Innovation

Innovation in Public Management: The Adoption of Strategic Planning

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Under what conditions do state agencies innovate by adopting strategic planning? Frances Berry develops four explanations about factors that lead a state agency to adopt strategic planning: its resources, its leadership cycle, its orientation to business and citizens; and diffusion of strategic planning across states. Her research finds that agencies are most likely to adopt strategic planning: (1) early in gubernatorial administrations, (2) under conditions of strong fiscal health, (3) when agencies work closely with private sector businesses, and (4) as the number of neighboring state agencies that have already adopted strategic planning increases. Implications for practitioners are drawn based on the study's findings.

State governments have undergone tremendous changes in the last 15 years. Reagan's New Federalism devolved more program responsibilities upon the states through new unfunded federal mandates, leading to large increases in required state revenues (Fix and Kenyon, 1990). The economic recessions of 1981-1983 and 1991-1992 sent many state budgets into the red. State governments responded by cutting services, enacting lotteries, and even raising taxes, despite the tax revolts of the late 1970s which sent a clear message that taxes were reaching unacceptably high levels in many states. Given the intense budget pressures and the ideology of the Reagan Revolution, state government leaders looked to the private sector for answers through contracting out, private-public partnerships and management techniques such as strategic planning and Total Quality Management.

The 1980s also saw the election of a new breed of governors, many of them social activists, but fiscally conservative with agendas focused on education and economic development (Osborne, 1988) and interested in thinking strategically and planning for the future. Many governors and state agency directors embraced strategic planning processes to better manage agency missions with limited resources. Between 1980 and 1991, at least 264 state agencies, in nearly every state, initiated strategic planning according to the survey described in the grey box on page 323. Despite the growing popularity of strategic planning, no empirical study has yet tried to assess the conditions under which strategic planning is adopted. In this study, I will address this topic by testing several explanations for strategic planning innovation by state leaders, using data for nine types of state agencies from 1970 to 1991 drawn primarily from the National Survey on Strategic Planning in State Government Agencies (referred to hereafter as the National Survey; see grey box on page 323). Based on the findings, I make concluding observations about how managers can facilitate the diffusion of a management innovation designed to "reinvent" government operations to better meet high service demands and fiscal constraints.

The National Survey on Strategic Planning in State Government was conducted by the author and Barton Wechsler at Florida State University. The 16-item survey assessed each agency's experience with strategic planning, including when it was adopted, the factors that led to the initiation of strategic planning, the types of activities used in the strategic planning process, the extent of internal and external participation in the planning process, and the perceived outcomes of strategic planning for the agency. The survey was sent to 987 state agency directors in January 1992, and 548 responses were received, for a return rate of 56 percent. For this study, the cases for analysis are all state agencies from nine types of functional categories which returned the survey. Respondents represent 60 percent of the total population of the nine types of state agencies. The names and addresses of the survey recipients were obtained from the Council of State Governments (1992).

Strategic Planning in the States

Strategic planning is a relatively new innovation to government, and according to some observers, part of a quiet revolution underway in public sector management (e.g., Bryson, 1988; Osborne and Gaebler, 1992; Denhardt, 1993). Recent research suggests that the best public sector managers have been creating strategic management processes to address the unique features of public sector organizations (e.g., Rainey, 1991; Bozeman and Straussman, 1990, Denhardt, 1993). In doing so, managers have been moving away from traditional, hierarchically managed agencies towards a management style that highlights responsiveness to citizens, excellent quality services, employee empowerment in the workplace, and an ongoing strategic planning process emphasizing the organization's mission and values. As part of the growing literature on strategic planning in the public sector (e.g., Eadie, 1983; Bryson, Freeman, and Roering, 1986; Bryson and Roering, 1987 and 1988; Carr and Littman, 1990; Wechsler and Backoff, 1990; Miesing and Andersen, 1991), Bryson (1988, 118) defines strategic planning broadly as a disciplined effort to produce fundamental decisions and actions that define what an organization is, what it does, and why it does it. More specifically, this article defines strategic planning as a management process that combines four basic features: (1) a clear statement of the organization's mission; (2) the identification of the agency's external constituencies or stakeholders, and the determination of their assessment of the agency's purposes and operations; (3) the delineation of the agency's strategic goals and objectives, typically in a 3- to 5-year plan; and (4) the development of strategies to achieve them.

