

Administrative Structure and Social Democratic Results: The Case of Education

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The fundamental administrative challenge of any purposive organization is to specify and prioritize those purposes (Simon 1997, 1). Public bureaucracies find this challenge difficult because they are routinely charged with vague, multiple, and often contradictory missions (Wilson 1989; Meier 1997; Downs and Larkey 1986). Scholars have long recognized that this lack of clarity about ends elevates the importance of means. Administrative structure, the organizational characteristics that shape decision-making processes, exerts a powerful influence on the objectives public agencies pursue (Wilson 1989, 33–38; Simon 1997; Barnard 1968).

The importance of administrative structure thus has an important, and understudied, implication for public sector reform: altering the organizational characteristics that frame decision-making processes may change how public agencies prioritize their missions. Using public education as an exploratory case, I explore this possibility by examining variation between school goals and two elements of administrative structure: (1) whether a school is organized as a public bureaucracy or a private entrepreneurial institution and (2) the degree of discretionary-authority vested in operative employees (teachers). In a multivariate analysis, I find that these variables predict variation for some school goals, supporting the inference that administrative structure can determine organizational mission priorities. The findings imply that popular proposals for public sector reform may change the goals public agencies pursue, not just the means used to achieve those goals.

Agency Goals and Administrative Structure

The importance of administrative structure to agency goals is reflected in the two dominant theoretical perspectives on public sector organization. The Wilsonian/Weberian orthodoxy of public administration scholarship advocates public service provision through bureaucracies in centralized jurisdictions. Decision-making authority (at least formally) is concentrated at the top of such organizations, and the behavior of operative employees is constrained by rules and regulations (Lowery 1982; Weber 1922). In contrast, the public choice challenge to this orthodoxy argues for a competitive market for public services in which producers have no guaranteed clientele and decision-making authority is pushed downward to operative employees (Osborne and Gaebler 1993; Lowery 1982). These theoretical differences reflect underlying differences over the appropriate goals of public agencies. Administrative orthodoxy orients public agencies toward accountability, representativeness, equality, and welfare, while public choice orients public service providers toward the market norms of utility, efficiency, productivity, and profitability (Haque 1996). This implies that shifting to more marketlike structural arrangements will institutionalize market norms in the administrative process and in doing so reorder their mission priorities.

As an example, consider the potential sources of public agency goals and the criteria for successfully achieving them. Moe and Gilmour (1995) argue that public agencies traditionally derived their missions from public law, a practice reinforced by top-down bureaucracies with strong ties to representative institutions. Market-based organizations are bottom up; they deliberately loosen this connection to democratic institutions and force public agencies to derive their missions from the demands of their clienteles. This offers one explanation for why agency goals shift with organizational changes: different institutional arrangements result in agencies using different sources to create mission priorities. These differences also create different criteria for evaluating goal accomplishment. The orthodox approach will use process-oriented criteria such as due process, equity of treatment, and adherence to rules, with the public choice perspective stressing efficiency in the production of outcomes (McCabe and Vinzant 1999).

Despite these differences, there is a common hypothesis: priorities and goals follow the organizational characteristics that shape decision-

making processes. Of course, there is considerable disagreement on what priorities will change in any given instance and whether these changes will promote a desirable evolution of public bureaucracy. Public choice advocates argue that their prescriptions will lead to mission clarity. A public service market will send clear signals on clientele preference, and competitive organizations with greater decision-making authority vested in operative employees will be able to identify and quickly respond to those preferences [Tiebout 1956; Osborne and Gaebler 1993]. Backers of administrative orthodoxy argue there is no particular reason to believe homogenous sub-groups of citizens will produce agency goals that are representative of the public interest, and may directly contradict the preferences produced by the democratic process, or even the egalitarian mandates of the constitution. The clear mission, in other words, may not be particularly compatible with the progressive underpinnings of administrative orthodoxy (Lowery 1982; McCabe and Vinzant 1999).¹

