

I. DIFFUSION OF INNOVATION

Summary

Among the significant themes in recent diffusion of innovation literature is, first, the importance of understanding the impact that norms and values have on innovation. Westphal & Zajac (1997) use social exchange theory and the idea of a norm of reciprocity to explain diffusion of board independence. CEOs feel a sense of common identity, so that CEO-directors are unlikely to break from focal firm CEOs and demand independence until they lose independence in their own firm—until the reciprocity norm is broken. Davis & Greve (1997) point to firm director values to explain the slowness of the diffusion process for golden parachutes, as compared to poison pills. The contrast was a paradox because golden parachutes tend to increase shareholder value while poison pills decrease it. The answer, authors argue, lies in the values of corporate elites: Given these values, it is much easier to tell a story about “fending off outsiders” to justify poison pills than to offer “paying off the losers” as a rationale for golden parachutes. Mooney & Lee (1995), analyzing pre-Roe abortion reform, find that “the usual suspects” in terms of states’ propensity to innovate (ideology, innovation score, etc.) generally do not prove significant predictors of abortion reform—and, they suggest, of other morality innovations. They suggest that, while the process of learning may be similar across many reforms, the conditions of learning must be reconceptualized depending on the type of policy at issue.

Second, several papers suggest that previous diffusion work has paid insufficient attention to political context. In his study of school choice, Mintrom (1997) finds that, when intrastate and interstate predictors are controlled for, the presence of a school choice policy entrepreneur in the state, and that entrepreneur’s effectiveness, are strong predictors of both consideration and adoption of choice. Mintrom & Vergari (1998) extend this analysis to policy networks, showing that policy entrepreneurs’ use of networks external and internal to the state positively predict consideration of school choice, while their use of internal, but not external, networks positively predict school choice adoption. Hays & Glick (1997) argue for the importance of agenda setting effects on diffusion—they show that a model that combines propensity-to-adopt conditions within the state and galvanizing events such as mass media coverage (though I think at times they confuse the two) is a more powerful predictor of adoption of living will laws than either agenda setting or propensity by themselves. Gianakis & McCue (1997) suggest that political climate can substantially alter speed and patterns of diffusion. They examine the diffusion of a set of administrative innovations in Ohio local government. Despite previous studies showing widespread adoption of these reforms, they find that in the highly decentralized and politicized context of Ohio localities, the reforms had barely diffused at all.

A third trend has been reconsideration of the idea that innovations are homogenized as diffusion progresses. Grattet, Jenness & Curry (1998), in a study of the diffusion of hate crime laws, provide evidence of two effects limiting homogenization. First, the principle of “exclusivity” says that legislators become committed to what they have enacted, and so unwilling to revise it by adopting ascendant strategies. Second, “domain expansion” holds that later adopters create more comprehensive and complex legislation in order to expand their territory. However, Hays (1996), in a comparative

study of the diffusion of child abuse reporting, campaign finance, and crime victim compensation laws, reaches some different conclusions. His results indicate that while some laws become more comprehensive as they diffuse, others become less so. He suggests that if an innovation and its diffusion create controversy, legislators may start compromising to get it to pass. He also questions the comprehensiveness theory, arguing that the opportunity to amend will allow earlier adopters another shot at homogenization. Indeed he finds that when he includes amendments, the relationship between time and comprehensiveness disappears. Westphal, Gulati & Shortell (1997) propose a different relationship between time and homogenization. They find that, for hospitals that adopt TQM early, extensive network ties to previous adopters make conformity less likely, while such ties make conformity more likely for late adopters. They argue that early adopters can learn from network partners and adapt TQM to their particular needs, while late adopters, who face institutional pressures to adopt, and are more likely to learn about which processes are most common and legitimate from their network partners. These authors also draw some conclusions about the consequences of homogenization, finding that conformity is positively associated with organizational legitimacy (measured here by accreditation) but negatively linked to organizational efficiency, because the organization has not adapted the policy to its needs.

Fourth, articles have explored the relationship between rational choice response to structural factors and imitation. Both Chaves (1996) and Ingram & Simons (1995) find little support for their rational choice variables. Chaves' study of ordaining women reveals no significant relationship between problems to which the practice might be a rational response—e.g., a shortage of ministers, member preference—and adoption of the ordination innovation. Ingram & Simons find that there is no significant relationship between work disruption because of work-family problems and employers' adoption of a work-family policy. Conell & Cohn (1995) in a study of the diffusion of coal mining strikes in 1890-1935 France, develop and test a theory of strike imitation as a response to an environment in which limited information inhibits a rational choice approach to the decision to strike. Molyneux & Shamroukh (1996), writing on the diffusion of junk bonds and note issuance facilities, offer a version of non-uniform influence model which permits them to distinguish between firms that adopt because of external, strategic factors and those that adopt because of internal factors (either jumping on the bandwagon or recalculating strategy based on the actions of other firms). Using this model, they suggest that junk bonds were more likely to be adopted as a response to external factors than note issuance facilities because banks needed to face competitive and institutional pressures before they were willing to adopt a strategy that looked like a threat to existing business.