Viewing strategic planning as an innovation also ties this study to an extensive literature on innovation by individuals and organizations; Everett Rogers (1983) has documented more than 3,000 studies, and recent studies have highlighted public sector innovation specifically (e.g., Doig and Hargrove, 1990; Chi and Grady, 1990; Linden, 1990; Berry and Berry, 1990, 1992; Grady, 1992; Zegans, 1992). A state government innovation has been typically defined as a "program or policy which is new to [the state] adopting it" (Walker, 1969, p. 881). The studies from this literature seek to answer the question: Why does a state adopt a particular program or policy at a particular time? Studies have been conducted on a wide range of policy areas including welfare (Gray, 1973), juvenile corrections (Downs, 1976), and consumer affairs (Sigelman and Smith, 1980).

To date, the lengthy literature on the determinants of state policy innovation has not addressed the diffusion of management techniques; it has focused exclusively on legislative enactments. In addition, there has been no systematic analysis of the factors leading to adoption of strategic planning in the strategic management literature. Bryson and Roering (1988) identified the factors that seem necessary to the successful implementation of strategic planning in public agencies, but did not explore the reasons agency leaders adopt strategic planning. This study addresses this information gap and brings together three literatures—strategic planning/management, organizational innovation, and state policy innovation—to (1) develop four explanations about the conditions under which state agencies adopt the management innovation of strategic planning and (2) test the explanations using event history analysis.

Explanations for Agencies Adopting Strategic Planning

Agency Resource Explanation

An agency's fiscal health—the extent to which its financial resources exceed its spending obligations—is likely a major determinant of the probability of adopting strategic planning. Past research has contradictory findings that support both sound and weak state agency fiscal health as conditions conducive to strategic planning adoption. The strategic management literature includes extensive writings on "cutback management" (Levine, 1978; Rubin, 1985, 1990) that describe policy and management strategies that agency managers are likely to use in times of fiscal stress (see especially Levine, 1980). During periods of fiscal austerity, an agency director might adopt strategic planning to assist in achieving agreement from agency managers on how to reduce the budget and maintain funding for the agency's highest priority areas (Levine, 1980; Caiden, 1990). This reasoning leads to the prediction that state agencies in weak fiscal condition will be more likely than state agencies in strong fiscal condition to adopt strategic planning.

However, the broader literature on innovation (Cyert and March, 1963; Baldridge and Burnham, 1975; Bingham, 1976; Rogers, 1983) generally finds that organizations with abundant or slack resources are more likely than agencies in cash-strapped conditions to be innovators. Irene Rubin (1990, p. 566) finds that "when an organization is shrinking, lack of flexibility can be a major managerial problem. At precisely the time when innovation may be most important, there are no resources for innovation." Indeed, innovations often take extra staff and resources to develop and implement, which requires slack resources (Cyert and March, 1963). This suggests the hypothesis that state agencies with strong fiscal health are more likely than state agencies with weak fiscal health to adopt strategic planning. Because support exists for both theoretical perspectives, the hypothesis that agency fiscal health is related to the probability of strategic planning adoption will be tested with no prediction about the direction of the relationship.

Hypothesis 1: The fiscal health of an agency affects the likelihood of the agency adopting strategic planning.

A second, well-established characteristic of innovative organizations is their size; large organizations are more likely to be innovative than small organizations (Cyert and March, 1963; Hage and Aiken,

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1970; Baldridge and Burnham, 1975; Rogers, 1983). Lawrence Mohr (1969, p. 126), for example, in a study of local public health departments in four states and Ontario, found that size was the most powerful predictor of which organizations had adopted innovative programs. Large size is often linked to the presence of slack resources (e.g., Cyert and March, 1963), and part of any relationship between size and innovativeness may be due to the effect of slack resources. Even holding slack resources constant, one might expect agency size to influence innovativeness, because size is also an indicator of organizational complexity—another factor research has associated with innovation (Hage and Aiken, 1970; Zaltman, Duncun, and Holbek, 1973). Complex organizations generally have large numbers of specialists; complexity promotes innovativeness because as multidisciplined professionals work together, their ideas cross-fertilize, resulting in innovations. Thus, the literature on innovative organizations suggests a second agency resource hypothesis.

Hypothesis 2: The larger an agency, the more likely it is to adopt strategic planning.

Agency Leadership Cycle Explanation

The agency leadership cycle explanation is developed from recent management literature which has focused on the importance of an organization's leader in fostering organizational change (Peters and Waterman, 1982; Kanter, 1983; Kouzes and Posner, 1987; Wilson, 1989). A new leader may bring changes to an organization as a symbol of his or her leadership or as a vehicle to help implement his or her priorities in the organization. As evidence that strategic planning is viewed by agency leaders as an act of leadership, 65 percent of National Survey respondents said that they believed initiating strategic planning was an important "symbol of their personal leadership." Strategic planning is a process to craft an organization's mission and develop its policy priorities. It might be expected that this type of management innovation would be adopted early in a new director's term rather than later because, as Rainey and Wechsler (1988, p. 56) point out in their research on executive-level transition, new executives want to "put their personal imprint on the organization, while at the same time eliminating any vestige of the previous administration."

