organizations in the private sector.</b></p>	<p>Atkinson and Halvorsen used cost efficiency by measuring shadow and actual costs using econometric modeling in an industry with both public and private ownership.</p>	<p>No corresponding variables to identify external competition.</p>
<p><b>H3: Public organizations without external competition will perform less efficiently than businesses that face external competition.</b></p>	<p><b>Performance</b></p> <ul style="list-style-type: none"> <li>– Employment level: number of staffed employees</li> <li>– Profitability: earnings on capital before appropriations and taxes as a proportion of sales</li> <li>– Other financial indicators: values of sales and net earnings after taxes</li> <li>– Investment: number of pharmacies with sales to the public</li> <li>– Technical progress: tested for ten different innovations in pharmacy practices</li> <li>– Consumer satisfaction: independent consumer satisfaction surveys</li> </ul>	<p>For all not for profit organizations the type of organization [e.g., school, hospital, social service, etc.] (v12). However, because we don't have the type of organization for private for-profit firms we cannot test this hypothesis.</p> <ul style="list-style-type: none"> <li>– Employment level; # of employees: full-time (v23), part-time (v32)</li> <li>– Change in Employment Level: Compared to 1 year ago: full-time (v26), part-time (v35); Compared to 3 years ago: full-time (v29), part-time (v38)</li> <li>– Performance for main product or service; Compared to 1 year ago (v287); Compared to 3 years ago (v288)</li> <li>– Broad performance comparisons (v289-v295)</li> </ul>

Table 3.2 continued

Hypotheses	Selected Variables Used in P/B Literature	Corresponding NOS Variables
<p><b>H4: Employees in public organizations will not report higher levels of formalization than will employees in private sector organizations.</b></p>	<p><b>External Red Tape</b></p> <ul style="list-style-type: none"> <li>– Government rules and regulations make it difficult for us to fire employees</li> <li>– Government rules and regulations allow little freedom in my daily work routines</li> <li>– Government rules and regulations often prevent the hiring of whom we would like</li> <li>– Government rules and regulations constrain my advancement opportunities</li> </ul> <p><b>Internal Red Tape</b></p> <ul style="list-style-type: none"> <li>– Our rules and regulations often prevent my being granted a pay raise or bonus</li> <li>– Our rules and regulations allow us a lot of freedom in dismissing employees</li> <li>– Our rules and regulations cause few problems for my promotions</li> <li>– Our rules and regulations make it difficult for us to hire who we would like</li> </ul>	<p><b>External Red Tape:</b> Governmental regulation of the organization (v331)</p> <p><b>Internal Red Tape/Formalization:</b> Formalization, existence of specific written documents for various rules and procedures (v262-v270)</p> <p><b>Structural Formalization:</b> Separate departments (v246-v260)</p>

Table 3.2 continued

Hypotheses	Selected Variables Used in P/B Literature	Corresponding NOS Variables
<p><b>H5: Public organizations will have greater levels of formalization for personnel (i.e., hiring and firing authority) procedures than will business firms.</b></p>	<p><b>Personnel Related Formalization</b></p> <ul style="list-style-type: none"> <li>– Because of the rules here, promotions are based mainly on performance</li> <li>– Even if a manager is a poor performer, formal rules make it hard to remove him from the organization</li> <li>– The rules governing promotion make it hard for a good manager to move up faster than a poor one</li> <li>– Due to the rules, pay raises for managers are based more on longevity than on performance</li> <li>– Even if a manager is doing a poor job, the rules tend to prevent demotion to a lower level</li> <li>– The formal pay structures and rules make it hard to reward a good manager with higher pay here</li> </ul>	<p><b>Personnel Related Formalization:</b> Promotion procedures (v75, v78, v110, v113, v144), policies and procedures (v262-v269), dispute resolution procedures (v270)</p>
<p><b>H6: Public organizations will have greater levels of environmental influences in decision making processes than will business firms.</b></p>	<p><b>Environmental Influences</b></p> <p>Influence of authorities outside of the organization and the influence of customers outside the organization were measured for nine specific research and management decisions.</p>	<p>No corresponding variables on environmental influences.</p>

Table 3.2 continued

Hypotheses	Selected Variables Used in P/B Literature	Corresponding NOS Variables
<p><b>H7: Employees in public organizations will exhibit higher levels of organizational commitment than employees of business firms.</b></p>	<p><b>Commitment Internalization</b> – If the values of this organization were different, I would not be as attached to this organization                      – Since joining this organization, my personal values and those of the organization have become more similar                      – The reason I prefer this organization to others is what it stands for, its values                      – My attachment to this organization is primarily based on the similarity of my values and those represented by the organization                      – What this organization stands for is important to me</p> <p><b>Commitment Identification</b> – I feel a sense of “ownership” for this organization rather than just being an employee                      – I am proud to tell others that I am a part of this organization                      – I “talk up” this organization to my friends as a great organization to work for</p>	<p><b>Commitment Internalization</b> – Organization and individual values are very similar (GSS-samevals)</p> <p><b>Commitment Identification</b> – Proud to be working for this organization (GSS-proudorg)</p>

Table 3.2 continued

Hypotheses	Selected Variables Used in P/B Literature	Corresponding NOS Variables
<p><b>H7: Employees in public organizations will exhibit higher levels of organizational commitment than employees of business firms. (Continued)</b></p>	<p><b>Commitment Compliance</b> – in order for me to get rewarded around here, it is necessary to express the right attitudes</p> <ul style="list-style-type: none"> <li>– My private views about this organization are different than those I express publicly</li> <li>– How hard I work for the organization is directly linked to how much I am rewarded</li> <li>– Unless I'm rewarded for it in some way, I see no reason to expend extra effort on behalf of this organization</li> </ul>	<p><b>Commitment Compliance</b> – I work harder than I have to to help the organization succeed (GSS-helporg)</p>
<p><b>H8: Recruitment strategies in public organizations will be more broad than those of businesses.</b></p>	<p><b>Recruitment Strategies</b></p> <ul style="list-style-type: none"> <li>– Newspaper</li> <li>– Personal Contacts</li> <li>– Internships</li> <li>– External Recruitment</li> <li>– Noncompetitive recruitment</li> </ul>	<p><b>Recruitment Strategies</b></p> <ul style="list-style-type: none"> <li>– Newspaper (v86)</li> <li>– Signs posted (v87)</li> <li>– Referral from employees (v88)</li> <li>– Referral from professional contact (v89)</li> <li>– Employment agency (v90)</li> <li>– Unsolicited inquiries (v91)</li> </ul>

Table 3.2 continued

Hypotheses	Selected Variables Used in P/B Literature	Corresponding NOS Variables
<p><b>H9: Compensation strategies that link pay to performance will be more prevalent in business firms.</b></p>	<p><b>HR policies that link rewards and performance</b></p> <ul style="list-style-type: none"> <li>– Performance appraisal systems using customer ratings</li> <li>– Reward employees for enhancing own skills and knowledge</li> <li>– Reward employees for innovation and creativity</li> <li>– Merit philosophy and emphasis on individual performance</li> <li>– Reward employees for customer service and quality</li> <li>– Promote sharing of risks and rewards of the business</li> <li>– Reward employees for productivity gains</li> </ul>	<p><b>HR policies that link rewards and performance</b></p> <ul style="list-style-type: none"> <li>– Cash or stock bonuses for performance or merit (v184)</li> <li>– Profit sharing or stock options (v186)</li> </ul>
<p><b>H10: Public organizations will be more likely than businesses to offer a broad assortment of benefits, such as health insurance, flexible working hours, and sick leave.</b></p>	<p><b>Flexible HR policies</b> – Provide lifetime job security with the organization</p> <ul style="list-style-type: none"> <li>– Promote flexible cross-functional teams and action work groups</li> <li>– Enlarge definition of opportunities to include autonomy and the use of creative skills</li> <li>– Require flexibility of employees to change jobs, skills, or locations</li> <li>– Use non-permanent workforce to reduce labour costs</li> </ul>	<p><b>Flexible HR policies</b> – Flexible hours or flextime scheduling (v183)</p>



## **CHAPTER 4**

### **PUBLIC AND PRIVATE SECTORAL DIFFERENCES:**

#### **EXTENDING THE NATIONAL ORGANIZATIONS STUDY**

This chapter builds on the previous chapters by testing the findings from the P-B literature presented in Chapter 1 and the hypotheses presented in Chapter 2 with the data from the National Organizations Survey, or NOS (Chapter 3). Chapter 1 identified five major research themes from the public-business (P-B) comparison literature. These include defining publicness, organizational performance, organizational structure, work-related attitudes and behaviors, and human resource management practices.

While the NOS data do not lend themselves to exploration of the definitions of publicness, they are well suited for the exploration of the other major P-B research themes. For example, NOS contains many variables on issues of organizational structure; these include several measures of organizational formalization as well as measures of size and gender and racial composition of the organization. These and other variables will be explored in this chapter.

This chapter follows the following format, which builds on two kinds of analysis, a preliminary analysis and a multivariate analysis. The preliminary analysis is first presented. Each of the four accessible themes is represented by the hypotheses presented in Chapter 2. Previously conducted relevant NOS-based research is presented for each theme. The NOS data are then used to test

hypotheses for significant differences between public and business organizations. Please remember that for the purposes of this dissertation, for reasons developed in Chapter 3, I only examine public and private-for-profit organizations. Nonprofit organizations receive no further attention despite their growing relevance in practice.

Excluding nonprofit organizations, the NOS data set for this analysis includes 643 unique public and private-for-profit organizations. This batch includes 456 business organizations and 187 public organizations.

Following the preliminary analysis, those findings with statistical differences between public and private organizations are explored further through multivariate analysis using logistic regression to see if the differences hold up when examined together with other explanatory factors.