Arguments on both sides can be powerful in a normative sense, but none can draw on much systematic empirical work for support. Advocates of reform often take mission priorities as givens or as universally beneficial outcomes of the reorganization process (Osborne and Gaebler 1993; Osborne and Plastrik 1998). Likewise, those with orthodox sympathies tend to assume that the top-down arrangement provides clear enough guidelines and boundaries to connect the behavior of street-level bureaucrats with the often vague laws that purportedly define agency missions (Lipsky 1980). Whether the orthodox arrangements actually are responsible for divining specific public interest missions from this top-down source and whether public choice arrangements can preserve them in its absence are open questions (Meier 1997; Osborne and Plastrik 1998; Goodsell 1994).

Given that they have been a particular target of efforts to replace the institutional arrangements favored by administrative orthodoxy with those favored by public choice, schools make a good choice to test the underlying question of whether variation in administrative structure determines agency goals.

Organizational Structure and School Goals

There are two dominant views on how organizational structure can determine the specific objectives pursued by schools. These mirror the orthodoxy/public choice divide in the public administration literature.

One argues that schools are agents of the state and should be organized so that decision making is guided by the preferences of representative institutions and the law. A top-down, hierarchical arrangement orients teachers (operative employees) toward these preferences through rules such as curriculum requirements. In purposive specifics, the goals pursued by schools are products of the democratic processes and are externally imposed by representative institutions and their bureaucratic management mechanisms. This assumes that top-down, external controls effectively shape behavior at the classroom level (see Smith and Meier 1995, 93–106).

The second perspective argues that top-down, external controls are of limited use in shaping the mission of public education agencies. Democratic processes and institutions rarely formulate clear goals, in practice giving state and local administrative agents the autonomy to determine mission priorities. This means that self-interested bureaucracies, not the democratic process or laudable, but highly abstract, constitutional principles, will determine what schools do. Even if clear missions were thrown up by the democratic process, it is unclear that they could be achieved because each layer in the educational hierarchy has a limited ability to control the actions of the layer below it, a situation that diffuses responsibility and invites shirking (Chubb and Moe 1990). This perspective favors transferring the power to shape school missions to those who are on the receiving end of educational objectives—students and parents—and giving teachers and local school officials the discretionary authority to pursue those missions. The expected results are clarified school goals, operative employees with the decision-making latitude to achieve them, and, with the exit option available, immediate accountability for failing to achieve them (see Hirschman 1970).

Chubb and Moe (1988, 1990) articulated the best-known theoretical treatment of this argument. Chubb and Moe noted that public schools operate in complex environments, with large and heterogeneous constituencies stretching far beyond parents and students. Organized interests ranging from teachers' unions to textbook publishers vie with each other to get the democratic institutions controlling educational policy to respond to their preferences. This complexity manifests itself in numerous regulations, standards, methods and mandates. The result is broad, vague, and even contradictory goals, reflecting the compromises inherent in democratic policy-making. Given the nature of school organiza-

tion, this environment directs purposive action toward enforcing rules and regulations, a form of goal substitution in which bureaucratic means become organizational ends.

Chubb and Moe claim that this complicated external environment and the bureaucratic decision-making framework it promotes are common to virtually all public schools and so is the consequence of concentrating goal-making power in nonelected bureaucracies. Accordingly, in order to assess the impact of structure on organizational mission public schools should be compared to private schools. Private schools have less complex environments: small, homogeneous constituencies with an exit option. In theory, the exit option translates into immediate and clear signals on organizational mission and performance. If schools do not respond to clientele preference, the clientele votes with its feet and goes elsewhere. This simpler environment and more direct feedback loop means a more focused administrative structure. Private schools have few external controls and are internally regulated by the demands of their clienteles, characteristics that make decision making easier: goals are clarified, and the exit option provides clear signals on what decisions help deliver on those organizational goals. Chubb and Moe's theory, then, supports the hypothesis that administrative structure will produce different mission priorities in public and private schools.