New agency directors are most likely to be appointed in the first year of a newly elected governor's administration. Also, if a new governor is going to mandate strategic planning, she or he is most likely to do it in the first year of her or his term, concurrent with setting the agenda for the administration. This suggests that the highest probability of strategic planning adoption by state agencies should be in the first year of a newly elected governor's term. Similarly, the first year of a re-elected governor's term should have the second highest probability of adoption, when the governor and agency directors have the opportunity, again, to set the policy and management agenda for the next term of office. Finally, a gubernatorial election year should have the lowest probability of adopting strategic planning, because governors and agency directors are likely to be devoting time to activities designed to win the upcoming election if the incumbent is running for re-election, or tying together unfinished initiatives if the governor is not standing for re-election. This reasoning leads to the agency leadership cycle hypothesis.

Hypothesis 3: In the gubernatorial administration cycle, agencies are most likely to adopt strategic planning in the year after a new governor is elected, second most likely in the year immediately after a governor is re-elected, and least likely in the year of a gubernatorial election.

Agency Orientation Explanation

An agency's orientation to its environment is also likely to influence its probability of adopting strategic planning. In considering the characteristics of strategic planning as a management technique, two factors stand out: its importation from the private sector and its orientation to external clients. Strategic planning originated in the private sector (Bryson and Roering, 1987), and 77 percent of the National Survey respondents said that "emulating good business practice" was an important objective when their agencies adopted strategic planning. Those agencies that interact regularly with private sector businesses as part of their core mission and constituency are most likely to be knowledgeable about strategic planning as a management practice. This indicates the first hypothesis related to agency orientation.

Hypothesis 4: Agencies that work closely with private sector businesses are more likely to adopt strategic planning than agencies that do not.

One of the hallmarks of strategic planning is its focus on external clients or stakeholders (Bryson, Freeman, and Roering, 1986). Strategic planning helps agencies identify their clients and include them in developing agency goals and objectives. Because of this focus on external clients, agencies that deliver services primarily to citizens (i.e., to external constituents) should be more likely to believe that strategic planning will be beneficial to the organization than agencies that deliver services primarily to other government agencies, and thus have a principally internal constituency. Consequently, a second agency orientation hypothesis is suggested.

Hypothesis 5: The greater the extent to which an agency delivers its services directly to citizens as opposed to other state agencies or local governments, the more likely it is to adopt strategic planning.

Regional Diffusion Explanation

Whereas the first three explanations point to characteristics internal to states and their agencies as the principal determinants of innovation, the fourth identifies diffusion across states as a key source of innovation, and is called the regional diffusion explanation. In his path-breaking examination of state policy diffusion, Walker (1969, p. 890) cites Herbert Simon's (1957) model of the decision maker as a "satisficer" and argues that state officials "constantly look to each other for guides to action in many areas of policy" to try to simplify their decision-making process. Berry and Berry (1992) found that state taxes are much more likely to be adopted when neighboring states have previously adopted the tax than when no neighbors have adopted the tax. Other studies (Sharkansky, 1970; Grupp and Richards, 1975; Light, 1978; Freeman, 1985) have found that policy innovations tend to diffuse based on a pattern in which regional leader states initiate the cues for later adopters. This study adopts Berry and Berry's (1990, pp. 403-404) conception of regional diffusion in which a state is more likely to

The Event History Analysis Methodology and Variables Used in the Study

With discrete-time event history analysis (EHA), the objective is to explain a *hazard rate*, which is defined as the probability that a unit (e.g., a person or an agency) will experience an "event" during a particular period of time, given that the unit is *at risk* (or has a nonzero probability) of experiencing the event during that time period (Allison, 1984; Tuma and Hannan 1984; Berry and Berry, 1990, 398). Because the hazard rate is a probability, it is not directly observable. The *observed* dependent variable is dichotomous: whether a unit experiences the event (yes = 1, no = 0) during a particular period of time. The data set for analysis is called the *risk set*, and is pooled cross-sectional time-series, being composed of an observation for each unit at each time period during which the unit is at risk of experiencing the event. Since the observed dependent variable is dichotomous, the EHA model is appropriately specified as a probit equation, and estimated using maximum likelihood techniques.