### **Preliminary Analysis**

In the preliminary analysis, the analysis is conducted for each of the themes found in the literature. For each theme, I first present the hypotheses, from Chapter 2, that are related to the theme. Next, I present prior research that was conducted relevant to the theme using the NOS data. Finally, I extend the NOS research by testing the hypotheses using the NOS and then exploring other related data in the NOS. T-tests for differences of means are used to test the mean value of public respondents compared to business respondents. Each of the themes is presented below in the preliminary analysis.

## **Defining Publicness**

H1: More elaborate definitions of publicness, those that move beyond mere ownership, will yield more explanatory power to research inquiries.

*Previous NOS Research.* NOS researchers have not used the data to explore the definition of publicness. In designing the survey instrument, the researchers focused on ownership as a distinguishing characteristic of publicness, but did not use other distinguishing characteristics, such as communication from government, source of resources, or other measures of publicness used by scholars in this area. As a result, the NOS does not facilitate further explorations of the value of alternative definitions of publicness. Accordingly, this dissertation does not provide evidence either to support or undermine the first hypothesis.

## **Organizational Performance**

Organizational performance is an area in which the superiority of business over government is often trumpeted. Accordingly, two hypotheses are relevant for public-business comparison research.

H2: Public organizations that face external competition will perform similarly to organizations in the private sector.

H3: Public organizations without external competition will perform less efficiently than businesses that face external competition.

*Previous NOS Research.* While the NOS has no variables that allow for the direct testing of these hypotheses, it does have several performance related variables. These are explored below. Handel (1998) used the NOS data to examine a theory of “post-Fordist” organizations. This argument suggests that turbulent markets will lead to smaller organizations and fewer managers and a flatter hierarchy,

which he proposes will in turn lead to high performance. Handel found that for all organizations in the NOS, and a separate testing of only business firms, that there was a confirmation of post-Fordist theory using the NOS. This implies that smaller organizations will have higher levels of performance; however, it is not clear from his findings that this will hold up in the long-term.

*NOS Extension.* The NOS has a few performance measures. These include the performance for the main product or service compared to one and three years earlier, and some broad performance comparisons. Unfortunately, the NOS data do not contain information on the external competition that will allow the testing of the second and third hypotheses.

However, several performance related variables are captured in the NOS. Table 4.1 presents basic performance comparisons for business and public organizations using the NOS data. The data in Table 4.1 indicates that there are significant differences for most measures of performance between public and business organizations. The performance scale highlights the general performance findings. Public organizational informants indicated that they were not performing as highly as their private sector counterparts ( $p=.000$ ). This provides some support for the hypotheses. However, the data require a more advanced interpretation and analysis than is possible with the present variables.

Notably, NOS informants reporting about public organizations did not generally report that they were performing worse than in previous years. Rather, on average, they simply performed somewhat better than they had one and three years earlier. Public organizations reported their best performance on the quality

of products, services or programs, while for businesses their best performance was reported for the satisfaction of their customers or clients.

Overall, while there are significant differences between the performance scores of public and business organizations, the magnitude of those differences is not overly large. Note also that all these performance related variables are perception based. This suggests that for whatever reason, public managers consistently scored their performance lower than did private sector managers. Rainey, Facer, and Bozeman (1995) suggest that these consistent findings on perception data from public managers may be the result of broad cultural norms and expectations.

Accordingly, the only way to have a good test of performance comparisons is to use standardized data that are externally verifiable, like the output measure of research reports used by Bozeman and Loveless (1987). NOS data do not rise to this level.

	Public		Private		Sig. <sup>B</sup>
	N	Mean	N	Mean	
Performance Scale <sup>C</sup>	185	2.16	447	1.90	0.000
Current Performance compared to 1 year ago in producing main product or service is . . .	183	2.31	444	2.06	0.001
<i>Compared to 3 years ago:</i>					
Current Performance in producing main product or service is . . .	181	2.04	412	1.76	0.000
The quality of products, services, or programs is . . .	163	2.01	425	1.67	0.000
The development of products, services, or programs is . . .	149	2.09	389	2.00	0.305
The ability to attract essential employees is . . .	163	2.23	390	2.08	0.087
The ability to retain essential employees is . . .	164	2.23	396	1.93	0.001
The satisfaction of customers or clients is . . .	152	2.21	427	1.65	0.000
Relations between management and employees is . . .	166	2.20	395	1.91	0.000
Relations among employees in general is . . .	166	2.20	394	1.96	0.002

- A. For each question, the following scale was used: 1=much better, 2=somewhat better, 3=about the same, 4=worse.
- B. To test for differences in the means of the two groups we used the t-test for independent samples. This procedure does not require that the sample sizes be equal (Blalock 1979; Wheeler 1994). The critical issue is to determine whether or not the groups have equal variance and then to use the appropriate t-test statistic. For Levene scores with a  $p$  value of .25 or greater, I used the "equal variances" test. For  $p$  values less than .25, I used the "unequal variance" test (Wheeler 1994).
- C. The performance scale is the mean score on the nine difference variables that assess organizational performance. The performance scale has an alpha reliability score of .8726.

## Organizational Structure

Organizational structure has been an area with mixed research findings. Scholars have posited diametrically opposed relationships in the literature. Additionally, the previous findings have shown mixed results. Three hypotheses, which in part highlight opposing views in the literature, are presented and analyzed below.

H4: Employees in public organizations will not report higher levels of formalization than will employees in private sector organizations.

H5: Public organizations will have greater levels of formalization for personnel (i.e., hiring and firing authority) procedures than will business firms.

H6: Public organizations will have greater levels of environmental influences in decision-making processes than will business firms.

*Previous NOS Research.* Organizational structure was one of the main research foci of the NOS project. Several articles address issues related to organizational structure (e.g., Marsden, Cook and Kalleberg 1994; 1996; Handel 1998). Marsden et al. (1994; 1996) find that organizational size is associated with vertical hierarchy and departmentalization, formalization, and decentralization. Marsden et al. (1994; 1996) also found that public-sector organizations tend to be more centralized and formalized than for-profit organizations, even after controlling for size and other structural indicators. Others using the NOS to examine structural issues have noted similar sectorally unique findings. Chackerian, Mavima and Rainey (1998), for example, found in their analysis that all the public organizations exhibited major features of a bureaucratic structure, while almost

22 percent of private organizations could be classified as having a simple structure.

*NOS Extension.* Overall, this extension will examine primarily issues of formalization. The NOS allows the testing of two of the hypotheses (H4, H5) regarding organizational structure. To test H4 and H5 I draw on the variables noted in Table 3.2 of Chapter 3. These include measures of external red tape – government regulation, internal red tape – personnel-related formalization, promotion procedures, and dispute-resolution procedures, and a measure of structural formalization. The results of the sectoral comparisons are presented in Table 4.2.

Hypothesis 4 suggests that there should be no differences in the levels of formalism reported. The NOS respondents from public and business organizations clearly had different response patterns. Consistently, respondents from public organizations reported higher levels of formalization as measured through several different approaches. For example, 96.3 percent of all NOS public respondents claimed to have formal dispute resolution procedures, while only 54.4 percent of business respondents reported formal dispute resolution procedures. The difference for each measure of formalization was statistically significant.



<b>Table 4.2 Comparing Public and Private Organizations Formalization Scale</b>					
	<b>Public</b>		<b>Private</b>		<b>Sig.</b>
	<b>N</b>	<b>Mean</b>	<b>N</b>	<b>Mean</b>	
Personnel formalization scale <sup>A</sup>	187	7.88	456	5.26	0.000
Promotion procedures scale <sup>B</sup>	178	3.01	348	1.86	0.000
Formal Procedures for dispute resolutions <sup>C</sup>	187	1.04	443	1.46	0.000
Structural Formalization Scale <sup>D</sup>	187	2.43	456	1.75	0.002

- A. Personnel Formalization Scale was created by summing nine different variables that noted the presence or absence of various rules and procedure documents in the organization. These include “rules and procedure” manual, written job descriptions, written record of job performance, employment contracts, written procedures for job evaluations, hiring and firing procedures, safety and hygiene practices, fringe benefits, and dispute resolution procedures.
- B. Promotion Procedures Scale was created by summing the five variables related to promotion procedures: each of the five variables notes whether promotion procedures are formal or informal for five different promotions involving the core job of the organization, the job of the GSS respondent, and managers. The variables were recoded so that formal procedures=1 and informal procedures =0.
- C. This variable is coded 1 = formal procedures and 2 = informal procedures.
- D. Structural Formalization Scale was created by summing the total number of the following departments that the organization reported having: finance, accounting, health and safety, public relations, personnel or labor relations, research and development, long-range planning, and marketing or sales.

Accordingly, we can reject hypothesis 4. In effect, this supports the previous NOS findings of differences. In this analysis, there is strong evidence that public organizations exhibit greater formalization than do businesses.

Consistently, H5 focuses on personnel-related formalization and is strongly supported. For the personnel related measures of formalization, public organizations get described by NOS respondents as having higher levels than do business organizations. Some of these measures, such as the personnel formalization scale, focus on observable, verifiable measures of formalization, such as the existence of written documents related to personnel procedures. The personnel-formalization scale is a count of written documents. On average, public organizations reported having almost three more written personnel-related documents than did business organizations. This is statistically significant at the .000 level. Other personnel-related measures, such as dispute-resolution processes and promotion procedures, are also statistically different between public and business organizations. Public organizations reported more formal promotion procedures than did business organizations ( $p=.000$ ).

In addition to the variables that are explicitly related to the formal hypotheses, it is useful to look at other structural variables to see if patterns of distinctions emerge. Table 4.3 presents other structure-related variables, such as organizational size, demographics of the workforce, and external influences. Public organizations in the NOS sample had more full- and part-time employees, and were more diverse in terms of gender and race. While the percentage of minority employees was higher in public organizations, the difference failed to achieve statistical significance at the .05 level. The percentage of women in public organizations, on the other hand, was dramatically higher in public organizations. This difference was statistically significant for full-time employees ( $p=.007$ ) and part-time employees ( $p=.040$ ).