Simply by their existence, private schools demonstrate that they are better than public schools at achieving some goals for some people. Of course, this does not answer the questions of what goals they are pursuing and how they are different from the goals of public schools. The general assumption is that a shift toward market-based institutional forms will promote the goal of academic excellence, which is presented as a universally desirable goal (Chubb and Moe 1990, 82). In contrast, public schools will be oriented toward the lowest common denominator because they are controlled by a process dealing with ambiguity and internal inconsistency and aimed toward compromise. As a result, they will "ordinarily find it politically and organizationally difficult to place high priority on academic excellence" (Chubb and Moe 1988, 1080). Schools freed from external regulatory control will have clearer goals and can provide teachers with greater discretionary authority to take the actions necessary to achieve those goals.

Critics of this perspective argue that the assumption that market-based reforms will force schools to prioritize academic excellence is largely

untested. Both sides expect priorities to change with institutional reform, though whether these will shift toward academic excellence, more constitutionally dubious missions such as racial segregation or religious indoctrination, or some other unforeseen mix of objectives is unknown. Yet, if school goals can actually be measured, the debate over how structure impacts educational mission priorities is an empirical question.

School Goals

Defining the goals of education is a controversial normative undertaking (Tyack and Cuban 1995, 43). Yet it is possible to empirically establish what school mission priorities *are*, even if philosophical agreement on what they *should be* is impossible: whatever goals schools seek to achieve, they are ultimately dependent upon teachers adopting and actually pursuing them (Tyack and Cuban 1995; Nuthall 1999). Whether they enforce externally imposed mandates or respond to internal student/parent demands, teachers play the key implementation role in achieving school objectives. Whatever schools do in theory, in practice the goals are decided by teachers when the classroom door is closed (Hess 1999, 37).

If the arguments characterizing the administrative orthodoxy/public choice debate are valid, the goals teachers pursue should thus vary in a predictable fashion with organizational characteristics that shape decision making. For example, inculcation of religious and moral codes is likely to have a higher priority in private schools. Public schools are prohibited *de jure* from religious indoctrination, and the machinery of external democratic control (including the courts charged with interpreting the laws of democratic institutions) goes to some lengths to enforce this ban. Freed from this external control, parochial systems are able to make some form of religious indoctrination a specific educational objective and teachers have the legal freedom to take action to achieve this goal.

Both perspectives predict that public schools will pursue a broader set of objectives than private schools do. This reflects the difference between responding to the complex and conflicting priorities thrown up by the democratic process and responding to a more homogeneous set of preferences expressed by a particular group of consumers. Freed from the distractions of multiple interests imposed by external control, public choice predicts that a higher priority will be placed on academic excellence in private schools. Administrative orthodoxy predicts that private sector priorities will sometimes prioritize goals—such as religious indoctrination—

that for various reasons have been found incompatible with the broad republican mission of public education.

Tables 1 and 2 provide mixed confirmation of these expectations. The data are from a national survey conducted by the National Center for Education Statistics (1998) that asked teachers what they considered the most important educational goals. Table 1 breaks down the goals respondents indicated were most important by public and private sector. Table 2 breaks down these goals based on the level of discretionary authority teachers have over pedagogical matters such as classroom topics, teaching methods, and the like. These tables do show some interesting differences in mission priorities between public and private schools. Instilling moral

TABLE 1. Primary Teaching/Educational Goal by Type of School

Goal	Public School	Private School
Encouraging academic excellence	10.8	12.1
Promoting occupational or vocational/ technical skills	2.6	.3
Promoting good work habits	13.7	9.5
Promoting personal growth	19.7	19.4
Promoting human relations skills	2.2	1.3
Promoting specific moral values or foster- ing religious/spiritual development	1.3	24.6
Building basic literacy skills	49.7	32.9

Note: The figures reflect the percentage of teachers considering the goal most important. See the appendix for data sources.