Finally, researchers have examined variations in the pattern and path of diffusion. Mooney & Lee (1995) find a truncation in the diffusion of abortion reform laws—several years before Roe, states simply stopped passing laws making abortion easier. The authors argue that diffusion through the legislative process may be problematic on issues for which compromise is difficult, and that both sides in the abortion debate may have determined that the debate had to be resolved through the courts. Chaves (1996) makes a qualitative argument that suggests that changes in social context can alter the standard pattern of diffusion. He asserts that, as ordaining women shifted from a grassroots movement to an endeavor centered among seminarians, the process became much more

contentious, so that later adoptions appeared far more wrenching than earlier. Hedstrom's analysis of union formation in 1890-1940 Sweden compares threshold and spatial diffusion models to explain the path that union formation followed, concluding that regression results better supported the spatial hypothesis. Many of these analyses show geographic diffusion as a significant predictor, but Soule & Zylan's (1997) work suggests that we should consider carefully how to characterize the path that innovation diffusion follows. They find that sharing a census region with a previous adopter is not significantly associated with adopting welfare work requirements, but sharing a Social Security Administration region is. At the time under study, regional SSA offices approved state welfare plans, indicating that they might have been a focal point for states' information networks.

Also, see Strang & Soule (1998) for a review of recent literature on diffusion of innovation, and some recommendations for future research.

Frances Stokes Berry, Innovation in Public Management: The Adoption of Strategic Planning, 54 Public Administration Review 322 (July/August 1994)

Event history analysis of strategic planning study is designed to explain conditions under which state agencies adopt the innovation of strategic planning. Author initially considers agency resources. She notes that slack resources, by permitting organizations the flexibility to innovate, might encourage strategic planning adoption. On the other hand, she cites literature indicating that organizations turn to strategic planning to cope with fiscal cutbacks. Thus she first hypothesizes that the fiscal health of the agency affects the likelihood of strategic planning, but she does not predict the direction of the effect. Results indicate strong support for the slack resources theory. Second, she predicts that larger agencies will be more likely to adopt strategic planning because their greater complexity promotes the cross-fertilization of ideas that leads to innovation. Agency size does not prove significant.

She also suggests that the agency's political leadership could be an important determinant. She predicts third that agencies are most likely to adopt in the year after a new governor is elected, second most likely after the governor is reelected, and least likely in the year of the election; this is because new executives strive early to put their imprint on the organization and eliminate vestiges of the previous administration, while those facing an election will likely devote more time to activities designed to win votes. Indeed the probability of adoption is .051 in an election year, and .140 in the year after the election of a new governor, with all other independent variables at mean values.

Author also point to the agency's orientation to its environment as a predictor. She hypothesizes fourth that agencies working closely with private sector businesses are more likely to adopt strategic planning because they import business best practices from their contacts. Fifth, agencies delivering services directly to the public, as opposed to delivering them to other agencies, are predicted to be more likely to engage in strategic planning because strategic planning provides a means for incorporating citizen input into goal setting. Author finds that business orientation has a significant effect, while direct service to the public does not. Finally, there is the regional diffusion explanation—that agencies are expected to be more likely to adopt strategic planning as “sister” agencies in neighboring states do so. Regional diffusion proves a highly significant positive predictor of adoption.

Jeffrey L. Brudney & Sally Coleman Selden, The Adoption of Innovation by Smaller Local Governments: The Case of Computer Technology, 25 American Review of Public Administration 71 (March 1995)

Study of adoption of computer technology in municipalities with populations under 50,000 seeks to determine whether findings from larger local governments apply to smaller cities and towns. Based on the literature from larger municipalities, authors hypothesize that computer use in an earlier period is positively associated with the extent of computer adoption five years later, that growth in the size of the information-processing environment is associated with more computer use, that municipalities with more professionalism will be more likely to adopt computer technology and use it more extensively, that local governments with greater slack are more likely to adopt and use extensively, and that cities with higher levels of administrative performance will be likely to adopt and use more extensively. Authors find that slack resources and administrative performance do not significantly affect adoption or extent of use, and that professionalism is related to extent but not adoption, and information-processing environment is positively associated with both. Authors suggest that larger cities may adopt computers first because they can realize greater benefits from information processing routines. Also, the finding on professionalism suggests that adoption may be driven by environmental demands but a full-time manager can recognize computers' potential uses and ensure that they are fully utilized.

Mark Chaves, Ordaining Women: The Diffusion of an Organizational Innovation, 101 American Journal of Sociology 840 (January 1996)

Article uses event history analysis and draws on "new institutionalist" framework to help explain the diffusion of the innovation of ordaining women. New institutionalists argue that loose coupling of formal rules with everyday practices indicates that the rules have a source outside the organization. Arguing that loose coupling characterizes this process, he points to the disjunction between denominational policy changes and trends in women actually seeking clergy status, the leadership role that women play in churches that do not ordain women, and the reluctance to hire women within churches that do. He further asserts that external, institutional pressures, such as the women's movement and gender equality in other professions, have at least in part prompted the rules; these pressures are as opposed to any internal problems to which ordination of women was a solution.