Since public organizations are larger, one might also expect more levels of supervision and more departmentalization within those organizations. These assumptions appear to hold in this sample. Public organizations had on average 2.4 departments, while businesses only averaged 1.7 departments. As displayed in Table 4.2, this difference was statistically significant ( $p=.002$ ). The levels of supervision also easily met the test for significance. Public organizations averaged 8.5 organizational levels, while private organizations had 6.3 levels ( $p=.006$ ). Public organizations had more departments and more levels of supervision than did businesses.

Finally, public organizations report a very different regulatory role of government. Public organizations reported that, on average, their organization was regulated “very much” by a government agency, while businesses reported that, on average, they were regulated “somewhat” by a government agency. This difference in the organization’s environment was statistically significant beyond the .000 level.

Overall, public organizations appear to be larger and more formalized, have more levels within their organizations, have more departments, and have a different composition of their workforce. For hypotheses 4 and 5 this means that public organizations, for measures of formalization in the NOS, had consistently higher measures of formalization than were reported for businesses.

	Public		Private		Sig.
	N	Mean	N	Mean	
Operations regulated by government agency <sup>A</sup>	185	1.74	448	3.00	0.000
Number of full-time employees	186	955.16	454	410.12	0.046
Number of part-time employees	183	126.75	450	22.22	0.002
Percentage of full-time employees who are women	177	52.87	442	45.39	0.007
Percentage of part-time employees who are women	128	68.88	248	61.68	0.040
Percentage of full-time employees who are white	175	77.62	430	80.83	0.180
Percentage of part-time employees who are white	127	74.44	247	79.06	0.160
Number of vertical levels between the highest and lowest position	170	8.49	431	6.28	0.006

A. This variable used the following scale: 1= almost completely, 2=very much, 3=somewhat, 4=very little, 5=not at all.

### **Work-related Attitudes and Behaviors**

H7: Employees in public organizations will exhibit higher levels of organizational commitment than employees of business firms.

*Previous NOS Research.* For many of the work-related attitudes and behavior variables, the data are taken from responses to the General Social Survey (GSS) work-related questions. The General Social Survey has been conducted regularly since 1972. This survey of the U.S. population explores a wide range of variables, ranging from demographics, to attitudes and behaviors on a wide range of issues (Davis, Smith, and Marsden 1999). In 1991 the GSS included several work-related questions.

The GSS sample was used to generate the NOS sample. Let us remember that in generating the sample frame for the NOS, nominations were taken for both the GSS respondent's employer and the spouse's employer. When the NOS data set was created, the GSS survey responses were included with NOS responses. For non-GSS respondents, spouses' responses to the GSS survey are linked to the NOS organizational data. Accordingly, only respondents who actually participated in the GSS are used for these variables. Therefore, for GSS variables there are 444 total usable responses in this subset of the NOS.

Little previous NOS research has focused on connecting the variables from the GSS to NOS organizational responses. Among the rarities, Kalleberg and Mastekaasa (1994) examined internal labor markets and organizational commitment. They argue that these variables are virtually unrelated. Others have examined some of the work-related variables from the GSS. Marsden et al. (1993) examined organizational commitment-related variables. They found that men in the GSS sample exhibit slightly higher levels of organizational commitment. However, when controlling for other variables, there appears to be no notable difference between men and women employees.

However, neither of these rare studies examines the impact of public or business employment. From the present perspective, this is considered a major shortfall.

*NOS Extension.* H7 proposes that public sector employees will exhibit higher levels of organizational commitment than will their private sector counterparts. This of course mirrors the common view among many students of government. This argument is directly connected to the literature on public service motivation

(PSM). PSM scholars often argue that public sector employees have a significant connection to the public sector because of the opportunity to be engaged in public service (e.g., Frederickson and Hart 1985; Perry 1996, 1997; Perry and Wise 1990; Brewer et al., 2000). Accordingly, in their view, most employees of private firms will not have a similar underlying driving motivator that will strengthen their organizational commitment.

However, hypothesis 7 does not hold up in the GSS sub-sample of the NOS data set (see Table 4.4). Using the measures from the General Social Survey we can reject the hypothesis that public sector employees will report a higher level of organizational commitment. This difference is statistically significant at the .02 level.

In the public-business literature there has been a focus on different types of commitment. Balfour and Wechsler (1990) examine three different aspects of commitment: commitment internalization, commitment identification, commitment compliance. They found different patterns for the different measures of commitment. There were no sectoral differences for compliance commitment. Identification commitment had a significant negative impact on employees in the public sector, while there was a significant positive relationship on internalization commitment. For the GSS sub-sample of the NOS data set there is a similar pattern of mixed findings.

The sub-components of the organizational commitment scale show no statistical difference for commitment identification and commitment compliance (see Table 4.4). For commitment internalization there is a significant difference, with business employees agreeing more strongly that their values and the

organization's values are similar ( $p=.000$ ). This finding is especially counter-intuitive with respect to the literature on public service motivation. This is an area that deserves future research and consideration.

	Public		Private		Sig.
	N	Mean	N	Mean	
Organizational Commitment Scale <sup>A</sup>	126	2.18	314	2.04	0.020
<i>Commitment Internalization</i> – My values and the organization's values are very similar.	124	2.33	309	1.99	0.000
<i>Commitment Identification</i> – I am proud to be working for this organization.	126	1.90	311	1.80	0.176
<i>Commitment Compliance</i> – I am willing to work harder than I have to in order to help this organization succeed.	126	1.75	313	1.75	1.000
Success of the organization depends on how well I do my job.	124	1.90	312	1.64	0.001
People notice when I do my job well.	123	2.11	304	1.90	0.005

A. The Organizational Commitment scale is created by averaging the response to the following six commitment-related variables. 1) I am willing to work harder than I have to in order to help this organization succeed; 2) I feel very little loyalty to this organization [reverse coded]; 3) I would take almost any job to keep working for this organization; 4) I find that my values and the organization's are very similar; 5) I am proud to be working for this organization; 6) I would turn down another job for more pay in order to stay with this organization.

The variables are scored 1=strongly agree and 4=strongly disagree, so that high scores reflect lower levels of organizational commitment. The mean score for all respondents is 2.08, and the scale has an alpha reliability score of .7985.

The GSS has other work-related attitude and behavior-related variables. For measures of the importance of the individual's work role, private sector employees perceived that their work was more important to the success of the organization and that their performance is noticed when they do well when compared to public sector respondents ( $p=.001$  and  $p=.005$ , respectively). These measures may highlight why public sector employees had lower levels of organizational commitment than business employees. Public employees reportedly do not perceive that they play a critical role in the organization, and even when they do well, they do not feel that their contribution is valued.

### **Human Resource Management Practices**

Human resource management is often the interface between an employee and the organization. Human resource efforts bring people into the organization, train them, and develop and implement compensation strategies. Additionally, it is through this function that other employment benefits are coordinated. This section reviews the previous NOS research and then tests three human resource-related hypotheses for differences between public and business organizations.

H8: Recruitment strategies in public organizations will be more broad than those of businesses.

H9: Compensation strategies that link pay to performance will be more prevalent in business firms.

H10: Public organizations will be more likely than businesses to offer a broad assortment of benefits, such as health insurance, flexible working hours, and sick leave.

*Previous NOS Research.* Previous NOS researchers focused significant work on the human resource practices of NOS organizations. Marsden (1994a, 1994b,



1996) focused on recruitment and selection methods used by U.S. work establishments. Marsden found that newspaper advertisements and referrals from employees are used most frequently. He reports that recruitment strategies were different for high-prestige occupations, such as managerial and administrative positions, from the strategies used for lower-prestige occupations. High-prestige occupation recruitment strategies focus on professional referrals and advertisements. Marsden also found that public organizations were more likely to use posted signs and less likely to use employee referrals as part of their recruitment strategy than were other types of organizations.

Marsden (1994b, 1996) also reports on the selection methods used to choose among potential employees. He found that public organizations are more likely to use intelligence tests and less likely to use drug and alcohol tests (1996, 150-51). He also found that public sector organizations tend to receive more applications and conduct more interviews than other organizations (153). Overall, then, Marsden found that selection strategies are related to a variety of organizational, environmental, and occupational properties.

Relatedly, several NOS researchers explored issues relating to the composition of the workforce (Drentea 1998; Reskin and McBrier 2000; Tomaskovic-Devey and Johnson 1999; Tomaskovic-Devey et al., 1996; Huffman 1995, 1995). Drentea (1998) reports that women using formal job search methods had jobs with fewer women in them compared to women who did not use those methods. Similarly, Reskin and McBrier (2000) report that, when organizations recruit through informal networks, the proportion of men among managerial and administrative employees are higher. Concurrently, increasing the

use of open recruitment strategies increases the share of women in management positions.

Other NOS researchers usefully extend this gender emphasis. Huffman (1995, 1999), exploring the impact of gender segregation on managerial authority and representation in organizations, finds that organizations that employ large numbers of women are more likely to have significant representation by women in management (1999). However, he also found that “in general, women do not occupy positions of authority at a rate commensurate with their representation in the workforce” (1995, 382). The gender differences in work authority are not the result of supply-side differences. There is a strong negative likelihood of possessing supervisory status for women. These kinds of findings have significant implications for the human resource practices of organizations.

Other NOS-based research has focused on different areas of human resource practices, such as compensation practices and benefits that are offered to employees (Knoke 1994, 1996; Kalleberg and Van Buren 1996a, 1996b, 1996c). Benefits range from child care to workplace training, while compensation focuses primarily on salary and wages. Overall, researchers found that employees in large organizations had higher earnings and more fringe benefits than employees in smaller organizations (Kalleberg and Van Buren 1996a). Knoke (1994, 1996) found that three different sets of benefits exist: personal benefits (e.g., medical and dental insurance), familial benefits (e.g., maternity and sick leave), and participant benefits (e.g., cash bonuses). Additionally, Knoke noted that public organizations were more likely to offer personal benefits, but less

likely to offer participant benefits. Knoke also found no difference in the provision of familial benefits.