TABLE 2. Primary Teaching/Educational Goal by Degree of Teacher Autonomy

Goal	High Autonomy	Low Autonomy
Encouraging academic excellence	12	10
Promoting occupational or vocational/ technical skills	2	1.8
Promoting good work habits	11.7	13.5
Promoting personal growth	20.6	18.2
Promoting human relations skills	2.1	1.7
Promoting specific moral values or foster- ing religious/spiritual development	8.7	7.3
Building basic literacy skills	42.9	47.6

Note: The figures reflect the percentage of teachers considering the goal most important. High autonomy is defined as teachers indicating that they had complete control over selecting instructional materials, classroom content, teaching techniques, grading, and enforcing discipline. Low autonomy is defined as teachers indicating that they had no control over these items. See the appendix for data sources.

or religious codes, as expected, is a much higher mission priority in private schools, with 24.6 percent of private school teachers listing this as their primary educational objective, versus 1.3 percent of public school teachers. Instilling basic literacy is the most common objective for public and private schools, but public schools give it considerably more emphasis, with nearly 50 percent of public school teachers ranking it as their most important goal compared to about 33 percent of private school teachers.² The other five goals listed in the survey, however, are more evenly ranked, and here the differences between public and private schools are relatively trivial. Importantly, academic excellence is roughly evenly balanced, with about 11 percent of public school teachers and 12 percent of private school teachers ranking it as their most important goal. The other goals listed in the survey, promoting vocational/technical skills, personal growth (student self-esteem and self-knowledge), good work habits, and human relations skills, are also roughly evenly matched (see the appendix at the end of this essay for complete variable descriptions). There is less variation in table 2, though teachers with higher levels of discretionary authority do seem to place slightly less emphasis on basic literacy. Generally speaking, though, the degree of teacher autonomy seems to have only a trivial impact on the setting of mission priorities.

Table 1 thus presents a picture that is only somewhat consistent with the basic theoretical expectations of how structure impacts school goals. Private schools have a greater focus on academic excellence and also accord instilling religious codes a higher priority. But these differences are in degree rather than kind. If these percentages are used to rank goals, schools tend to look more alike than different. Public schools rank, in order, basic literacy, personal growth, and instilling good work habits as their three primary goals. Private schools rank, in order, basic literacy, instilling moral or religious codes, and personal growth. Academic excellence is ranked fourth for both public and private schools. Table 2 raises questions even about degree—the level of teacher autonomy has no impact on the ranking of goals: basic literacy, personal growth, and instilling good work habits rank one, two, and three and are within a few percentage points of each other in both columns.

Still, these tables present a fairly unsophisticated picture of the variation among educational objectives and say nothing at all about how organizational type and discretionary authority might create differing

mission priorities. To shed more definitive light on the theoretical expectations, a multivariate analysis is required.

A Multivariate Model of the Determinants of Educational Objectives

The primary goal of the multivariate analysis is to isolate the correlates of goal selection among teachers. The dependent variables are the seven goals listed in table 1, coded to reflect which of these goals a respondent considers his or her primary educational objective. The key predictor variables are a dummy variable indicating whether the respondent is at a private or a public school, and two variables that seek to tap the discretionary authority of teachers. The latter two are additive indexes constructed from six response items related to pedagogical influence (teacher influence in selecting instructional materials, classroom content, teaching techniques, grading, discipline enforcement, and homework assignments) and school policy influence (teacher influence in setting curriculum requirements, discipline policy, topics for teacher training, and student assignment mechanisms). To account for the potential unique impacts of private schools that grant high degrees of autonomy to teachers, I also use interaction terms between the public/private and discretionary authority variables. Together these provide the base test of whether administrative structure determines which educational goals teachers pursue.³