Author finds that "rational choice" variables for problems to which ordaining women might be a solution—variables representing clergy shortage and member preference for or against women—are not significant predictors. External pressures, as reflected in variables for founding date (organizations that were newer when feminism hit were expected to be more vulnerable to its external pressure) and the years of second-wave feminism do prove significant. A third set of variable measuring institutional pressures from inside—including sacramentalist or biblically inerrant doctrine and ties to prior ordainers of women—are also significant, as are a fourth set related to institutional structure—these include the existence of an autonomous women's mission society and decentralization (the relationship is positive, because in decentralized organizations, a church need not seek approval before selecting a woman).

He concludes first that, while “new institutionalist” analysis tends to see organizational change as an inevitable consequence homogenizing pressures, the history of women’s ordination suggests that interorganizational conflicts change as their social context changes. The organizational location of promoters shifted over time—from small numbers of individual congregation members to denominational elites, and finally to female seminarians. The process has become more contentious as it has shifted, suggesting a counterintuitive diffusion process in which late adoption is more wrenching than early, truly innovative adoption. Second, he notes that the surging enrollment of women in seminaries has created settings for the social networks that were critical to mobilizing the social movement towards gender equality in religion—thus suggesting that the intersection of social movement and organizational change is an important general phenomenon. Finally, he argues both that it would be a mistake to overstate the disconnection between formal rules and practice in loose coupling—organizational activity did respond to rules changes, and that his findings suggest that rules may at times serve mainly as a symbolic display to the outside world., rather than as evidence of internal policy.

Carol Conell & Samuel Cohn, Learning from Other People’s Actions: Environmental Variation and Diffusion in French Coal Mining Strikes, 1890-1935, 101 American Journal of Sociology 366 (September 1995)

Study of French coal mining strikes between 1890 and 1935 highlights the role of imitation in explaining diffusion of strikes. Authors argue that labor movement theorists have been reluctant to point to imitation because it suggests the possibility that the movement’s collective action is less than perfectly rational. Building on research on the limits of firm rationality, they suggest that: (1) workers often fail to strike because they lack information about favorable environmental changes; (2) strikes bring these positive changes to workers’ attention; and (3) strikes produce imitative striking, because they induce workers to think about their own strategic opportunities. Specifically, strikes might mobilize other workers to strike if they raise consciousness about new potential grievances, define the date as an occasion for action, or give workers guidance about tactical opportunities.

Recognizing the theoretical importance of imitation, authors offer, and find support for (partial support in the case of the third hypothesis), five hypotheses on strike diffusion. First, for reasons described above, strikes will stimulate further strikes. Second, unionized areas will be more likely to imitate strikes than non-unionized, because union organizers increase the flow of information about strikes in order to try to widen the struggle. Third, successful strikes will stimulate more strikes than unsuccessful, because successes demonstrate favorable environmental change. Fourth, as unionization increases, strikes are more likely to be triggered by termination rather than inception of stimuli strikes, because tactical information is transmitted more by the strike’s outcome than by its beginning. Finally, strikes are more likely to be triggered by termination rather than inception of stimuli strikes when mean strike lengths are short, because the costs of waiting for complete information are lower. Reflecting on their results, authors argue that while economic and political factors are important predictors, what actors know about the social structure may be at least as important as the structure itself.

Gerald F. Davis & Henrich R. Greve, Corporate Elite Networks and Governance Changes in the 1980s, 103 American Journal of Sociology 1 (July 1997)

Study compares the diffusion of two corporate governance innovations of the 1980s—poison pills and golden parachutes. Drawing on neoinstitutionalism and diffusion theory, authors argue that both structural embeddedness—configuration of networks of firms—and cultural embeddedness—particularly the repertoire of accounts available to decision makers to justify actions—are important determinants of individual action and the process of aggregation. To illustrate their theory, they attempt to explain the reasons that the poison pill spread very quickly, while golden parachutes took more than twice as long. Spatial heterogeneity analysis of data from publicly traded Fortune 500 firms suggests that the two innovations spread through different networks. With poison pills, contacts with those in similar industry sectors and with similar levels of centrality were most influential, suggesting that poison pills spread through interlocking directorates—it developed in boardroom discussions among directors who served on multiple boards. By contrast, adoption of golden parachutes was influenced by its adoption by others in the same metropolitan area and by central firms, suggesting diffusion through networks of geographical proximity.

In explaining why one process would spread readily from board to board while the other would diffuse slowly through observation, they look to the diffusion literature. They first note that complex innovations are expected to diffuse slowly, but then point out that parachutes are less complex. Second, they observe that more observable practices spread faster. However, while shareholders are more likely to be notified specifically about a poison pill than a golden parachute, the effects of golden parachutes seem more observable. Some firms with poison pills are taken over, whereas the parachute clearly works as advertised because it is a legally enforceable contract. Rather, authors suggest that the explanation lies in the finding that innovations that are compatible with the norms of a social system spread faster.