A related set of human resource practices in NOS research includes worker training. Several researchers examined the training practices of organizations in the sample (e.g., Knoke and Ishio 1994, 1996; Knoke and Kalleberg 1994, 1996; Jacobs, Lukens, and Useem 1996). To sample the substance of such work, Knoke and Kalleberg (1994, 1996) report that as expected, large organizations are more likely to provide training for their employees than are small organizations. However, under multi-variate analysis the impact of organizational size is eliminated by other explanatory variables.

The variables that have the greatest influence on training practices focus on internal structures, such as formalization and the internal labor market, and the external environment. Jacobs et al.'s (1996) findings corroborate Knoke and Kalleberg's findings and extend them by noting that individual factors such as age, race, and gender are less influential in their predictive ability for the presence of training programs. Knoke and Ishio (1994, 1996), focusing on training of different groups of workers within organizations, found that blue-collar workers receive as much training as white-collar workers. Overall, research on organizational training by NOS researchers highlights the continued importance of a broad strategy of improving organizational performance.

A final major area of NOS research relating to human resource practices is their impact on organizational performance. For example, Kalleberg and Moody (1994) focus on several different issues related to high performance work organizations, such as internal labor markets, training, and compensation

practices to help identify high-performance organizations. They found that, generally, these factors were significantly associated with organizational performance, suggesting that progressive human resource practices have a positive impact on organizational performance. Delany and Huselid (1996) present complementary findings, stating that “progressive HRM practices . . . are positively related to perceptual measures of organizational performance” (965). *NOS Extension*. This dissertation tests directly the three hypotheses related to human resource management, which focus on recruitment practices, compensation practices, and employee benefits.

I consider the three hypotheses in turn. Hypothesis 8 suggests that public organizations will use broader recruitment strategies than will businesses. Table 4.5 presents data related to this hypothesis. The NOS collected data on the recruitment practices relative to three different organizational positions: core positions (the position most involved with the main product or service), GSS position (the job of the respondent from the General Social Survey), and managers. For each of these positions, the NOS contains data on six different recruiting strategies: newspaper ads, signs posted, employment referrals, professional referrals, employment agencies, and unsolicited applications. In Table 4.5, these six variables contribute to the three scales. The broad recruitment scale and the informal strategies scale have very strong reliability measures (recruitment scale,  $\alpha=.7081$ ; informal strategies,  $\alpha=.7814$ ), the formal strategies scale is less robust (formal strategies,  $\alpha=.4844$ ).

<b>Table 4.5 Comparing Public and Private Organizations Recruitment Strategies</b>					
	<b>Public</b>		<b>Private</b>		<b>Sig.</b>
	<b>N</b>	<b>Mean</b>	<b>N</b>	<b>Mean</b>	
Recruitment Scale	161	3.75	320	3.28	0.098
Formal Recruitment Strategies Scale	161	1.85	320	1.45	0.005
Informal Recruitment Strategies Scale	161	1.90	319	1.83	0.741

- A. Recruitment Scale is the sum of recruitment strategies reported to be used frequently to find new employees for each of three positions examined in the study.
- B. Formal recruitment strategies include newspaper ads, signs posted, and employment agencies.
- C. Informal recruitment strategies include referrals from current employees and professional contacts, and unsolicited inquiries.

As noted in Chapter 2, there is a general expectation that public agencies will reach broadly to prospective applicants, often as an explicit effort through either affirmative action or equal opportunity practices. How does this hold up when compared to the business respondents in the NOS? On average, public organizations reported using 3.75 recruitment strategies frequently, while businesses reported only 3.28. These findings do not achieve significance.

However, the number of recruitment strategies in public sector organizations may mask the “neutrality” or breadth of a recruitment strategies. Formal recruitment strategies are seen as more neutral in that they are less bound by informal networks and relationships, so they focus more on qualifications. Formal recruitment strategies specifically seek to broaden the applicant pool. Public organizations reported frequent use of formal recruitment strategies more

often than did businesses. Public organizations reported that for the three different organizational positions they used a mean of 1.85 formal recruitment strategies and 1.90 informal strategies, while businesses reported using a mean of 1.45 formal strategies and 1.83 informal strategies. The difference for frequently using formal strategies was significantly different ( $p=.005$ ), while there was no statistical difference for the use of informal strategies.

Accordingly, the NOS supports Hypothesis 8 that public organizations frequently use recruitment strategies that are more broad in their reach than those strategies frequently used by businesses.

While public organizations appear to have very different recruitment strategies than do businesses, do their compensation practices differ? Hypothesis 9 suggests that there will be a weak linkage between compensation practices and job performance for public organizations. The GSS portion of the data set contains three specific questions related to the link between pay and performance: raises are given to all, regardless of performance; raises are given to those workers who work hard and perform well; and raises are given to those workers with some favored relationship with the boss.

Data are reported for the three questions separately in Table 4.6, and two of the three variables examined achieve statistical significance. Sixty-seven percent of employees in public organizations responded that raises were given to all, while only 35 percent of business employees agreed that raises were given to all ( $p<.000$ ). Almost 54 percent of public employees reported that workers who work hard got raises, while nearly 73 percent of business employees agreed with the statement. While public and business respondents were closer, there was still

a statistical difference in their responses at the  $p < .000$  level. However, for the statement that raises are given to those with favored relationships, there was no statistical difference between public and business employees. Nearly 29 percent of business employees agreed with the statement, while 27 percent of public employees agreed. These data appear to support the hypothesis that compensation linked to performance is more likely to occur in for-profit workplaces.

In addition to performance-linked compensation, other compensation-related issues are presented here for obvious reasons. Compensation is a significant way in which organizations reward their employees. Organizational researchers have studied the internal equity of compensation practices in organizations. The first measure presented here asks the respondent to characterize the variability of earnings among all organizational positions. For example, if the organization had a large number of front-line workers with annual salaries of \$10,000 and a core of management with salaries of \$100,000, there would be great variability in the earnings of positions. However, if the organization is predominantly mid-level professionals with salaries that range from \$45,000 to \$55,000 we would say that the variability was very small.

<b>Table 4.6</b> <b>Comparing Public and Private Organizations</b> <b>Compensation Related Variables</b>					
	<b>Public</b>		<b>Private</b>		<b>Sig.</b>
	<b>N</b>	<b>Mean</b>	<b>N</b>	<b>Mean</b>	
Raises are given to all, regardless of performance <sup>A</sup>	126	1.33	297	1.65	0.000
Raises are given to those workers who work hard and perform well <sup>A</sup>	125	1.46	299	1.27	0.000
Raises are given to those workers with some favored relationship with the boss <sup>A</sup>	124	1.73	294	1.71	0.631
Pay Variation					
Variability of earnings among all organization positions? (1=very great, 5=very small)	182	2.49	411	2.72	0.016
Performance improved if people in different jobs were paid more equally? (1=agree, 2=disagree)	181	1.82	407	1.87	0.104
Difference in lowest and highest annual earnings for “core” positions	174	\$17,267	317	\$16,744	0.907
Difference in lowest and highest annual earnings for “GSS” positions	156	\$12,784	279	\$18,051	0.376
Difference in lowest and highest annual earnings for “management” positions	160	\$35,614	263	\$48,573	0.068
Annual earnings for most “core” positions	182	\$29,704	370	\$22,487	0.000
Annual earnings for most “GSS” positions	175	\$27,698	353	\$23,164	0.002
Annual earnings for most “manager” positions	179	\$43,403	348	\$35,130	0.000

A. Each of these three variables is coded dichotomously, yes=1, no=2.



Respondents were asked to characterize the variability of earnings for all positions and to report the highest and lowest annual earnings for three different groups of employees: core, GSS, and management. For public organizations, respondents reported that there was greater variability in earnings than in private organizations ( $p=.016$ ). Respondents from both public and business organizations did not believe that the performance of the organization would improve if there was less variability in the earnings across the organization.

Respondents from public organizations perceived greater variability in earnings than did business respondents. This variation is supported concretely for only one of the three positions examined in the NOS. The NOS collected data on the lowest and the highest annual earnings for three different positions. Managers in the public sector have a lower difference between the lowest and highest paid managers (\$35,614) than the difference for business managers (\$48,573). This difference only approaches statistical significance ( $p=.068$ ). However, most respondents did not believe that organizational performance would improve if these differences in pay were minimized.

Additionally, the NOS collected data on the annual earnings of most people in the three different positions. Surprisingly, the reported earnings for the three positions – core, GSS, and management – defy traditional stereotypes. The classic view is that public sector employment has lower levels of compensation than that received from comparable positions in business. However, in the NOS data set, respondents indicate that for each of the three positions the mean earnings for public sector respondents is *higher* than that of business respondents. For each of the three positions the differences in the annual earnings are

statistically different, with public sector positions reporting, on average, a higher level of earnings.

On the face of it, this finding also challenges the next hypothesis, which is that public sector organizations, primarily because of a generally lower wage structure, offer a broader array of benefits than do private firms. To test Hypothesis 10, I examine the benefits data that was collected as a part of NOS. First, when asked to compare their benefit packages to those of other organizations, public sector respondents rated their packages higher than did their private sector counterparts ( $p=.000$ ). This measure focuses on the perception of employees regarding the mix of benefits they receive.

When we examine the specific sets of benefits organizations provide, a more complete picture emerges. Specifically, focusing on Table 4.7, this analysis uses four scales to assess benefits. The first scale is a measure of the total number of benefits offered out of the 15 examined. For the three remaining scales, I constructed them using the work by Knoke (1994, 1996) to separate benefits into broad groups of beneficiaries. The personal benefits scale is the number of benefits out of the six following benefits: medical, dental, long-term disability and life insurance, pensions, and drug and alcohol abuse programs. This scale has an alpha reliability score of .875. The familial benefits scale includes paid parental leave, maternity leave, child care, elder care, sick leave, flexible work scheduling, and job training. The familial benefits scale has an alpha reliability score of .666. The participant benefits scale includes only two benefits: cash bonuses and profit sharing; this has an alpha score of only .485.