There are other potential determinants of what goals teachers decide to prioritize. Student and parent characteristics are a logical determinant of educational objectives. A teacher at an elite prep school has a different set of possibilities in terms of educational goals than a special education teacher in an inner city school. Student attributes such as apathy/enthusiasm, academic background, or demonstrated cognitive capacity obviously may play an important role in determining the objectives a teacher will choose to pursue. Objectives may be further constrained by the socioeconomic backgrounds of the students. Affluent background and parents committed to education are characteristics long known to set the boundaries of educational opportunities and goals (Alexander 1998; Rebell 1998). While the survey contained no objective data, teachers were asked for their assessments of these characteristics. Accordingly I include three measures of whether respondents

indicated that cutting class, dropping out, and lack of parental involvement were problems at their schools. In all four category response items, high numbers indicated less of a problem. There was also a broad set of questions seeking to assess socioeconomic stress and behavioral problems such as student violence and drug and alcohol abuse. Using factor analysis, I collapsed the responses into three indexes of these dimensions (for complete variable descriptions, see the appendix).

The individual characteristics of teachers are also likely to play an important role in determining the objectives they pursue in the classroom. It seems reasonable to suggest that teachers may construct their own ideology of education, and there is a substantial research literature indicating that teachers play a determining role in shaping classroom environment and direction (e.g., Nuthall 1999). Such individual impacts should be considered as being potentially independent of institutional constraints and student characteristics. While the data do not support the construction of ideological indexes, I include basic demographic characteristics (age, sex, and race) in an attempt to control for individual determinants of goal selection. All data are taken from the second Teacher Followup Survey (National Center for Education Statistics 1998).

The central methodological problem in operationalizing this model is the dependent variable, which is nominal but not dichotomous. Accordingly, I employ a multinomial logit technique, an approach that can conceptually be viewed as a simultaneous estimation of binary logits for all possible comparisons among the dichotomous sets of outcomes (Long 1997; 148–86; Menard 1995, 80–90). In addition to its ability to handle multiple nominal outcomes, this approach also has the advantage of retaining a straightforward interpretation by generating parameter estimates in comparison with a designated reference category in the dependent variable (see the appendix for a more detailed description of the methodology). The methodological approach requires assigning one of the goals to a reference category, and I accordingly used instilling basic literacy. If there is anything that can be viewed as a universal priority of schools, it is to instill basic literacy skills (more teachers select this than any other choice), and anything that prioritizes other goals over this one is likely to reflect core differences in mission. The model estimates are thus interpreted in reference to teachers whose primary educational goal is to instill basic literacy skills.

Results and Discussion

Table 3 presents the log odds ratios for the model. The latter are used because they are easier to interpret than unstandardized logit coefficients. The figures reflect the shift in odds for each educational goal listed in the column over basic literacy that is associated with a one unit of change for the variable listed in the row. For example, the first-column, first-row entry indicates that being at a private school increases the odds of favoring academic excellence over basic literacy by a factor of 1.96. The first-row, second-column entry indicates that being a private school teacher shifts the odds of favoring vocational-technical skills over basic literacy as the primary educational goal by a factor of .12. The coefficients are multiplicative—a coefficient greater than one indicates a positive impact and less than one a negative impact on the odds (Long 1997, 82).⁴

The results presented in table 3 strongly suggest a systematic difference in goal selection between private and public school teachers. All else being equal, private school teachers are roughly twice as likely to select academic excellence over basic literacy as their primary goal. The big

TABLE 3. Determinants of Primary Educational Goals Chosen by Teachers

Variable	Academic Excellence	Vocational/ Technical	Good Work Habits	Personal Growth	Human Relations Skills	Moral/ Religious Codes
Private School	1.96*	.12*	1.4*	1.6*	2.7*	22.02*
Pedagogical Authority	1.07*	1.05	1.0	1.05*	1.1*	.86*
Policy Authority	1.1*	1.24*	.944	1.15*	1.1	1.27
Private Policy Authority	.894*	.58*	1.06*	.87*	1.2*	.86*
Private Pedagogical Authority	.977*	1.32*	.95*	.98*	.68*	1.15*
Age	1.07*	1.1	1.02	.86*	.87	1.03
Race	.71*	.90	1.04	.71*	.70	.62*
Sex	1.48*	2.2*	1.46*	.78*	1.62*	1.47*
Students Cutting Class	88	1.1	1.0	1.08	1.25	1.1
Dropouts	1.03	.8	1.0	1.19*	.98	.88
Parental Involvement	1.1*	.81	.96	1.0	1.1	.81*
Student Violence	1.1*	.77*	.87*	1.0	.83	.91
Student Drug/Alcohol Abuse	.73*	.78*	.87*	.88*	.95	1.2*
Socioeconomic Stress	1.07	1.25*	1.0	.88*	.78*	1.2

Note: Exp (B) coefficients are reported.