While poison pills appear harder to justify to shareholders, the relevant question is how the action appears to the people to whom it is directed—the corporate elite. Early on, golden parachutes appeared suspect to many outside directors—a self-interested act driven by firm management. Because it was difficult to provide a legitimating account of parachutes, directors need either direct observation or some direct connection to the CEO receiving the parachute in order to find justification. Poison pills, on the other hand, were seen as an effort to preserve the firm's integrity—“fending off outsiders” was a more easily understood rationale than “paying off the losers.” Thus only evidence of their cognitive legitimacy (that others in the same position had adopted them) was necessary, while no normative legitimation was required. Thus authors argue that the cases illustrate the importance of both network structure—here the regional networks and the interlocking directorates—and cultural norms—here the directors', not the outsiders' and shareholders' conceptions of what innovations were morally appropriate—to shaping the diffusion process.

Gerasimos A. Gianakis & Clifford P. McCue, Administrative Innovation Among Ohio Local Government Officers, 27 American Review of Public Administration (September 1997)

Authors examine the adoption of administrative innovations by local government finance officers in Ohio. Their goals are to monitor how far these innovations have diffused, to identify determinants of implementation, and to evaluate outcomes of adoption. The survey of finance officers (which had a response rate of just 42.7%) asked about a series of innovations in budgeting (e.g., capital budgeting), planning (e.g., mission statements) accounting (e.g., consolidated annual financial reports), control (e.g., job descriptions), decision making (e.g., citizen surveys), and performance incentives (e.g., management by objective). Authors find surprisingly little diffusion of these innovations—adoption rates ranged from about 4-12%. While authors are unable to construct a multiple regression model of innovation determinants because of the small sample size of innovation adopters, but in bivariate regression, demographic variables, networking variables, slack resources, and the degree of professionalism all show no association with innovation. All of the top ten innovators come from small jurisdictions. Authors argue that the adoption process may be highly idiosyncratic, driven by committed individuals. They point out that Ohio local governments are highly decentralized and politicized, and suggest that it may be difficult to get consensus around a systemwide administrative change in large, differentiated city organizations, that the very factors that suggest the need for administrative reform prevent it from being adopted. Noting that previous studies of other subsets of local government had shown far higher adoption of administrative innovation, they argue that their findings illustrate the importance of attending to local environment, governmental structure, and political culture in explaining the diffusion of innovation.

Ryken Grattet, Valerie Jenness, & Theodore R. Curry, The Homogenization and Differentiation of Hate Crime Law in the United States, 1978 to 1995: Innovation and Diffusion in the Criminalization of Bigotry, 63 American Sociological Review 286 (April 1998)

Authors generate two sets of hypotheses from diffusion and innovation literature to explain the spread and differentiation of hate crime laws in the U.S. The first concern timing of adoption. They predict that state adoption of hate crime legislation would be contingent on cumulative time or period effects, and that adjacent and culturally similar states would adopt at similar points in time. The second set of hypotheses concerns content. Because legislators avert risk and look for established models, they expect more homogeneity in later versions of the law. Also, the theory of “exclusivity” suggests legislators would become committed to their enactment and unwilling to consider ascendant strategies; therefore, adopting a piece of legislation should reduce the probability of adopting other strategies/laws. Finally, the theory of “domain expansion” (which, like exclusivity, counters homogenization) says that legislators who adopt a law later in the process will expand territory by enacting more comprehensive and complex legislation.

Results of an event history analysis suggest, first, that there is both regional and systemwide contagion—that pressure builds within the region and nationwide to adopt the legislation as other states do so. Cultural similarity measures have a significant effect, though the measures used (% of liberal and non-white voters) though these disappear when authors control for the state’s past level of civil rights innovativeness. They also find support for the homogenization, exclusivity, and domain expansion

hypotheses. Authors argue that existing conceptions of institutionalization, which characterize it as the homogenization of cultural forms are incomplete. Basic practices become institutionalized, but subsequent adopters exercise liberty to expand these forms. They suggest looking at specific features of innovation and diffusion at different levels of abstraction—homogenization characterizes higher levels of abstraction, and differentiation occurs at lower levels.

Pamela R. Haunschild & Anne S. Miner, Modes of Interorganizational Imitation: The Effects of Outcome Salience and Uncertainty, 42 Administrative Science Quarterly 42 (September 1997)

Authors define three types of interorganizational imitation: (1) frequency imitation—copying common practices; (2) trait imitation—copying other organizations which possess certain features (i.e., large size or high-status); and (3) outcome imitation—copying a practice based on its apparent results. They offer a theory as to when organizations use each form of imitation, testing the theory on data about organizations' choice of an investment adviser for an acquisition. Using logistic regression on the likelihood of choosing a given banker, authors found that the three types of imitation can operate independently, and both the frequency with which a given banker is chosen and the size and success of other firms using the banker are positively associated with the probability that a given firm will choose that banker. There is also evidence that firms imitate by outcome when premiums are low (a good outcome).