Despite the inelegancies of the data presented in Table 4.7, there are significant differences between the benefits offered in public organizations and the benefits offered in businesses for all four of the scales. Overall, public organizations offer, on average, ten benefits, while businesses offer almost eight ( $p=.000$ ). The most striking differences emerge in the different groups of benefits. For personal benefits, public organizations offer their employees almost all of the benefits in this scale, a mean of 5.28, while businesses offer just over half of the benefits, a mean of 3.69 ( $p=.000$ ). For participant benefits, however, businesses are more likely to offer them than are public sector organizations. Only 28.5 percent of public organizations offer one or both of the participant benefits, while 62.8 percent of businesses offer one or both of these benefits.

Overall, these findings support Hypothesis 10 that public organizations will offer a broader array of benefits in their benefit package than will business organizations. Specifically, public organizations offer more total benefits and more personal and familial benefits than do businesses. The one type of benefits offered more by businesses is participant benefits, such as stock options and cash bonuses.

<b>Table 4.7 Comparing Public and Private Organizations Employee Benefits</b>					
	<b>Public</b>		<b>Private</b>		<b>Sig.</b>
	<b>N</b>	<b>Mean</b>	<b>N</b>	<b>Mean</b>	
Compared to other organizations, how do you rate your benefit package? (1=better than most, 3=not as good as most)	187	1.47	426	1.68	0.000
All Benefits Scale	187	10.04	456	7.56	0.000
Personal Benefits Scale	186	5.28	455	3.69	0.000
Familial Benefits Scale	187	4.45	456	3.00	0.000
Participant Benefits Scale	186	0.33	454	0.89	0.000

### **Summary of Preliminary Analysis**

For the five groups of variables, the NOS has provided a testable resource to examine a wide-range of variables that have been previously presented in public-business comparison research. The findings show mixed support for the hypotheses presented. Specifically, the preliminary analysis finds the following results:

*H1:* The NOS does not have variables that allow the testing of this hypothesis. Therefore, there is no evidence to either support or undermine the first hypothesis, that greater definitions of publicness will yield greater explanatory power than simple ownership.

*H2 & H3:* The NOS does not have variables that allow the testing of these hypotheses. Nevertheless, data from the NOS clearly show that public

sector managers report lower levels of performance for their organizations than do their business counterparts. Importantly, however, public managers did not report poor performance, they simply reported that their performance was somewhat better than in the previous periods examined.

*H4:* We can reject Hypothesis 4, that there will be no difference in the levels of formalization between business and public organizations.

*H5:* This hypothesis is strongly supported. Three different measures of formalized personnel procedures are statistically different between public and business organizations. All of these measures support the assertion that there will be higher levels of formalization for public sector personnel procedures than for business firms.

*H6:* The NOS does not have variables that allow the testing of this hypothesis, that the external influence will have more affect on public organization decision making than for businesses. Overall, public organizations appear to be larger and more formalized, have more levels within their organizations, have more departments, and have a different composition of their workforce.

*H7:* The findings from the NOS suggest that for the gross commitment scale we can reject the Hypothesis 7, that employees in public organizations will exhibit higher levels of organizational commitment than employees of business firms. However, this may mask other commitment-related issues across the two sets of organizations. For example, on measures of compliance commitment and commitment identification, there was no statistical difference between public and business employees.

But for commitment internalization, business employees agreed more strongly that their values and the organization's values matched.

Other work-related attitudes were measured in the data set. For measures of the importance of the individuals work role, private sector employees perceived that their work was more important to the success of the organization and that their performance is noticed when they do well. These findings were significantly different from those of their public sector counterparts ( $p=.001$  and  $p=.005$ , respectively).

*H8:* The NOS supports Hypothesis 8, that public organizations frequently use recruitment strategies that are more broad in their reach than those strategies frequently used by businesses.

*H9:* The data from the GSS portion of the data set support the hypothesis that compensation linked to performance is more likely to occur in for-profit workplaces.

*H10:* Public sector respondents rated their benefit packages higher than did business respondents. Additionally, public organizations generally offer a broader array of benefits than do businesses. Only for participant benefits, benefits that relate to cash bonuses and profit sharing, are businesses more likely to offer these benefits than are public organizations. For personal benefits, like insurance, and familial benefits, such as parental leave, public organizations are significantly more likely to offer these types of benefits. Overall, these findings support hypothesis ten, that public organizations will be more likely than businesses to offer a broad assortment of benefits, such as health insurance, flexible working hours, and sick leave.

### **Multivariate Analysis**

Several significant questions remain after the simple comparisons of responses from the different classes of organizations. For example, with formalization there appears to be significant differences in the patterns between public and business organizations. Do those patterns remain when there is control for other variables, such as size and vertical structure of the organization.

In addition, this multivariate analysis relates to a basic question: can we use a set of the significant variables to predict with reasonable accuracy whether an organization is public or private? This issue specifically will help us to know whether public and business organizations are meaningful archetypes or whether we should be looking for additional alternative archetypal structures.

Specifically, in this multivariate analysis I use logistic regression, to predict discrete variables, such as organizational status, which for present purposes is coded (1) for public organizations and (0) for businesses. Logistic regression is used when it would be inappropriate to use standard regression techniques, such as ordinary least squares (OLS). Logistic regression is useful in that it overcomes many restrictive assumptions of classic regression, specifically when the dependent variable is not continuous. As a result of the non-continuous nature of the dependent variable, the assumption of a normally distributed error term is always violated (Berry 1993, p. 48). However, the more significant issue in using OLS regression for a dichotomous dependent variable is that the coefficients for the independent variables may have nonsensical interpretations (Berry 1993, p. 48). Logistic regression is therefore an appropriate technique for use in this type

of analysis, where the goal is to predict the sectoral status of organizations using a set of independent variables (Aldrich and Nelson 1984).

### **Describing Public Organizations**

This section explores the predictive ability of several significant variables from the preliminary analysis, which suggested a number of significant differences between public and business organizations. Additionally, this section explores the implication of these findings.

This section uses a logistic regression model to predict organizational setting. Table 4.8 presents the variables used in the model. Two sets of variables were discussed above which are not included in the model. First, variables from the GSS are excluded since they limit the size of the data set. A smaller data set may likely hinder the predictive ability of the model. Second, variables that were not significant, or variables that were significant but contained the same variables as a sub-scale, were not included. For example, the variable All Benefits Scale was not included because three sub-scales (Personal Benefits Scale, Familial Benefits Scale, and Participant Benefits Scale) are summed to construct the All Benefits Scale. Additionally, variables with a substantial number of missing values, such as the variable percent of women who are part-time employees, which only had 376 usable responses, were excluded from the model. Finally, the model was run both with and without the Formal Recruitment Strategies Scale because it had 162 missing observations and Promotion Procedures Scale because it had 117 missing observations which made these variables susceptible to distorting the model.



A few other details of method help frame this multivariate analysis. These two models seek to predict sector status for public and business organizations using significant variables from the preliminary analysis. Additionally, this provides another opportunity to examine the variables in context of their hypothesized relationships. Before reviewing the findings from the logistic regressions, I review each variable and the expected hypothesized relationship.

Table 4.8 presents the basic variables included in the multivariate analysis. The independent variables are describe briefly as an aid to the reader. In the preliminary analysis, the **Performance Scale** was shown to exhibit a significant difference in the scale scores of public agencies and businesses (see Table 4.1). This scale measures performance, using nine different variables. Higher scores indicate higher levels of perceived organizational performance. It is expected that this scale will have a significant negative relationship, meaning that businesses will report higher performance scores.

The **Personnel Formalization Scale** measures the presence or absence of nine different documents focused on personnel-related rules and procedures (see Table 4.2). The preliminary analysis found that public organizations exhibited higher levels of formalized personnel procedures, as measured by the presence of documented rules and procedures. Accordingly, it is expected that this variable will be positively associated with public organizations, and it will help predict the sector of the organization.

<b>Table 4.8</b> <b>Variables included in Models Predicting Organizational Sector</b>	
<b>Dependent Variable</b>	<b>Independent Variables (Predicted Direction for the Model in Parentheses)</b>
Organizational Sector (1=public, 0=business)	Performance Scale (-) Personnel Formalization Scale (+) Promotion Procedures Scale (+) Formal Procedures for Dispute Resolutions (-) Structural Formalization Scale (+) Operations Regulated by Government (-) Number of Full-time Employees (+) Number of Part-time Employees (+) Full-time Employees – Female (+) Number of Vertical Levels (+) Formal Recruitment Strategies Scale (+) Variability of Earnings (-) Benefits Compare (-) Personal Benefits Scale (+) Familial Benefits Scale (+) Participant Benefits Scale (-)

The **Promotion Procedures Scale** is the sum for five different promotions for positions within the organization; it identifies whether the promotion procedures are formal or not (see Table 4.2). In the preliminary analysis public organizations had significantly higher scores for formal promotion procedures than businesses. I expect that in this model, higher scores on this scale will be associated with public organizations.

The variable that measures formal procedures for **Dispute Resolutions** is coded (1) for formal procedures and (2) for informal procedures. In the preliminary analysis, businesses had more informal dispute resolution procedures

than did public organizations (see Table 4.2). I expect that this variable will be negatively associated with public organizations.

The **Structural Formalization Scale** is a measure of departmentalization, which indicates how formal the organization has become for specific management tasks. In the preliminary analysis, businesses scored significantly lower, which indicates that on average, businesses have fewer departments than public organizations (see Table 4.2). One expects, on the basis of Table 4.2 above, that departmentalization, as a measure of structural formalization, will be positively associated with public organizations.