In this study, the units are state agencies, the time periods are calendar years, and the event is the adoption of strategic planning. Because such an adoption is an action that is nonrepeatable by an agency (i.e., once it adopts strategic planning, it is no longer at risk of adopting), the risk set decreases over time as agencies adopt strategic planning. This means that the number of observations included in the data set varies across agencies. For an adopting agency, the dependent variable time-series is a series of zeros beginning in the year that the first agency of its type adopted strategic planning, followed by a single one in the year of adoption (after which the observations for that agency are truncated). In contrast, the data set for agencies that had not adopted strategic planning by 1991 consists of a string of zeros through 1991.

The EHA model is represented in the following probit equation:

$$ADOPT_{i,t} = \phi(b_0 + b_1 FISCAL_{i,t} + b_2 SIZE_{i,t} + b_3 NEWGOV_{i,t} + b_4 REELECT_{i,t} + b_5 ELECTYR_{i,t} + b_6 BUSORIEN_{i,t} + b_7 SERVE_{i,t} + b_8 NEIGHBORS_{i,t} + e_{i,t}) \quad (1)$$

where ϕ denotes the cumulative normal distribution function associated with a probit specification. The underlying dependent variable, $ADOPT_{i,t}$, is the probability of agency i adopting strategic planning in year t. The observed dependent variable is dichotomous, equaling 1 if agency i adopts strategic planning in year t and 0 otherwise (the dates of adoption for each agency are listed in the Appendix.) The independent variables, to be defined below, are the factors discussed in the text that are hypothesized to influence the probability of adoption.

The cases analyzed were all state agencies in nine categories—aging, corrections, economic development, education, environmental protection, health, natural resources, revenue, and transportation—that returned the National Survey. The number of agencies which returned surveys with usable data are as follows: health, 31; corrections, 28; aging, 27; transportation, 26; economic development, 24; education, 22; revenue, 22; natural resources, 21; and environmental protection, 20.

Agencies were included in the data set only in those years (prior to 1991) in which they were "at risk" of adoption. Thus, an adopting agency was not included in years after it had already adopted strategic planning. Moreover, for each type of agency, observations were included only for those years after the first agency of its type adopted strategic planning. Thus, for example, economic development agencies are assumed to be at-risk of adopting strategic planning only after the first economic development agency adopted it in 1981, while education agencies were considered at risk beginning in 1970 when the first education agency adopted strategic planning. The first year of observation for the other agency types were: correction agencies, 1970; transportation and aging agencies, 1974; natural resources agencies, 1975; environmental protection and health agencies, 1978; and revenue agencies, 1981. Only one agency in our sample reported adopting strategic planning before 1970: Arkansas's Department of Arkansas Heritage—its natural resources agency—in 1967. However, because of data limitations prior to 1970, it was dropped from the data set.

Two independent variables were included in the model to specify the agency resource hypotheses. FISCAL denotes the fiscal health of an agency. The health of the overall state government—measured by the ratio of the difference between total state revenue and total state spending to total spending—was used as a proxy, since data were not available to measure agency health directly. However, it seems likely that the fiscal fortunes of state agencies are directly related to their state's fiscal health; agencies in states with robust government budgets will tend to have more slack in their budgets than agencies in states with poor fiscal health. Competing predictions of both a negative and a positive coefficient for FISCAL's coefficient, b_1, are presented in the text.

adopt an innovation as the number of neighboring states which have previously adopted increases. Bordering states are most likely to share common political cultures and socio-economic characteristics (Sharkansky, 1970; Elazar, 1984), and be viewed by state leaders as the best learning laboratories for innovations. More specifically, agency leaders are hypothesized to look primarily to their "sister" agencies of the same functional type in neighboring states; for example, health agencies look to other health agencies. Agencies are attuned to their sister agencies because agency directors participate in functionally oriented policy networks and associations, and discuss common problems. Consequently, the following hypothesis is tested.

> *Hypothesis 6: Agencies are more likely to adopt strategic planning as the number of "sister" agencies in neighboring states that have adopted strategic planning increases.*

Empirical Findings

Following Berry and Berry's (1990) approach to the study of innovation, event history analysis (EHA) was used to test these six hypotheses (See grey box on this page.)[1]

Table 1 presents probit maximum likelihood estimates and *t* ratios for both the complete version of equation 1 in the grey box (for the subsample of three agency types) in column 1, and the modified version excluding NEIGHBORS (for the nine agency types) in column 2. The discussion below relies on the coefficients from the full-sample version in Column 2, except for the analysis of the regional diffusion explanation, which is based on the coefficients from column 1.[2]

All four explanations of strategic planning innovation received at least partial support. For the agency resource explanation, a strong