They also predict that salience and uncertainty are the determining factors of which type of imitation is chosen. Salient outcomes, which are those that are unusually good or bad, are predicted to foster outcome imitation. While the hypothesis was supported for good outcomes, it was not for bad—it appears that learning is not symmetrical. Uncertainty, on the other hand, was hypothesized to predict both frequency and trait imitation, because uncertainty has been found to increase the role of social considerations relative to technical considerations in decision making. Indeed they found that firms were more likely to imitate by frequency or imitate large or successful firms under conditions of uncertainty. Authors suggest that their results demonstrate the importance of distinguishing between the observability of the outcome (salience) and the observability of the practice when modeling diffusion.

Scott P. Hays, Patterns of Reinvention: The Nature of Evolution During Policy Diffusion, 24 Policy Studies Journal 551 (1996)

Author compares patterns of reinvention in the diffusion of child abuse reporting laws, crime victim compensation laws, and public campaign funding laws. Some previous studies suggest that the comprehensiveness of legislation increases over time; late adopters can act more boldly because they have the advantage of learning from predecessors' experiences. However, other previous research suggests that legislators take opportunities to revisit their legislation through amendment. Author suggests that if communication networks allow early adopters to learn from later, we might expect convergence. He offers the hypothesis that, after allowing a period of time for amendments, comprehensiveness is unrelated to the date of the law's adoption. He assigns a comprehensiveness score to each law in his study and calculates the significance of the date of adoption/comprehensiveness slope for each set of laws. He

finds that policies do evolve over time, but not necessarily towards increasing comprehensiveness. He argues that the pattern of reinvention may depend on the rate of diffusion. Child abuse reporting laws, which diffused most rapidly, demonstrated increasing comprehensiveness most clearly, while campaign finance laws, which diffused most slowly, actually showed decreasing comprehensiveness. Author suggests that opposition to controversial laws may increase during diffusion, requiring legislators to water them down to secure their passage.

Authors also finds evidence of a second round of reinvention through amendment, and finds that the pattern of amendment appears similar to that of reinvention. Child abuse reporting reinvention and amendment both become increasingly comprehensive, and campaign finance reinvention and amendment both decrease in comprehensiveness. Furthermore, convergence in policy seems to occur, because the significant relationships between time and comprehensiveness disappear in every case when amendment is taken into account.

Scott P. Hays & Henry R. Glick, The Role of Agenda Setting in Policy Innovation: An Event History Analysis of Living-Will Laws, 25 American Politics Quarterly 497 (October 1997)

Event history analysis of the adoption of living will laws explores the effects of agenda setting on the adoption of new policies. Authors argue that most diffusion research has focused on state characteristics conducive to adoption, but that adoption generally requires the simultaneous presence of these characteristics and a galvanizing event or a surge of public interest that sets the agenda. They offer three models, one with state context alone, another with agenda setting variables, and a third with the two together. State context variables include factors which past research has show to be conducive to innovation, including interparty competition, high per capita income, a high level of education among citizens, and a general tendency towards innovation. In addition, ideological factors particularly conducive to living will adoption include Democratic control of institutions, liberal public opinion, and a trend variable to control for nonrandom variation in the hazard rate. Agenda setting variables include number of right-to-die court cases in the state and nationally during the previous year, national public opinion support for the right to die, the number of articles on the right-to-die published in mass literature in the previous year, and several measures of within-state agenda constraints and demands, including the percentage of Catholics, a Catholic*pre-1983 variable to reflect the fact that the Church changed its policy on living will laws in 1984, and a measure of bordering states' adoption a living-will law.

Authors find that neither the state context nor the agenda setting models predicts the laws as well as the combined model. In the combined model, state context variables that are significant in the predicted direction include interparty competition, Democratic control, and ideological liberalism, while agenda setting variables significant in the predicted direction include mass media coverage, public opinion on the right to die, and percentage Catholic. Authors argue that the findings suggest both that events models should take agenda setting into account, and that previous research stressing the importance of the church in morals policy is supported.

Peter Hedström, Contagious Collectivities: On the Spatial Diffusion of Swedish Trade Unions, 1890-1940, 99 American Journal of Sociology 1157 (March 1994)

Study of the founding of trade unions in Sweden between 1890 and 1940 presents a spatial distribution model, which combines threshold- and spatial diffusion-type models. Author's model uses a logistic equation, which makes actors' decisions to join dependent partly on factors unique to each actor and partly on other actors. Among actors, the probability of contact is a decaying function of the distance between them. The actor's propensity to join depends in part on the number of other actors, because the net benefit of participation is likely to depend on the movement's size (as in threshold models), but also because actual participants give the actor privileged information about those benefits. Both the speed of diffusion and the movement's success depend, in this model, on the population's spatial distribution; a tightly packed population is likely to have denser social ties, and so information about the movement will diffuse much more rapidly. Event-history analysis of the Swedish data compares the explanatory power of the spatial distribution and threshold models. Under threshold models, founding rate is governed by competition among organizations and legitimation of form. Both of these are assumed to vary systematically with density, but when author controls for spatial location, density has almost no effect on the founding rate, thus suggesting that spatial distribution has some advantages over threshold in explanatory power.