Another variable included in the model is a measure of whether the organization's operations are **Regulated by Government**. This variable is measured on a five-point likert scale, coded one for almost completely regulated, and five for not regulated at all. If the preliminary finding is supported, there should be a negative association between this measure of regulation and public organizational status (see Table 4.3).

The preliminary analysis found that public organizations have on average more **Full- and Part-time Employees** than business organizations (see Table 4.3). If the preliminary analysis is confirmed, then the number of employees will be positively associated with public organizations, and it will be useful in predicting organizational status.

The preliminary analysis also found that public organizations had a higher percentage of full-time employees who are **Female** (see Table 4.3). Assuming support of the preliminary analysis, the percentage of full-time female employees should be positively associated with public organizations.

The preliminary analysis also explored the number of **Vertical Levels** in the organizations. That analysis found that public organizations had significantly more vertical levels than did businesses (see Table 4.3). Presuming support of this finding, the logistic regression should find a positive association between the number of vertical levels and public organizations.

The last set of variables in the model explore different aspects of human resource management (HRM) practices. First, the preliminary analysis indicates that public organizations use **Formal Recruitment Strategies** more frequently than do government organizations than by businesses (see Table 4.5). If the preliminary analysis is supported in the model, then there should be a positive association between the Formal Recruitment Strategies Scale and the prediction of public organizations.

The second HRM-related variable in the model is the **Variability of Earnings** across the organization. This variable is coded on a five-point likert scale, (1) being very great variation and (5) being very small variation. Public organizations, as highlighted in the preliminary analysis, had slightly higher levels of pay variation across all positions in the organization (see Table 4.6). If this difference is supported in the logistic regression models, there should be a negative association between variability of earnings and the prediction of public sector organizational status.

The last four variables in the model all focus on the benefit practices of organizations. The **Benefits Comparison** variable is a perceptual measure of how the benefit package compares to other organizations. The variable is coded on a three-point scale, (1) being the organization has a better benefit package than

most organizations and (3) being that the benefit package is not as good as most. In the preliminary analysis there was a significant difference between business and public agency responses (see Table 4.7). If confirmed, there should be a negative association between benefit package assessment and predicted public organizations.

The last three benefits scales all measure the number of different benefits offered based on the focus on benefits. The **Personal and Familial Benefits Scales** were both significant in the preliminary analysis, with public organizations offering more of both of these types of benefits (see Table 4.7). The **Participant Benefits** were also significantly different, but businesses offered more of these benefits (see Table 4.7). If the model is supported, then person and familial benefits should be positively associated and participant benefits negatively associated with public organizations.

*Logistic Regression Results.* As mentioned above, logistic regression is used to predict the sectoral status of organizations using several independent variables. Two different models are explored to explore the predictive ability of significant variables from the preliminary analysis. The first model includes 14 independent variables, shown to have significant differences in the scores of public and business organizations in the preliminary analysis. The second model adds two variables **Formal Recruitment Strategies** and the **Promotion Procedures Scale**. These variables are added in a separate test because they had only 481 and 521 valid cases, respectively, of the possible 643. All the other variables had at least 593 valid cases.

The results of two different logistic regression models are presented in Tables 4.9 and 4.10. These two models are significant improvements over the constant-only model, which correctly predicted 68.8 percent of the cases.

In sharp contrast, model 1 in table 4.9 correctly predicted 88.9 percent of the cases. This is a correct prediction for 92.6 percent of businesses and 80.6 percent of public organizations.

Model 2 in Table 4.10, which adds the variable **Formal Recruiting Strategies** and the **Promotion Procedures Scale**, correctly predicted a slightly lower percentage of organizations, 88.3 percent overall. This model correctly predicted 91.5 percent of businesses and 82.4 percent of public agencies. Overall, both models were very useful in helping to predict the sector of the organizations examined.

However, when we examine the variables within the two models we find that, contrary to expectations, many of the proposed relationships were not useful in differentiating between public and business organizations. Specifically, only six of the 14 variables in model 1 and seven of the 16 variables in model 2 were significant at the .05 level.

Of keen importance, two of the significant variables in each of the models, model 1 and model 2, were not in the anticipated direction. **Structural Formalization Scale** procedures and the was predicted to have a positive association with public sector organizational status, yet in both models the *beta* coefficient was negative and significant at  $p < .03$ . Also, the **Performance Scale** had a predicted negative association, while in the models it was positive and significant at  $p < .014$ .

Four variables in model 1 and five in model 2 were significant in the expected direction. These variables, which matched the predicted direction, were **Formal Dispute Resolution** – negative association in both models ( $p < .03$ ); operations **Regulated by Government** – negative association in both models ( $p = .000$ ); **Familial Benefits Scale** – positive association in both models ( $p = .000$ ); **Participant Benefits Scale** – negative association in both models ( $p = .000$ ); and the **Promotion Procedure Scale** – positive association only in model 2 ( $p = .002$ ).

The **Formal Recruitment Strategies Scale** included in model 2 had no significant impact on the model, even though in the preliminary analysis there was a large and significant difference between business and government use of those strategies (see Table 4.5). Overall, both models predicting organizational sector are very useful and point to areas that need further exploration.

While these models strongly support the archetypal distinction between public and business organizations, they also highlight many challenges with these archetypes. For example, several anticipated relationship, which in the preliminary analysis demonstrated strong difference, failed to contribute to the prediction of the sectoral status of organizations in the model. Additionally, several variables that were statistically significant in the models were not in the hypothesized direction.

These models are representative of the mixed results in the Public-Business comparison literature generally. What appears on the surface to be a significant difference between organizations is overcome, and its directional impact often changed when controlled in a multi-variate analytical technique. The

final chapter discusses the implications of these findings for further research and understanding of public sector organizations.



**Table 4.9**  
**Model 1: Logistic Regression Predicting Organizational Sector**

<b>Independent Variables</b>	<b>B</b>	<b>Sig.</b>	
Performance Scale	0.64	0.014	
Personnel formalization scale	0.09	0.381	
Formal Procedures for dispute resolutions	-1.78	0.005	
Structural Formalization Scale	-0.16	0.030	
Operations regulated by government	-0.82	0.000	
Number of full-time employees	0.00	0.569	
Number of part-time employees	0.00	0.158	
full-time employees – female	0.00	0.678	
Number of vertical levels	0.01	0.731	
Variability of Earnings	0.08	0.627	
Benefits Compare	0.07	0.791	
Personal Benefits Scale	0.24	0.069	
Familial Benefits Scale	0.66	0.000	
Participant Benefits Scale	-2.03	0.000	
Constant	-1.27	0.476	
<b>Model Summary</b>			
	<b>-2 Log likelihood</b>	<b>Cox &amp; Snell R<sup>2</sup></b>	<b>Nagelkerke R<sup>2</sup></b>
	302.7513	0.478404	0.67263
<b>Classification Table</b>			
	<b>Predicted Business</b>	<b>Predicted Public</b>	<b>Percent Correct</b>
Actual Business	326	26	92.6
Actual Public	31	129	80.6
Overall	357	155	88.9

**Table 4.10**  
**Model 2: Logistic Regression Predicting Organizational Sector**

<b>Independent Variables</b>	<b>B</b>	<b>Sig.</b>	
Performance Scale	0.79	0.012	
Personnel formalization scale	0.12	0.427	
Formal Procedures for dispute resolutions	-2.19	0.023	
Structural Formalization Scale	-0.23	0.006	
Operations regulated by government	-0.75	0.000	
Number of full-time employees	0.00	0.593	
Number of part-time employees	0.00	0.289	
full-time employees – female	0.00	0.724	
Number of vertical levels	0.01	0.539	
Variability of Earnings	0.10	0.602	
Benefits Compare	0.32	0.341	
Personal Benefits Scale	0.29	0.097	
Familial Benefits Scale	0.91	0.000	
Participant Benefits Scale	-2.23	0.000	
Promotion Procedures Scale	0.36	0.002	
Formal Recruitment Strategies Scale	0.00	0.992	
Constant	-3.88	0.109	
<b>Model Summary</b>			
	<b>-2 Log likelihood</b>	<b>Cox &amp; Snell R<sup>2</sup></b>	<b>Nagelkerke R<sup>2</sup></b>
	224.4627	0.512818	0.707917
<b>Classification Table</b>			
	<b>Predicted Business</b>	<b>Predicted Public</b>	<b>Percent Correct</b>
Actual Business	236	22	91.5
Actual Public	24	112	82.4
Overall Percentage	260	134	88.3

## **CHAPTER 5**

### **SUMMARY AND CONCLUSION**

This final chapter reviews the previous chapters and examines the implications of this dissertation for future research. The purpose of the dissertation has been to review the literature on public-business (P-B) comparisons, as well as to extend that research using the National Organizations Study data (NOS) to test hypotheses found in the P-B literature. First, this chapter reviews the findings from Chapter 1, which reviewed the P-B literature. Second, from Chapters 2 and 3, the proposed hypotheses and the data used to test them are reviewed. Third, the findings from Chapter 4 are presented. Finally, the implications of the findings are discussed, and an agenda for future research is presented.

#### **Public-Business Comparison Literature**

To understand the public-business comparison literature, Chapter 1 had three emphases. It reviewed the development of the literature, then examined the research strategies used in the comparative studies, and finally presented the findings from fifty-eight different research studies. Over a period of about twenty-five years, several scholars have conducted a variety of comparative studies that have examined public and business organizations on a range of factors.

These scholars often propose that their findings have reached a useful level of generalizability, but in many cases their research designs do not support such generalizations. For example, in reviewing the sample designs used in fifty-seven different research articles, progress is spotty. True, there has been a general movement toward larger samples (see Table 1.1); but the vast majority of these are from restricted populations, which limits the ability to generalize beyond the sample. Additionally, half of these studies focus on employee attitudes and behaviors and not on organizational issues, such as structure or organizational performance. Chapter 1 highlights that the studies which focus on employee attitudes and behaviors often have little if any linkage to organizational characteristics, that may significantly impact employees attitudes and behaviors.