SIZE denotes the size of an agency and is measured by the number of full-time equivalent (FTE) staff in the agency in 1991. Data for agency size over all the years of analysis (1970-1991) were not available; thus 1991 data were used for each year. It seems likely that the relative sizes of agencies are fairly stable over time; if true, measuring SIZE with 1991 data does not impose substantial measurement error. The agency's 1991 budget was also considered as a measure of agency size, but because some agency budgets (those for education and health) contained large amounts of pass-through funding for local governments, FTE staff more accurately represents the internal resources the agency had available for conducting its direct work. (The correlations between SIZE and budget were generally very high—ranging from .75 to .96 across the nine types of agencies, except for education agencies, for which the correlation was only .18.) For two agencies, there were budget data but no information on number of staff; FTE staff was regressed on budget for all agencies for which data were available on both, and the intercept and slope coefficient estimates were used to estimate the missing data. Hypothesis 2 predicts that the coefficient (b_2) for SIZE is positive.

Three dummy variables are required to specify the agency leadership cycle explanation. NEWGOV equals 1 in the first year of a new governor's term and 0 otherwise; REELECT equals 1 in the first year of a re-elected governor's term, and 0 otherwise; and ELECTYR equals 1 in the year of a gubernatorial election and 0 otherwise. Hypothesis 3 implies that $b_3 > b_4 > 0 > b_5$.

Two variables are included in equation 1 to test the agency orientation hypotheses. Among the state agencies represented in our sample, economic development agencies were the most likely to be working closely with private sector businesses, since their mission is to help create and expand businesses. Often these agencies had advisory boards composed of corporate and small business leaders to help advise the agency on its priorities and agenda. Therefore, BUSORIEN is a dummy variable set at 1 for economic development agencies and 0 for all other agencies. According to hypothesis 4, the coefficient for BUSORIEN (b_6) should be positive.

The variable SERVE represents the extent to which an agency delivers services directly to citizens as opposed to other state agencies or local governments. SERVE is measured with an index developed from responses to three questions on the National Survey asking the agency to describe the extent to which it provided services to three groups: (1) citizens, (2) other state agencies, and (3) local governments. Each question allowed a response ranging from 1 (never) through 5 (very often). The index is constructed by taking an average score of an agency's responses on how often it provided services to other state agencies and to local governments, and then subtracting this average from the agency's response about the extent to which it provided services directly to citizens. The final index ranges from 4 (all services to citizens) to -4 (all services to other state agencies or local governments). Hypothesis 5 predicts that the coefficient for SERVE (b_7) is positive.

Finally, $NEIGHBORS_{i,t}$ is operationalized as the number of states sharing a border with state i in which the "sister agency" had adopted strategic planning prior to year t. (For a list of the states that share a border with each of the 48 continental states, see Berry and Berry [1990]). Alaska and Hawaii were excluded from the analysis since they do not share borders with the continental states. NEIGHBOR's coefficient (b_8) should be positive. To calculate accurately the variable NEIGHBORS (to test the regional diffusion explanation), we needed data on dates of adoption for all agencies of a given functional type. Thus a telephone survey was conducted to collect data from all nonrespondents for three types of agencies: economic development, natural resources, and environmental protection. A "full" version of equation 1 was estimated for these three types of agencies (702 cases, with 7.12 percent of the cases scored as adoptions), and a modified version of equation 1, excluding the NEIGHBORS variable, was estimated for the full sample of nine agency types (2,902 cases, with 5.41 percent scored as adoptions).

Table 1
Maximum Likelihood Estimates for Event History Analysis of Strategic Planning Adoptions

Independent Variable	Coefficient	Prediction about MLE	Col. 1: For Subsample of Three Agency Types		Col. 2: For All Agency Types (Excluding NEIGHBORS)	
			MLE	*t* Ratio	MLE	*t* Ratio
Intercept	b_0		-1.70***	-10.16	-1.57***	-21.88
FISCAL	b_1	> 0 or < 0	3.03*	2.64	2.70***	5.08
SIZE	b_2	> 0	0.0000034	0.20	0.0000089	1.25
NEWGOV	b_3	> 0 & > MLE for REELECT	0.57**	2.93	0.29*	2.66
REELECT	b_4	> 0, but less than MLE for NEWGOV	0.07	0.28	0.14	1.08
ELECTYR	b_5	< 0	0.02	0.11	0.04	0.45
BUSORIEN	b_6	> 0	0.32*	2.00	0.39**	2.91
SERVE	b_7	> 0	-0.04	-0.46	0.0045	0.15
NEIGHBORS	b_8	> 0	0.27***	3.82	—	—
Number of Cases			702		2,902	

*$p < .05$; **$p < .01$; ***$p < .001$. Significance tests are one tail except for those of FISCAL and the intercepts which are two tail.