Paul Ingram & Tal Simons, Institutional and Resource Dependence Determinants of Responsiveness to Work-Family Issues, 40 Academy of Management Journal 1466 (October 1995)

Ordered probit and logit analysis of NOS data seeks to integrate institutional and resource dependence theory in explaining organizations' responsiveness to work-family issues. Theory suggests hypotheses that the following are associated with greater work-family responsiveness: (1) organization size, because large organizations are more visible to regulators, the media, the public; (2) proportion of employees who are women, because women are a more likely constituency to demand accommodations; (3) proportion of managers who are women (this may hold true when (2) doesn't if women are concentrated in low-level jobs, so that firm dependence on them is low); (4) public sector organizations, because the content of the pressure is more congruent with public sector goals (social welfare vs. the bottom line); (5) proportion of other organizations within the industry adopting work-family policies, because early adopters provide an example, and legitimize the practice in the organizational field; (6) amount of attention the organization pays to other organizations' practices—highly interconnected organizations are better able to evoke compliance; (7) operating in an industry with low unemployment for women, because constituent dependence is low; and (8) experiencing greater problems when employees miss work to care for children—so that the potential benefits of a work-family program are high. Drawing on these hypotheses, authors also test hypotheses about the conditions under which firms will acquiesce, compromise, avoid or defy on the work-family issue.

All of the eight hypotheses above get some support except (2) and (8). This suggests that women who are not managers are not a powerful enough constituency to elicit work-family responsiveness, and that institutional and resource pressures may be more important than technical considerations (i.e., how much would the program help us) in explaining responsiveness.

Michael Mintrom, Policy Entrepreneurs and the Diffusion of Innovation, 41 American Journal of Political Science 738 (July 1997)

Event history analyses of the determinants of legislative consideration and approval of school choice is designed to examine the significance of the policy entrepreneur in policy innovation and innovation diffusion. In assessing policy entrepreneurship, author considers both whether there was a school choice policy entrepreneur present in the state and an activity score, which measures education policy experts' assessment of the entrepreneur's problem framing, team leadership, networking inside the state and networking outside the state. He controls for other potential explanations of school choice consideration/adoption: school system characteristics such as state spending, test score change, private school enrollment, and other school reforms; state politics variables, including whether it is an election year, which party controls the legislature and the governor's office, and teachers' unions' opposition; as well as the diffusion-related variable of whether a neighboring state has considered school choice. Author finds that the presence and activity scores of policy entrepreneurs were significantly positively associated with both consideration and approval of school choice.

Michael Mintrom & Sandra Vergari, Policy Networks and Innovation Diffusion: The Case of State Education Reforms, 60 The Journal of Politics 126 (February 1998)

Using event history analysis of school choice, authors present and test a theoretical model for integrating policy network and diffusion ideas. Their general theory is that policy networks support the diffusion of innovations. Specifically, when they control for school system characteristics, state politics, maturation effects, and diffusion from other states, their analysis shows significant positive effects of (1) policy entrepreneurs' presence in a state, (2) the extent to which entrepreneurs used external networks (networks with policy entrepreneurs from other states), and (3) the extent of their internal network use (networks with government and those around government within the state), on the likelihood that the state considers school choice. They find that entrepreneur presence and internal network use significantly increase the probability of legislative approval of school choice, though external networks do not. Moreover, consideration of school choice by other states has a significant positive association with consideration by the focal state, but adoption by other states has no significant impact on adoption by the focal state.

Authors argue that external network, which provide insights into how approaches used elsewhere could apply in policy entrepreneurs' own states, are critical to getting legislatures to consider the policy, as is a good understanding of the policy networks within one's own state. However, once the legislature begins to consider the policy, the focus shifts from the novelty of the innovation to serious questions about its relevance and viability; at this point, in-state interest groups and indicators of the need for policy change become more important than where the idea came from or what is happening in other states.

Phil Molyneux & Nidal Shamroukh, Diffusion of Financial Innovations: The Case of Junk Bonds and Note Issuance Facilities, 28 Journal of Money, Credit, and Banking 502 (August 1996, Part 2)

Authors analyze the diffusion of both junk bonds and note issuance facilities (NIFS) among banks, arguing that past studies of diffusion of innovation have failed to distinguish adequately between external adopters—those who adopt an innovation for strategic reasons, solely based on exogenous factors; and internal adopters—those who adopt in part because of effects from other firms, either because other firms' influence cause them to reevaluate their view of the innovation's strategic benefits or because of bandwagon pressures. They use nonlinear least squares on a version of the non-uniform influence (NUI) model, adapted to account for repeat adopters, to distinguish between those whose adoption was justified by external stimuli and those who responded to the influence of other banks. Results indicate that early adoption had little influence on the diffusion pattern of junk bonds, with the majority of firms apparently entering the market because of their exogenously based estimates of junk bonds' profitability. By contrast, only a small number of NIF adoptions can be linked to external factors. Authors suggest that perhaps banks are more likely to respond to competitive or institutional factors when an innovation represents a threat to existing business than when it simply offers new business opportunities.