Pseudo $R^2 = .20$ $N = 6,733$ IIA test (Hausman) = 1.12

* $p < .05$.

shift in mission priorities between the public and private sectors, however, is not in academic excellence but in instilling moral/religious codes. Private school teachers are a whopping twenty-two times more likely to prioritize this goal compared to basic literacy.

The variables used to tap the levels of discretionary authority held by teachers also indicate some impact on goal selection, though the effects tend to be comparatively mild. Compared to instilling basic skills, greater levels of authority over pedagogical matters tend to result in a slightly greater likelihood of adopting academic excellence and a somewhat lesser likelihood of adopting instilling moral/religious codes. Greater levels of policy authority again result in a modestly greater likelihood of adopting academic excellence, but they also increase the likelihood of adopting vocational/technical goals. Both variables are associated with an increased likelihood of choosing promoting personal growth over instilling basic literacy as the primary educational objective. The interaction terms were, with only one exception, statistically insignificant. This suggests that there is nothing unique about how discretionary authority is deployed in private schools, at least in terms of goal selection.

Among the control variables, the most interesting finding is that the individual characteristics of the teachers, rather than the perceived characteristics of the students, seem to be more important. Most notably, there is a persistent gender difference in goal selection. Male teachers are more likely to emphasize all school goals except human relations skills over basic literacy. This pattern was not expected. One possible explanation is gender-based patterns in discipline and grade level. If male teachers tend to be concentrated in upper grades and outside basic math and English classes, this pattern makes sense.

Overall, the multivariate analysis supports the basic picture presented in tables 1 and 2 but adds valuable information. As organizational characteristics vary, so do the decisions on which educational objectives are prioritized. The positive coefficient indicating that private school teachers are more likely to favor academic excellence over basic literacy backs the arguments of public choice advocates (Chubb and Moe 1988, 1990). However, the much larger coefficient for instilling moral/religious codes supports the concerns raised in the orthodox camp. Freed from the external controls of democratic institutions, private schools do tend to respond to demands for academic excellence, but this is a secondary re-

sponse. The real demand they respond to is for moral and religious indoctrination, a divisive issue that is tightly regulated in the public sector. Giving teachers greater discretionary authority over pedagogy may constrain the response to this demand, but this constraint is small compared to the institutional difference. It is also worth noting that vesting more discretionary authority in teachers does little to promote academic excellence compared to basic literacy. The mean score on the pedagogical authority variable was 2.9, and the mean score on the policy authority variable was .59. For these representative scores, the model thus estimates, respectively, 21 and 3 percent increases in the likelihood of prioritizing academic excellence over basic literacy.

This suggests that making schools more marketlike will shift educational goals. If academic excellence is a universally desirable goal (a debatable proposition), this shift may be viewed positively. If it results in responding to demands that are unlikely to be appeased by the outcomes of democratic processes—such as the demand for religious indoctrination—it raises questions about how public education relates to its legal authorization (the egalitarian justifications in state constitutions) and its designated agents of governance (state legislatures and, by extension, local school boards).

Conclusion

The primary purpose of this essay was to use the case of education to examine whether changes in administrative structure could change the goals pursued by public agencies. The analysis presented here suggests that changes in administrative structure, those organizational characteristics that shape decision-making processes such as those that determine primary educational objectives, could conceivably pull public education away from its broad democratic foundations. The broader implication is that reforms designed to persuade public agencies to take decision cues from homogeneous clientele groups could result in less representative mission priorities.