The chi square for the equation in column 1 is 40.75, which is significant at the .00000013 level. The chi square for the equation in column 2 is 40.10, which is significant at the .000000043 level.

Sources: FISCAL from *Statistical Abstract of the United States,* selected years. NEWGOV, REELECT, and ELECTYR data through 1987 from Congressional Quarterly's *Guide to U.S. Elections* and the *Biographical Directory of the Governors of the United States,* selected volumes, while data for 1988-1991 is from the Council of State Government's *The Book of the States,* selected volumes. Data for SIZE, SERVE, BUSORIEN, and NEIGHBORS were supplied by respondents to the 1992 National Survey on Strategic Planning in State Government Agencies. For NEIGHBORS, the information from the survey was supplemented with data collected in telephone interviews to all nonrespondents for three agency types.

State *agencies that have the closest affiliation with private sector businesses are most likely to be strategic planning innovators.*

positive relationship existed between a state's fiscal health and the propensity of its agencies to adopt strategic planning; the coefficient for FISCAL was statistically significant with a t ratio of 5.08. The coefficient estimates from the EHA model can be used to calculate predicted probabilities that an agency with specified characteristics that has not yet adopted strategic planning will do so in any given year (Aldrich and Nelson, 1984). To better illustrate the magnitude of the effect of fiscal health on the probability of strategic planning adoption, we calculated the predicted probabilities of an adoption in both weak and strong fiscal health environments, when the other independent variables are fixed at "central" values.[3] The predicted probability of a state agency adopting strategic planning is .03 in a year when the state is in very weak fiscal health, but the probability more than doubles to .08 in a year when the state experiences very strong fiscal health.[4] These results supported the slack resources hypothesis that fiscally healthy agencies are more likely to be innovators in adopting strategic planning than are fiscally weak agencies, and suggest that state leaders do not use strategic planning as a cutback management tool, but rather, as a tool for establishing mission statements and priorities during relatively strong fiscal conditions. The second proposition of the agency resource explanation (hypothesis 2) received little support. The coefficient estimate for agency size, while positive, was quite weak. Thus, holding fiscal health constant, size apparently has little impact on an agency's propensity to adopt a management innovation such as strategic planning.

Taken together, the results for the agency leadership variables showed clear support for the essence of the agency leadership cycle explanation (since $b_3 > b_4 > b_5$). Calculations showed that of all the years of the gubernatorial administration cycle, a state agency that had not yet adopted strategic planning had the highest predicted probability of adopting strategic planning (at .140, when the other independent variables are at central values) in the first year of a new governor's term; the second highest probability (at .083) in a reelected governor's first year in office; and a much lower probability (at .051) in an election year. The probability of strategic planning adoption in any other type of year (at .049) is almost exactly the same as during an election year, although the prediction was that this probability should be higher than the probability during an election year. However, this represents a relatively small setback for the agency leadership cycle explanation, and does not invalidate the core of the explanation. These results show that an agency's probability of adopting strategic planning decreases almost threefold from the first year of a new governor's term to an election year, confirming the impact of both agency director and gubernatorial leadership on strategic planning adoption.

The agency orientation explanation received mixed support. Hypothesis 4 was confirmed with a positive and statistically significant coefficient for BUSORIEN; agencies that work regularly with private sector businesses are more likely to adopt strategic planning than are agencies that do not. An agency working closely with businesses (and having central values on all other variables) has a predicted probability of .092 of adopting strategic planning while the probability decreases to less than half that size (at .049) when the agency does not work closely with business. However, the second agency orientation hypothesis, asserting that an orientation to external clients would increase the agency's likelihood of adopting strategic planning, did not receive support. The coefficient for SERVE in hypothesis 5 indicated virtually no relationship between the extent to which an agency delivers services directly to citizens—as opposed to other state agencies or local governments—and the probability of strategic planning adoption. One reason may be that most state agencies did not see themselves positioned squarely on one or the other end of this service delivery continuum; instead, many agencies believed they provided important services to both citizens and other government agencies. Furthermore, in some states, staff agencies that provided services to other state agencies had been innovators in service delivery improvements, and had used strategic planning as a vehicle for agency rejuvenation and improvement (e.g., the Minnesota Department of Administration under Commissioner Sandra Hale; see Hale and Williams [1989]). Thus, the orientation to provide better service to customers may be equally strong whether the customers are citizens or other government workers.