Christopher Z. Mooney & Mei-Hsien Lee, Legislating Morality in the American States: The Case of Pre-Roe Abortion Regulation Reform, 39 American Journal of Political Science 599 (August 1995)

Authors consider whether policies with a strong moral dimension have a different pattern of adoption than those whose impacts are primarily economic, using data on abortion regulation reform (reform means that states began loosening restrictions on abortions) between 1966 and 1972. They examine three dimensions of the adoption pattern: (1) diffusion—the geographic and temporal pattern of spread; (2) reinvention—the way in which the policy is modified as it diffuses; and (3) determinants—characteristics of a state that influence its decision to adopt. They find first that the social learning process that drives diffusion and reinvention patterns on abortion reform is generally similar to the processes that drive other types of policy. Reforms diffused regionally, and showed a cumulative temporal S-curve of adoption. The incremental pattern of reinvention that abortion reform showed is also characteristic of other policy decisions made under uncertainty. One exception to the standard pattern is that there appears to be a truncation of the temporal learning curve—states simply stopped adopting reforms a couple of years before Roe. Authors suggest that perhaps the legislative process is not well suited for issues on which it is difficult to compromise, and that advocates on both sides may be forced into other arenas such as the courts and direct democracy in order to achieve their aims.

While there were not great differences in the diffusion or reinvention patterns, there were clear differences in determinants of adoption. At the most general level, as with other types of policy, adoption determinants included demand for the policy, opponents' and supporters' resources, and constraints posed by party competition and the election cycle. "The usual suspects" as determinants of reform include urbanization and wealth (which affect expenditure-based policies), general ideology, and propensity to innovate. Authors argue that none of these will be good predictors (and indeed a no-effects logit model with a trend variable demonstrates they are not), because abortion is not a money issue, it doesn't split across standard ideological lines, and there is no reason

to believe that people who want the regulatory or distributive reforms in the innovation index will also want abortion reform. Rather, they show with an effects logit that female work participation and number of medical doctors are demand predictors, and percentage of the population that is Catholic and fundamentalist is a negative demand predictor. The level of reform in co-regional states proves to be a resource predictor (because proponents can point to the absence of deleterious effects in these states). Finally, they find support for the hypotheses that party competition and presence of an election during the current year are constraints, because abortion is a high-risk issue for politicians who wish to retain their seats. Thus authors conclude that the process of social learning is consistent across policies, but the conditions for learning differ substantially between types of policy.

Sarah A. Soule & Yvonne Zylan, Runaway Train? The Diffusion of State-Level Reform in ADC/AFDC Eligibility Requirements, 1950-1967, 103 American Journal of Sociology 733 (November 1997)

Study of states' enactment of work requirements for welfare benefits argues for the unification of bodies of theory that have focused on intrastate economic and political processes and interstate pressures towards conformity to policy norms. Propensity or intrastate factors that might explain work requirement enactment are (1) economic—including an industrial economy (which is predicted to be negatively associated with work requirements because rural areas need workers for seasonal labor), and revenue shortfalls in the state budget; (2) political—including black access to the vote, and a Democrat-controlled legislature; and (3) the characteristics of state institutions—including willingness to innovate in social policy, state-supported maternalism (states with a children's bureau might be less friendly to efforts to exclude children from welfare), old age assistance benefits (a disposition towards generosity on these should be associated with generosity on welfare benefits), welfare families per capita (a high caseload should increase pressure to trim coverage), and the racial makeup of the caseload.

Authors also include proximity or interstate factors in their event history analysis, focusing on indirect rather than direct linkages between states. Specifically, they hypothesize that states are more likely to look to other states with a similar level of innovation, and also more likely to look to other states within the same census or Social Security Administration region (the SSA region may have special significance because SSA reviewed new state legislation).

Results reveal that states with high caseloads, those with a history of innovation, those whose caseload was likely to have high minority composition, and those with few institutional protections for welfare recipients tended to enact work requirements more quickly. States sharing a census region were not more likely to adopt close together, but those within the same SSA region were. Authors suggest that states within the same SSA region share a network position with respect to the SSA office, so that structural equivalence might explain the result. They also note that states within the same SSA region are contiguous, so that one might also point to tough requirements as an incentive to neighboring states to enact similar requirements so that they do not get an influx of welfare recipients. Thus the results strongly support the general theory that both

intrastate and interstate mechanisms are critical to explaining states' adoption of welfare work requirements.

David Strang & Sarah Soule, Diffusion in Organizations and Social Movements: From Hybrid Corn to Poison Pills, 24 Annual Review of Sociology 265 (1998)

Review of diffusion literature focuses on the recent development of “macro” diffusion analysis in the fields of organizations and social movements. Authors first note the distinction between diffusion into a population (external source/broadcast models) and diffusion within a population (internal or contagion models). External sources include the mass media—for example, one researcher argued that the sit-in tactic diffused through the media—and change agents. Change agents have included the state—the diffusion of modern personnel practices can be traced to mandates and infrastructure introduced by government, the professions—for example, the accounting profession devises and disseminates organized responses to IRS regulations, and more autonomous communities of experts—e.g., the management faculty who taught MBAs about the benefits of the multidivisional firm.