These shortfalls can have a significant impact on theory development and testing; some scholars have tried to address this by focusing on a specific type of organizations (e.g., Bozeman and Loveless 1987, and Bozeman and Bretschneider 1994, focused on research and development organizations in the United States). By focusing on a single type of organizations that is present in both business and government settings, researchers can attempt to control for factors that might otherwise confound their research.

However, this has not been a common strategy. Only four studies used a single-type organization study. These studies chose a type of organization, such as research and development laboratories, and compared those with private ownership to governmental labs (e.g., Bozeman and Bretschneider 1994). Some of these have been very sophisticated samples. Bozeman and Bretschneider, for example, conducted a probability sample of research and development labs in the

United States, a sample that allowed them to speak meaningfully to all research and development labs in the U.S.

The most commonly used sample strategy is restricted diverse-respondent samples, used in 43 of the 57 (75.4 percent) samples reviewed. These samples were often limited to a few organizations (e.g., Wheeler and Brady 1998; Rhinehart et al. 1969) or to a specific geographic region (e.g., Rainey 1979, 1982, 1983; Solomon 1986).

The other main focus of Chapter 1 was a review of the research findings from fifty-eight research articles and research on public-business comparisons, which generate five prominent themes: defining publicness, organizational performance, organizational structure, work-related attitudes and behaviors, and human resource management practices. Table 1.2 summarizes published public-private research and highlights the analytical techniques and findings used in this research. However, this research has not consistently focused on testing and retesting relationships under different sample circumstances; this is important to build theory under the types of samples depicted in Table 1.1.

The distribution of research among the research themes is not even. Among the 58 research articles reviewed in Table 1.2, only two dealt with defining publicness, five explored issues of organizational performance, 17 examined issues of organizational structure, 29 probed work-related attitudes and behaviors, and five studied human resource management practices. Accordingly, the largest portion of research has compared the work-related attitudes and behaviors of employees from different sectors. The remaining research focuses more on organizational issues.

In studying these issues, researchers used a variety of analytical approaches, ranging from simple descriptive statistics to more elaborate statistical models. The three most common analytical techniques used were descriptive statistics, regression, and tests of differences (see Table 1.2). Descriptive statistics were used in 35 studies (60.3 percent). Regression-related models, including ordinary least squares, logit, and probit; and hierarchical regression approaches were used in 29 studies (50.0 percent). Difference of means and other tests of differences, such as t-tests, were used in 22 studies (37.9 percent).

The research findings for many of the themes were mixed. For example, within the theme of work-related attitudes and behavior, the comparative organizational commitment research has had contradictory findings. These contradictory findings raise significant questions. Are these contradictions the result of operational definitions, the result of sample errors introduced by their sample designs, or some other phenomena? The other themes also show mixed results, no doubt for similar reasons.

Despite their shortcomings, the information in Tables 1.1 and 1.2 creates the best-available foundation for the importance of testing the findings from the P-B literature. The summaries of the research designs and findings highlight the need for a theory-building effort that expands the existing research using a generalizable sample, and then retests the findings using corollary measures similar to those used in earlier research. Accordingly, this dissertation tested findings from several of these themes, using the National Organizations Study data.

## Hypotheses

Chapter 2 presents ten hypotheses that flow from the research reviewed in Chapter 1. These hypotheses are not comprehensive of all hypotheses tested in the literature, but they represent a significant cache in the literature. These hypotheses focus on the five major P-B themes: defining publicness, organizational performance, organizational structure, work-related attitudes and behaviors, and human resource management practices. These hypotheses are presented below.

**H1:** Definitions of publicness that move beyond mere ownership will yield more explanatory power to research inquiries.

**H2:** Public organizations that face competition, either internal or external, will perform similar to organizations in the private sector.

**H3:** Public organizations without external competition will perform less efficiently than private firms that face external competition.

**H4:** Employees in public organizations will not report higher levels of formalization than will employees in private sector organizations.

**H5:** Public organizations will have greater levels of formalization for personnel (i.e., hiring and firing authority) procedures than will business firms.

**H6:** Public organizations will have greater levels of environmental influences in decision making processes than will business firms.

**H7:** Employees in public organizations will exhibit higher levels of organizational commitment than employees of business firms.

**H8:** Recruitment strategies in public organizations will be more broad than those of businesses.

**H9:** Compensation strategies that link pay to performance will be more prevalent in business firms.

**H10:** Public organizations will be more likely than businesses to offer a broad assortment of benefits, such as health insurance, flexible working hours, and sick leave.

### **Data**

Chapter 3 introduces the National Organizations Study (NOS), which was used to test the hypotheses in Chapter 2. The NOS data set fills several shortcomings that limit organizational researchers, again especially in the public sector. The data set provides 1) a representative sample of U.S. workplaces, 2) a robust set of variables that allows for cross-sector comparisons, and 3) opportunities for replication, extensions, and generalization of some of the early P-B research within the context of recent cultural and economic changes, for example, the increased participation by women in the workforce. The character of the data helps address many of the inherent problems of P-B research.

The NOS was funded through grants from the National Science Foundation to support organizational research. The NOS surveyed a representative sample of U.S. work establishments on their organizational structures and personnel practices, and their environmental and organizational contexts (Kalleberg, Knoke, Marsden, and Spaeth 1994; 1996a). The 1991 survey used a population proportional to size (PPS) sample to create a probability-based



sample that is representative of U.S. work establishments; the probability of being included in the sample is proportional to the size of the organization, which is based on the number of employees (Spaeth and O'Rourke 1994; 1996).

The final sample included 727 survey responses collected through telephone and mail questionnaires. This dissertation uses the responses from private-for-profit organizations (businesses) and public organizations (n=643) and excludes responses from private nonprofit organizations. Accordingly, the final dissertation sample yields 643 unique public and business organizations. Chapter three concludes with a review of variables commonly used in public-business comparison research and matches those variables with corresponding variables in the NOS.

### **Previous NOS Research**

Many well respected scholars have used the NOS to explore a range of themes (Marsden, Kalleberg, and Knoke 2000): organizational structure, staffing patterns, organizational performance, recruitment and selection practices, training, and compensation and benefits. Some of this research noted distinct findings for public and private organizations. For example, Marsden et al. (1994; 1996) found that public-sector organizations tend to be more formalized and centralized than for-profit organizations. However, none of the NOS researchers explicitly focused on differences between public and business organizations.

### **Extending NOS Research**

To extend the NOS research, this dissertation focuses on the themes that emerged from the public-business comparison literature. For the five groups of variables, the NOS provided a testable resource to examine a widerange of variables previously presented in public-business comparison research. The hypotheses were explored using a two-tiered approach. In the preliminary analysis, responses of public and business respondents were compared using t-tests of differences.

Following the preliminary analysis, significant variables were tested using logistic regression to predict the sectoral status of organizations in the sample. The NOS findings show mixed support for the ten hypotheses presented. Specifically the preliminary analysis finds the following results:

*H1:* The NOS does not have variables that allow the testing of this hypothesis. Therefore, there is no evidence to either support or undermine the first hypothesis that greater definitions of publicness will yield greater explanatory power than simple ownership.

*H2 & H3:* The NOS does not have variables that allow for the direct testing of these hypotheses. Nevertheless, data from the NOS allow exploration of related issues. The NOS data clearly show that public sector managers report lower levels of performance for their organizations than do their business counterparts. Importantly, however, public managers did not report poor performance; they simply reported that their performance was somewhat better than in the previous periods examined.

*H4:* We can reject hypothesis 4 that there will be no difference in the levels of formalization between business and public organizations.

*H5:* This hypothesis is strongly supported. Three different measures related to formalized personnel procedures are statistically different between public and business organizations. Each of these measures supports the assertion that there will be higher levels of formalization for personnel procedures than business firms will have.

*H6:* The NOS does not have variables that allow the testing of this hypothesis, that the external influence will have more effect on public organization decision making than on businesses.

However, some NOS data seem relevant. Overall, public organizations appear to be larger and more formalized, have more levels within their organizations, have more departments, and have a different composition of their workforce.

*H7:* The findings from the NOS suggest that for the gross commitment scale we can reject the hypothesis that employees in public organizations will exhibit higher levels of organizational commitment than employees of business firms. This overall finding is illuminated by other commitment-related measures. For measures of compliance commitment and commitment identification, there was no statistical difference between public and business employees. But for measures of commitment internalization, business employees reported higher levels of congruence between their goals and the goals of the organization than did public sector employees.

Other work-related attitudes were measured in the data set. For measures of the importance of the individuals work role, private sector employees perceived that their work was more important to the success of the organization and that their performance is noticed when they do well. These findings were significantly different from those of their public sector counterparts ( $p=.001$  and  $p=.005$ , respectively).

*H8:* The NOS supports hypothesis 8 that public organizations frequently use recruitment strategies that are more broad in their reach than strategies frequently used by businesses.

*H9:* The data from the GSS portion of the data set support the hypothesis that compensation linked to performance is more likely to occur in for-profit workplaces.

*H10:* Public sector respondents rated their benefit packages higher than did business respondents. Additionally, public organizations generally offer a broader array of benefits than do businesses. Only for participant benefits, benefits that relate to cash bonuses, and profit sharing are businesses more likely to offer these benefits than are public organizations. For personal benefits, like insurance, and familial benefits, such as parental leave, public organizations are significantly more likely to offer these types of benefits. Overall, these findings support hypothesis 10, that public organizations will be more likely than businesses to offer a broad assortment of benefits, such as health insurance, flexible working hours, and sick leave.

The preliminary analysis generally supported the hypotheses in the expected direction. However, when the variables were examined concurrently,

the patterns of support for the hypotheses changed in interesting ways, occasionally directly contradicting the findings in the preliminary t-test analysis.

Specifically, the multi-variate analysis explored the predictive ability of several significant variables from the preliminary analysis, which suggested significant differences between public and business organizations. The multi-variate analysis used logistic regression to predict organizational setting, more precisely whether an organization was a business or a public organization.