At a minimum, the findings here suggest that swapping administrative orthodoxy and its bureaucratic center for the looser arrangements of public choice is likely to shift the ethos of public education. Education's "public" mission will be reoriented away from the communal preferences represented by representative bodies and public law and toward the niche

preferences of a more homogeneous clientele. In a normative sense, whether this is good or bad for the democratic purposes of schooling is open to debate. Religion and moral codes are certainly not incompatible with a good education, and Catholic schools provide ample evidence that they need not be incompatible with a broad set of liberal democratic values. Still, such a development clearly seems to be at odds with the arguments of philosophers of education such as Gutmann (1987), Dewey (1929), and Callan (1997). As scholars such as Barber (1992) have argued, the traditional purpose of public education has a strong emphasis on *public*; its job is to produce citizens who can effectively participate in the communal life of a democracy. Using schools to promote sectarian doctrines clearly raises some problems for this goal. If educational priorities shift with institutional arrangements in the fashion seen here, those institutional arrangements essentially shrink, if not eliminate, the central liberal democratic justifications articulated by such for a mass system of public education. The results of such reforms may effect not just school outcomes but the core mission of education as well.

While the analysis and inferences presented here are provocative in the context of education, they also raise a broader question. Does this analysis represent a basic pattern that can be extrapolated to other areas of the public sector? There is no general answer to the question, but the empirical findings for education fit quite well with broader theoretical arguments on market-based reform's potential to add to the problems inherent in democratic governance by significantly changing the mission orientation of public bureaucracies. The "flaws" of public education identified by critics such as Chubb and Moe (1990)—bureaucratic organizations tied to the messy machinations of democratic politics—also seem to result in missions that, however vaguely defined, are broadly oriented toward the polity, a situation that can be generalized to many other public agencies. Take those institutional characteristics away, as they are in the private sector, and you get something more narrowly focused that may well be less compatible with a broad public mission. In short, the normative values embedded in administrative orthodoxy that are generally seen as having a positive influence on public sector mission priorities cannot be taken as givens. They are at least partially institutionalized through organizational structure. If that structure changes, there is the potential that public agency mission objectives will be shaped by a considerably different set of influences.

Appendix: Data, Variables, and Methodology

All data used in this analysis were drawn from the second Teacher Followup Survey (National Center for Education Statistics 1998). As part of this survey, both private and public school teachers were asked to select their most important educational goals from an eight-response survey item. These items were identical except that the final response was “promoting multicultural awareness” for public school teachers and “fostering religious/spiritual development” for private school teachers. The latter goal is essentially barred de jure for public sector educators. To merge these two survey items into a single index for the dependent variable, I collapsed “promoting specific moral values” and “fostering religious/spiritual development” into a single category, reasoning that they were clearly related items and that the former makes the most likely substitute for the latter in the public sector. I also collapsed “promoting multicultural awareness” into “promoting human relations skills” for public school teachers (the former was chosen by less than .5 percent of the public school teachers surveyed). The result was the seven-category list of goals, presented in table 1, that applied to both the public and private sectors. Specific variables used in the analysis are as follows.

Private School: A dummy variable where 1 = private school, 0 = public school.

Pedagogical Authority: An additive index constructed from six questions relating to teacher influence over pedagogical matters (for replication purposes, the questions are identified as TSC248 through TSC253 in the survey). A score of six indicates that teachers have complete control over selecting instructional materials, educational content, teaching techniques, grading, enforcing discipline, and assigning homework.

Policy Authority: An additive index constructed from four questions relating to teacher influence over school policy (for replication purposes, the questions are identified as TSC244 through TSC247 in the survey). A score of four indicates that teachers have a high degree of influence in determining disciplinary policy, the content of in-service programs, student assignments, and curriculum.

Age: A four-category indicator where 1 = <29, 2 = 30–39, 3 = 40–49, 4 = >50

Race: A dummy variable where 1 = white, 0 = nonwhite.

Sex: A dummy variable where 1 = male, 0 = female.