The modeling of internal diffusion processes has emphasized several structural bases for diffusion: cohesion through strong ties, weak ties for spreading information, structural equivalence of actors and organizations' prestige as predictors of imitation and differentiation, spatial proximity as a proxy for unmapped networks, and cultural categories—reference groups may be constructed around a status such as “activist” or “research university” rather than a dense set of interactions. Authors also discuss three lines of analysis related to the cultural bases of diffusion: interpretive work as a mediator, fashion-setting communities--external communities whose members promulgate innovation and comment on change, and the cultural status of the practice matters—those that accord with cultural understandings of appropriate and effective action diffuse more quickly.

Most work on diffusion examines the variability in timing of adoption of a single practice, while a smaller amount of research attempts to explain rates, patterns, and causal mechanisms. Some of this research has studied cycles. Work on social protests has identified cycles of contagion and exhaustion, of competition and learning, which spread collective action, meaning, and tactics. A few researchers have explained the role of culture in creating different diffusion processes in different communities, or in determining which practices are diffused within a single community. Much research has discussed the shifts in causal processes that occur during diffusion—from local rationality to institutional pressure for conformity, increasing importance of regional as opposed to internal predictors of adoption.

Models for diffusion sprang initially from efforts to fit curves to cumulative adoption patterns, with researchers learning that contagion typically created an S-shaped adoption curve. Some contagion models have used the shape of the adoption curve to learn about the diffusion processes. However, a more common procedure has been to conduct event history analysis at the individual level; a more recent heterogeneous diffusion model, demonstrated by Strang and Tuma, permits direct examination of both individual propensities and effects related to prior adopters. Researchers have had more limited success in developing methods for recovering network structures. Several researchers have developed threshold models of diffusion, based on the idea that potential

adopters respond to the distribution of present adopters (e.g., white flight). However, thresholds have proved difficult to identify empirically, particularly when researchers attempt to learn about both the reference group and the threshold.

Authors make three recommendations for future diffusion research. First, diffusion research should be comparative, contrasting the mechanisms and patterns involved in different practices, identifying how innovations compete and support one another, and examining practices that fail to diffuse. Second, researchers should more carefully examine social relations among collective actors; while individual-level work has analyzed the interactions that further diffusion, we have few parallels to explain how information and influence flows from organization to organization. Third, the study of diffusion should give more attention to studying those who construct and disseminate new practices—the media, consultants, professional communities.

James D. Westphal, Ranjay Gulati & Stephen M. Shortell, Customization or Conformity? An Institutional and Network Perspective on the Content and Consequences of TQM Adoption, 42 Administrative Science Quarterly 366 (June 1997)

Study of hospitals' total quality management program adoption offers a theoretical integration of network and institutional perspectives on the forms and consequences of administrative innovations. First, institutional theory suggests a process of isomorphism, in which later firms imitate successful early adopters; thus, authors predict that the later TQM was adopted, the greater its conformity to the normative pattern of other adopters. A second set of hypotheses arises from network theory: Among late adopters, the greater the number of (a) alliance partners; or (b) other system members who have adopted, the higher the level of conformity, while the reverse will be true for early adopters. For early adopters, network ties encourage customization because actors have an opportunity to learn from the experience of other hospitals and adapt practices to suit the focal hospital's objectives. However, as adoption becomes widespread, network ties permit hospitals to learn about the commonly recognized practices that have developed through institutional pressures. A third portion of the theory concerns the consequences of customization vs. conformity. Authors predict that conformity to the normative pattern of TQM practices will be positively associated with organizational legitimacy, but negatively associated with organizational efficiency. They argue that as TQM institutionalizes, its practices will be evaluated by a "logic of social appropriateness" rather than a "logic of instrumentality." Authors use a two-stage Heckman procedure (with a probit at the second stage) to analyze hospital data, defining efficiency based on hospital managers' perceptions of TQM cost savings, and legitimacy based on accreditation scores. All of the hypotheses receive support from the regression results.

James D. Westphal & Edward J. Zajac, Defections from the Inner Circle: Social Exchange, Reciprocity, and the Diffusion of Board Independence in U.S. Corporations, 42 Administrative Science Quarterly 161 (March 1997)

Authors examine the growth of corporate board activism and control over top management. From social exchange theory, which emphasizes the norm of reciprocity, they first suggest that the greater the proportion of CEO-directors on the board, the lower the likelihood that board independence will increase, because CEOs are a cohesive group

who may feel an obligation to support one another's independence. Interpreting exchange theory to explain diffusion, they predict that the greater the proportion of CEO-directors who have experienced board independence in their home companies, the greater the likelihood of more independence in the focal company. Results of an event history analysis on data from the largest U.S. industrial and service firms reveal support for hypotheses based on these theories. Authors suggest that their social exchange framework is generalizable to situations involving diffusion of defection among a connected set of previously cooperative actors. They test and reject alternative hypotheses that CEO-directors' experience as outside directors on other boards will influence the move to independence. They argue that this result is inconsistent with the conventional diffusion perspectives of imitation or learning, so that social exchange theory better explains the pattern of diffusion under cooperation/defection circumstances.

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