Table 4.8 presents the variables used in the models. The results of two different multi-variate analysis are presented in tables 4.9 and 4.10. Model 1 includes 14 variables that were significant in the preliminary analysis. Model 2 adds two variables to the 14 in model 1. The additional variables in model 2 were analyzed separately because they had substantially more missing cases than the other 14 variables.

These models, using logistic regression, are used to predict the sectoral status of the organizations in the sample using the variables outlined in Table 4.8. The model is considered useful if it correctly predicts the dependent variable better than assigning all of the cases to the dominant class of the dependent variable. In this case, the two classes of the dependent variable are public and business organizations. The two models are significant improvements over the constant only model. The constant only model, which assumed that all organizations would be businesses, correctly predicted 68.8 percent of the cases.

Model 1, presented in table 4.9, correctly predicted 88.9 percent of the cases. This is a correct prediction for 92.6 percent of businesses and 80.6 percent for public organizations. Model 2, which adds the variables Formal Recruiting

Strategies and Promotion Procedures, correctly predicted slightly fewer organizations, 88.3 percent overall. This model correctly predicted 91.5 percent of businesses and 82.4 percent of public agencies. Overall, the models are very useful in predicting the sector of the organizations examined.

However, when we examine the variables within the two models we find that contrary to expectations, many of the proposed relationships were not useful in differentiating between public and business organizations. Specifically only six variables in model 1 and seven in model 2 were significant at the .05 level. Interestingly, three of the variables in each model were not in the anticipated direction.

**Structural Formalization Scale** was predicted to have a positive association with public sector organizational status, yet in both models the *beta* coefficient was negative and significant at  $p < .03$ . Also, the **Performance Scale** had a predicted negative association, while in the models it was positive and significant at  $p < .014$ .

Four variables in model 1 and five in model 2 were significant in the expected direction. These variables, which matched the predicted direction, were Formal **Dispute Resolution** – negative association in both models ( $p < .03$ ); operations **Regulated by Government** – negative association in both models ( $p = .000$ ); **Familial Benefits Scale** – positive association in both models ( $p = .000$ ); **Participant Benefits Scale** – negative association in both models ( $p = .000$ ); and the **Promotion Procedure Scale** – positive association only in model 2 ( $p = .002$ ).

Several variables were not significant in either model. The Formal Recruitment Strategies Scale included in model 2 had no significant impact on the model, even though in the preliminary analysis there was a large and significant

difference between business and government use of those strategies (see Table 4.5). Additionally, personnel formalization, the number of full- and part-time employees, percentage of females in the organization, the number of vertical levels in the organization, variability of earnings, and the comparison of benefits were not significant in either model. These variables that did not achieve statistical significance in the logistic regression models are not useful in correctly predicting the organizational sector of the cases in the NOS data set.

Overall, the two models predicting organizational sector are very useful and point to areas that need further exploration. For example, why was personnel formalization so significant in the preliminary analysis, yet in the multivariate analysis it failed to differentiate between public and business organizations? Additionally, several variables that were statistically significant in the models were not in the hypothesized direction.

These models are representative of the mixed results in the Public-Business comparison literature generally. What appears on the surface to be a significant difference between organizations is overcome, and its directional impact often changed when controlled in a multivariate analytical technique. Of the two models, model 1 is perhaps most useful; it captures a larger set of the cases, correctly predicts more organizations, and uses fewer variables. These models set the stage for additional research that explores organizational archetypes and public-business differences.

### **Limitations of the NOS Extension**

This research, based on the NOS data set, has three main limitations. The data come from one manager in each organization, and these data are often perceptual in nature. Second, there is a limited set of variables for testing some of the hypotheses related to the previous literature. Third, this dissertation has conducted a limited analysis of the data available, and further extensions are possible. These limitations are discussed further below.

The problem with a single organizational respondent is that while respondents may accurately portray their perception of the organization, they may not completely or accurately portray the organization. This is a general concern for most organizational research, because if the sample of organizations is large it becomes more difficult to collect data from multiple respondents in the organization. Research has found that managers are able to perceive their organizations broadly (Beyer et al. 1997). More important, managers then are able to reasonably reflect their organization when they are used as organizational informants (Hambrick and Mason 1984). This research strategy is a common and accepted practice among organizational researchers. The major risk of this strategy is that the organizational informant may not accurately reflect the current reality of the organization.

This limitation has not shown a general robustness over time. The NOS data, for example, have been used by well-respected scholars for peer-reviewed publication in major scholarly journals.

The second major limitation is the restricted set of variables for testing hypotheses related to the previous literature. While it is important to note a



significant number of matching or corollary variables, the match is not complete for all areas that have been examined in the public-business comparison literature. The matching variables are highlighted in Table 3.2. It is important to build a set of operational definitions that can be used to test the hypotheses in the literature, and these operational definitions should be held constant for testing. Otherwise, it will be necessary to expand the definitions as organizational phenomena are better understood. Notably, using NOS data, several hypotheses could not be adequately tested because appropriate variables were not included in the original survey instrument. However, even with these limitations, the NOS provides a rich set of variables to further enhance our understanding of modern organizations.

The third major limitation of the present study is that it focuses on a limited statistical analysis of the available data. Further analysis could explore other possible approaches to developing an archetypal classification. One such approach is to use a data technique such as hierarchical clustering. This has been used to develop classification schemes for humans using biographical data (e.g., Mumford, Stokes, and Owens 1990); organizational uses also exist (e.g., Miller and Friesen 1984). This method allows the researcher to condense complex data into unique groupings through complex regression models and factor analyses. Basically, the technique answers this key question: how many sub-types or archetypes are necessary to account for the similarities and differences in any data set? This is a powerful capability. Once we have such a set of archetypes, obviously our ability to understand complex modern organizations is improved.

### **Implications for Further Research**

This research has implications for future research. This dissertation highlights the need to expand the samples of organizations, specifically through large probability samples, and to examine in more details specific types of organizations, whether public or private. The importance of expanded samples that permit generalizations draws attention to the complementary issue of improving the data that is collected through such research.

This dissertation research draws attention to the importance of expanding the set of variables collected as part of organizational samples. Expanded sets of variables can foster our ability to develop and test theories. The challenge is to balance the need for an expansive set of variables with the need for core variables that are common to many samples. One approach to building such a set of variables and samples would be to develop sets of variables around core subject areas and to collect data through different samples over time.

For example, let us assume a multiple round survey with a fixed probability sample. Every two years, additional data would be collected on a core set of variables, but the survey would primarily collect data in areas that have not been collected before. These samples would use the same operationalizations for all retained variables. For example, the second survey may focus on issues of organizational structure, while the third round may focus on human resource management practices. An approach of this type could serve multiple purposes. First, it collects data over time, which allows the researcher to track changes in organizational features over time. Second, it captures a broad array of data that would allow for significant study of the linkages between and among

organizational systems. Third, it would allow for refined exploration of organizational archetypes.

Additionally, a major opportunity for future research is the further exploration of organizational classifications. Using a simple two-type classification scheme, based on ownership, I was able correctly predict the organizational classification for more about eighty-eight percent of organizations in the NOS sample.

Several important questions nonetheless remain. First, is a dichotomous archetype, such as public and business sufficient to distinguish organizations in meaningful ways? The present evidence suggest that the distinction among organizations is very good, but not complete. Clearly, there are organizations that are excluded from this simple classification scheme. Non profits are excluded from the classifications in my analysis.

Many prominent scholars have sought to develop archetypal schemes for classifying organizations. Mintzberg (1983), for example, used a classification scheme that included five different types: simple structures, machine bureaucracies, professional bureaucracies, divisionalized forms, and adhocracies. Golembiewski (1987), on the other hand, uses a four category scheme that focuses on how to structure organizations: parallel structures, project management, flow of work, and mature matrix structures. Miller and Friesen (1984), in a more complex categorization, use ten types to classify organizations. The major difference in these approaches is the question they are trying to answer.

Which archetypal approach is right? The answer remains unanswered, for which reason more research is needed to examine organizational archetypes. Such research should explore the implications of alternative archetypes for the practice of management. Do different types of organizations require fundamentally different organizational responses, or do they simply exhibit different patterns that don't have significant effects on the practice of management?

This research highlights the need in public-business comparison research to explore beyond bivariate comparisons. Bivariate comparisons are very alluring. Mean tests of differences appear to be very straightforward in their ability to highlight clear distinctions. However, organizations are complex systems that involve many issues simultaneously. These complex relationships can be best understood through multivariate techniques. As this dissertation demonstrates the simple bivariate tests may mask and distort the patterns of relationships.

Additionally, Public-private comparison researchers should continue to pursue more sophisticated research approaches, including alternative classifications and analytical techniques to better understand the dynamic relationships among organizational variables. This effort will require concerted effort to further develop theoretical arguments, as well as valid samples to test those theoretical propositions.

Finally, it is clear that the NOS did not have sufficient data to explore all of the hypotheses presented in this dissertation. For example, the first hypothesis on expanded notions of publicness deserves continued attention. In part, the findings from the logistic regression point to the need for improved typologies of organizations, among which may be expanded definitions of publicness. This

highlights the need for continued exploration by public-private comparison researchers. Additional work should also proceed on themes such as work-related attitudes and behaviors and organizational performance, two areas that were not sufficiently represented by NOS variables. Furthermore, some of the findings for variables, such as those exploring work-related attitudes and behaviors, were not in the expected directions. This demonstrates the importance of continuing to think carefully about our theoretical expectations. Only through additional theory development and testing will we be able to better understand how organizational conditions in both public and private organizations may affect work-related attitudes and behaviors.

This dissertation has demonstrated that it is possible to use a set of variables to correctly predict most cases of organizational status for the public and business organizations in the NOS data set. The findings of this analysis confirm and challenge many expectations that have been presented in the public-business comparison literature. Many issues, such as those highlighted above, remain unresolved; these must be addressed in future research.

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