Students Cutting Class: A four-category variable where 1 = not a problem, 4 = a serious problem.

Dropouts: A four-category variable where 1 = not a problem, 4 = a serious problem.

Parental Involvement: A four-category variable where 1 = lack of parental involvement not a problem, 4 = a serious problem.

Student Violence, Drug/Alcohol Abuse, and Socioeconomic Stress Indexes: These variables were generated by first doing an exploratory factor analysis to examine the underlying structure in response to items relating to student/parent attitudes and characteristics. On the basis of these results, separate sets of questions were factor analyzed to generate the indexes. These resulted in maximum extraction of variance—all the indexes used in the analysis represent more than 50 percent of variance in the underlying response items briefly described in the text and are the only factors produced with an Eigenvalue greater than 1. For replication purposes, the code numbers of the questions in each factor analysis are as follows.

Student Violence: TSC257, TSC258, TSC259, TSC260, TSC264, TSC265 (Eigenvalue 3.3, 55 percent of variance).

Student Drug/Alcohol Abuse: TSC261, TSC262, TSC263 (Eigenvalue 2.5, 84 percent of variance).

Socioeconomic Stress: TSC272, TSC273, TSC274, TSC275 (Eigenvalue 2.65, 65.8 percent of variance).

Methodology

Multinomial logistic regression is essentially a straightforward extension of logistic models of binary outcomes, and such binary models could be employed to analyze each of the goal categories analyzed here. The problem with such an approach is the number of comparisons required to make sense of the analysis (e.g., with four outcomes, four binary regressions would entail comparing outcomes 1 to 2, 1 to 3, 1 to 4, 2 to 3, 2 to 4, and 3 to 4). A multinomial logistic regression simplifies this by running a single model in which the nominal outcomes of the dependent variable are contrasted with an excluded reference category (in the text, this was basic literacy). The results then retain the easy interpretation of binary logistic regression in the context of the reference category.

Although the multinomial approach has the advantage of simplicity in presenting results, its use is subject to an important constraint: the independence of irrelevant alternatives (IIA) assumption. Calculating multinomial equations without reference to other potential alternatives to the outcomes included in the dependent variable can have a severe effect on how odds are calculated, and the general rule of thumb is that the IIA assumption is only secure when the outcome categories are really independent in the eyes of those who are making the choices. A Hausman-McFadden test statistic has been proposed to test this assumption, essentially a Hausman-type approach in which the test statistic is a chi-square and significant values indicate that the IIA assumption has been violated. This is the IIA test statistic reported in table 3, and the insignificance of this test score ($p = 1$) indicates the null hypothesis that there is no systematic

difference in estimates when some outcome category of the dependent variable is arbitrarily excluded from the analysis.

For a more formal, but accessible introduction to multinomial logistic regression and the issues surrounding the IIA assumption, see Long 1997 (151–60, 182–84).

Notes

1. Education provides an instructive example. The first systematic efforts to establish school choice were made by southern whites seeking to establish a quasi market for education because the hierarchical public system became resistant to demands for racial segregation in the wake of *Brown v Board of Education* (Henig 1994, 102–15).

2. The survey defined this goal as: “Building basic literacy skills (reading, math, writing, speaking).” This should convey a reasonably uniform definition and limit potential measurement error due to differing respondent conceptions of “basic literacy.”

3. Thus, the causal path assumed by this argument is that organizational characteristics determine individual goal selection. It is also possible that individual goals determine certain organizational characteristics and goal priorities. The causal path adopted here is backed by a large literature arguing that organizations socialize individuals toward certain goals and into particular patterns of behavior (Merton 1957; Whyte 1956; Porter and Lawler 1965; Shafritz and Ott 1996, 420–29). For discussions of similar issues as they apply to education, see Chubb and Moe 1988; and Schneider et al. 1997).

4. A factor change of 1.70 can thus be interpreted as a 70 percent increase in the odds of favoring a given goal over basic skills as the primary educational goal, while a factor change of .30 represents a decrease of 70 percent in those odds.