Finally, the regional diffusion explanation for strategic planning innovation received strong empirical support; the coefficient for NEIGHBORS was positive and statistically significant. As the number of sister agencies in neighboring states using strategic planning increased, the probability that the state agency would itself adopt strategic planning increased. In particular, an analysis of predicted probabilities showed that if an agency that had not yet adopted strategic planning went from having no neighboring sister agencies that had adopted to having one agency which had already adopted strategic planning, the predicted probability of adoption increased from .027 to .049. In turn, an agency with four neighboring previously adopting sister agencies had a much larger probability of adoption, at .197. Thus, agency leaders seem to "learn" from their neighboring states' actions.

Conclusion and Discussion

Under what conditions do state agency leaders adopt strategic planning? Hypotheses related to each of the four explanations tested received support from the statistical analysis. One of the strongest results confirms the regional diffusion explanation; state agency directors act as though they are taking cues from their sister agencies in nearby states when adopting strategic planning as part of a process of management policy diffusion across states. The agency leadership cycle explanation also receives support; governors and agency directors are most likely to adopt strategic planning early in their administration, presumably to establish their policy agenda.

Strategic planning originated in the private sector, and as predicted under the agency orientation explanation, those state agencies that have the closest affiliation with private sector businesses are most likely to be strategic planning innovators. While business orientation proved to be a strong explanatory factor, there is no relationship between the extent to which an agency delivers services directly to citizens and the agency's propensity to adopt strategic planning.

The fourth explanation—agency resources—produced interesting and partially unexpected results. While two contrary expectations were developed about the impact of agency fiscal health on innovation, the results strongly support the slack resources thesis. Slack resources are apparently indicative of organizational capacity to be flexible, a hallmark of strategic management leadership. Traditional research on organizational innovation hypothesizes that size is positively related to innovativeness based partially on an argument that size is associated with slack resources. A strength of the model presented here is that it includes distinct measures of slack resources (fis-

cal health) and organizational size. The findings indicate that slack resources has its predicted positive effect on the propensity of an agency to adopt strategic planning, but that when slack resources are held constant, organizational size has little impact on innovativeness.

This study suggests a research agenda focusing on the differences between administrative and policy innovation. The state policy innovation literature has focused exclusively on policy adoptions—actions that require formal legislative enactment. This article shows that some explanations from the literature on the determinants of state policy innovation (e.g., the regional diffusion model) receive support in the context of an administrative innovation such as strategic planning that involves decisions made by agency directors and other executive officials, but does not require the passage of new legislation.[5] But the process of administrative innovation may differ from that of policy innovation, and research analyzing these differences should enhance our understanding of the nature of public-sector innovation. Many of these differences stem from the fact that, unlike administrative innovations, policy innovations must survive an often unpredictable political process involving passage by majorities in both houses of the legislature and approval by the governor. In contrast, because an agency director often has so much discretion over administrative innovations, attention should be given to developing hypotheses about the impacts of individual attributes and attitudes of managers on the likelihood of adopting administrative innovations.

There also may be fundamental differences between policy innovation and administrative innovation in regard to the nature of interstate diffusion. Although the explanation developed and tested in this article posits only regional diffusion (from state to neighboring state), the existence of national associations for both generalist and functionalist state officials suggests another possible form of intergovernmental diffusion of innovation based on communication among state officials across a national network. Although both policy innovation and administrative innovation should be influenced by both regional diffusion and national interaction patterns, we might expect regional influences to be stronger in the case of policy innovation, and the role of national communication networks to be stronger in the case of administrative innovation. This is because political realities can encourage parochialism in elected officials, as electorates tend to be more aware of policy changes in neighboring states than of activities in distant states, and therefore are more likely to press elected officials to emulate policies adopted by neighboring states. In contrast, shared professional interests across states by functionalist agency officials should make these officials more likely than governors and legislators to learn from their counterparts all across the country. Furthermore, we might expect that administrators who are the most active in the relevant national associations of state officials are the most likely to be innovators. Testing this hypothesis would require data (unavailable for this study) about the extent of participation and leadership roles of state agency managers in their national networks.

This article's findings hold several lessons for public managers who want to be more effective agents in promoting management innovations, such as strategic planning. First, career public managers should be ready early in new agency appointees' tenures to advise the appointees on management innovations which might help the agency be more effective and respond to the political environment. If other management innovations follow the adoption cycle of strategic planning, conditions are most favorable early in a new administrator's term. Second, in the turbulent, changing environment that public sector managers frequently face, with the accompanying pressures to reinvent government, this article's findings about the role of interstate diffusion and agency interaction with private sector businesses in encouraging the adoption of strategic planning suggest that managers should look for models of good management in both the public and private sectors. Success in reinventing government is more likely if rapid diffusion of innovative good practices occurs. Participation in professional networks which promote exchange of innovative ideas and practices takes on more importance in an environment that rewards flexible, adaptive managers and organizations. Private sector participation on state advisory committees may also assist in promoting management innovation. Excellent private sector managers might be asked to participate in agency task forces on internal operations to bring the best practices from the private sector to the public sector, although the strategic management literature suggests that private sector innovations should not be adopted without adaptation for conditions unique to the public sector (e.g., Swiss, 1992; Denhardt, 1993).

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Notes

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1. EHA is able to transcend some of the weaknesses of the cross-sectional methods typically used in state policy research. For a discussion of these limitations, see Gray (1976) and Berry and Berry (1990).
2. Except for the variable SERVE, the coefficients for the independent variables common to both versions are of a similar magnitude and in the same direction across equations.
3. In calculating predicted probabilities to illustrate the magnitude of the impact of fiscal health (and other independent variables) on the probability of an agency adopting strategic planning, the other independent variables in the equation were fixed at the following values (described as "central"): fiscal health (FISCAL), services to citizens (SERVE), and agency size (SIZE) at the mean value of the variable in the sample used for estimation; closeness with private sector businesses (BUSORIEN) at 0 (its modal value among the agencies in the sample); the number of sister agencies in neighboring states which have adopted strategic planning (NEIGHBORS) at 1; and the administration cycle variables—NEWGOV, REELECT, and ELECTYR—at 0 (since years other than an election year and a year after an election constitute the majority of years in a four-year election cycle).
4. Specifically, very weak fiscal health is defined as the 10th percentile of FISCAL in the sample, while strong fiscal health means the 90th percentile.
5. Readers should note that the policy versus administrative innovation distinction (based solely on whether legislative enactment is required) is not intended to mirror the traditional politics versus administration dichotomy found in public administration literature. Administrative innovations may involve major changes in administrative processes and difficult programmatic choices.

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Appendix
Dates of Adoption of Strategic Planning

The following dates of adoption of strategic planning were used in this analysis:

Health:		Natural Resources:		Environmental Protection:		Economic Development:		Aging:		Revenue:		Transportation:		Corrections:		Education:	
ID	1985	WV	1975	OH	1978	ID	1981	AL	1974	CA	1981	FL	1974	SC	1970	SC	1970
NH	1985	KS	1978	TN	1985	OH	1983	KY	1980	GA	1984	PA	1982	IL	1980	CT	1978
FL	1986	WI	1983	FL	1987	NV	1985	IL	1983	MT	1985	WA	1985	NY	1980	AL	1980
MO	1986	MN	1984	KY	1988	FL	1986	NY	1986	KY	1986	WI	1985	MA	1982	KS	1984
AZ	1987	NE	1985	LA	1988	HA	1986	SC	1986	LA	1986	MD	1986	OH	1984	MO	1984
DE	1987	AZ	1987	MA	1988	IA	1986	VA	1986	NM	1986	NY	1986	CO	1987	CA	1985
MS	1987	LA	1988	NJ	1988	ID	1987	DE	1987	CO	1988	AZ	1987	IA	1988	MA	1986
TX	1987	DE	1989	IN	1989	NY	1987	HA	1987	CT	1989	NJ	1987	MI	1988	ND	1986
CT	1988	MO	1989	ND	1989	NC	1987	IA	1987	DE	1989	IA	1988	NJ	1988	GA	1987
GA	1988	IN	1990	CT	1990	OK	1987	PA	1987	HA	1989	MA	1988	DE	1989	DE	1989
IA	1988	NH	1990	PA	1990	OR	1987	IN	1988	NJ	1989	MN	1988	ID	1989	LA	1989
LA	1988	NJ	1990	IL	1991	TN	1987	MT	1988	FL	1990	NC	1988	LA	1989	NC	1990
SC	1988	SD	1990	UT	1991	KY	1989	WA	1988	MN	1990	OR	1988	MN	1990	SD	1990
IN	1989	VT	1990	WA	1991	LA	1989	CA	1989	NC	1990	CO	1989	SD	1990	KY	1991
NE	1989	FL	1991			MN	1989	OR	1989	IL	1991	MO	1989	CT	1991		
ND	1989	ND	1991			OH	1989	UT	1989	MA	1991	VT	1989	FL	1991		
WA	1989					WV	1989	SD	1990	SD	1991	SD	1990	IN	1991		
AL	1990					CO	1990	MI	1991	WV	1991	HA	1991	OK	1991		
SD	1990					IN	1990	RI	1991			KS	1991				
UT	1990					NJ	1990					OH	1991				
AR	1991					VA	1990					WI	1991				
WV	1991					AK	1991										
WI	1991					AZ	1991										
						MO	1991										
						CA	1992										
						DE	1992										

All other agencies within each category were coded throughout the data set as nonadopters.